

Effluent Quality Assessment of the

City of Fort Lauderdale
Hall of Fame Aquatic Complex

Broward County

NPDES #FL0036625

Sampled June 4, 2007

August 2007

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

City of Fort Lauderdale, Hall of Fame Aquatic Complex, 501 Seabreeze Blvd, Fort Lauderdale, Broward County, Florida, 33316, NPDES #FL0036625. Effluent samples for this facility were collected on June 4, 2007.

Introduction

City of Fort Lauderdale, Hall of Fame Aquatic Complex is a City of Fort Lauderdale Public Parks and Recreation facility. The facility consists of two competition pools, a diving well, a teaching pool, and a spa. The facility also separately houses the International Swimming Hall of Fame museum building. The facility is permitted to discharge the following waste streams: once-through non-contact cooling water, filter backwash, and pool emptying drainage water. Waste streams are treated as follows: once-through non-contact cooling water is filtered through sand or diatomaceous earth filters but receives no additives or additional treatment; filter backwash goes through a settling tank prior to discharge; and pool emptying water is not treated. The facility has four permitted surface water Outfalls (D-001, D-002, D-003, and D-004). All surface water discharges are into the Class III marine waters of the Intracoastal Waterway. Annual average daily flow (AADF) from June 1, 2006, through May 31, 2007, for Outfalls D-001 and D-003 combined was 0.4752 MGD. There was no discharge (to surface waters) from Outfalls D-002 and D-004 during this period.

D-001 has a maximum daily discharge rate of 0.4752 million gallons per day (MGD). D-001 emerges at the north seawall and is located approximately at latitude 26º 06' 59" N, longitude 80º 06' 26" W. Once-through cooling water from the Diving Well/West Competition Pool discharges through this outfall. D-002 has a maximum discharge rate of 0.012 million gallons per year (MGY). D-002 emerges at the north seawall just east of D-001 and is located approximately at latitude 26º 06' 59" N, longitude 80º 06' 26" W. Filter backwash water from the Diving Well/West Competition Pool is discharged through this outfall. D-003 has a maximum daily discharge rate of 0.4752 MGD of cooling-water and also a maximum discharge rate of 0.012 MGY of filter back-wash water. D-003 emerges at the south seawall and is located approximately at latitude 26º 06' 59" N, longitude 80º 06' 24" W. Filter backwash water and once-through cooling water from the East Competition Pool is discharged through this outfall. D-004 has a maximum discharge rate of 110 gallons per minute (GPM). D-004 emerges at the west seawall and is located approximately at latitude 26º 06' 59" N, longitude 80º 06' 29" W. This outfall was originally installed to allow infrequent emptying of the Teaching Pool but has never been used. In practice, the pool is drained by releasing water onto an adjacent grassy area.

The facility has no Administrative Orders or Consent Orders. The facility has two 9.1 m (30 feet) wide thermal mixing zones, one at Outfall D-001, the other at Outfall D-003. The facility has no toxicity testing requirements. A review of Discharge Monitoring Report Data for the past year revealed no permit violations. (Facility information provided by Patrick Pierson of FDEP Southeast District.)

Methods

Samples were collected from the EFF-01 NPDES sampling point (at the outfall by the north seawall) for Outfall D-001 by Terry Davis (FDEP Southeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. D-002, D-003, and D-004 were not discharging at the time of this inspection. 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 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. The

Department uses the 48-hour acute screening toxicity test to provide reasonable assurance that the facility does not adversely affect waters of the state.

Prior to test initiation, bioassay samples were aerated for 15 minutes at approximately 100 bubbles per minute, to increase the dissolved oxygen concentration from 3.7 mg/L to 6.2 mg/L.

Toxicity Test Results

Tests were performed June 5 - 7, 2007.

Americamysis bahia 48-hour acute screening bioassay –	LC_{50} > 100%, 5% mortality* in 100% sample at 48 hours
Menidia beryllina 48-hour acute screening bioassay –	LC_{50} > 100%, 5% mortality* in 100% sample at 48 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 48-hour acute screening test of 100% effluent, mortality of <20% provides reasonable assurance 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% provides reasonable assurance 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 15.2 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 with Ron Raschke USEPA Region 4, 1987). The analytical chemistry suggests that the effluent is co-limited by both nitrogen and phosphorus.

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine was not detected in the bioassay sample in the field or in the laboratory. Total ammonia was not detected in the bioassay sample in the laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.25 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.

Effluent iron (599 µg/L) exceeded the Class III marine water quality criterion (≤ 300 µg/L; 62-302.530(38), F.A.C.). Effluent dissolved oxygen was 1.56 mg/L (23% saturation at 26° C and 32.1 ppth salinity), which did not meet Class III marine water quality criteria (62-302(30), F.A.C.). Copper was detected between the laboratory method detection limit (MDL) and practical quantitation limit (PQL).

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

Conclusion

The effluent sample collected from NPDES sampling location EFF-01 for Outfall D-001 for this facility on June 4, 2007, was not acutely toxic to either test species during the 48-hour acute screening bioassays. The effluent AGP result exceeded the "problem" threshold for marine receiving waters. Effluent iron and dissolved oxygen failed to meet the Class III marine water quality criteria (62-302.530, F.A.C.).

Table 1. Algal Growth Potential (AGP; mg dry weight/L) of the saltwater species *Dunaliella tertiolecta* and ratios of nitrogen to phosphorus for samples collected from City of Fort Lauderdale, Hall of Fame Aquatic Complex on June 4, 2007.

City of Ft. Lauderdale -Hall of Fame Aquatic Complex				
Location	**AGP**		**Inorganic N:P ratio**	**Total N:P ratio**
Effluent	15.2	A	8.6	15.9

A - Value reported is the mean of two or more determinations

Table 2. Effluent limits, Class III marine water Criteria, and chemical data for samples collected from City of Fort Lauderdale, Hall of Fame Aquatic Complex on June 4, 2007.

City of Ft. Lauderdale, Hall of Fame Aquatic Complex NPDES# FL0036625	**Class III Marine Stds**	**Effluent Limits**	**Effluent**
Organic Constituents (µg/L)			
None Detected	-	-	-
Metals (µg/L unless otherwise noted)			
Aluminum	≤ 1500	-	68 U
Arsenic	≤ 50	-	1.5 U
Cadmium	≤ 8.8	-	0.06 U
Calcium (mg/L)	-	-	422
Chromium-III	-	-	3 U
Copper	≤ 3.7	-	1.8 I
Iron	≤ 300	-	599
Lead	≤ 8.5	-	0.6 U
Magnesium (mg/L)	-	-	1160
Nickel	≤ 8.3	-	0.75 U
Selenium	≤ 71	-	1.5 U
Silver	≤ 2.3	-	0.075 U
Zinc	≤ 86	-	15 fU
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.034
Total Phosphorus	-	-	0.04 I
Total Ammonia	-	-	0.25
Un-ionized Ammonia	-	-	≤ 0.02 c
Nitrate and Nitrite	-	-	0.044 f
Total Kjeldahl Nitrogen	-	-	0.59 J
Organic Nitrogen	-	-	0.34 c
Total Nitrogen	-	-	0.634 c
General Physical and Chemical Parameters			
Dissolved Oxygen (mg/L)	≥ 4.0	-	1.56 c
pH (SU)	6.5 - 8.5	6.5 - 8.5	7.4
Conductivity (µmhos/cm)	-	-	50,140
Temperature °C	-	Report	26.0
Salinity	-	-	32.1 c
Total Residual Chlorine (mg/L)	≤ 0.01	-	< 0.02 U
Total Suspended Solids (mg/L)	-	-	5 I
Flow (MGD)	-	-	0.4572 a
Hardness (mg $CaCO_3$)	-	-	5830.61 c

Value exceeds the Class III Water Quality Criteria or permit limits

a - annual average

c - Value is calculated

f - nitrate and nitrite was detected in the field blank.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

J - Estimated value

U - Material analyzed for but not detected; value reported is the method detection limit

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-06-04-40
Hall of Fame Aquatic Complex

Requester: Shannan Bogdanov
Field Report Prepared By: T Davis

Customer: SE-DIST
Collected By: T. Davis
Send Final Report To Terry Davis or Bill Theil

Project ID: FYI3
Sampling Agency: SEP

PMAS: 1143

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	D-001	☐ Comp ☒ Grab	Date 4/4/07 Time 1030	Date Time	A
	Field ID: SI-SH-1	Tot Res Chlorine (mg/L): B=.25=2 0.0	Diss Oxygen (mg/L): 23.0	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): Water	Temp (C): 25.98	pH: 7.41	Sample Depth: ☒ m ☐ ft .01	☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm): 50,140
	Latitude o ' "	Longitude o ' "	Comments: Sample taken by direct dip. pH= <2		NPDES Number

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field blank	☐ Comp ☒ Grab	Date 4/4/07 Time 1045	Date Time	B
	Field ID: SI-SH-2	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (Include type e.g. Salt, Fresh, etc): Water, d.i.	Temp (C)	pH	Sample Depth: ☒ m ☐ ft .01	☐ 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	Date Time	
	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	Date Time	
	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
[signature]	4/4/1315	DHL	[signature]	0857				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

PPV 6/5/07
2 BOTTLES.

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: HALL OF FAME AQUATIC COMPLEX, CITY OF FT. LAUDERDALE.

Address: 501 SEABREEZE BOULEVARD

City: FT. LAUDERDALE County: BROWARD

Contact/District: Terry Davis / SOUTHEAST

NPDES Permit #: FL0036625

LIMS Job #: TCH-2007-06-05-05-01 LIMS Sample #: 10147523 AV 06/07

Lims Data Entry: MF 6-14-07 Data Entry Verification: JD 6.14.07

Sample Collection: Date: 6/4/07 Time: 1030

Hold Time Start: Date: 6/4/07 Time: 1030

Comments: Sample aerated for 15minutes To increase

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_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

Initial sample handling:

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

Aeration: (yes) no Initial DO: 3.7 mg/L Final DO: 6.7 mg/L Duration: 15 minutes Rate: ~100 bubbles/min

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

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

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

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered; Cooling (received °C < collected °C) Yes No

Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Light Intensity: 50 - 100 ft. candles

Photoperiod: 16 light 8 dark

Temperature Range °C:

Incubator # 2 min 25.4 max 26.3 mean 26.1

Incubator # ____ min. ____ max. ____ mean ____

Room B246 min. 24.7 max 26.2 mean 25.5

Investigators' Signatures

Patsy Vicknair

James Daniels

Marshall Faircloth

Bill Alerkson

Nicole Wellendorf

REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ Well Water	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other: ASW ~~32 ppt~~; 32 6-1-07	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	—	<0.02	Hach	T. Davis	MF
Lab Total Residual Cl_2 (mg/L):					<0.03	<0.03	HACH	~~PV~~	BA
Alkalinity (mg/L as $CaCO_3$):					246	182	HACH	BA	MF
Hardness (mg/L as $CaCO_3$):					—	—	HACH	—	—
Total Ammonia (mg/L as N):					<0.051	<0.051	DENVER	MF	BA
Salinity (ppth):					31.9	32.1	YSI / (Mettler)	JD	MF

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1014753 Test #: 1/2 SOP#:TA 07 03 Test Started: Date 6/5/07 Time: 1100

Organism/Batch/Age: A. BAHIA / 6-5-07 / 5 DAYS Test Ended: Date 6 7 07 Time: 1100

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW 32ppt / 6-1-07

Food/Batch: YCT — P.sub — Artemia 0hr 6-4-07 (JD) 8a.07 24hr 6-5-07 (JD) 8/07 48hr ~~6-6-07~~ (JD) 82.07 72hr — Artemia Lot# GSL-S36-90F

Feeding: Prior to Test Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	F9	5	5	5			
	B	F10	5	5	5			
	C	F11	5	5	5			
	D	F12	5	5	5			
100%	A	F13	5	5	5			
	B	F14	5	5	5			
	C	F15	5	4 1d	4			
	D	F16	5	5	5			
Loaded/Verified by: JD / PPK		Checked by:	JD	JD	JD			

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

Comments:

Test Results:

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

% mortality in 100% sample: 5 LC50: >100%

If Calculated: 95% CI______ Method______

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

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1014753 Test #: 2/2 SOP#:TA 07 04 Test Started: Date 6/5/07 Time: 1100

Organism/Batch/Age: M. BERYLLINA / 6-5-07 / 12 DAYS Test Ended: Date 6.7.07 Time: 1100

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW 32 ppt / 6-1-07

Food/Batch: YCT — P.sub — Artemia 0hr 6-4-07 / 80-07 24hr — 48hr — 72hr — Artemia Lot# ESL-536 90F

Feeding: (Prior to Test) Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	F1	5	5	5	N/A		
	B	F2	5	5	5	MT		
	C	F3	5	5	5			
	D	F4	5	4/D	4			
100%	A	F5	5	5	5			
	B	F6	5	4/D	4			
	C	F7	5	5	5			
	D	F8	5	5	5			
Loaded/Verified by: JD / PPV		Checked by:	JD	JD	JD	JD		

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

Comments:

Test Results:

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

% mortality in 100% sample: 5 LC50: >100%

If Calculated: 95% CI ______ Method ______

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

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[redacted]

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1014753 Test #: 1 of 2

TEST SOP #: TA07_ 03 Test Species: *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* (*Americamysis bahia*) *Menidia beryllina* Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.4	8.3	8.2			
Temperature °C	24.3	24.3	24.4			
Dissolved Oxygen mg/L	6.2	4.3	4.4			
Conductivity µmhos ~~mmhos~~	48.4	48.7	48.7			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.8	7.9	7.9			
Temperature °C	25.1	24.4	24.1			
Dissolved Oxygen mg/L	6.3	4.3	4.8			
Conductivity µmhos ~~mmhos~~	49.8	49.8	49.7			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

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

Comments:

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

Comments:

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FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1014753 **Test #:** 2 of 2

TEST SOP #: TA07_ 04 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* (*Menidia beryllina*) Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.4	8.3	8.3			
Temperature °C	24.9	24.3	24.6			
Dissolved Oxygen mg/L	6.0	4.9	6.1			
Conductivity µmhos (mmhos)	47.7	48.4	48.6			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.9	8.0	8.1			
Temperature °C	23.1	24.5	24.5			
Dissolved Oxygen mg/L	6.2	5.2	6.0			
Conductivity µmhos (mmhos)	49.7	50.0	50.3			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

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

Comments:

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

Comments:

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Appendix C. SRT Bench Sheets and Statistical Analysis

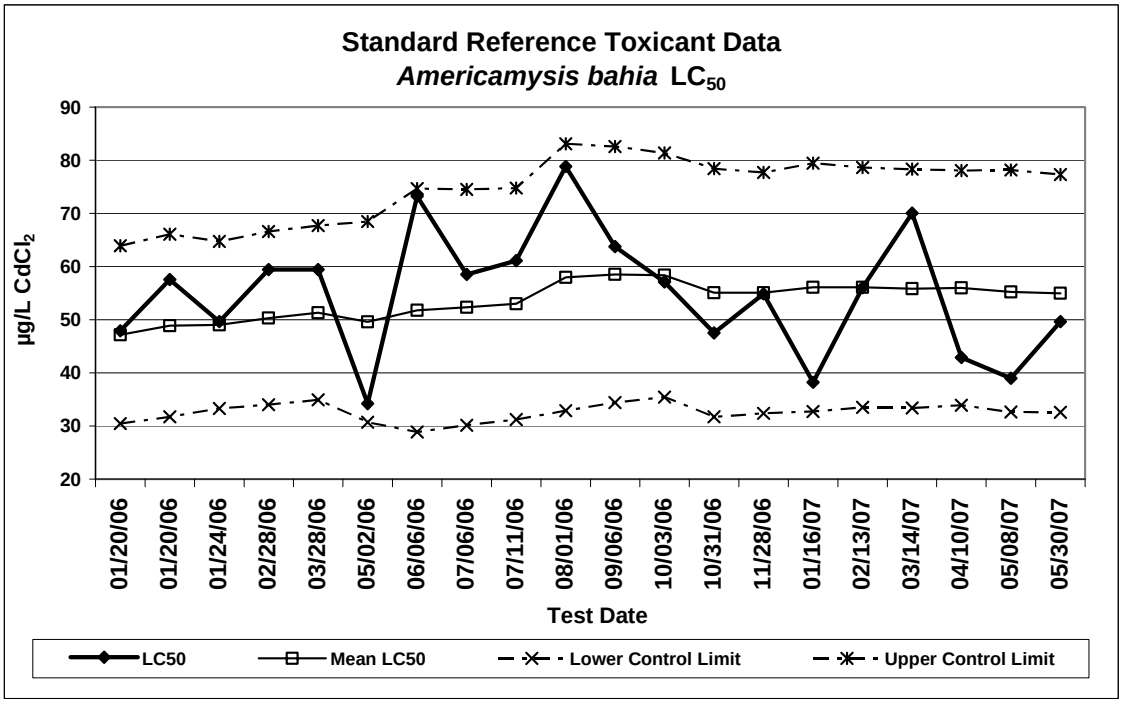
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Americamysis bahia (mysid shrimp) - Cadmium Chloride ($CdCl_2$)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
01/20/06	47.91	47.18	8.36	30.47	63.89
01/20/06	57.54	48.91	8.59	31.73	66.08
01/24/06	49.65	49.01	7.84	33.32	64.70
02/28/06	59.45	50.32	8.15	34.03	66.61
03/28/06	59.42	51.33	8.20	34.93	67.73
05/02/06	34.19	49.62	9.44	30.73	68.50
06/06/06	73.23	51.76	11.44	28.88	74.65
07/06/06	58.53	52.33	11.08	30.16	74.49
07/11/06	61.12	53.00	10.89	31.22	74.78
08/01/06	78.84	57.99	12.56	32.87	83.10
09/06/06	63.78	58.51	12.04	34.44	82.59
10/03/06	57.10	58.40	11.49	35.42	81.37
10/31/06	47.52	55.07	11.67	31.73	78.42
11/28/06	54.87	55.06	11.33	32.41	77.71
01/16/07	38.23	56.09	11.68	32.74	79.45
02/13/07	56.06	56.09	11.28	33.53	78.65
03/14/07	70.07	55.86	11.23	33.40	78.32
04/10/07	42.91	56.00	11.04	33.91	78.08
05/08/07	39.00	55.23	11.38	32.65	78.19
05/30/07	49.64	54.95	11.17	32.61	77.30

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

CV = 20.32
EPA reference 75th quartile CV = 26%



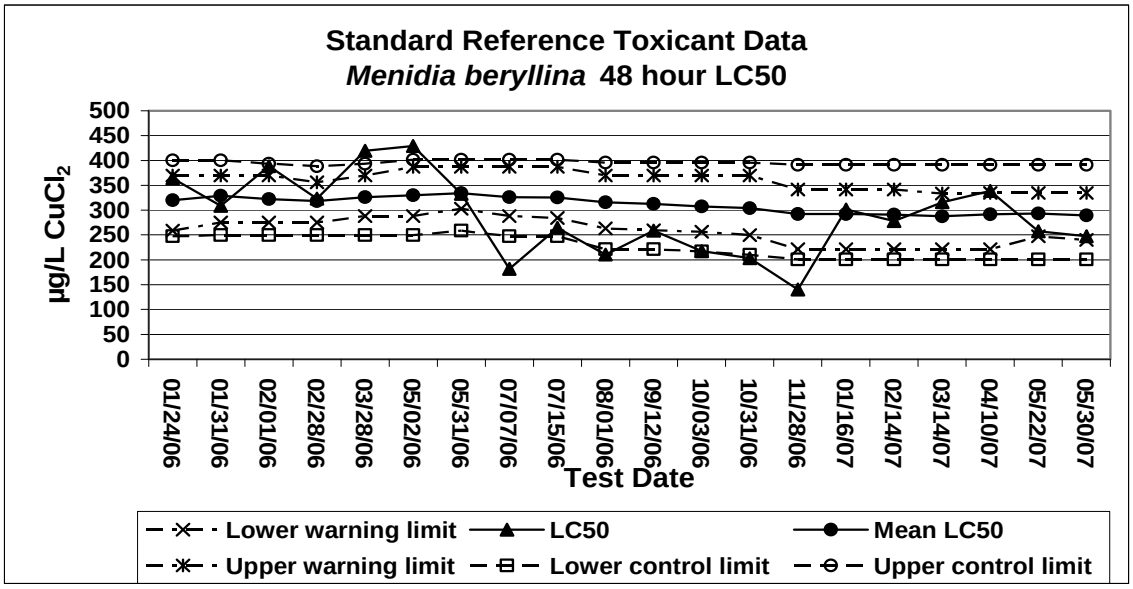
Appendix C. (continued)

Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - Acute Toxicity
Menidia beryllina (Inland silverside) - Copper Chloride ($CuCl_2$)

Date	LC50	Mean LC50	Lower control limit	Lower warning limit	Upper warning limit	Upper control limit
01/24/06	363.93	319.79	247.2	258.7	369.7	400.4
01/31/06	308.77	328.86	250.0	275.4	369.7	400.4
02/01/06	388.25	322.40	250.0	275.4	369.7	393.6
02/28/06	323.38	318.11	250.0	275.4	356.1	388.7
03/28/06	419.55	326.32	250.0	288.5	369.7	393.6
05/02/06	429.19	330.10	250.0	288.5	387.2	401.5
05/31/06	333.13	334.26	258.8	303.2	387.2	401.5
07/07/06	181.98	326.28	247.2	288.5	387.2	401.5
07/15/06	264.59	325.48	247.2	284.4	387.2	401.5
08/01/06	210.80	316.05	221.3	263.4	369.7	395.6
09/12/06	258.82	312.50	221.3	259.6	369.7	395.6
10/03/06	217.64	307.20	217.0	256.6	369.7	395.6
10/31/06	203.06	304.28	210.0	249.7	369.7	395.6
11/28/06	140.31	292.22	201.0	221.3	341.2	391.4
01/16/07	301.29	291.93	201.0	221.3	341.2	391.4
02/14/07	278.00	291.27	201.0	221.3	341.2	391.4
03/14/07	316.16	287.74	201.0	221.3	333.3	391.4
04/10/07	338.35	291.67	201.0	221.3	334.8	391.4
05/22/07	257.44	293.42	201.0	247.5	334.8	391.4
05/30/07	247.36	289.10	201.0	239.9	334.4	391.4

Means are of the last 20 SRT tests.
Upper warning and control limits are the 75th and 90th percentiles, respectively, of the past 20 LC50s.
Lower warning and control limits are the 25th and 10th percentiles, respectively, of the past 20 LC50s.
EPA reference 75th quartile CV = 21% **CV = 26.97***



* High variability due to change in fish supplier beginning 7/7/06.

Appendix C. (continued)

[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 1 of 2

Diluent/ Batch #: ASW / 5-7-07
Toxicant/ Batch#: $CdCl_2$ / 5-29-07

Test Beginning: Date: 5/30/07 Time: 12:50
Test Ending: Date: 6-3-07 Time: 1015

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	0.03	Hach	PPV
Alkalinity (mg/L as $CaCO_3$):	214	Hach	PPV
Hardness (mg.L as $CaCO_3$):	—	Hach	PPV
Total Ammonia (mg/L as N):	0.031	Denver	MF
Salinity (ppth):	~30	Mettler	MF

Organism Batch #/ Age: 5-30-07 / 5 Days
Feeding: Prior to test / Prior to renewal / (Daily)
Food: YCT P.subcapitata Artemia: Lot # GSL-S36-90F
Food Batch: _____ _____ 0hr 7:07 24hr 7:07 48hr 7:07 72hr 7:07
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L mg/L	Rep.	Chamber #	Number Live 0 hr / 24 hr / 48 hr	pH (SU) 0 hr / 24 hr / 48 hr	Temperature (° C) 0 hr / 24 hr / 48 hr	D.O. (mg/L) 0 hr / 24 hr / 48 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) 0 hr / 24 hr / 48 hr
Control	A	Tox 1	5 / 5 / 5	8.4 / /	24.3 / / 24.6	6.4 / / 4.3	31.8 / / 32.6
	B	Tox 2	5 / 5 / 5	/ 8.1 /	/ 24.5 /	/ 5.1 /	/ 32.6 /
	C	Tox 3	5 / 5 / 5	/ / 8.2	/ /	/ /	/ /
	D	Tox 4	5 / 5 / 5	/ /	/ /	/ /	/ /
20	A	Tox 5	5 / 5 / 5	8.3 / /	24.5 / 24.7	6.6 / / 4.2	32.8 / / 33.5
	B	Tox 6	5 / 5 / 5	/ 8.1 /	/ 24.5 /	/ 4.9 /	/ 33.3 /
	C	Tox 7	5 / 5 / 5	/ / 8.2	/ /	/ /	/ /
	D	Tox 8	5 / 5 / 5	/ /	/ /	/ /	/ /
30	A	Tox 9	5 / 5 / 5	8.3 / /	24.6 / 24.6	6.8 / / 4.8	32.7 / / 33.3
	B	Tox 10	5 / 5 / 5	/ 8.1 /	/ 24.5 /	/ 4.8 /	/ 33.2 /
	C	Tox 11	5 / 5 / 5	/ / 8.1	/ /	/ /	/ /
	D	Tox 12	5 / 5 / 5	/ /	/ /	/ /	/ /
45	A	Tox 13	5 / 5 / 320	8.4 / /	24.6 / 24.6	6.8 / / 4.8	32.6 / / 33.5
	B	Tox 14	5 / 5 / 410	/ 8.1 /	/ 24.6 /	/ 4.6 /	/ 33.5 /
	C	Tox 15	5 / 5 / 230	/ / 8.2	/ /	/ /	/ /
	D	Tox 16	5 / 5 / 320	/ /	/ /	/ /	/ /
67	A	Tox 17	5 / 5 / 140	8.4 / /	24.6 / 24.4	6.9 / / 4.8	32.2 / / 33.1
	B	Tox 18	5 / 5 / 140	/ 8.1 /	/ 24.5 /	/ 4.6 /	/ 32.8 /
	C	Tox 19	5 / 410 / 040	/ / 8.2	/ /	/ /	/ /
	D	Tox 20	5 / 410 / 130	/ /	/ /	/ /	/ /
100	A	Tox 21	5 / 5 / 050	8.4 / /	24.6 / 24.4	6.8 / / 5.0	32.4 / / 33.4
	B	Tox 22	5 / 410 / 040	/ 8.1 /	/ 24.6 /	/ 4.6 /	/ 33.4 /
	C	Tox 23	5 / 320 / 030	/ / 8.2	/ /	/ /	/ /
	D	Tox 24	5 / 410 / 040	/ /	/ /	/ /	/ /
	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
Patsy Vichules
Jason Daniel
Brad Nelson
Marshall Brecht
Nicole Wilkerdt
REVIEWER

Concentrations prepared by: JD
Loading verified by: BN
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 25.8 max 26.4 mean 26.1
Incubator # ___ min ___ max ___ mean ___
Room B246 min 24.7 max 25.8 mean 25.3

Comments:

Statistics: Method: Spearman-Karber
(48) 96 hour LC_{50}: 49.604
95% Confidence Interval: lower 44.58 upper 55.54

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Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

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

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

Diluent/ Batch #: ASW / 5-7-07
Toxicant/ Batch#: $CdCl_2$ / 5-25-07

Test Beginning: Date: 5.30.07 Time: 12:50
Test Ending: Date: 6-3-07 Time: 1015

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	4003	Hach	MF
Alkalinity (mg/L as $CaCO_3$):	214	Hach	MF
Hardness (mg.L as $CaCO_3$):	—	Hach	MF
Total Ammonia (mg/L as N):	4C034	Denver	MF
Salinity (ppth):	~20	Mettler	MF

Organism Batch #/ Age: 5-30 07 / 5 Days
Feeding: Prior to test / Prior to renewal / (Daily)
Food: YCT — P.subcapitata — Artemia: Lot # GSL-S36-5 CF
Food Batch: — — 0hr 7h07 24hr 72h07 48hr 75-07 72hr 79-07
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. (µg/L) mg/L	Rep.	Chamber #	Number Live 0 hr	Number Live 24 hr	Number Live 48 hr	pH (SU) 0 hr	pH (SU) 24 hr	pH (SU) 48 hr	Temperature (°C) 0 hr	Temperature (°C) 24 hr	Temperature (°C) 48 hr	D.O. (mg/L) 0 hr	D.O. (mg/L) 24 hr	D.O. (mg/L) 48 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) 0 hr	Uncorrected Conductivity 24 hr	Uncorrected Conductivity 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			8.1	24.2 JD		24.3			5.7	32.9 JD		33.8
	B	tox 2	5	5	5												
	C	tox 3	5	4 1D	4	8.3			24.2			6.5			32.9		
	D	tox 4	5	5	5		8.1			24.7			5.3			33.4	
20	A	tox 5	5	5	5			8.0			24.1			5.6			34.2
	B	tox 6	5	5	5												
	C	tox 7	5	5	4 1D	8.3			24.1			6.3			32.9		
	D	tox 8	5	5	4 1D		8.1			25.1			5.5			33.7	
30	A	tox 9	5	5	4 1D			8.0			24.0			4.8			33.9
	B	tox 10	5	5	5												
	C	tox 11	5	3 2D	3	8.3			24.2			6.6			33.3		
	D	tox 12	5	5	5		8.1			24.3			5.4			33.1	
45	A	tox 13	3	3	2 1D			8.1			24.2			5.1			33.7
	B	tox 14	4	4	1 3D												
	C	tox 15	2	1 1D	1	8.3			24.2			6.2			33.1		
	D	tox 16	3	2 1D	0 2D		8.1			25.1			5.4			34.0	
67	A	tox 17	1	0 1D	—												
	B	tox 18	1	0 1D	—												
	C	tox 19	—		—												
	D	tox 20	1	1	0 1D	8.3	8.1	8.0	24.2	24.7	24.5	6.5	5.5	5.2	32.6	33.0	33.8
100	A	tox 21	—		—												
	B	tox 22	—		—												
	C	tox 23	—		—												
	D	tox 24	—		—												
	A																
	B																
	C																
	D																
Loaded / measured by:				MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF
Recorded by:				MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF

Investigators' Signatures
Debra McCraik
James Handy
Alice Hanlon
Marshall Faircloth
Nicole Wilkerson
REVIEWER

Concentrations prepared by: JD
Loading verified by: —
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 25.8 max 26.4 mean 26.1
Incubator # ___ min ___ max ___ mean ___
Room B246 min 24.7 max 25.8 mean 25.3

Comments:
@ transcription error JD 6.1.07

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 38.18
95% Confidence Interval: lower 34.43 upper 42.33

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Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

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

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

Diluent/ Batch #: ASW / 5-7-07 BA 6-28-07
Toxicant/ Batch#: CuCl2 / 5-7-07 BA 5-29-07 5-29-07

Test Beginning: Date: 5,30,07 Time: 12:00
Test Ending: Date: 6-3-07 Time: 1030

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	40.03	Hach	DPV
Alkalinity (mg/L as $CaCO_3$):	214	Hach	DPV
Hardness (mg.L as $CaCO_3$):	—	Hach	DPV
Total Ammonia (mg/L as N):	40.034	Denver	MF
Salinity (ppth):	30.0	Mettler	MF

Organism Batch #/ Age: 5-30-07/7 DAS
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT — *P.subcapitata* — Artemia: Lot # GSL-S36 90F
Food Batch: _____ — _____ 0hr 7hr 24hr — 48hr 7hr 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	pH (SU) 0 hr	24 hr	48 hr	Temperature (°C) 0 hr	24 hr	48 hr	D.O. (mg/L) 0 hr	24 hr	48 hr	Uncorrected Conductivity µmhom/cm mmhos/cm 0 hr	24 hr	48 hr
			~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~
Control	A	B1	10	9/0	9	8.3		8.2	24.5		24.6	6.5		6.2	32.5		33.2
	B	B2	10	10	10		8.2			24.7			6.0			32.8	
	C																
	D																
100	A	B3	10	9/0	9	8.3		8.2	24.6		24.6	6.7		6.3	32.7		33.4
	B	B4	10	9/0	7/0		8.2			24.7			6.1			33.1	
	C																
	D																
200	A	B5	10	9/0	9	8.3		8.2	24.6		24.6	6.8		6.4	32.7		33.5
	B	B6	10	8/0	8		8.2			24.8			6.1			33.1	
	C																
	D																
300	A	B7	10	1/0	1	8.3		8.2	24.6		24.5	6.8		6.6	32.6		33.4
	B	B8	10	2/0	2		8.2			24.8			6.1			33.0	
	C																
	D																
400	A	B9	10	1/0	1	8.3		8.2	24.6		24.6	6.8		6.7	32.1		33.1
	B	B10	10	1/0	1		8.2			24.8			6.1			32.8	
	C																
	D																
500	A	B11	10	0/0	—	8.3		—	24.6		—	6.8		—	32.4		—
	B	B12	10	0/0	—		8.3			24.8			6.1			32.9	
	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
Patsy Vickers
Jamie Davis
Paul Parker
Marshall Faircloth
Angela Weller
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 25.8 max 26.4 mean 26.1
Incubator # ___ min ___ max ___ mean ___
Room B246 min 24.7 max 25.8 mean 25.3

Comments:

Statistics: Method: Spearman-Karber
48/ 96 hour LC_{50}: 247.36
95% Confidence Interval: lower 228.20 upper 268.13

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Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

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

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

Diluent/ Batch #: ASW / 5-7-07
Toxicant/ Batch#: CuCl2 / 5-29-07

Test Beginning: Date: 5.30.07 Time: 13:00
Test Ending: Date: 6-3-07 Time: 1030

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	40.03	Hach	PDV
Alkalinity (mg/L as $CaCO_3$):	214	Hach	PDV
Hardness (mg.L as $CaCO_3$):	—	Hach	PDV
Total Ammonia (mg/L as N):	0.04	Denver	MF
Salinity (ppth):	20	Mettler	MF

Organism Batch #/ Age: S-30-07/7 DAYS
Feeding: Prior to test/ Prior to renewal/ Daily
Food: YCT — *P.subcapitata* — Artemia: Lot #ESL-536 90F
Food Batch: — —
0hr 1661 24hr — 48hr 7807 72hr —
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L mg/L	Rep.	Chamber #	Number Live ~~0 hr~~ 48 hr	~~24 hr~~ 72 hr	~~48 hr~~ 96 hr	pH (SU) ~~0 hr~~ 48 hr	~~24 hr~~ 72 hr	~~48 hr~~ 96 hr	Temperature (°C) ~~0 hr~~ 48 hr	~~24 hr~~ 72 hr	~~48 hr~~ 96 hr	D.O. (mg/L) ~~0 hr~~ 48 hr	~~24 hr~~ 72 hr	~~48 hr~~ 96 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) ~~0 hr~~ 48 hr	~~24 hr~~ 72 hr	~~48 hr~~ 96 hr
Control	A	B1	9	9	9	8.3		8.2	24.3		24.1	6.8		5.5	32.7		33.2
	B	B2	10	10	10		8.2			25.3			5.6			33.3	
	C																
	D																
100	A	B3	9	9	9	8.3		8.1	24.3		24.8	6.8		5.4	32.8		33.3
	B	B4	7	7	7		8.2			24.6			5.5			33.0	
	C																
	D																
200	A	B5	9	9	9	8.3		8.1	24.2		24.1	6.9		5.2	32.9		32.9
	B	B6	8	8	8		8.2			24.8			5.7			33.0	
	C																
	D																
300	A	B7	1	1	1	8.4		8.2	24.3		25.0	6.9		5.5	32.9		33.4
	B	B8	2	2	2		8.2			25.3			5.8			33.0	
	C																
	D																
400	A	D1	1	1	1	8.3		8.2	24.4		25.5	7.0		5.7	32.4		33.0
	B	B10	1	1	1		8.2			24.9			5.8			32.5	
	C																
	D																
500	A	B11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B	D12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF
Recorded by:			JD	MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF	JD	MF	MF

Investigators' Signatures
Patsy McCraik
Jenn Dyal
Chris Pasha
Marshall Faircloth
Nicole Willenbrock
REVIEWER

Concentrations prepared by: JD
Loading verified by: —
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 25.3 max 26.4 mean 26.1
Incubator # ___ min ___ max ___ mean ___
Room B246 min 24.7 max 25.8 mean 25.3

Comments:

Statistics: Method: Spearman-Karber
48 (96) hour LC_{50}: 247.36
95% Confidence Interval: lower 228.20 upper 268.13

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Appendix C. (continued)

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

DATE: 05/30/07 DURATION: 48 hr TOXICANT: CdCl2
SPECIES: *Americamysis bahia*

RAW DATA: Concentration (ug/L)	Number Exposed	Mortalities
0.00	20	0
20.00	20	0
30.00	20	0
45.00	20	8
67.00	20	17
100.00	20	20

SPEARMAN-KARBER TRIM: 0.00%

SPEARMAN-KARBER ESTIMATES: LC50: 49.64
95% LOWER CONFIDENCE: 44.53
95% UPPER CONFIDENCE: 55.34

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

DATE: 05/30/07 DURATION: 48 hr. TOXICANT : CuCl2
SPECIES: *Menidia beryllina*

RAW DATA: Concentration (ug/L)	Number Exposed	Mortalities
0.00	20	1
100.00	20	4
200.00	20	3
300.00	20	17
400.00	20	18
500.00	20	20

SPEARMAN-KARBER TRIM: 13.16%

SPEARMAN-KARBER ESTIMATES: LC50: 247.36
95% LOWER CONFIDENCE: 228.20
95% UPPER CONFIDENCE: 268.13

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

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: 5/29/07

Shipped to: FL DEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 DAYS	MS070525	25°C	20‰
Menidia beryllina	150	10 DAYS	SS070519	25°C	20‰
Cyprinella leedsi	150	12days	CL070517	25°C	
Pimephales promelas	150	6days	FM070523	25°C	

Packed by:

Shipped Via: FedEx

Notes:

Thank you for your order.

Appendix D. (continued)

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

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 6/4/07

Shipped to: FL. DEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	100	4 DAYS	MS 070531	25°C	20‰
Menidia beryllina	100	11 Days	SS070524	25°C	20‰
Cyprinella leedsi	100	11 DAYS	CL070524	25°C	
Pimephales promelas	150	6 DAYS	FM070529	25°C	

Packed by:

Shipped Via: Fed Ex.

Notes:

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the City of Fort Lauderdale, Hall of Fame Aquatic Complex Outfall D-001 sampled on June 4, 2007.

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
6/4/2007 10:30	Effluent	AGP/LN	Algal Growth Potential	15.2	A	mg DryWt/L	3	3
6/4/2007 10:30	Effluent	Metals	Aluminum	68	U	ug/L	68	270
6/4/2007 10:30	Effluent	Metals	Calcium	422		mg/L	0.06	0.24
6/4/2007 10:30	Effluent	Metals	Iron	599		ug/L	15	60
6/4/2007 10:30	Effluent	Metals	Magnesium	1160		mg/L	0.1	0.4
6/4/2007 10:30	Effluent	Metals	Arsenic	1.5	U	ug/L	1.5	6
6/4/2007 10:30	Effluent	Metals	Cadmium	0.06	U	ug/L	0.06	0.24
6/4/2007 10:30	Effluent	Metals	Chromium	3	U	ug/L	3	12
6/4/2007 10:30	Effluent	Metals	Copper	1.8	I	ug/L	0.75	3
6/4/2007 10:30	Effluent	Metals	Lead	0.6	U	ug/L	0.6	2.4
6/4/2007 10:30	Effluent	Metals	Nickel	0.75	U	ug/L	0.75	3
6/4/2007 10:30	Effluent	Metals	Selenium	1.5	U	ug/L	1.5	6
6/4/2007 10:30	Effluent	Metals	Silver	0.075	U	ug/L	0.075	0.3
6/4/2007 10:30	Effluent	Metals	Zinc	15	U	ug/L	15	60
6/4/2007 10:30	Effluent	Nutrients	Ammonia-N	0.25		mg N/L	0.01	0.02
6/4/2007 10:30	Effluent	Nutrients	NO2NO3-N	0.044		mg N/L	0.004	0.01
6/4/2007 10:30	Effluent	Nutrients	O-Phosphate-P	0.034		mg P/L	0.008	0.02
6/4/2007 10:30	Effluent	Nutrients	Kjeldahl Nitrogen	0.59	J	mg N/L	0.16	0.4
6/4/2007 10:30	Effluent	Nutrients	Total-P	0.04	I	mg P/L	0.02	0.06
6/4/2007 10:30	Effluent	Nutrients	TSS	5	I	mg/L	4	16
6/4/2007 10:30	Effluent	Pesticides	Alachlor	0.6	U	ug/L	0.6	2.4
6/4/2007 10:30	Effluent	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
6/4/2007 10:30	Effluent	Pesticides	Atrazine	0.05	U	ug/L	0.05	0.2
6/4/2007 10:30	Effluent	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
6/4/2007 10:30	Effluent	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
6/4/2007 10:30	Effluent	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
6/4/2007 10:30	Effluent	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
6/4/2007 10:30	Effluent	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
6/4/2007 10:30	Effluent	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
6/4/2007 10:30	Effluent	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
6/4/2007 10:30	Effluent	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
6/4/2007 10:30	Effluent	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
6/4/2007 10:30	Effluent	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
6/4/2007 10:30	Effluent	Pesticides	Hexazinone	0.1	U	ug/L	0.1	0.4
6/4/2007 10:30	Effluent	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
6/4/2007 10:30	Effluent	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
6/4/2007 10:30	Effluent	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
6/4/2007 10:30	Effluent	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
6/4/2007 10:30	Effluent	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
6/4/2007 10:30	Effluent	Pesticides	Naled	0.8	UJ	ug/L	0.8	3.2
6/4/2007 10:30	Effluent	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
6/4/2007 10:30	Effluent	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
6/4/2007 10:30	Effluent	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
6/4/2007 10:30	Effluent	Pesticides	Phorate	0.05	U	ug/L	0.05	0.2
6/4/2007 10:30	Effluent	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
6/4/2007 10:30	Effluent	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
6/4/2007 10:30	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	1,2-Dichlorobenzene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	1,3-Dichlorobenzene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	1,4-Dichlorobenzene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.94	UJ	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	9.4	U	ug/L	9.4	38
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2-Chlorophenol	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.8	U	ug/L	2.8	11
6/4/2007 10:30	Effluent	Priority Organic Pollutants	2-Nitrophenol	0.94	UJ	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
6/4/2007 10:30	Effluent	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.5
6/4/2007 10:30	Effluent	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Acenaphthene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Acenaphthylene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Anthracene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Benzidine	94	U	ug/L	94	380
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.94	U	ug/L	0.94	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.8	U	ug/L	2.8	11
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	4.7	U	ug/L	4.7	19
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Chrysene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	4.7	U	ug/L	4.7	19
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Diethyl phthalate	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Dimethyl phthalate	47	U	ug/L	47	190
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Fluoranthene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Fluorene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Hexachlorobenzene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	2.8	U	ug/L	2.8	11
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.8	U	ug/L	2.8	11
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Hexachloroethane	2.8	U	ug/L	2.8	11
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Isophorone	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.5
6/4/2007 10:30	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.5
6/4/2007 10:30	Effluent	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.8	U	ug/L	2.8	11
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Naphthalene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.5
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Pentachlorophenol	2.8	U	ug/L	2.8	11
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Phenanthrene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Phenol	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	Pyrene	0.94	U	ug/L	0.94	3.8
6/4/2007 10:30	Effluent	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.7
6/4/2007 10:30	Effluent	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.7

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
6/4/2007 10:30	Effluent	Field Parameters	Sample Depth	0.01		m		
6/4/2007 10:30	Effluent	Field Parameters	Specific Conductance	50140		umhos/cm		
6/4/2007 10:30	Effluent	Field Parameters	Temperature	25.98		C		
6/4/2007 10:30	Effluent	Field Parameters	Total Residual Chlorine	0.02	U	mg/L		
6/4/2007 10:30	Effluent	Field Parameters	pH	7.41				
6/4/2007 10:45	Field Blank	Metals	Aluminum	5	U	ug/L	5	20
6/4/2007 10:45	Field Blank	Metals	Calcium	0.02	U	mg/L	0.02	0.08
6/4/2007 10:45	Field Blank	Metals	Iron	5	U	ug/L	5	20
6/4/2007 10:45	Field Blank	Metals	Magnesium	0.011	U	mg/L	0.011	0.044
6/4/2007 10:45	Field Blank	Metals	Arsenic	0.5	U	ug/L	0.5	2
6/4/2007 10:45	Field Blank	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
6/4/2007 10:45	Field Blank	Metals	Chromium	1	U	ug/L	1	4
6/4/2007 10:45	Field Blank	Metals	Copper	0.25	U	ug/L	0.25	1
6/4/2007 10:45	Field Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
6/4/2007 10:45	Field Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
6/4/2007 10:45	Field Blank	Metals	Selenium	0.5	U	ug/L	0.5	2
6/4/2007 10:45	Field Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
6/4/2007 10:45	Field Blank	Metals	Zinc	10	I	ug/L	5	20
6/4/2007 10:45	Field Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
6/4/2007 10:45	Field Blank	Nutrients	NO2NO3-N	0.005	I	mg N/L	0.004	0.01
6/4/2007 10:45	Field Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
6/4/2007 10:45	Field Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
6/4/2007 10:45	Field Blank	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
6/4/2007 10:45	Field Blank	Pesticides	Alachlor	0.58	U	ug/L	0.58	2.3
6/4/2007 10:45	Field Blank	Pesticides	Ametryn	0.048	U	ug/L	0.048	0.19
6/4/2007 10:45	Field Blank	Pesticides	Atrazine	0.048	U	ug/L	0.048	0.19
6/4/2007 10:45	Field Blank	Pesticides	Azinphos Methyl	0.19	U	ug/L	0.19	0.76
6/4/2007 10:45	Field Blank	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
6/4/2007 10:45	Field Blank	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
6/4/2007 10:45	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.048	U	ug/L	0.048	0.19
6/4/2007 10:45	Field Blank	Pesticides	Chlorpyrifos Methyl	0.096	U	ug/L	0.096	0.38
6/4/2007 10:45	Field Blank	Pesticides	Diazinon	0.048	U	ug/L	0.048	0.19
6/4/2007 10:45	Field Blank	Pesticides	Ethion	0.048	U	ug/L	0.048	0.19
6/4/2007 10:45	Field Blank	Pesticides	Ethoprop	0.096	U	ug/L	0.096	0.38
6/4/2007 10:45	Field Blank	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
6/4/2007 10:45	Field Blank	Pesticides	Fonofos	0.096	U	ug/L	0.096	0.38
6/4/2007 10:45	Field Blank	Pesticides	Hexazinone	0.096	U	ug/L	0.096	0.38
6/4/2007 10:45	Field Blank	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
6/4/2007 10:45	Field Blank	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
6/4/2007 10:45	Field Blank	Pesticides	Metolachlor	0.48	U	ug/L	0.48	1.9

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
6/4/2007 10:45	Field Blank	Pesticides	Metribuzin	0.096	U	ug/L	0.096	0.38
6/4/2007 10:45	Field Blank	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
6/4/2007 10:45	Field Blank	Pesticides	Naled	0.77	UJ	ug/L	0.77	3.1
6/4/2007 10:45	Field Blank	Pesticides	Norflurazon	0.14	U	ug/L	0.14	0.56
6/4/2007 10:45	Field Blank	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
6/4/2007 10:45	Field Blank	Pesticides	Parathion Methyl	0.096	U	ug/L	0.096	0.38
6/4/2007 10:45	Field Blank	Pesticides	Phorate	0.048	U	ug/L	0.048	0.19
6/4/2007 10:45	Field Blank	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
6/4/2007 10:45	Field Blank	Pesticides	Simazine	0.048	U	ug/L	0.048	0.19
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	1,2-Dichlorobenzene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	1,3-Dichlorobenzene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	1,4-Dichlorobenzene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.96	UJ	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	58
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.96	UJ	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	58
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Acenaphthene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Anthracene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Benzidine	96	U	ug/L	96	380
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.96	U	ug/L	0.96	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	58
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Chrysene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Diethyl phthalate	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	48	U	ug/L	48	190
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Fluoranthene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Fluorene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Isophorone	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	12
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Naphthalene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.7
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Phenanthrene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Phenol	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	Pyrene	0.96	U	ug/L	0.96	3.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.8
6/4/2007 10:45	Field Blank	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.8

The Bioassay of City of Fort Lauderdale, Hall of Fame Aquatic Complex effluent sampled on June 4, 2007. NPDES #FL0036625.

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 3 6 6 2 5 11	12 0 7 0 6 0 4	18 B	19 S	20 2

Remarks

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The Priority Pollutants Analysis of City of Fort Lauderdale, Hall of Fame Aquatic Complex effluent sampled on June 4, 2007. NPDES #FL0036625.

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 3 6 6 2 5 11	12 0 7 0 6 0 4	18 X	19 S	20 2

Remarks

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Biological Analyses of City of Fort Lauderdale, Hall of Fame Aquatic Complex effluent sampled on June 4, 2007. NPDES #FL0036625.

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 3 6 6 2 5 11	12 0 7 0 6 0 4	18 S	19 S	20 2

Remarks

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