

Effluent Quality Assessment of the

Broward County North Regional Wastewater Treatment Plant

Broward County

NPDES #FL0031771

Sampled April 22, 2007

August 2007

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Broward County North Regional Wastewater Treatment Plant, 2401 North Powerline Road, Pompano Beach, Broward County, Florida 33069, NPDES #FL0031771. Effluent samples for this facility were collected on April 22, 2007.

Introduction

Broward County North Wastewater Treatment Plant is a conventional activated-sludge domestic wastewater treatment facility that primarily treats domestic wastewater. The facility has a design flow of 84 million gallons per day (MGD) annual average daily flow (AADF). The AADF from April 1, 2006, through March 31, 2007, was 76.5 MGD. The treatment system includes four continuous bar screens, an odor control system, four vortex–type grit removal systems, four aeration modules each of which consist of four aeration basins, three mechanical aerators per basin, sixteen secondary clarifiers, six dissolved-air floating units, seven primary and one secondary anaerobic digesters, and six belt presses. Residuals are disposed by land application or disposal in a Class I or Class II landfill. Effluent is disposed by surface water discharge, underground injection, or land application. The surface water discharge is permitted for 66 MGD AADF to the Class III Marine waters of the Atlantic Ocean at discharge location D001. The D001 is a single port outfall approximately 9.71 km (31,860 feet) in length and discharging at a depth of approximately 32.6 m (107 feet) with a calculated dilution of greater than 20 to 1 for the existing permitted flow. The point of discharge is located approximately at latitude 26º 15’ 00” N, longitude 80º 03’ 45” W.

The facility has no Administrative Orders or Consent Orders. The facility has mixing zones for pH and total residual chlorine (TRC) for the surface water discharge. The mixing zone for pH has an area of approximately 2,656 square meters at the ocean surface. The mixing zone for TRC has a total area of 355,900 square meters. Both mixing zones are centered over Outfall D001. A review of Discharge Monitoring Report (DMR) data for the past year revealed minor exceedances of the one hour TRC limit and a major exceedance of the effluent total suspended solids limit in December 2006. (Facility information provided by Meghna Pandya of FDEP Southeast District.)

Methods

Bioassay samples and samples for pesticides and priority organics analyses were collected from the EFA-01 NPDES sampling point (air relief valve on the outfall main near the ocean shoreline) and samples for metals, nutrients and algal growth potential analyses were collected from the PPI-01 NPDES sampling point (effluent composite sampler on ocean outfall located within the chlorine contact facility) for Outfall D001 by Terry Davis (FDEP Southeast 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 acute screening 96-hour 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. Bioassays were performed on each of four samples which were collected over a 24-hour period (one sample every six hours) from EFA-01.

The four bioassay samples were salinity adjusted with hyper-saline brine from apparent salinities of approximately 0.84 parts per thousand (ppth) to salinities of approximately 21.5 ppth at an effluent concentration of 30%. The control water for each test was well water which was salinity adjusted with hyper-saline brine to approximate the salinity of the effluent as tested.

Bioassay tests were initiated approximately two hours after sample holding time expiration, due to early initiation of sampling. The bioassay results were qualified, as sample exceeding holding time, and appropriate personnel were notified.

Toxicity Test Results

Tests were performed April 24 - 28, 2006.

Americamysis bahia 96-hour acute screening bioassay sample 1 –	LC_{50} > 30%, 0% mortality in 30% sample at 96 hours
Menidia beryllina 96-hour acute screening bioassay sample 1 –	LC_{50} > 30%, 0% mortality in 30% sample at 96 hours
Americamysis bahia 96-hour acute screening bioassay sample 2 –	LC_{50} > 30%, 0% mortality in 30% sample at 96 hours
Menidia beryllina 96-hour acute screening bioassay sample 2 –	LC_{50} > 30%, 0% mortality in 30% sample at 96 hours
Americamysis bahia 96-hour acute screening bioassay sample 3 –	LC_{50} > 30%, 0% mortality in 30% sample at 96 hours
Menidia beryllina 96-hour acute screening bioassay sample 3 –	LC_{50} > 30%, 10% mortality in 30% sample at 96 hours
Americamysis bahia 96-hour acute screening bioassay sample 4 –	LC_{50} > 30%, 0% mortality in 30% sample at 96 hours
Menidia beryllina 96-hour acute screening bioassay sample 4 –	LC_{50} > 30%, 10% mortality in 30% sample at 96 hours

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

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

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 564.0 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 co-limited by both nitrogen and phosphorus. The predicted AGP values based on inorganic nitrogen and ortho-phosphate concentrations are 1,093.6 (±20%) mg dry wt/L and 1,118.0 (±20%) mg dry wt/L, respectively (Table 1; Miller et al. 1978).

A saltwater AGP test was not performed; however, the freshwater AGP results suggest that nutrient enrichment may be an issue.

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine (TRC) was not measured in the field at EFA-01 and was not detected in the bioassay samples in the laboratory. The TRC (0.83 mg/L) measured in the sample collected at PPI-01 was in compliance with the permit requirement for TRC at this location (≥ 0.5 mg/L).

Total ammonia was detected in each of the bioassay samples. Effluent total ammonia concentrations were 6.82 mg/L, 5.78 mg/L, 7.64 mg/L, and 7.11 mg/L, respectively, in bioassay samples #1, #2, #3, and #4. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L in each of the bioassay samples. The total ammonia concentration in the composite sample collected (from PPI-01) and preserved for chemical analysis was 28.0 mg/L. Field pH and temperature measurements were not made for this sample; therefore, unionized ammonia can not be calculated for the sample as collected.

Aluminum, copper, iron, lead, nickel, and zinc were detected in the composite effluent sample from PPI-01 at levels that comply with Class III marine water quality criteria (62-302.530, F.A.C.). Arsenic, cadmium, and silver 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 samples collected from the EFA-01 NPDES sampling point for Outfall D001 of this facility on April 22, 2007, were not acutely toxic to either test species during the 96-hour acute screening bioassays. The effluent AGP result exceeded the "problem" threshold for fresh receiving waters, suggesting nutrient enrichment may be an issue in marine waters as well. 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 1. Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN), orthophosphate (OP), total nitrogen (TN) and total phosphorus (TP) limitation of the freshwater species *Pseudokirchneriella subcapitata* and ratios of the nitrogen to phosphorus for samples collected from Broward County North Regional Wastewater Treatment Plant on April 22, 2007.

Broward County North Wastewater Treatment Plant							
Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (OP) ± 20%	Predicted AGP (TN) ± 20%	Predicted AGP (TP) ± 20%	Inorganic N:P ratio	Total N:P ratio
PPI-01 Comp 4/22 1100	567.0	1093.6 ± 218.7	1118.0 ± 223.6	1131.6 ± 226.3	1118.0 ± 223.6	11.1	11.5

Table 2. Effluent limits, Class III marine Criteria, and chemical data for samples collected from Broward County North Regional Wastewater Treatment Plant on April 22, 2007.

Broward County North Regional Wastewater Treatment Plant NPDES #FL0031771	Class III Marine Stds	Effluent Limits PPI-01	PPI-01 Comp 4/22 1100	EFA-01 Grab 4/22 0620	EFA-01 Grab 4/22 1210
Organic Constituents (µg/L)					
Atrazine (4/22 at 0620)	-	-	-	0.14 IJ	-
Atrazine (4/22 at 1800)	-	-	-	0.12 IJ	-
Atrazine (4/22 at 2355)	-	-	-	0.11 IJ	-
Metals (µg/L unless otherwise noted)					
Aluminum	≤ 1500	-	36	-	-
Arsenic	≤ 50	-	1.8 I	-	-
Cadmium	≤ 8.8	-	0.1 I	-	-
Calcium (mg/L)	-	-	56.7	-	-
Chromium-III	-	-	1.0 U	-	-
Copper	≤ 3.7	≤ 50.2 sp	3.05	-	-
Iron	≤ 300	-	122	-	-
Lead	≤ 8.5	≤ 117.2 sp	1.51	-	-
Magnesium (mg/L)	-	-	23.1	-	-
Mercury	≤0.025	≤0.025	0.12 U		
Nickel	≤ 8.3	≤ 171.5 sp	2.44	-	-
Selenium	≤ 71	-	0.5 U	-	-
Silver	≤ 2.3	-	0.06 I	-	-
Zinc	≤ 86	-	23	-	-
Nutrients (mg/L)					
Ortho-phosphate	-	-	2.6 Q	-	-
Total Phosphorus	-	Report p	2.6	-	-
Total Ammonia	-	-	28	-	-
Un-ionized Ammonia	-	-	≤ 0.02 c	-	-
Nitrate and Nitrite	-	-	0.78	-	-
Total Kjeldahl Nitrogen	-	-	29	-	-
Organic Nitrogen	-	-	1.0 c	-	-
Total Nitrogen	-	Report p	29.78 c	-	-
General Physical and Chemical Parameters					
Dissolved Oxygen (mg/L)	≥ 4.0 s	Report	-	-	-
pH (SU)	6.5 - 8.5 s	6.5 - 8.5 s	-	6.8	7.1
Conductivity (µmhos/cm)	-	-	1,787	1,711	1,683
Temperature °C	-	-	-	24.7	27.1
Sample Depth	-	-	0.304	0.003	0.003
Total Residual Chlorine (mg/L)	≤ 0.01	≥ 0.5	0.83	0.03 U£	0.03 U£
Total Suspended Solids (mg/L)	-	≤ 60 sp	8.0 I	-	-
Turbidity (NTU)	≤ 29 t	-	-	-	-
CBOD, 5 day (mg/L), N - inhibited	-	≤ 60 sp	4.7 Q	-	-
Flow (MGD)	-	84 a	40.02 a	-	-
Hardness (mg $CaCO_3$)	-	-	236.71 c	-	-
Microbiology (Number of counts/100ml)					
Fecal Coliforms	800 s	≤ 800 s	-	-	-

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
c - Value is calculated
p - Limited based on 24-hour flow proportioned composite sample
s - Single sample
t - Shall not exceed 29 NTUs above background
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J - Estimated value
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit
£ - Analysis performed in FDEP bioassay laboratory

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-04-09-29
Broward County North Regional WWTP

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: Southeast District

PMAS: 1143

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
✓	EFA-01	☐ Comp ☒ Grab Date 4/22/07 Time 0020 Central	Date Time Central	B A C
	Field ID 51-NB-1a	Tot Res Chlorine (mg/L) Diss Oxygen ~~(mg/L)~~ % 58.3	Storet Station Number	
	Matrix (Include type e.g. Salt, Fresh, etc) Water, Fresh; Temp (C) 27.68; pH 6.82	Sample Depth ☐ m ☒ ft .01; 1711	☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " . Longitude o ' " .	Comments		

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
✓	EFA-01	☐ Comp ☒ Grab Date 4/22/07 Time 1210 Central	Date Time Central	B A C
	Field ID 51-NB-1b	Tot Res Chlorine (mg/L) Diss Oxygen (mg/L) 82.7%	Storet Station Number	
	Matrix (Include type e.g. Salt, Fresh, etc) Water, Fresh; Temp (C) 27.10; pH 7.12	Sample Depth ☐ m ☒ ft .01; 1683	☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " . Longitude o ' " .	Comments		

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
	PBI-01	☒ Comp ☐ Grab Date 4/22/07 Time 1100 Central	Date 4/22/07 Time 2300 Central	A
	Field ID 51-NB-1	Tot Res Chlorine (mg/L) .83 Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (Include type e.g. Salt, Fresh, etc) Water Fresh; Temp (C); pH	Sample Depth ☐ m ☒ ft 1.0; 1787	☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " . Longitude o ' " .	Comments		

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
	Field Blank	☐ Comp ☒ Grab Date 4/23/07 Time 1005 Central	Date Time Central	B
	Field ID 51-NB-2	Tot Res Chlorine (mg/L) Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (Include type e.g. Salt, Fresh, etc) Water, de-io; Temp (C); pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " . Longitude o ' " .	Comments		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
T Davis	4/23/07	DHL						4-24-07 9:20a

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Page 1 of 3

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DW 4/24/07

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Request Number: RQ-2007-04-09-29
Broward County North Regional WWTP

Event ID *

Requester: Shannan Bogdanov
Field Report Prepared By: Len Fishkin

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

Project ID: FYI3
Sampling Agency: Southeast District

PMAS: 1143

Lab ID *	Location EFA-01			☐ Comp ☒ Grab	Collection (begin) Date 4/23/07 Time	Eastern Central	Collection (end) Date 4/23/07 Time 6:00 pm	Eastern Central	Bottle Group(s)** A C
✓	Field ID 51-NB-1c			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)		Storet Station Number		
	Matrix (Include type e.g. Salt, Fresh, etc) Water, fresh	Temp (C)	pH	Sample Depth ☐ m ☒ ft 0		☐ 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)**
	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)**
	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)**
	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					

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Terry Davis	4/23/07						SK	4-24-07 9:20a

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

PEV 4/24/07

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-04-09-29
Broward County North Regional WWTP

Requester: Shannan Bogdanov

Field Report Prepared By: Len Fishkin

Customer: SE-DIST

Collected By: Len Fishkin

Send Final Report To Terry Davis or Bill Theil

Project ID: FYI3

Sampling Agency: Southeast District

PMAS: 1143

Lab ID *	Location EFA-01			☐ Comp ☒ Grab	Collection (begin) Date 4/22/07 Time	Eastern Central	Collection (end) Date 4/22/07 Time 11 55	Eastern Central	Bottle Group(s)**
V	Field ID 51-NB-1d			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)		Storet Station Number		9A C
	Matrix (Include type e.g. Salt, Fresh, etc) water, fresh	Temp (C)	pH	Sample Depth ☐ m ☒ ft .01		☐ 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)**
	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)**
	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)**
	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					

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
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* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

PTV 4/24/07

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

Facility: Broward County North Regional WWTP

Address: 21101 North Powerline Road

City: Pompano Beach County: Broward

Contact/District: T. Davis / L. Fishkin / Southeast

NPDES Permit #: FL 0031771

LIMS Job #: TLH-2007-04-24-TT-01 LIMS Sample #: 1003284

Lims Data Entry: 5-2-07 MF Data Entry Verification: 5.2.07 JD

Sample Collection: Date: 4/22/07 Time: 6:20AM

Hold Time Start: Date: 4/22/07 Time: 11:55AM.

Sample: 1 of 4

Comments: ~~Sample~~ Test num ~~with~~ at mf a concentration of 30% effluent salinity adjusted to saline brine to a salinity between 20-25 parts per thousand per permit. Control was well water adjusted to sample test salinity with saline brine, MF 4-26-07

Tests initiated after sample hold time expired. Results "Q" qualified. MF 5-2-07

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

Test Type: Screen

Static / Static Renewal / Flow-through

Test Duration: ~~48~~ 96 Hours.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Test 1 validation: Test 1: SOP TA 07-~~0304~~ pw 4/24/07

Control survival ≥90%: Yes No

Temperature Range ≤3°C: Yes No

Test 2 validation: Test 2: SOP TA 07-~~0403~~ pw 4/24/07

Control survival ≥90%: Yes No

Temperature Range ≤3°C: Yes No

Initial sample handling:

PH adjustment : yes no Initial pH: _____ NaOH N HCl N _____ Drops mL Final pH: _____

Aeration : yes no Initial DO: _____mg/L Final DO: _____mg/L Duration: _____minutes Rate: ~ _____bubbles/min

Salinity adjusted (Test 1): yes no Initial Salinity: ~0.84 Final Salinity: ~21.5 Salts Hypersaline brine

Salinity adjusted (Test 2): yes no Initial Salinity: ~0.84 Final Salinity: ~21.5 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 25.6 max 25.9 mean 25.8

Incubator # ____ min _____ max _____ mean _____

Room B246 min 25.0 max 26.3 mean 25.7

Investigators' Signatures

Brad Atkinson

Patsy Vicraibil

Javier Danish

Marshall Fairbanks

Nikki Wellendorf

REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ Well Water	Salt Water (ASW) NSW Test 1	Salt Water (ASW) NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	N/A	NOT measured	—		MF
Lab Total Residual Cl_2 (mg/L):			<0.03	<0.03		<0.03	HACH	BA	MF
Alkalinity (mg/L as $CaCO_3$):			205	205		200	HACH	BA	MF
Hardness (mg/L as $CaCO_3$):			—	—		—	HACH	PPV	MF
Total Ammonia (mg/L as N):			<0.051	<0.051		6.82	DENVER	BA	MF
Salinity (ppth):			30	30		0.84	YSI (Mettler)	BA	MF

V 2.0 4/12/05

Page 000041

1

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: I003384 Test #: 1/2 SOP#:TA 07 04 Test Started: Date 4-24-07 Time: 1350

Organism/Batch/Age: M. BERYLLINA / 13 DAYS / 4-24-07 Test Ended: Date 4-28-07 Time: 10:05

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 4-5-07

Food/Batch: YCT — P.sub — Artemia 0hr 55-07 24hr — 48hr 57-07 72hr — Artemia Lot# GSL 536-90

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

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	F5	5	5	5	5	5	5
	B	F6	5	5	5	5	5	5
	C	F7	5	4 1D	4	4	4	4
	D	F8	5	5	5	5	5	5
100%	A	F9	5	5	5	5	5	5
	B	F10	5	5	5	5	5	5
	C	F11	5	5	5	5	5	5
	D	F12	5	5	5	5	5	5
Loaded/Verified by: JD / PPV		Checked by:	JD	JD	JD	BA	BA	BA

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

Comments: 100% = 30% effluent ms 5/2/07

Test Results:

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

% mortality in 100% sample: Ø LC50: >30%

If Calculated: 95% CI_________ Method_________

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

PAGE V 2.1 11/01/2005

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1003384 Test #: 2/2 SOP#:TA 07 03 Test Started: Date 4/24/07 Time: 1340

Organism/Batch/Age: A.Bahia/4-24-07/5days Test Ended: Date 4-28-07 Time: 9:40

Chamber/Test Volume: 1000/500 ml Diluent/ Batch: ASW / 4-5-07

Food/Batch: YCT — P.sub — Artemia 0hr 55-07 24hr 56-07 48hr 57-07 72hr 58-07 Artemia Lot# GSL-536-90

Feeding: Prior to Test Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	D13	5	5	5	5	5	5
	B	D14	5	5	5	5	5	5
	C	D15	5	5	4/0	4	4	4
	D	D16	5	5	5	5	5	5
100%	A	D17	5	5	5	5	5	5
	B	D18	5	5	5	5	5	5
	C	D19	5	5	5	5	5	5
	D	D20	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	BA	BA	BA

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

Comments: 100% = 30% effluent mf 5/2/07

Test Results:

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

% mortality in 100% sample: Ø LC50: >30%

If Calculated: 95% CI______ Method______

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

PAGE V 2.1 11/01/2005

000043

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1003384 **Test #:** 1 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	C	D	A
pH (S.U.)	8.4	8.3	8.7	8.6	8.3	7.9
Temperature °C	24.4	24.3	24.3	24.1	24.8	24.6
Dissolved Oxygen mg/L	7.3	5.9	5.9	6.7	5.7	5.2
Conductivity µmhos (mmhos)	33.9	34.4	34.8	33.5	33.3	35.7 33.9 BA
(initials) Measured by:	DPV	JD	JD	DPV	DPV/BA	BA
(initials) Recorded by:	DPV	JD	JD	DPV	DPV/BA	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.3	8.2	8.4	8.0	8.0
Temperature °C	24.7	24.7	24.7	24.8	24.8	25.1
Dissolved Oxygen mg/L	6.7	5.7	5.9	6.7	5.6	5.4
Conductivity µmhos (mmhos)	34.3	34.2	35.2	34.0	34.2	31.5
(initials) Measured by:	DPV	JD	JD	DPV	DPV/BA	BA
(initials) Recorded by:	DPV	JD	JD	DPV	DPV/BA	BA

Comments:

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

Comments:

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

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1003384 **Test #:** 2 of 2

TEST SOP #: TA07_03 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration ORL	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	8.0	8.2	8.1	7.9
Temperature °C	24.2	24.3	24.7	24.0	25.4	24.3
Dissolved Oxygen mg/L	6.7	5.6	4.6	6.3	5.7	5.6
Conductivity µmhos (mmhos)	33.9	33.7	35.1	34.7	35.1	35.3
(initials) Measured by:	~~PPV~~	JJ	JJ	~~PPV~~	~~PPV~~/BA	BA
(initials) Recorded by:	~~PPV~~	JJ	JJ	~~PPV~~	~~PPV~~/BA	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.2	7.8	8.4	7.9	7.7
Temperature °C	24.4	25.0	24.3	24.8	26.0	24.1
Dissolved Oxygen mg/L	6.8	5.4	4.3	6.4	5.6	5.2
Conductivity µmhos (mmhos)	34.3	34.6	35.8	34.1	34.4	34.3
(initials) Measured by:	~~PPV~~	JJ	JJ	~~PPV~~	~~PPV~~/BA	BA
(initials) Recorded by:	~~PPV~~	JJ	JJ	~~PPV~~	~~PPV~~/BA	BA

Comments:

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

Comments:

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

Comments:

000045

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

Facility: BROWARD COUNTY NORTH REGIONAL WWTP
Address: 2401 NORTH POWERLINE ROAD
City: POMPANO BEACH County: BROWARD
Contact/District: T. DAVIS & L. HANLIN / SOUTHEAST
NPDES Permit #: FL0031771
LIMS Job #: TCH-2007-04-24-77-02 LIMS Sample #: 1003385
Lims Data Entry: 5-2-07 MF Data Entry Verification: 5-2-07 JD

Sample Collection: Date: 4/22/07 Time: 12:10 PM
Hold Time Start: Date: 4/22/07 Time: 11:55 AM
Sample: 2 of 4

Comments: Tests run at a concentration of 30% effluent salinity adjusted to 20-25 parts per thousand per permit. Control is well water salinity adjusted with saline brine to ~ test salinity. MF 4-26-07
Tests initiated after sample holding time expired. Results "Q" qualified MF 5-2-07

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

Test 1 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 1: SOP TA 07_ 04

Test 2 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2: SOP TA 07_ 03

Initial sample handling:
PH adjustment: yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____
Aeration: yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~ ____bubbles/min
Salinity adjusted (Test 1): (yes) no Initial Salinity: ~0.82 Final Salinity: ~21.5 Salts (Hypersaline brine)
Salinity adjusted (Test 2): (yes) no Initial Salinity: ~0.82 Final Salinity: ~21.5 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)

Investigators' Signatures
Bill Atwell
Patsy Vichailud
Jenis Daniels
Marshall Faircloth

Nikki Wellendorf
REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	Not measured	—		MF
Lab Total Residual Cl_2 (mg/L):	<0.03	HACH	BA	MF
Alkalinity (mg/L as $CaCO_3$):	206	HACH	PDV	MF
Hardness (mg/L as $CaCO_3$):	—	HACH	PDV	MF
Total Ammonia (mg/L as N):	5.78	DENVER	BA	MF
Salinity (pptl):	0.82	YSI / (Mettler)	BA	MF

V 2.0 4/12/05

Page 000046

2

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1003385 Test #: 12 SOP#:TA 07 04 Test Started: Date 4-24-07 Time: 13:55 BA

Organism/Batch/Age: M.BERYLLINA/4-24-07/13 DAYS Test Ended: Date 4-28-07 Time: 10:10

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 4-5-07

Food/Batch: YCT — P.sub — Artemia 0hr 55-07 24hr — 48hr 57-07 72hr — Artemia Lot# CSL-536-90

Feeding: Prior to Test Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	F13	5	5	5	5	5	5
	B	F14	5	5	5	5	5	5
	C	F15	5	4 1D	4	4	4	4
	D	F16	5	5	5	5	5	5
100%	A	A17	5	5	5	5	5	5
	B	A18	5	5	5	5	5	5
	C	A19	5	5	5	5	5	5
	D	A20	5	5	5	5	5	5
Loaded/Verified by BA / PAV		Checked by:	JD	JD	JD	BA	BA	BA

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

Comments: 100% = 30% effluent mf 5/2/07

Test Results:

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

% mortality in 100% sample: Ø LC50: >30%

If Calculated: 95% CI ________ Method ________

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

PAGE V 2.1 11/01/2005

000047

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1003385 Test #: 2/2 SOP#:TA 07 03 Test Started: Date 4/24/07 Time: 1340

Organism/Batch/Age: A.Bahia / 4-24-07 / 5 days Test Ended: Date 4-28-07 Time: 9:45

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 4-5-07

Food/Batch: YCT — P.sub — Artemia 0hr 55-07 24hr 56-07 48hr 57-17 72hr 58-08 Artemia Lot# GSL 536 40

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	D21	5	5	5	5	5	5
	B	D22	5	5	5	5	5	5
	C	D23	5	5	5	5	5	5
	D	D24	5	5	5	5	5	5
100%	A	E1	5	5	5	5	5	5
	B	E2	5	5	5	5	5	5
	C	E3	5	5	5	5	5	5
	D	E4	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	BA	BA	BA

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

Test Results:

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

% mortality in 100% sample: Ø LC50: > 30%

If Calculated: 95% CI______ Method______

Comments: 100% ~~%~~ mf 30% effluent. mf 5/2/07

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

PAGE V 2.1 11/01/2005

000048

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet



LIMS Sample # : 1003385 Test #: 1 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	C	D	A
pH (S.U.)	8.4 ~~24.6~~	8.4	8.2	8.6	8.1	7.9
Temperature °C	24.8	24.7	24.4	24.0	24.9	25.1
Dissolved Oxygen mg/L	6.6	5.8	5.9	6.4	5.1	5.4
Conductivity µmhos (mmhos)	34.0	34.1	35.9	34.3	33.5	34.6
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments: A. TRANSCRIPTION ERROR PPV 4/24/07

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.)	8.6	8.4	8.1	8.5	8.1	8.0
Temperature °C	24.4	24.1	24.3	24.9	24.4	24.6
Dissolved Oxygen mg/L	6.6	5.9	5.9	6.6	5.1	5.6
Conductivity µmhos (mmhos)	34.4	34.4	35.9	34.5	34.3	35.2
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments:

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

Comments:

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

Comments:

000049

V 2.0 2/24/04

Page

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1003385 **Test #:** 2 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	C	D	A
pH (S.U.)	8.4	8.2	8.0	8.4	8.0	7.8
Temperature °C	24.0	24.3	24.2	24.0	24.8	24.0
Dissolved Oxygen mg/L	4.7	5.8	4.4	6.2	5.5	4.9
Conductivity µmhos (mmhos)	34.1	33.5	34.7	35.2	35.0	35.8
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.6	8.2	7.9	8.4	8.0	7.6
Temperature °C	24.0	24.1	23.4	24.2	24.6	24.0
Dissolved Oxygen mg/L	6.8	6.9	4.4	6.3	5.5	4.8
Conductivity µmhos (mmhos)	34.5	34.6	35.3	34.6	34.6	35.5
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments:

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

Comments:

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

Comments:

000050

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

Facility: BROWARD COUNTY NORTH REGIONAL WWTP

Address : 2401 NORTH POWERLINE ROAD

City: POMPANO BEACH **County:** BROWARD

Contact/District: T. DAVIS / L. FISHKIN / SOUTHEAST

NPDES Permit #: FL 0031771

LIMS Job #: TLH-2007-04-24-77-03 **LIMS Sample #:** 100338616

Lims Data Entry: MF 5/2/07 Data Entry Verification: [illegible] DV

Sample Collection: Date: 4/22/07 Time: 6:00PM

Hold Time Start: Date: 4/22/07 Time: 11:55AM

Sample: 3 of 4

Comments: Tests run at a concentration of 30% effluent salinity adjusted with saline brine to 20-25 parts per thousand salinity. Control was well water adjusted to match sample salinity. MF 4-26-07

Tests initiated after sample holding time expired. Results "Q" qualified. MF 5-2-07

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

Test 1 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 1: SOP TA 07_ 04

Test 2 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2: SOP TA 07_ 03

Initial sample handling:

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

Aeration : yes (no) Initial DO: _____mg/L Final DO: _____mg/L Duration: _____minutes Rate: ~ _____bubbles/min

Salinity adjusted (Test 1): (yes) no Initial Salinity: ~0.9 Final Salinity: ~21.5 Salts Hypersaline brine 7

Salinity adjusted (Test 2): (yes) no Initial Salinity: ~0.91 Final Salinity: ~21.5 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)

Investigators' Signatures

Brian Ashley
Patsy Vichailo
James Daniels
Marshall Faircloth

Nicole Wellendorf
REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	Not measured	—		MF
Lab Total Residual Cl_2 (mg/L):	<0.03	HACH	BA	MF
Alkalinity (mg/L as $CaCO_3$):	235	HACH	~~PW~~	MF
Hardness (mg/L as $CaCO_3$):	—	HACH	~~PW~~	/
Total Ammonia (mg/L as N):	7.64	DENVER	~~SS~~	MF
Salinity (ppth):	0.91	YSI / Mettler	BA	MF

V 2.0 4/12/05

Page 000051

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 10033860 **Test #:** 1/2 **SOP#:TA 07** 04 **Test Started:** Date 4-24-07 Time: 14:00
Organism/Batch/Age: M. BERYLLINA / 4-24-07 / 13 DAYS **Test Ended:** Date 4-28-07 Time: 10:15
Chamber/Test Volume: 1000 / 500 ml **Diluent/ Batch:** ASW / 4-5-07
Food/Batch: YCT — **P.sub** — **Artemia 0hr** 55-07 **24hr** 56-07 BA **48hr** 57-01 **72hr** 58-07 BA **Artemia Lot#** CSL-536-90
Feeding: (Prior to Test) (Prior to Renewal) Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	B9	5	5	5	5	5	5
	B	B10	5	5	5	5	5	5
	C	B11	5	5	5	5	5	5
	D	B12	5	5	5	5	5	5
100%	A	B15	5	5	5	5	5	5
	B	B16	5	4 1D	4	4	4	4
	C	B17	5	4 1D	4	4	4	4
	D	B18	5	5	5	5	5	5

Loaded/Verified by: BA / PPV	Checked by:	JJ	JJ	JD	BA	BA	BA

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

Comments: 100% = 30% effluent mF 5/2/07

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 10% LC50: > 30%
If Calculated: 95% CI__________ Method__________

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

PAGE V 2.1 11/01/2005

000052

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 10033860 Test #: 3/2 SOP#:TA 07 03 Test Started: Date 4/24/07 Time: 1340
Organism/Batch/Age: A. bahia / 4-24-07 / 5 DAYS Test Ended: Date 4-28-07 Time: 9:50
Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 4-5-07
Food/Batch: YCT — P.sub — Artemia 0hr 4-24-07 24hr 4-25-07 48hr 4-26-07 72hr 4-27-07 Artemia Lot# ESL-536-90
Feeding: Prior to Test Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	E5	5	5	5	5	5	5
	B	E6	5	5	5	5	5	5
	C	E7	5	5	5	5	5	5
	D	E8	5	4m	4	4	4	4
100%	A	E9	5	5	5	5	5	5
	B	E10	5	5	5	5	5	5
	C	E11	5	5	5	5	5	5
	D	E12	5	5	5	5	5	5
Loaded/Verified by: JD / BA Checked by:			JD	JD	JD	BA	BA	BA

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

Comments: 100% = 30% effluent mf 5/2/07

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 0 LC50: >30%
If Calculated: 95% CI_____ Method_____

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

PAGE V 2.1 11/01/2005

000053

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 10033816 Test #: 1 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	C	D	A
pH (S.U.)	8.4	8.3	8.2	8.6	8.2	8.0
Temperature °C	24.0	24.3	24.0	24.0	24.6	24.4
Dissolved Oxygen mg/L	6.8	5.9	6.0	6.0	5.3	5.7
Conductivity µmhos (mmhos)	34.0	34.3	35.1	33.4	33.8	34.5
(initials) Measured by:	PPV	JJ	JJ	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JJ	JJ	PPV	PPV/BA	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.3	8.1	8.4	8.1	7.9
Temperature °C	24.4	24.4	24.7	24.6	24.0	24.7
Dissolved Oxygen mg/L	6.8	5.8	6.0	6.6	5.4	5.6
Conductivity µmhos (mmhos)	34.4	34.5	35.1	34.5	34.7	35.2
(initials) Measured by:	PPV	JJ	JJ	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JJ	JJ	PPV	PPV/BA	BA

Comments:

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

Comments:

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

Comments:

000054

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1003386 **Test #:** 2 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	C	D	A
pH (S.U.)	8.4	8.3	8.0	8.3	8.1	7.8
Temperature °C	24.0	24.1	24.0	24.0	24.7	26.0
Dissolved Oxygen mg/L	6.8	5.7	4.7	6.3	5.3	4.8
Conductivity µmhos (mmhos)	34.1	34.0	34.7	35.2	35.2	37.0
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.2	7.9	8.3	7.9	7.6
Temperature °C	24.1	25.1	24.1	24.0	24.8	26.0
Dissolved Oxygen mg/L	6.8	5.6	5.2	6.4	5.1	4.8
Conductivity µmhos (mmhos)	34.4	34.8	35.8	34.8	34.8	35.8
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments:

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

Comments:

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

Comments:

000055

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

Facility: BROWARD COUNTY/NORTH REGIONAL WWTP

Address: 2401 NORTH POWERLINE ROAD

City: POMPANO BEACH County: BROWARD

Contact/District: T. DAVIS & L. FISHKIN / SOUTHEAST

NPDES Permit #: FL0031771

LIMS Job #: TLH-2007-04-24-77-04 LIMS Sample #: 1003387

Lims Data Entry: 5-2-07 MF Data Entry Verification: 5-3-07 JJ

Sample Collection: Date: 4/22/07 Time: 11:55AM

Hold Time Start: Date: 4/22/07 Time: 11:55AM

Sample: 4 of 4

Comments: Tests run at a concentration of 30% effluent salinity adjusted with Saline brine to 20-25 ppth per permit. Control is well water salinity adjusted with saline brine to ~ sample salinity. MF 4-26-07 Tests initiated after sample holding time expired. Results "Q" qualified. MF 5-2-07

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

Test 1 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 1: SOP TA 07_ 04

Test 2 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2: SOP TA 07_ 03

Initial sample handling:
PH adjustment: yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____
Aeration: yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____bubbles/min
Salinity adjusted (Test 1): (yes) no Initial Salinity: ~0.85 Final Salinity: ~21.5 Salts (Hypersaline brine)
Salinity adjusted (Test 2): (yes) no Initial Salinity: ~0.85 Final Salinity: ~21.5 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)

Investigators' Signatures
Gus Alvarez
Patty Vichailo
James Daniels
Marsha Faircloth

Mindi Willenbrock
REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	not measured	—		MF
Lab Total Residual Cl_2 (mg/L):	<0.03	HACH	BA	MF
Alkalinity (mg/L as $CaCO_3$):	233	HACH	PP	MF
Hardness (mg/L as $CaCO_3$):	—	HACH	PP	BA
Total Ammonia (mg/L as N):	7.11	DENVER	BA	MF
Salinity (ppth):	0.85	YSI / (Mettler)	BA	MF

V 2.0 4/12/05

Page 000056

4

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1003387 **Test #:** 1/2 **SOP#:TA 07** 04 **Test Started:** Date 4-21-07 Time: 14:05

Organism/Batch/Age: M.BERYLLINA/4-24-07/13 DAYS **Test Ended:** Date 4-28-07 Time: 10:20

Chamber/Test Volume: 1000 / 500 ml **Diluent/ Batch:** ASW / 4-5-07

Food/Batch: YCT — P.sub — Artemia 0hr 55-07 24hr — 48hr 57-07 72hr — Artemia Lot# GSL-536-90

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

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	B21	5	5	5	5	5	5
	B	B22	5	5	5	5	5	5
	C	B23	5	5	5	5	5	5
	D	B24	5	5	5	5	5	5
100%	A	C21	5	5	5	5	5	5
	B	C22	5	4 1D	4	4	4	4
	C	C23	5	4 1D	4	4	4	4
	D	C24	5	5	5	5	5	5
Loaded/Verified by: BN BN		Checked by:	JD	JD	JD	BA	BA	BA

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

Comments: 100% = 30% effluent mrf 5/2/07

Test Results:

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

% mortality in 100% sample: 10% LC50: > 30%

If Calculated: 95% CI______ Method______

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

PAGE 000057 V 2.1 11/01/2005

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1003387 Test #: 2/2 SOP#:TA 07 03 Test Started: Date 4/24/07 Time: 13:40

Organism/Batch/Age: A. Bahia Test Ended: Date 4-28-07 Time: 10:00

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 4-5-07

Food/Batch: YCT — P.sub — Artemia 0hr 55-67 24hr 56-67 48hr 57-67 72hr 58-67 Artemia Lot# GSL-536-90

Feeding: Prior to Test Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	E13	5	5	5	5	4, 1D	4
	B	E14	5	5	5	5	5	5
	C	E15	5	5	5	5	5	5
	D	E16	5	5	5	5	5	5
100%	A	F1	5	5	5	5	5	5
	B	F2	5	5	5	5	5	5
	C	F3	5	5	5	5	5	5
	D	F4	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	MA	MA	BA

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

Test Results:

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

% mortality in 100% sample: ø LC50: > 30%

If Calculated: 95% CI______ Method______

Comments: 100% = 30% effluent MF 5-2-07

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

PAGE V 2.1 11/01/2005

000058

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1003387 Test #: 1 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	C	D	A
pH (S.U.)	8.4	8.3	8.2	8.6	8.3	8.0
Temperature °C	24.0	24.0	24.3	24.1	24.7	24.7
Dissolved Oxygen mg/L	6.8	5.8	6.1	6.5	5.3	5.7
Conductivity µmhos mmhos	34.0	34.2	35.1	33.5	33.5	33.7
(initials) Measured by:	~~PPV~~	JD	JD	~~PPV~~	PPV/BA	BA
(initials) Recorded by:	~~PPV~~	JD	JD	~~PPV~~	PPV/BA	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.3	8.1	8.4	8.1	8.0
Temperature °C	24.2	24.4	24.0	24.3	24.8	24.7
Dissolved Oxygen mg/L	6.9	5.9	6.0	6.7	5.3	5.7
Conductivity µmhos mmhos	34.2	34.2	35.6	34.4	34.6	34.5
(initials) Measured by:	~~PPV~~	JD	JD	~~PPV~~	PPV/BA	BA
(initials) Recorded by:	~~PPV~~	JD	JD	~~PPV~~	PPV/BA	BA

Comments:

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

Comments:

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

Comments:

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1003387 **Test #:** 2 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	C	D	A
pH (S.U.)	8.4	83	8.0	8.3	8.1	7.9
Temperature °C	24.2	24.0	24.2	24.0	24.6	24.9
Dissolved Oxygen mg/L	6.9	5.4	5.0	6.5	5.5	5.0
Conductivity µmhos (mmhos)	34.1	34.4	34.1	35.3	35.3	36.5
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.1	7.9	8.4	8.0	7.8
Temperature °C	24.0	25.2	24.0	24.0	24.3	24.8
Dissolved Oxygen mg/L	6.8	5.4	5.8	6.3	5.5	5.2
Conductivity µmhos (mmhos)	34.3	35.7	35.4	34.7	34.3	35.8
(initials) Measured by:	PPV	JD	JD	PPV	PPV/BA	BA
(initials) Recorded by:	PPV	JD	JD	PPV	PPV/BA	BA

Comments:

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

Comments:

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

Comments:

000060

Appendix C. SRT Bench Sheets and Statistical Analysis

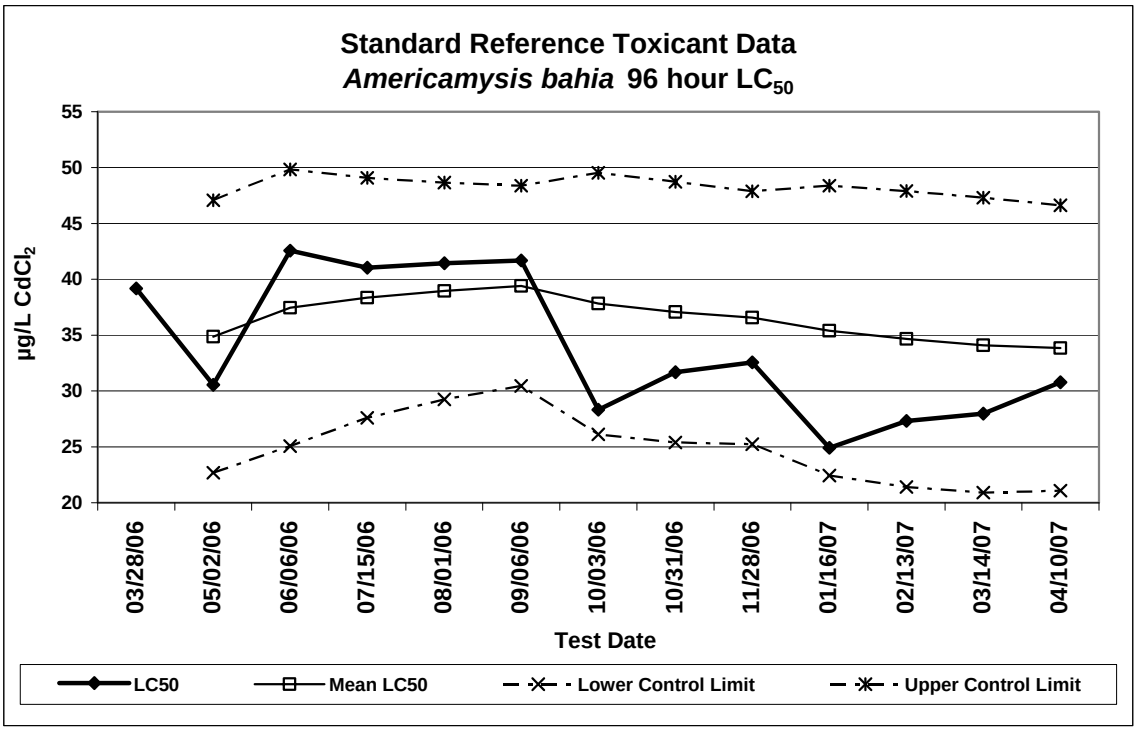
Florida Department of Environmental Protection
Bureau of Laboratories

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

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
03/28/06	39.19				
05/02/06	30.56	34.88	6.10	22.67	47.08
06/06/06	42.57	37.44	6.19	25.05	49.83
07/15/06	41.04	38.34	5.37	27.60	49.08
08/01/06	41.44	38.96	4.85	29.26	48.66
09/06/06	41.68	39.41	4.48	30.46	48.37
10/03/06	28.33	37.83	5.85	26.12	49.54
10/31/06	31.68	37.06	5.84	25.38	48.74
11/28/06	32.57	36.56	5.66	25.24	47.89
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

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

CV = 18.87
EPA reference 75th quartile CV = 26%



*Fewer than 20 points are charted due to recent initiation of SRT testing using $CdCl_2$.

Appendix C. (continued)

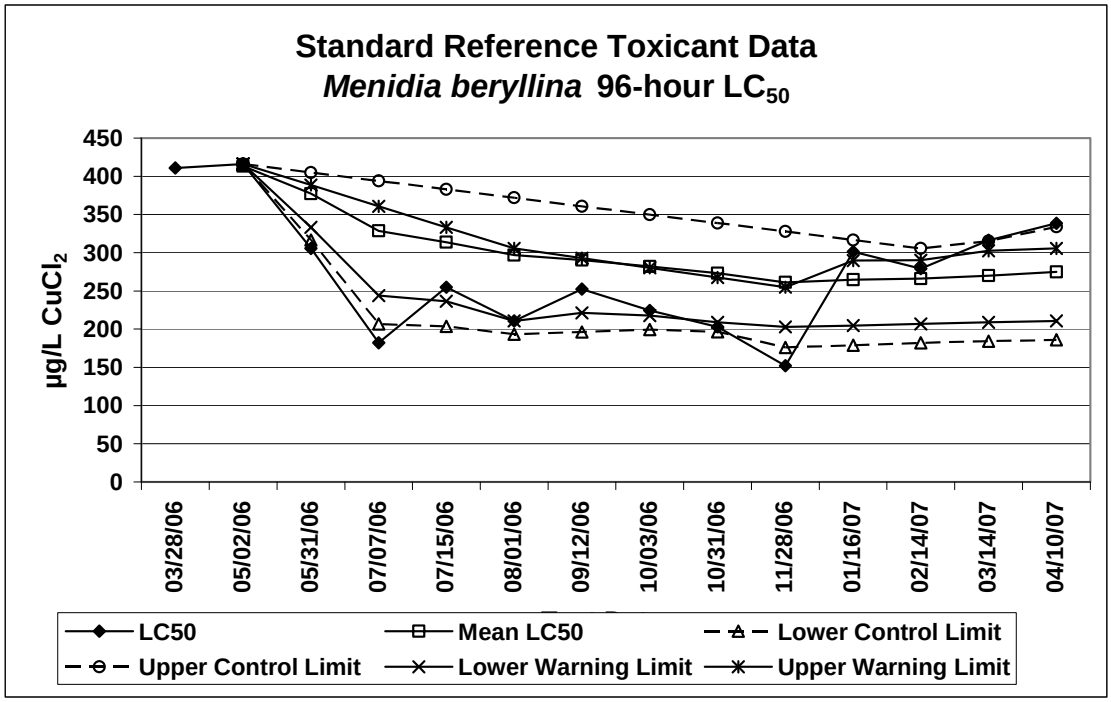
Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Menidia beryllina (inland silverside) - Copper Chloride ($CuCl_2$)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
03/28/06	410.71				
05/02/06	416.01	413.36	3.75	405.86	420.86
05/31/06	305.64	377.45	62.25	252.96	501.95
07/07/06	181.98	328.59	110.16	108.26	548.91
07/15/06	254.77	313.82	100.95	111.92	515.73
08/01/06	210.80	296.65	99.61	97.43	495.87
09/12/06	252.39	290.33	92.46	105.41	475.24
10/03/06	224.51	282.10	88.71	104.69	459.51
10/31/06	202.88	273.30	87.08	99.15	447.45
11/28/06	152.17	261.19	90.59	80.00	442.37
01/16/07	301.29	264.83	86.79	91.25	438.41
02/14/07	279.18	266.03	82.86	100.32	431.74
03/14/07	316.16	269.88	80.54	108.81	430.96
04/10/07	338.35	274.77	79.51	115.75	433.79

Fewer than 20 data points due to 96-hour SRTs beginning in 2006
Organism supplier changed July 7, 2006

CV = 28.93
EPA reference 75th quartile CV = 21%

Upper warning and control limits are the 75th and 90th percentiles, respectively, of the LC50s.
Lower warning and control limits are the 25th and 10th percentiles, respectively, of the LC50s.



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 14-5-07
Toxicant/ Batch#: Cl_2 14-10-07

Test Beginning: Date: 4.10.07 Time: 1230
Test Ending: Date: 4/11.07 Time: 10:20

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	20.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	205	Hach	PPV
Hardness (mg.L as $CaCO_3$):	--	Hach	—
Total Ammonia (mg/L as N):	20.034	Denver	MF
Salinity (ppth):	20	Mettler	BA

Organism Batch #/ Age: 4-10-07 Eggs
Feeding: Prior to test / Prior to renewal (Daily)
Food: YCT P.subcapitata Artemia: Lot #GSL-S36-10
Food Batch: -- -- 0hr 4-10-07 24hr 4-5-07 48hr 4-6-07 72hr 4-7-07
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
			~~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	F1	5	5	5	8.3			24.7			6.7			34.7		
	B	F2	5	5	5		8.2			24.4			5.3			35.1	
	C	F3	5	5	5			8.1			24.5			4.5			35.6
	D	F4	5	5	5												
20	A	F5	5	5	4[1D]	8.3			24.2			6.7			35.1		
	B	F6	5	5	5		8.1			24.4			4.8			35.5	
	C	F7	5	5	5			8.1			24.4			4.9			35.5
	D	F8	5	5	5												
30	A	F9	5	5	3[2D]	8.3			24.2			6.8			35.1		
	B	F10	5	5	4[1D]		8.2			24.4			5.0			35.6	
	C	F11	5	4[1D]	3[1D]			8.2			24.3			5.0			35.4
	D	F12	5	4[1D]	3[1D]												
45	A	F13	5	4[1D]	4	8.3			24.2			6.8			35.0		
	B	F14	5	5	3[2D]		8.2			24.5			5.2			35.6	
	C	F15	5	5	4[1D]			8.2			24.2			4.9			35.3
	D	F16	5	5	3[2D]												
67	A	F17	5	3[2D]	0[3D]	8.3			24.2			6.6			34.9		
	B	F18	5	4[1D]	0[4D]		8.2			24.5			5.3			35.5	
	C	F19	5	3[2D]	1[1D]			8.1			24.5			4.0			35.3
	D	F20	5	3[2D]	0[3D]												
100	A	F21	5	5	0[5D]	8.3			24.2			6.9			35.0		
	B	F22	5	4[1D]	0[4D]		8.2			24.4			5.4			35.7	
	C	F23	5	1[4D]	0[5D]			8.2			24.3			5.0			35.2
	D	F24	5	5	0[5D]												
	A											6					
	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
Debra Vichnaiwe
Bree Bailey
Marshall Faircloth
Nicole Wellenstein
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 25.9 max 26.2 mean 26.1
Incubator # ___ min ___ max ___ mean ___
Room B246 min 24.9 max 26.2 mean 25.6

Comments:

Statistics: Method: Spearman-Karber
48 / 96 hour LC_{50}: 42.9
95% Confidence Interval: lower 37.44 upper 49.18

PAGE 000002

revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

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

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal (96 hour renewal)
Test Page 2 of 3

Diluent/ Batch #: ASW 14-S-07
Toxicant/ Batch#: $CdCl_2$ 1-4-10-07

Test Beginning: Date: 4.16.07 Time: 1230
Test Ending: Date: 4-14-07 Time: 10:20

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	205	Hach	PPV
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	<0.03	Denver	MR
Salinity (ppth):	~30	Mettler	BA

Organism Batch #/ Age: 4-10-07 Sdw55
Feeding: Prior to test / Prior to renewal / (Daily)
Food: YCT — *P.subcapitata* — Artemia: Lot # CSL-S36510
Food Batch: — —
0hr 4-14-07 24hr 4-15-07 48hr 4-16-07 72hr 4-17-07
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. (µg/L) mg/L	Rep.	Chamber #	Number Live 0hr / 48 hr	Number Live 24hr / 72 hr	Number Live 48hr / 96 hr	pH (SU) 0hr / 48 hr	pH (SU) 24hr / 72 hr	pH (SU) 48hr / 96 hr	Temperature (°C) 0hr / 48 hr	Temperature (°C) 24hr / 72 hr	Temperature (°C) 48hr / 96 hr	D.O. (mg/L) 0hr / 48 hr	D.O. (mg/L) 24hr / 72 hr	D.O. (mg/L) 48hr / 96 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) 0hr / 48 hr	Uncorrected Conductivity 24hr / 72 hr	Uncorrected Conductivity 48hr / 96 hr
Control	A	F1	5	5	5			8.1			5.0			24.8			35.2
	B	F2	5	5	5						(A)			(A)			
	C	F3	5	5	5	8.4			24.0			6.5			34.5		
	D	F4	5	5	5		8.2			24.9			6.4			35.0	
20	A	F5	4	4	4			8.1			5.0			24.6			35.4
	B	F6	5	5	5												
	C	F7	5	5	5	8.3			24.0			6.5			34.8		
	D	F8	5	5	4 1D		8.2			24.6			6.1			35.0	
30	A	F9	3	3	3			8.1			5.2			25.0			35.2
	B	F10	4	4	2 2D												
	C	F11	3	3	3	8.4			24.1			6.4			34.8		
	D	F12	3	3	3		8.2			24.8			6.0			34.8	
45	A	F13	4	3 1D	1 2D			8.1			5.3			24.9			35.3
	B	F14	3	0 3D	—												
	C	F15	4	1 3D	1 0D	8.4			24.0			6.4			34.7		
	D	F16	3	1 2D			8.2			25.2			5.7			34.6	
67	A	F17	—	—	—			—			—			—			—
	B	F18	—	—	—			—									
	C	F19	1	0 1D	—	8.4	8.2	—	24.1	24.8		6.5	5.3		34.7	34.8	
	D	F20	—	—	—			—									
100	A	F21	—	—	—	—		—	—		—	—		—	—		—
	B	F22	—	—	—	—			—			—			—		
	C	F23	—	—	—	—											
	D	F24	—	—	—	—											
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	BA	BA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA
Recorded by:			JD	BA	CA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA

Investigators' Signatures
James Daniel
Tracy Vichnevetsky
Bill Absher
Marshall Fairbanks
Nigel Wellenstein
REVIEWER

Concentrations prepared by: BA
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.9 max. 26.2 mean 26.1
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.9 max. 26.2 mean 25.6

Comments: (A) Temp & DO switched BA 4-14-07

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 30.77
95% Confidence Interval: lower 27.22 upper 34.78

PAGE 000028

revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0 (~~Method 2006.0~~) *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 1 of 2

Diluent/ Batch #: ASW 14-S-07
Toxicant/ Batch#: $CuCl_2$ 14-10-07

Test Beginning: Date: 4.10.07 Time: 1235
Test Ending: Date: 4-14-07 Time: 4:10

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	205	Hach	PPV
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	<0.039	Denver	MF
Salinity (ppth):	~20	Mettler	BA

Organism Batch #/ Age: 4-10-07 / 13 days
Feeding: (Prior to test) (Prior to renewal) / Daily
Food: YCT *P.subcapitata* Artemia: Lot # GSL-S36 ~~50~~
Food Batch: — — 0hr 44-07 24hr — 48hr 44-07 72hr —
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	A1	10	10	10	8.3			24.1		24.2	7.0			341		
	B	A2	10	10	10		8.1			24.7			5.3			345	
	C							(B) 8.2			24.0			(A) 5.7			(A) 35.1
	D																
100	A	A3	10	10	10	8.3			24.0		24.3	7.0			355		35.7
	B	A4	10	9	9		8.1			24.7			5.4			355	
	C							(B) 8.2						(A) 5.8			
	D																
200	A	A5	10	10	10	8.3			24.1		24.3	6.9			35.3		35.6
	B	A6	10	9	9		8.1			24.6			5.4			35.1	
	C							(B) 8.2						(A) 5.9			
	D																
300	A	A7	10	10	7	8.3			24.3		24.3	6.7			353		35.7
	B	A8	10	8	8		8.1			24.7			5.3			356	
	C							(B) 8.2						(A) 6.0			
	D																
400	A	A9	10	3	2	8.3			24.3		24.4	6.9			35.1		35.5
	B	A10	10	3	2		8.1			24.8			5.4			355	
	C							(B) 8.3						(A) 6.0			
	D																
500	A	A11	10	3	0	8.4			24.3		24.3	6.8			35.1		35.5
	B	A12	10	5	2		8.2			24.5			4.9			350	
	C							(B) 8.3						(A) 6.2			
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JJ	JD	JJ	JD	JD	JJ	JD	JD	JJ	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
Patsy McCrain
Ann Hilker
Marshall Faircloth
Trish Wellenkamp
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. 25.9 max. 26.2 mean 26.1
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.9 max 26.2 mean 25.6

Comments: (A) 48 hour Readings recorded in C replicate spaces should be in A replicate spaces. MF 4-16-07

Statistics: 48 / 96 hour LC_{50}: 338.35 Method: Spearman-Karber
95% Confidence Interval: lower 305.64 upper 374.56

PAGE 0000029

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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 14-5-07
Toxicant/ Batch#: $CuCl_2$ 14-10-07

Test Beginning: Date: 4.18.07 Time: 1235
Test Ending: Date: 4-19-07 Time: 10.10

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	205	Hach	PPV
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	0.034	Denver	MK
Salinity (ppth):	~20	Mettler	BA

Organism Batch #/ Age: 4-6-07 / 13 days
Feeding: ~~Prior to test~~ Prior to renewal / Daily
Food: YCT P.subcapitata Artemia: Lot # ESL-S36 0
Food Batch: — — 0hr 4-17-07 24hr ____ 48hr ____ 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	A1	10	10	10	8.3		8.1	24.0		25.2	6.6		7.4	34.8		35.1
	B	A2	10	10	10		8.3			24.7			6.2			35.1	
	C																
	D																
100	A	A3	10	10	10	8.4		8.2	24.0		25.6	6.7		7.1	34.9		35.2
	B	A4	9	9	9		8.3			24.2			5.9			34.8	
	C																
	D																
200	A	A5	10	10	10	8.4		8.2	24.0		25.5	6.6		6.8	34.9		35.2
	B	A6	9	9	9		8.3			25.4			5.9			35.1	
	C																
	D																
300	A	A7	7	7	7	8.4		8.2	~~24.1~~ 24.0		25.6	6.6		6.7	34.8		35.1
	B	A8	8	8	8		8.2			25.7			5.8			35.0	
	C																
	D																
400	A	A9	2	2	2	8.4		8.2	24.0		25.4	6.6		6.6	34.6		35.1
	B	A10	2	2	2		8.3			24.6			5.9			34.4	
	C																
	D																
500	A	A11	0	—	—			8							~~34.6~~		
	B	A12	2	2	2	8.4	8.2	8.2	24.1	24.4	25.2	6.6	5.8	6.7	34.7	34.7	35.0
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	BA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA
Recorded by:			BA	BA	BA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA	PPV	BA	BA

Investigators' Signatures
James Daniels
~~Patty~~ Vicky Ike
Buck Austin
Marshall Faircloth
Nicole Willardy
REVIEWER

Concentrations prepared by: BA
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.4 max. 26.2 mean 26.1
Incubator # ___ min. _____ max. _____ mean _____
Room B248 min. 24.9 max. 26.2 mean 25.6

Comments:
(A) TRANSCRIPTION ERRORS. PPV 4/12/07

Statistics: Method: Spearman-Karber
48 / ~~96~~ hour LC_{50}: 338.35
95% Confidence Interval: lower 305.64 upper 374.56

PAGE 000030

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Appendix C. (continued)

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

DATE: 04-10-07 DURATION: 96 h TOXICANT : CdCl2
SPECIES: A. bahia

RAW DATA: Concentration (ug/L)	Number Exposed	Mortalities
0.00	20	0
20.00	20	2
30.00	20	9
45.00	20	18
67.00	20	20
100.00	20	20

SPEARMAN-KARBER TRIM: 10.00%

SPEARMAN-KARBER ESTIMATES: LC50: 30.77
95% LOWER CONFIDENCE: 27.22
95% UPPER CONFIDENCE: 34.78

***Menidia Beryllina* Acute Standard Reference Toxicant Test**

DATE: 04-10-07 DURATION: 96 h TOXICANT: CuCl2
SPECIES: M. Beryllina

RAW DATA: Concentration (ug/L)	Number Exposed	Mortalities
0.00	20	0
100.00	20	1
200.00	20	1
300.00	20	5
400.00	20	16
500.00	20	18

SPEARMAN-KARBER TRIM: 10.00%

SPEARMAN-KARBER ESTIMATES: LC50: 338.35
95% LOWER CONFIDENCE: 305.64
95% UPPER CONFIDENCE: 374.56

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: 4/9/07

Shipped to: FTE

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150+	4 Day	MSC 1405	25C	~30‰
Menidia beryllina	150+	12 Day	SSC 1043	25°C	~30‰
Cyprinella leedsi	50+	12 Day	CHC 1038	25°C	
Pimephales promelas					

Packed by: Frank Gangi

Shipped Via: FedEx

Notes: _____

Thank you for your order.

Frank Gangi

Appendix D. (continued)

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

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 4/13/07

Shipped to: FSEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	300+	4 Days	MSD 0419	25°C	~30‰
	50+	4 Days	MSD 041915	25°C	
Menidia beryllina	100+	12 Days	SSD 0411	25°C	~30‰
	50+	12 Days	SSD 041115	25°C	
Cyprinella leedsi					
Pimephales promelas					

Packed by: Frank Gary

Shipped Via: FedEx

Notes: _____

Thank you for your order.

Appendix E. Chemical Analyses performed on effluent samples collected from the Broward County North Regional Wastewater Treatment Plant NPDES sampling points EFA-01 (Field ID's: 51-NB-1a, 1b, 1c, and 1d) and PPI-01 (Field ID: 51-NB-1) for Outfall D001, sampled on April 22, 2007.

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 12:10	51-NB- 1b	Field Parameters	Dissolved Oxygen	82.7		%		
4/22/2007 12:10	51-NB- 1b	Field Parameters	Sample Depth	0.003		m		
4/22/2007 12:10	51-NB- 1b	Field Parameters	Specific Conductance	1683		umhos/cm		
4/22/2007 12:10	51-NB- 1b	Field Parameters	Temperature	27.1		C		
4/22/2007 12:10	51-NB- 1b	Field Parameters	pH	7.12				
4/22/2007 11:55	51-NB- 1d	Field Parameters	Sample Depth	0.003		m		
4/22/2007 11:00	51-NB-1	AGP/LN	Algal Growth Potential	567		mg DryWt/L	0.3	0.9
4/22/2007 11:00	51-NB-1	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	4.7	Q	mg/L	0.2	2
4/22/2007 11:00	51-NB-1	Metals	Mercury	0.12	U	ug/L	0.12	0.5
4/22/2007 11:00	51-NB-1	Metals	Aluminum	36		ug/L	4	16
4/22/2007 11:00	51-NB-1	Metals	Calcium	56.7		mg/L	0.02	0.08
4/22/2007 11:00	51-NB-1	Metals	Iron	122		ug/L	5	20
4/22/2007 11:00	51-NB-1	Metals	Magnesium	23.1		mg/L	0.005	0.02
4/22/2007 11:00	51-NB-1	Metals	Zinc	23		ug/L	5	20
4/22/2007 11:00	51-NB-1	Metals	Arsenic	1.8	I	ug/L	0.5	2
4/22/2007 11:00	51-NB-1	Metals	Cadmium	0.1	I	ug/L	0.05	0.2
4/22/2007 11:00	51-NB-1	Metals	Chromium	1	U	ug/L	1	4
4/22/2007 11:00	51-NB-1	Metals	Copper	3.05		ug/L	0.2	0.8
4/22/2007 11:00	51-NB-1	Metals	Lead	1.51		ug/L	0.2	0.8
4/22/2007 11:00	51-NB-1	Metals	Nickel	2.44		ug/L	0.25	1
4/22/2007 11:00	51-NB-1	Metals	Selenium	0.5	U	ug/L	0.5	2
4/22/2007 11:00	51-NB-1	Metals	Silver	0.06	I	ug/L	0.025	0.1
4/22/2007 11:00	51-NB-1	Nutrients	Ammonia-N	28		mg N/L	0.5	1
4/22/2007 11:00	51-NB-1	Nutrients	NO2NO3-N	0.78		mg N/L	0.004	0.01
4/22/2007 11:00	51-NB-1	Nutrients	O-Phosphate-P	2.6	Q	mg P/L	0.08	0.2
4/22/2007 11:00	51-NB-1	Nutrients	Kjeldahl Nitrogen	29		mg N/L	0.8	2
4/22/2007 11:00	51-NB-1	Nutrients	Total-P	2.6		mg P/L	0.2	0.6
4/22/2007 11:00	51-NB-1	Nutrients	TSS	8	I	mg/L	4	16
4/22/2007 11:00	51-NB-1	Field Parameters	Sample Depth	0.304		m		
4/22/2007 11:00	51-NB-1	Field Parameters	Specific Conductance	1787		umhos/cm		
4/22/2007 11:00	51-NB-1	Field Parameters	Total Residual Chlorine	0.83		mg/L		
4/22/2007 23:55	51-NB-1 d	Pesticides	Alachlor	0.63	U	ug/L	0.63	2.5
4/22/2007 23:55	51-NB-1 d	Pesticides	Ametryn	0.053	UJ	ug/L	0.053	0.21
4/22/2007 23:55	51-NB-1 d	Pesticides	Atrazine	0.11	IJ	ug/L	0.053	0.21
4/22/2007 23:55	51-NB-1 d	Pesticides	Azinphos Methyl	0.21	U	ug/L	0.21	0.84
4/22/2007 23:55	51-NB-1 d	Pesticides	Bromacil	0.21	UJ	ug/L	0.21	0.84
4/22/2007 23:55	51-NB-1 d	Pesticides	Butylate	0.21	UJ	ug/L	0.21	0.84
4/22/2007 23:55	51-NB-1 d	Pesticides	Chlorpyrifos Ethyl	0.053	U	ug/L	0.053	0.21
4/22/2007 23:55	51-NB-1 d	Pesticides	Chlorpyrifos Methyl	0.11	U	ug/L	0.11	0.44
4/22/2007 23:55	51-NB-1 d	Pesticides	Diazinon	0.053	U	ug/L	0.053	0.21

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 23:55	51-NB-1 d	Pesticides	Ethion	0.053	U	ug/L	0.053	0.21
4/22/2007 23:55	51-NB-1 d	Pesticides	Ethoprop	0.11	U	ug/L	0.11	0.44
4/22/2007 23:55	51-NB-1 d	Pesticides	Fenamiphos	0.21	U	ug/L	0.21	0.84
4/22/2007 23:55	51-NB-1 d	Pesticides	Fonofos	0.11	U	ug/L	0.11	0.44
4/22/2007 23:55	51-NB-1 d	Pesticides	Hexazinone	0.11	U	ug/L	0.11	0.44
4/22/2007 23:55	51-NB-1 d	Pesticides	Malathion	0.16	U	ug/L	0.16	0.64
4/22/2007 23:55	51-NB-1 d	Pesticides	Metalaxyl	0.26	U	ug/L	0.26	1
4/22/2007 23:55	51-NB-1 d	Pesticides	Metolachlor	0.53	UJ	ug/L	0.53	2.1
4/22/2007 23:55	51-NB-1 d	Pesticides	Metribuzin	0.11	UJ	ug/L	0.11	0.44
4/22/2007 23:55	51-NB-1 d	Pesticides	Mevinphos	0.21	U	ug/L	0.21	0.84
4/22/2007 23:55	51-NB-1 d	Pesticides	Naled	0.84	U	ug/L	0.84	3.4
4/22/2007 23:55	51-NB-1 d	Pesticides	Norflurazon	0.16	U	ug/L	0.16	0.64
4/22/2007 23:55	51-NB-1 d	Pesticides	Parathion Ethyl	0.16	U	ug/L	0.16	0.64
4/22/2007 23:55	51-NB-1 d	Pesticides	Parathion Methyl	0.11	U	ug/L	0.11	0.44
4/22/2007 23:55	51-NB-1 d	Pesticides	Phorate	0.053	U	ug/L	0.053	0.21
4/22/2007 23:55	51-NB-1 d	Pesticides	Prometryn	0.16	U	ug/L	0.16	0.64
4/22/2007 23:55	51-NB-1 d	Pesticides	Simazine	0.053	UJ	ug/L	0.053	0.21
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	1,2-Dichlorobenzene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	1,3-Dichlorobenzene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	1,4-Dichlorobenzene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	44
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2,4-Dinitrophenol	17	U	ug/L	17	67
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3	U	ug/L	3.3	13
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	2-Nitrophenol	1.1	UJ	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	3,3'-Dichlorobenzidine	44	U	ug/L	44	180
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	4,4'-DDD	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	4,4'-DDE	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	4,4'-DDT	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.2	U	ug/L	2.2	8.9
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	4-Nitrophenol	17	U	ug/L	17	67
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.4

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Aldrin	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	440
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.3	U	ug/L	3.3	13
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	17	U	ug/L	17	67
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Butyl benzyl phthalate	5.6	U	ug/L	5.6	22
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Di-n-butyl phthalate	5.6	U	ug/L	5.6	22
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Dieldrin	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Dimethyl phthalate	56	U	ug/L	56	220
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Endosulfan I	4.4	U	ug/L	4.4	18
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Endosulfan II	4.4	U	ug/L	4.4	18
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Endosulfan sulfate	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Endrin	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Endrin aldehyde	4.4	U	ug/L	4.4	18
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Fluoranthene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Heptachlor	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Heptachlor epoxide	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Hexachlorobutadiene	3.3	U	ug/L	3.3	13
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.3	UJ	ug/L	3.3	13
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Hexachloroethane	3.3	U	ug/L	3.3	13
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.2	U	ug/L	2.2	8.9
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2	U	ug/L	2.2	8.9
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.3	U	ug/L	3.3	13
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Nitrobenzene	2.2	U	ug/L	2.2	8.9
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Pentachlorophenol	3.3	U	ug/L	3.3	13

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.4
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	alpha-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	beta-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	delta-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 23:55	51-NB-1 d	Priority Organic Pollutants	gamma-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 6:20	51-NB-1a	Pesticides	Alachlor	0.65	U	ug/L	0.65	2.6
4/22/2007 6:20	51-NB-1a	Pesticides	Ametryn	0.054	UJ	ug/L	0.054	0.22
4/22/2007 6:20	51-NB-1a	Pesticides	Atrazine	0.14	IJ	ug/L	0.054	0.22
4/22/2007 6:20	51-NB-1a	Pesticides	Azinphos Methyl	0.22	U	ug/L	0.22	0.88
4/22/2007 6:20	51-NB-1a	Pesticides	Bromacil	0.22	UJ	ug/L	0.22	0.88
4/22/2007 6:20	51-NB-1a	Pesticides	Butylate	0.22	UJ	ug/L	0.22	0.88
4/22/2007 6:20	51-NB-1a	Pesticides	Chlorpyrifos Ethyl	0.054	U	ug/L	0.054	0.22
4/22/2007 6:20	51-NB-1a	Pesticides	Chlorpyrifos Methyl	0.11	U	ug/L	0.11	0.44
4/22/2007 6:20	51-NB-1a	Pesticides	Diazinon	0.054	U	ug/L	0.054	0.22
4/22/2007 6:20	51-NB-1a	Pesticides	Ethion	0.054	U	ug/L	0.054	0.22
4/22/2007 6:20	51-NB-1a	Pesticides	Ethoprop	0.11	U	ug/L	0.11	0.44
4/22/2007 6:20	51-NB-1a	Pesticides	Fenamiphos	0.22	U	ug/L	0.22	0.88
4/22/2007 6:20	51-NB-1a	Pesticides	Fonofos	0.11	U	ug/L	0.11	0.44
4/22/2007 6:20	51-NB-1a	Pesticides	Hexazinone	0.11	U	ug/L	0.11	0.44
4/22/2007 6:20	51-NB-1a	Pesticides	Malathion	0.16	U	ug/L	0.16	0.64
4/22/2007 6:20	51-NB-1a	Pesticides	Metalaxyl	0.27	U	ug/L	0.27	1.1
4/22/2007 6:20	51-NB-1a	Pesticides	Metolachlor	0.54	UJ	ug/L	0.54	2.2
4/22/2007 6:20	51-NB-1a	Pesticides	Metribuzin	0.11	UJ	ug/L	0.11	0.44
4/22/2007 6:20	51-NB-1a	Pesticides	Mevinphos	0.22	U	ug/L	0.22	0.88
4/22/2007 6:20	51-NB-1a	Pesticides	Naled	0.87	U	ug/L	0.87	3.5
4/22/2007 6:20	51-NB-1a	Pesticides	Norflurazon	0.16	U	ug/L	0.16	0.64
4/22/2007 6:20	51-NB-1a	Pesticides	Parathion Ethyl	0.16	U	ug/L	0.16	0.64
4/22/2007 6:20	51-NB-1a	Pesticides	Parathion Methyl	0.11	U	ug/L	0.11	0.44
4/22/2007 6:20	51-NB-1a	Pesticides	Phorate	0.054	U	ug/L	0.054	0.22
4/22/2007 6:20	51-NB-1a	Pesticides	Prometryn	0.16	U	ug/L	0.16	0.64
4/22/2007 6:20	51-NB-1a	Pesticides	Simazine	0.054	UJ	ug/L	0.054	0.22
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	1,2-Dichlorobenzene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	1,3-Dichlorobenzene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	1,4-Dichlorobenzene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	43
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2,4-Dinitrophenol	16	U	ug/L	16	65

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3	U	ug/L	3.3	13
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	2-Nitrophenol	1.1	UJ	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	3,3'-Dichlorobenzidine	43	U	ug/L	43	170
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	4,4'-DDD	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	4,4'-DDE	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	4,4'-DDT	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.2	U	ug/L	2.2	8.7
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	4-Nitrophenol	16	U	ug/L	16	65
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Aldrin	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	430
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.3	U	ug/L	3.3	13
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	16	U	ug/L	16	65
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Butyl benzyl phthalate	5.4	U	ug/L	5.4	22
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Di-n-butyl phthalate	5.4	U	ug/L	5.4	22
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Dieldrin	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Dimethyl phthalate	54	U	ug/L	54	220
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Endosulfan I	4.3	U	ug/L	4.3	17
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Endosulfan II	4.3	U	ug/L	4.3	17
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Endosulfan sulfate	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Endrin	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Endrin aldehyde	4.3	U	ug/L	4.3	17

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Fluoranthene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Heptachlor	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Heptachlor epoxide	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Hexachlorobutadiene	3.3	U	ug/L	3.3	13
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.3	UJ	ug/L	3.3	13
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Hexachloroethane	3.3	U	ug/L	3.3	13
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.2	U	ug/L	2.2	8.7
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2	U	ug/L	2.2	8.7
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.3	U	ug/L	3.3	13
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Nitrobenzene	2.2	U	ug/L	2.2	8.7
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Pentachlorophenol	3.3	U	ug/L	3.3	13
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.3
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	alpha-BHC	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	beta-BHC	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	delta-BHC	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Priority Organic Pollutants	gamma-BHC	1.6	U	ug/L	1.6	6.5
4/22/2007 6:20	51-NB-1a	Field Parameters	Dissolved Oxygen	58.3		%		
4/22/2007 6:20	51-NB-1a	Field Parameters	Sample Depth	0.003		m		
4/22/2007 6:20	51-NB-1a	Field Parameters	Specific Conductance	1711		umhos/cm		
4/22/2007 6:20	51-NB-1a	Field Parameters	Temperature	24.68		C		
4/22/2007 6:20	51-NB-1a	Field Parameters	pH	6.82				
4/22/2007 10:05	51-NB-2	Metals	Mercury	0.12	U	ug/L	0.12	0.5
4/22/2007 10:05	51-NB-2	Metals	Aluminum	4	U	ug/L	4	16
4/22/2007 10:05	51-NB-2	Metals	Calcium	0.02	U	mg/L	0.02	0.08
4/22/2007 10:05	51-NB-2	Metals	Iron	5	U	ug/L	5	20
4/22/2007 10:05	51-NB-2	Metals	Magnesium	0.005	U	mg/L	0.005	0.02
4/22/2007 10:05	51-NB-2	Metals	Zinc	5	U	ug/L	5	20
4/22/2007 10:05	51-NB-2	Metals	Arsenic	0.5	U	ug/L	0.5	2
4/22/2007 10:05	51-NB-2	Metals	Cadmium	0.05	U	ug/L	0.05	0.2
4/22/2007 10:05	51-NB-2	Metals	Chromium	1	U	ug/L	1	4
4/22/2007 10:05	51-NB-2	Metals	Copper	0.2	U	ug/L	0.2	0.8
4/22/2007 10:05	51-NB-2	Metals	Lead	0.2	U	ug/L	0.2	0.8
4/22/2007 10:05	51-NB-2	Metals	Nickel	0.25	U	ug/L	0.25	1
4/22/2007 10:05	51-NB-2	Metals	Selenium	0.5	U	ug/L	0.5	2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 10:05	51-NB-2	Metals	Silver	0.025	U	ug/L	0.025	0.1
4/22/2007 10:05	51-NB-2	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
4/22/2007 10:05	51-NB-2	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
4/22/2007 10:05	51-NB-2	Nutrients	O-Phosphate-P	0.004	UQ	mg P/L	0.004	0.01
4/22/2007 10:05	51-NB-2	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
4/22/2007 10:05	51-NB-2	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
4/22/2007 10:05	51-NB-2	Pesticides	Alachlor	0.59	U	ug/L	0.59	2.4
4/22/2007 10:05	51-NB-2	Pesticides	Ametryn	0.049	UJ	ug/L	0.049	0.2
4/22/2007 10:05	51-NB-2	Pesticides	Atrazine	0.049	UJ	ug/L	0.049	0.2
4/22/2007 10:05	51-NB-2	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
4/22/2007 10:05	51-NB-2	Pesticides	Bromacil	0.2	UJ	ug/L	0.2	0.8
4/22/2007 10:05	51-NB-2	Pesticides	Butylate	0.2	UJ	ug/L	0.2	0.8
4/22/2007 10:05	51-NB-2	Pesticides	Chlorpyrifos Ethyl	0.049	U	ug/L	0.049	0.2
4/22/2007 10:05	51-NB-2	Pesticides	Chlorpyrifos Methyl	0.098	U	ug/L	0.098	0.39
4/22/2007 10:05	51-NB-2	Pesticides	Diazinon	0.049	U	ug/L	0.049	0.2
4/22/2007 10:05	51-NB-2	Pesticides	Ethion	0.049	U	ug/L	0.049	0.2
4/22/2007 10:05	51-NB-2	Pesticides	Ethoprop	0.098	U	ug/L	0.098	0.39
4/22/2007 10:05	51-NB-2	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
4/22/2007 10:05	51-NB-2	Pesticides	Fonofos	0.098	U	ug/L	0.098	0.39
4/22/2007 10:05	51-NB-2	Pesticides	Hexazinone	0.098	U	ug/L	0.098	0.39
4/22/2007 10:05	51-NB-2	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
4/22/2007 10:05	51-NB-2	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
4/22/2007 10:05	51-NB-2	Pesticides	Metolachlor	0.49	UJ	ug/L	0.49	2
4/22/2007 10:05	51-NB-2	Pesticides	Metribuzin	0.098	UJ	ug/L	0.098	0.39
4/22/2007 10:05	51-NB-2	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
4/22/2007 10:05	51-NB-2	Pesticides	Naled	0.78	U	ug/L	0.78	3.1
4/22/2007 10:05	51-NB-2	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
4/22/2007 10:05	51-NB-2	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
4/22/2007 10:05	51-NB-2	Pesticides	Parathion Methyl	0.098	U	ug/L	0.098	0.39
4/22/2007 10:05	51-NB-2	Pesticides	Phorate	0.049	U	ug/L	0.049	0.2
4/22/2007 10:05	51-NB-2	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
4/22/2007 10:05	51-NB-2	Pesticides	Simazine	0.049	UJ	ug/L	0.049	0.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	1,2-Dichlorobenzene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	1,3-Dichlorobenzene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	1,4-Dichlorobenzene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	42
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2,4-Dinitrophenol	16	U	ug/L	16	63
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.2	U	ug/L	3.2	13
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	2-Nitrophenol	1.1	UJ	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	3,3'-Dichlorobenzidine	42	U	ug/L	42	170
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	4,4'-DDD	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	4,4'-DDE	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	4,4'-DDT	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.1	U	ug/L	2.1	8.4
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	4-Nitrophenol	16	U	ug/L	16	63
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Aldrin	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	420
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.2	U	ug/L	3.2	13
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	20	I	ug/L	16	63
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Butyl benzyl phthalate	5.3	U	ug/L	5.3	21
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Di-n-butyl phthalate	5.3	U	ug/L	5.3	21
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Dieldrin	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Dimethyl phthalate	53	U	ug/L	53	210
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Endosulfan I	4.2	U	ug/L	4.2	17
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Endosulfan II	4.2	U	ug/L	4.2	17
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Endosulfan sulfate	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Endrin	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Endrin aldehyde	4.2	U	ug/L	4.2	17
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Fluoranthene	1.1	U	ug/L	1.1	4.2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Heptachlor	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Heptachlor epoxide	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Hexachlorobutadiene	3.2	U	ug/L	3.2	13
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.2	UJ	ug/L	3.2	13
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Hexachloroethane	3.2	U	ug/L	3.2	13
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.1	U	ug/L	2.1	8.4
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1	U	ug/L	2.1	8.4
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.2	U	ug/L	3.2	13
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Nitrobenzene	2.1	U	ug/L	2.1	8.4
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Pentachlorophenol	3.2	U	ug/L	3.2	13
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.2
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	alpha-BHC	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	beta-BHC	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	delta-BHC	1.6	U	ug/L	1.6	6.3
4/22/2007 10:05	51-NB-2	Priority Organic Pollutants	gamma-BHC	1.6	U	ug/L	1.6	6.3
4/22/2007 18:00	51-nb-1 c	Pesticides	Alachlor	0.64	U	ug/L	0.64	2.6
4/22/2007 18:00	51-nb-1 c	Pesticides	Ametryn	0.053	UJ	ug/L	0.053	0.21
4/22/2007 18:00	51-nb-1 c	Pesticides	Atrazine	0.12	IJ	ug/L	0.053	0.21
4/22/2007 18:00	51-nb-1 c	Pesticides	Azinphos Methyl	0.21	U	ug/L	0.21	0.84
4/22/2007 18:00	51-nb-1 c	Pesticides	Bromacil	0.21	UJ	ug/L	0.21	0.84
4/22/2007 18:00	51-nb-1 c	Pesticides	Butylate	0.21	UJ	ug/L	0.21	0.84
4/22/2007 18:00	51-nb-1 c	Pesticides	Chlorpyrifos Ethyl	0.053	U	ug/L	0.053	0.21
4/22/2007 18:00	51-nb-1 c	Pesticides	Chlorpyrifos Methyl	0.11	U	ug/L	0.11	0.44
4/22/2007 18:00	51-nb-1 c	Pesticides	Diazinon	0.053	U	ug/L	0.053	0.21
4/22/2007 18:00	51-nb-1 c	Pesticides	Ethion	0.053	U	ug/L	0.053	0.21
4/22/2007 18:00	51-nb-1 c	Pesticides	Ethoprop	0.11	U	ug/L	0.11	0.44
4/22/2007 18:00	51-nb-1 c	Pesticides	Fenamiphos	0.21	U	ug/L	0.21	0.84
4/22/2007 18:00	51-nb-1 c	Pesticides	Fonofos	0.11	U	ug/L	0.11	0.44
4/22/2007 18:00	51-nb-1 c	Pesticides	Hexazinone	0.11	U	ug/L	0.11	0.44
4/22/2007 18:00	51-nb-1 c	Pesticides	Malathion	0.16	U	ug/L	0.16	0.64
4/22/2007 18:00	51-nb-1 c	Pesticides	Metalaxyl	0.27	U	ug/L	0.27	1.1
4/22/2007 18:00	51-nb-1 c	Pesticides	Metolachlor	0.53	UJ	ug/L	0.53	2.1
4/22/2007 18:00	51-nb-1 c	Pesticides	Metribuzin	0.11	UJ	ug/L	0.11	0.44
4/22/2007 18:00	51-nb-1 c	Pesticides	Mevinphos	0.21	U	ug/L	0.21	0.84

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 18:00	51-nb-1 c	Pesticides	Naled	0.85	U	ug/L	0.85	3.4
4/22/2007 18:00	51-nb-1 c	Pesticides	Norflurazon	0.16	U	ug/L	0.16	0.64
4/22/2007 18:00	51-nb-1 c	Pesticides	Parathion Ethyl	0.16	U	ug/L	0.16	0.64
4/22/2007 18:00	51-nb-1 c	Pesticides	Parathion Methyl	0.11	U	ug/L	0.11	0.44
4/22/2007 18:00	51-nb-1 c	Pesticides	Phorate	0.053	U	ug/L	0.053	0.21
4/22/2007 18:00	51-nb-1 c	Pesticides	Prometryn	0.16	U	ug/L	0.16	0.64
4/22/2007 18:00	51-nb-1 c	Pesticides	Simazine	0.053	UJ	ug/L	0.053	0.21
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	1,2-Dichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	1,3-Dichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	1,4-Dichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	45
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2,4-Dinitrophenol	17	U	ug/L	17	68
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.4	U	ug/L	3.4	14
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	2-Nitrophenol	1.1	UJ	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	3,3'-Dichlorobenzidine	45	U	ug/L	45	180
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	4,4'-DDD	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	4,4'-DDE	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	4,4'-DDT	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.3	U	ug/L	2.3	9.1
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	4-Nitrophenol	17	U	ug/L	17	68
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Aldrin	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	450
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.5

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.4	U	ug/L	3.4	14
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	17	U	ug/L	17	68
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Butyl benzyl phthalate	5.7	U	ug/L	5.7	23
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Di-n-butyl phthalate	5.7	U	ug/L	5.7	23
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Dieldrin	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Dimethyl phthalate	57	U	ug/L	57	230
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Endosulfan I	4.5	U	ug/L	4.5	18
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Endosulfan II	4.5	U	ug/L	4.5	18
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Endosulfan sulfate	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Endrin	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Endrin aldehyde	4.5	U	ug/L	4.5	18
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Fluoranthene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Heptachlor	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Heptachlor epoxide	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Hexachlorobutadiene	3.4	U	ug/L	3.4	14
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.4	UJ	ug/L	3.4	14
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Hexachloroethane	3.4	U	ug/L	3.4	14
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.3	U	ug/L	2.3	9.1
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	N-Nitrosodimethylamine	2.3	U	ug/L	2.3	9.1
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.4	U	ug/L	3.4	14
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Nitrobenzene	2.3	U	ug/L	2.3	9.1
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Pentachlorophenol	3.4	U	ug/L	3.4	14
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.5
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	alpha-BHC	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	beta-BHC	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	delta-BHC	1.7	U	ug/L	1.7	6.8
4/22/2007 18:00	51-nb-1 c	Priority Organic Pollutants	gamma-BHC	1.7	U	ug/L	1.7	6.8
4/22/2007 12:10	51-nb-1b	Pesticides	Alachlor	0.61	U	ug/L	0.61	2.4
4/22/2007 12:10	51-nb-1b	Pesticides	Ametryn	0.051	UJ	ug/L	0.051	0.2
4/22/2007 12:10	51-nb-1b	Pesticides	Atrazine	0.11	UJ	ug/L	0.11	0.43

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 12:10	51-nb-1b	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
4/22/2007 12:10	51-nb-1b	Pesticides	Bromacil	0.2	UJ	ug/L	0.2	0.8
4/22/2007 12:10	51-nb-1b	Pesticides	Butylate	0.2	UJ	ug/L	0.2	0.8
4/22/2007 12:10	51-nb-1b	Pesticides	Chlorpyrifos Ethyl	0.051	U	ug/L	0.051	0.2
4/22/2007 12:10	51-nb-1b	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
4/22/2007 12:10	51-nb-1b	Pesticides	Diazinon	0.051	U	ug/L	0.051	0.2
4/22/2007 12:10	51-nb-1b	Pesticides	Ethion	0.051	U	ug/L	0.051	0.2
4/22/2007 12:10	51-nb-1b	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
4/22/2007 12:10	51-nb-1b	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
4/22/2007 12:10	51-nb-1b	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
4/22/2007 12:10	51-nb-1b	Pesticides	Hexazinone	0.1	U	ug/L	0.1	0.4
4/22/2007 12:10	51-nb-1b	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
4/22/2007 12:10	51-nb-1b	Pesticides	Metalaxyl	0.26	U	ug/L	0.26	1
4/22/2007 12:10	51-nb-1b	Pesticides	Metolachlor	0.51	UJ	ug/L	0.51	2
4/22/2007 12:10	51-nb-1b	Pesticides	Metribuzin	0.1	UJ	ug/L	0.1	0.4
4/22/2007 12:10	51-nb-1b	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
4/22/2007 12:10	51-nb-1b	Pesticides	Naled	0.82	U	ug/L	0.82	3.3
4/22/2007 12:10	51-nb-1b	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
4/22/2007 12:10	51-nb-1b	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
4/22/2007 12:10	51-nb-1b	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
4/22/2007 12:10	51-nb-1b	Pesticides	Phorate	0.051	U	ug/L	0.051	0.2
4/22/2007 12:10	51-nb-1b	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
4/22/2007 12:10	51-nb-1b	Pesticides	Simazine	0.051	UJ	ug/L	0.051	0.2
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	1,2-Dichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	1,3-Dichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	1,4-Dichlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	45
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2,4-Dinitrophenol	17	U	ug/L	17	67
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.4	U	ug/L	3.4	13
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	2-Nitrophenol	1.1	UJ	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	3,3'-Dichlorobenzidine	45	U	ug/L	45	180
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	4,4'-DDD	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	4,4'-DDE	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	4,4'-DDT	1.7	U	ug/L	1.7	6.7

Appendix E. (continued)

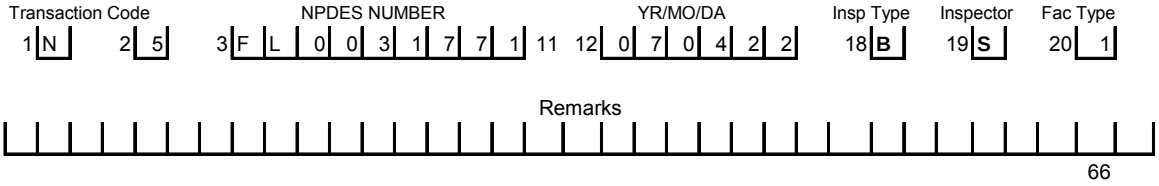
Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.2	U	ug/L	2.2	9
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	4-Nitrophenol	17	U	ug/L	17	67
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Aldrin	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	450
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.4	U	ug/L	3.4	13
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	17	U	ug/L	17	67
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Butyl benzyl phthalate	5.6	U	ug/L	5.6	22
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Di-n-butyl phthalate	5.6	U	ug/L	5.6	22
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Dieldrin	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Dimethyl phthalate	56	U	ug/L	56	220
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Endosulfan I	4.5	U	ug/L	4.5	18
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Endosulfan II	4.5	U	ug/L	4.5	18
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Endosulfan sulfate	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Endrin	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Endrin aldehyde	4.5	U	ug/L	4.5	18
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Fluoranthene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Heptachlor	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Heptachlor epoxide	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Hexachlorobutadiene	3.4	U	ug/L	3.4	13
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.4	UJ	ug/L	3.4	13
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Hexachloroethane	3.4	U	ug/L	3.4	13
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.5

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	Units	MDL	PQL
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.2	U	ug/L	2.2	9
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2	U	ug/L	2.2	9
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.4	U	ug/L	3.4	13
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Nitrobenzene	2.2	U	ug/L	2.2	9
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Pentachlorophenol	3.4	U	ug/L	3.4	13
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.5
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	alpha-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	beta-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	delta-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Priority Organic Pollutants	gamma-BHC	1.7	U	ug/L	1.7	6.7
4/22/2007 12:10	51-nb-1b	Field Parameters	Dissolved Oxygen	82.7		%		
4/22/2007 12:10	51-nb-1b	Field Parameters	Sample Depth	0.003		m		
4/22/2007 12:10	51-nb-1b	Field Parameters	Specific Conductance	1683		umhos/cm		
4/22/2007 12:10	51-nb-1b	Field Parameters	Temperature	27.1		C		
4/22/2007 12:10	51-nb-1b	Field Parameters	pH	7.12				

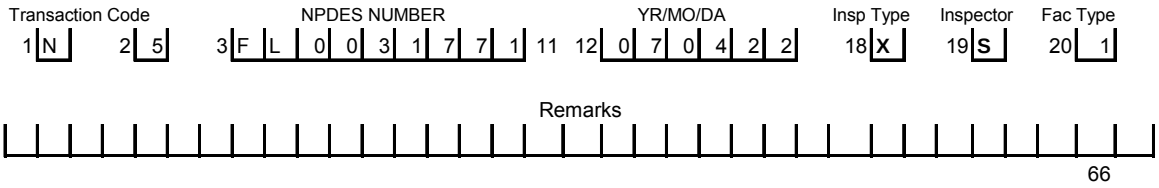
The Bioassay of Broward County North Regional Wastewater Treatment Plant effluent sampled on April 22, 2007. NPDES #FL0031771.

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



The Priority Pollutants Analysis of Broward County North Regional Wastewater Treatment Plant effluent sampled on April 22, 2007. NPDES #FL0031771.

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



Biological Analyses of broward County North Regional Wastewater Treatment Plant effluent sampled on April 22, 2007. NPDES #FL0031771.

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

