

Bioassays of

Former Sprague Electronics
NPDES Ground Water Remediation

Seminole County

NPDES #FL0171565

Sampled April 24, 2006

July 2006

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Former Sprague Electronics NPDES Ground Water Remediation, 1221 North U.S. Highway 17-92 , Longwood, Seminole County, Florida, NPDES #FL0171565. Effluent samples for this facility were collected on April 24, 2006.

Introduction

The Former Sprague Electronics NPDES Ground Water Remediation facility, consisting of a long-term pump and treat system, is used to clean up an existing ground water contamination site. The facility has a design flow of 0.028 million gallons per day (MGD). The monthly average daily flow from March 2005 through February 2006 was 0.0125 MGD. The flow during the survey was 0.01 MGD. The remediation system consists of air stripping and filtration. Effluent receives no additional treatment prior to discharge through Outfall D-001 into an unnamed swale. The effluent flows approximately 0.8 km (0.5 miles) through the swale and then flows into the Class III freshwaters of Soldier Creek, thence into the Class III freshwaters of Lake Jessup. Outfall D-001 is located approximately at latitude 28º 42' 59.18" N and longitude 81º 19' 15.62" W.

The facility has no Administrative Orders (AO) or Consent Orders (CO). The facility has no mixing zones. The facility has not had any permit violations or plant upsets within the past year. (Facility information provided by Michael Eckoff of FDEP Central District).

Methods

Samples were collected from the EFF-01 NPDES sampling point for Outfall D-001 by Steve Kent and Michael Eckoff (FDEP Central District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOP's are available on the web at: http://www.floridadep.org/labs/qa/sops.htm.

See Appendix 1 for the completed chain of custody form.

The acute screen toxicity tests and algal growth potential test were performed following internal DEP SOP's TA07_01, TA07_02, and TA08_01 through TA08_09. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp. While the 48-hour acute screening toxicity test does not reflect the permit required conditions, the Department uses it to provide reasonable assurance that the facility does not adversely affect waters of the state.

Toxicity Test Results

Tests were performed April 25 - 27, 2006.

Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} > 100%, no mortality* in 100% sample at 48 hours
Cyprinella leedsi 48-hour acute screening bioassay –	LC_{50} > 100%, 10% mortality* in 100% sample at 48 hours

The bioassay sample was not acutely toxic to the *Ceriodaphnia dubia* and *Cyprinella leedsi* test organisms during the 48-hour test period.

See Appendix 2 for bioassay bench sheets. See Appendix 3 for results of the last 20 standard reference toxicant (SRT) tests and bench sheets and statistical analyses of the SRT tests** that correspond to these facility tests. See Appendix 4 for test organism receipts.

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of < 20% provides reasonable assurance that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Rule 62-302.500 (1)(a)4, F.A.C.). Mortality between 20-50% indicates low to moderate levels of toxicity,

and further action may be required. Mortality of > 50% provides reasonable assurance that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3)(a), F.A.C.).

** The SRTs for these tests were initiated 35 days prior to the environmental test, rather than within the required 30 days, due to lab error. The subsequent SRTs were performed 7 days after the environmental test. The preceding and subsequent SRTs were valid tests and results were within expected ranges.

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 0.379 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. This value is between the laboratory method detection limit (MDL) and practical quantitation limit (PQL). Raschke and Shultz (1987) found that AGP values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The analytical chemistry suggests that the effluent is nitrogen-limited. The predicted AGP based on inorganic nitrogen concentrations was 49.4 (±20%) mg dry wt/L (Table 1; Miller et al. 1978). Differences between actual and predicted AGP values greater than an order of magnitude are considered sufficient evidence to warrant follow up testing with the algal growth inhibition bioassay. True algal growth inhibition can only be determined by performing an actual algal growth inhibition test. The effluent concentration of the herbicide bromacil (11 µg/L) was greater than values reported to reduce growth of *Pseudokirchneriella subcapitata* and other species of green algae (USEPA ECOTOX 2006).

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine and total ammonia were not detected in the bioassay sample in the laboratory. Total ammonia was also not detected in the sample collected and preserved for chemical analysis.

Copper and selenium were detected in the effluent at levels that comply with Class III fresh water quality criteria. Iron, lead, and zinc were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL). There is no specific water quality criterion for the herbicide bromacil; however, it was detected in the effluent at a concentration known to be toxic to some species of algae, and therefore violates minimum surface water quality criteria (62-302.500(1), F.A.C.).

See Table 2 for results of analytes detected in the effluent, and corresponding limits. See Appendix 5 for a complete list of chemical analyses performed.

Conclusion

The effluent sample collected from Outfall D-001 for this facility on April 24, 2006, was not acutely toxic to either test species during the 48-hour acute screen bioassays. The effluent AGP result suggested inhibition which is attributed at least in part to the effluent bromacil concentration, which exceeded applicable water quality criteria.

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) of the freshwater species Pseudokirchneriella subcapitata *for total soluble nitrogen (TSIN) and total nitrogen (TN) limitation and ratios of nitrogen to phosphorus for samples collected from Former Sprague Electronics NPDES Groundwater Remediation on April 24, 2006.*

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	0.379 I	49.4 ± 9.88	49.4 ± 9.88	2.95	2.5

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

Table 2. Effluent limits, Class III Freshwater Criteria and chemical data for samples collected from Former Sprague Electronics NPDES Ground Water Remediation on April 24, 2006.

Former Sprague Electronics NPDES Ground Water Remediation NPDES# FL0171565	Class III Freshwater Stds	Effluent Limits	Effluent Samples
Organic Constituents (µg/L)			
1,1-dichloroethylene	-	≤ 3.2 a	-
Bromacil	-	-	11
Tetrachloroethylene	≤ 8.85 a	≤ 8.85 a	-
Trichloroethylene	80.7 a	80.7 a	-
Metals (µg/L unless otherwise noted)			
Aluminum	-	-	5 U
Arsenic	≤ 50	-	0.5 U
Cadmium	≤ 0.5 b	-	0.05 U
Calcium (mg/L)	-	-	9.1
Chromium-III	≤ 34.8 b	-	2 U
Copper	≤ 3.6 b	-	1.15
Iron	≤ 1,000	≤ 1,000	13 I
Lead	≤ 0.8 b	≤ 0.8 b	0.17 I
Magnesium (mg/L)	-	-	2.5
Nickel	≤ 20.4 b	-	1 U
Selenium	≤ 5	-	2.8
Silver	≤ 0.07	-	0.025 U
Zinc	≤ 46.9 b	-	3.8 I
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.44
Total Phosphorus	-	-	0.52 A
Ammonia	-	-	0.01 U
Unionized Ammonia	≤ 0.02	-	≤ 0.02 c
Nitrate+Nitrite	-	-	1.3
Total Kjeldahl Nitrogen	-	-	0.08 U
Organic Nitrogen	-	-	0 c
Total Nitrogen	-	-	1.3 c
General Physical and Chemical Parameters			
Dissolved Oxygen (mg/L)	≥ 5	≥ 5	5.9
pH (S.U.)	6-8.5	5-8.5	7.6
Conductivity (µmhos/cm)	≤ 1,275	-	97.7*
Temperature (C)	-	-	24.6
Chlorophyll a (µg/L)	-	-	0.85 U
Phaeophytin a (µg/L)	-	-	1.5 U
Flow (MGD)	-	≤ 0.10 d	0.0125 a
Alkalinity	≥ 20	-	24
Hardness (mg/L)	-	-	33 c

Value exceeds the Class III Fresh Water Quality Criteria (62-302, F.A.C.) and/or Effluent Limits

a - Annual average

b - Value is calculated based on hardness

c - Calculated value

d - Daily maximum

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

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

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

* - Measured in bioassay sample at time of receipt in lab

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2006-04-24-15
Former Sprague Electronics

Requester: Shannan Bogdanov
Field Report Prepared By: KENT

Customer: CEN-DIST
Collected By: KENT, ECKOFF
Send Final Report To Phil Kane

Project ID: FYI3
Sampling Agency: FDEP CENTRAL DISTRICT

PMAS: 1163

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
—	FORMER SPRAGUE ELECTRONICS 1221 N. HWY. 17-92 LONGWOOD, FL.	☐ Comp ☑ Grab	09:30 4/24/06	~~PK~~	A 16
	Field ID: SPRAG	Tot Res Chlorine (mg/L): N/A	Diss Oxygen (mg/L): 5.9	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): EFFLUENT; Temp (C): 24.6; pH: 7.62	Sample Depth ☐ m ☐ ft: SURFACE	☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm): 0.00	NPDES Number: FL0171565	
	Latitude o ' " . Longitude o ' " .	Comments: TOXICITY GRAB SAMPLE			

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	FORMER SPRAGUE ELECTRONICS 1221 N. HWY 17-92 LONGWOOD, FL.	☐ Comp ☑ Grab	4/24/06 1030	~~PK~~	B E
	Field ID: SPRAG	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L):	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): BLANK; Temp (C): ; pH:	Sample Depth ☐ m ☐ ft: N/A	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm):	NPDES Number: FL0171565	
	Latitude o ' " . Longitude o ' " .	Comments:			

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

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
		☐ Comp ☐ Grab			
	Field ID	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L):	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): ; Temp (C): ; pH:	Sample Depth ☐ m ☐ ft:	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm):	NPDES Number:	
	Latitude o ' " . Longitude o ' " .	Comments: 10:55 4.25.06 1 biology James Daniels DD.			

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
KENT	4/24/06	DHL					SK	4-25-06 / 9:15 am

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

FDEP Biology Section - Acute Screen Bioassay Bench Sheets

Facility: Former Sprague Electronics NPDES Ground Water Remediation
Address: 1221 North US Highway 17-92
City: Longwood County: Seminole
Contact/District: Steve Kent / Central District
NPDES Permit #: FL 0171565
LIMS Job #: TLH-2006-04-25-21 LIMS Sample #: 917620
Lims Data Entry: 4-27-06 SP Data Entry Verification: MF 4.27.06 MF

Sample Collection: Date: 4-24-06 Time: 0930
Hold Time Start: Date: 4-24-06 Time: 0930

Comments:

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_01
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2 validation: Test 2: SOP TA 07_02
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C (Yes) No

Initial sample handling:
pH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops ml. Final pH: ____
Aeration : yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____bubbles/min
Salinity adjusted (Test 1): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Salinity adjusted (Test 2): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Temperature Range °C
Incubator # 2 Range 23.3-26.0
Room D241: 24.0-25.0
Waterbath: N/A

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
Sarah Pritchard
Erin Kipp
Brad Autrey
Amy Crum
Jason Deal
Marshall Faircloth
Nicole Wellendorf
REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L)	N/A	N/A	N/A	N/A		not measured	—	SP	
Lab Total Residual Cl2 (mg/L)	<0.03	<0.03				<0.03	HACH	EW	SP
Alkalinity (mg/L as $CaCO_3$)	68	146				33	HACH	SA/SP	EW
Hardness (mg/L as $CaCO_3$)	89	139				35	HACH	SA/SP	EW
Total Ammonia (mg/L as N)	<0.017	<0.017				<0.017	DENVER	MF	SP
Salinity (ppth)	<1	<1				<1	YSI / Metller	SP/EA	EW

V 1.4 9/12/05

Appendix 2. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 917620 | Test #: 1 | Test Started: Date 4-25-06 Time: 1200
Organism: C. dubia | SOP #: TA 07_ 01 | Test Ended: Date 4-27-06 Time: 11:41
Organism Batch: 19-06 | Diluent/ Batch: DMW / 11-06
Organism Age: <24 hrs | Food: YCT *P. subcapitata* *Artemia*
Chamber Size: 30 mL | Batch: 5-06 1-06 -
Test Volume: 20 mL | 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	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
100%	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Organisms loaded by: J.D.		Checked by:	[redacted]	BA	BA			

Loading Verified by: SBA

m = missing d = dead BR = before renewal AR = after renewal

Comments:

Test Results:
% mortality in 100% sample: Ø
LC_{50}: >100 If Calculated: 95% CI_____ Method:_____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix 2. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 917620
Test #: 2
Test Started: Date 4-26-06 Time: 1145
Organism: C. leedsi
SOP #: TA 07_ 02
Test Ended: Date 4-27-06 Time: 12:00
Organism Batch: B-06
Diluent/ Batch: Well H2O, 4-24-06
Organism Age: 11 days
Food: YCT — ; *P. subcapitata* — ; *Artemia* GSL-536-90
Chamber Size: 1000 mL
Batch: – – GSL-536-90
Test Volume: 500 mL
Feeding: (Prior to test) Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	(A) 24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	C1	5	~~3 2D~~ 5 3A	5			
	B	C2	5	4 1D	4			
	C	C3	5	5	5			
	D	C4	5	5	5			
100%	A	C5	5	3 2D	3			
	B	C6	5	5	5			
	C	C7	5	5	5			
	D	C8	5	5	5			
Organisms loaded by: JR		Checked by:	[redacted]	BA	BA			

Loading Verified by: SP

m = missing d = dead BR = before renewal AR = after renewal

Comments: (A) 100% A count put in ctrl A spot BA

Test Results:
% mortality in 100% sample: 10%
LC_{50}: >100 If Calculated: 95% CI________ Method:________

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 917620 Test #: 1 of 2

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

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		B			
pH (S.U.)	8.2		8.2			
Temperature °C	24.3		24.1			
Dissolved Oxygen mg/L	7.5		7.7			
Conductivity (µmhos) mmhos	178.2		244			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		B			
pH (S.U.)	7.8		7.7			
Temperature °C	24.9		24.0			
Dissolved Oxygen mg/L	7.8		7.8			
Conductivity (µmhos) mmhos	103.7		131			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

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

Comments:

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

Comments:

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 917620 Test #: 2 of 2

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

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.8	8.2	8.3			
Temperature °C	25.1	24.3	24.5			
Dissolved Oxygen mg/L	7.5	7.5	7.2			
Conductivity (µmhos) mmhos	256	283	281			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	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			
pH (S.U.)	7.9	7.7	7.6			
Temperature °C	25.1	24.2	24.5			
Dissolved Oxygen mg/L	7.7	7.4	7.2			
Conductivity (µmhos) mmhos	106.4	122.2	122.6			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	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:

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Appendix 3. SRT Bench Sheets and Statistical Analysis

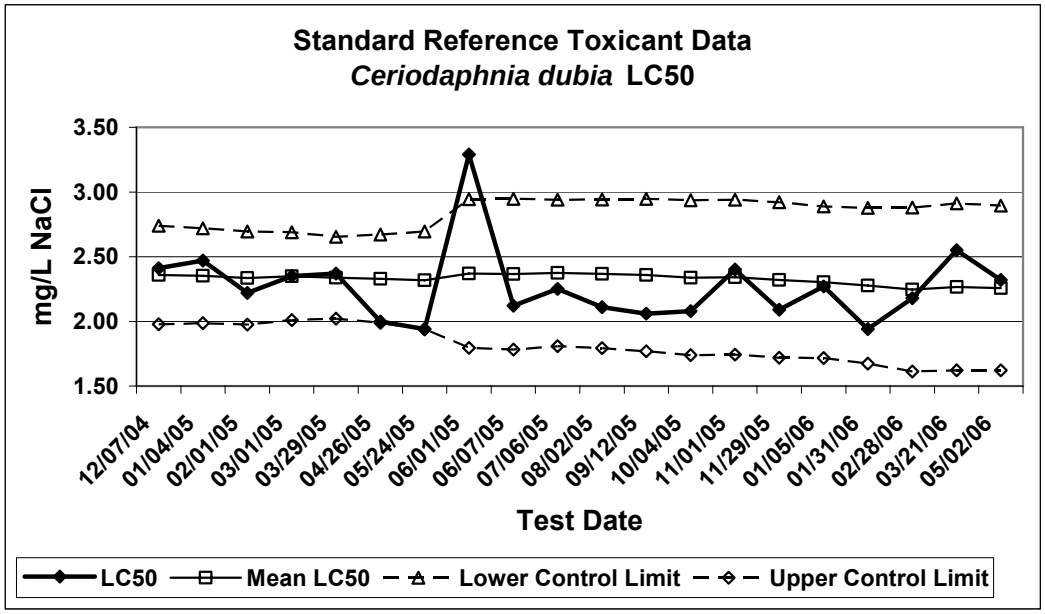
Florida Department of Environmental Protection
Bureau of Laboratories

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

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
12/07/04	2.41	2.36	0.19	1.98	2.74
01/04/05	2.47	2.35	0.18	1.98	2.72
02/01/05	2.22	2.34	0.18	1.98	2.70
03/01/05	2.35	2.35	0.17	2.01	2.69
03/29/05	2.37	2.34	0.16	2.02	2.65
04/26/05	2.00	2.33	0.17	1.99	2.67
05/24/05	1.94	2.32	0.19	1.94	2.70
06/01/05	3.29	2.37	0.29	1.79	2.94
06/07/05	2.12	2.36	0.29	1.78	2.95
07/06/05	2.25	2.37	0.28	1.81	2.94
08/02/05	2.11	2.37	0.29	1.79	2.94
09/12/05	2.06	2.36	0.29	1.77	2.95
10/04/05	2.08	2.34	0.30	1.74	2.94
11/01/05	2.40	2.34	0.30	1.74	2.94
11/29/05	2.09	2.32	0.30	1.72	2.92
01/05/06	2.27	2.30	0.29	1.72	2.89
01/31/06	1.94	2.28	0.30	1.67	2.88
02/28/06	2.18	2.25	0.32	1.61	2.88
03/21/06	2.55	2.27	0.32	1.62	2.91
05/02/06	2.32	2.26	0.32	1.62	2.89

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

CV = 14.10
EPA reference 75th quartile CV = 29%



Appendix 3. (continued)

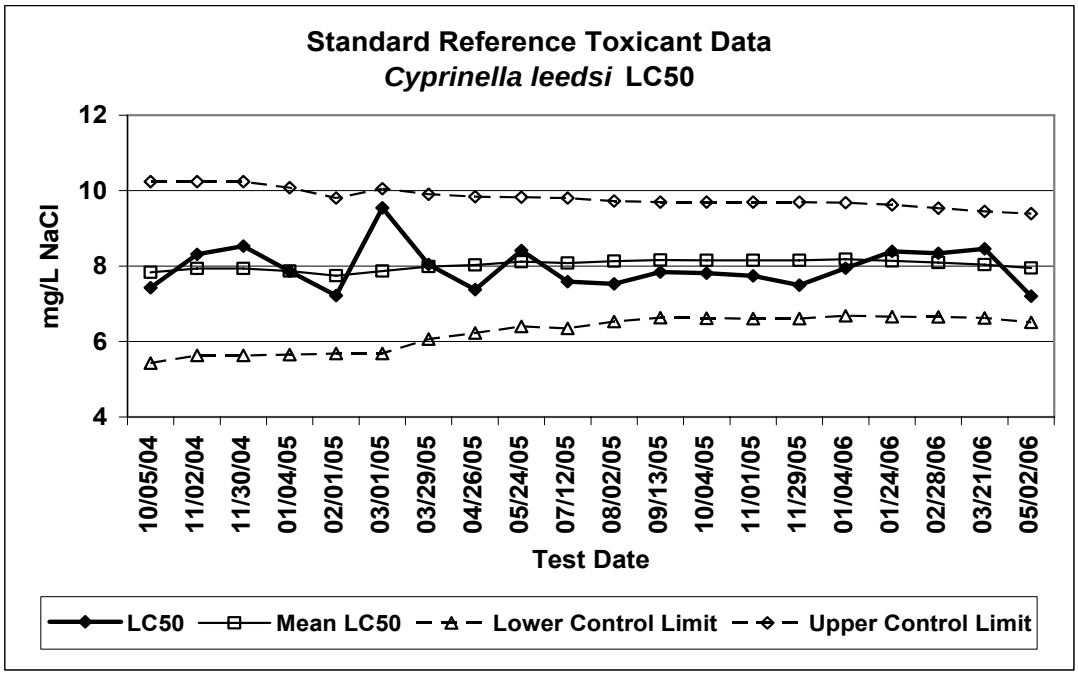
Florida Department of Environmental Protection
Bureau of Laboratories

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

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
09/08/04	8.85	7.91	1.22	5.46	10.36
10/05/04	7.43	7.83	1.20	5.43	10.24
11/02/04	8.31	7.93	1.15	5.63	10.24
11/30/04	8.53	7.94	1.15	5.63	10.24
01/04/05	7.86	7.87	1.11	5.65	10.08
02/01/05	7.22	7.74	1.03	5.68	9.80
03/01/05	9.54	7.87	1.09	5.68	10.05
03/29/05	8.04	7.99	0.96	6.07	9.91
04/26/05	7.38	8.03	0.90	6.22	9.84
05/24/05	8.41	8.11	0.86	6.40	9.83
07/12/05	7.59	8.08	0.86	6.35	9.81
08/02/05	7.53	8.13	0.80	6.53	9.72
09/13/05	7.84	8.16	0.77	6.63	9.70
10/04/05	7.81	8.16	0.77	6.62	9.69
11/01/05	7.74	8.15	0.77	6.61	9.69
11/29/05	7.49	8.15	0.77	6.61	9.69
01/04/06	7.94	8.18	0.75	6.68	9.68
01/24/06	8.39	8.14	0.74	6.66	9.62
02/28/06	8.34	8.09	0.72	6.65	9.53
03/21/06	8.46	8.04	0.71	6.62	9.45
05/02/06	7.2	7.95	0.72	6.51	9.39

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

CV = 8.80
EPA reference 75th quartile CV = 19%



Appendix 3. (continued)

FDEP Biology Section - 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: Definitive
Static / Static Renewal
Test Page 1 of 2

Diluent/ Batch#: DMW / 8-06
Toxicant/ Batch# NaCl / 4-06

Test Beginning: Date: 3-21-06 Time: 1230
Test Ending: Date: 3-25-06 Time: 1300 (1320) MF

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	MF
Alkalinity (mg/L as $CaCO_3$):	84	Hach	MF
Hardness (mg/L as CaCO3):	85	Hach	MF
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	MF

Organism Batch #/ Age: 13-060 / <24 hrs
Feeding: (Prior to test) (Prior to renewal) / Daily
Food: YCT P.*subcapitata* Artemia
Food Batch: 5-05 1-06 —
Chamber size: 30 mL
Test volume: 20 mL per replicate

0-48 hours

Conc. µg/L (g/L)	Rep.	Chamber#	Number Live 0 hr (48 hr)	Number Live 24 hr (72 hr)	Number Live 48 hr (96 hr)	pH (SU) 0 hr (48 hr)	pH (SU) 24 hr (72 hr)	pH (SU) 48 hr (96 hr)	Temperature (° C) 0 hr (48 hr)	Temperature (° C) 24 hr (72 hr)	Temperature (° C) 48 hr (96 hr)	D.O. (mg/l) 0 hr (48 hr)	D.O. (mg/l) 24 hr (72 hr)	D.O. (mg/l) 48 hr (96 hr)	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhom/cm) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)
Control	A	A	5	5	5	8.1		8.2	24.0		24.8	7.3		7.8	0.174		0.193
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.0		8.1	24.0		24.6	7.4		7.6	2.92		3.38
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	5	5	8.2		8.1	24.0		24.5	7.0		7.6	3.81		~~5.74~~ 4.35 SP SK DK
	B	B	5	5	4 1D												
	C	C	5	5	5												
	D	D	5	5	5												
2.5	A	A	5	4 1D	4 1D	8.2		8.1	24.1		24.6	7.1		7.4	4.79		~~6.45~~ 5.34 SP
	B	B	5	5	4 1D												
	C	C	5	4 1D	3 1D												
	D	D	5	5	2 3D												
3.0	A	A	5	4 1D	0 4D	8.2		8.1	24.1		24.6	7.1		7.3	5.63		6.45
	B	B	5	3 2D	0 3D												
	C	C	5	2 3D	0 2D												
	D	D	5	3 2D	1 2D												
4.0	A	A	5	0 5D	—	8.1	7.8	—	24.4	24.6	—	7.2	6.5	—	7.29	7.65	—
	B	B	5	0 5D	—												
	C	C	5	0 5D	—												
	D	D	5	0 5D	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	BA	BA	BA	SP	BA	BA	SP	BA	BA	SP	BA	BA	SP
Recorded by:			BA	BA	BA	BA	BA	MF	BA	BA	SP	BA	BA	SP	BA	BA	SP

Investigators' Signatures
Brian Akridge
Sarah Pilliard
Marshall Faircloth
Nicole Dando
Nicole Mitchell
REVIEWER

Concentrations prepared by: BA
Loading verified by: MF
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.4 max. 26.1 mean 25.1
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 25.1 mean 25.1

Remarks:

Statistical Results: Method: Spearman-Karber
(48) / 96 hour LC50: 2.55
95% Confidence Interval: lower 2.41 upper 2.69

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Appendix 3. (continued)

FDEP Biology Section - Acute SRT Bench Sheet

[redacted]

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: Definitive
Static / Static Renewal
Test Page 2 of 2

Diluent/ Batch#: DMW / 8-06
Toxicant/ Batch# NaCl / 4-06

Test Beginning: Date: 3-21-06 Time: 1230
Test Ending: Date: 3.25.06 Time: 1330 48-96hours

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	MF
Alkalinity (mg/L as $CaCO_3$):	84	Hach	~~SA by MF~~
Hardness (mg/L as CaCO3):	85	Hach	~~SA by MF~~
Total Ammonia (mg/L as N):	<0.01	Denver	MF
Salinity (ppth):	< 1	Mettler	MF

Organism Batch #/ Age: 13-06 / 13-06
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT P.*subcapitata* Artemia
Food Batch: 505 1-06 –
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc. µg/L (CL)	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 Cond (mmhos/cm) Cond. (µmhos/cm) 0 hr / 24 hr / 48 hr		
			48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr
Control	A	A	5	5	5	8.3			~~24.0~~ 23.8			7.9			0.172		0.248
	B	B	5	5	5			8.2	24.0 BA		24.0			7.7			
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.2			24.0			6.7			2.40		3.44
	B	B	5	5	4 ID			8.2		~~24.0~~ MF	24.0			8.3			
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	5	5	8.2			24.0			7.0			3.82		
	B	B	4	4	4			8.3		~~24.0~~ MF	24.0			8.5			4.54
	C	C	5	5	5												
	D	D	5	5	5												
2.5	A	A	4	2 2D	2	8.2			24.3			7.2			4.62		
	B	B	4	2 2D	1 1D			8.3		~~24.0~~ MF	24.0			8.2			5.35
	C	C	3	3	2 1D												
	D	D	2	0 2D	–												
3.0	A	A	0	–	–	8.2			24.3			7.0			6.56		
	B	B	0	–	–			–		–	–			–			–
	C	C	0	–	–												
	D	D	1	0 2D	–		8.0			24.9	~~24.9~~ MF		7.4		~~5.86~~ BA 5.86		
4.0	A	A	–	–	–	–			–			–			–		
	B	B	–	–	–			–			–			–			–
	C	C	–	–	–												
	D	D	–	–	–					~~24.9~~ BA							
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	JD	DA	BA	JD	BA	BA	JD	BA	BA	JD	BA	BA	JD
Recorded by:			BA	BA	JD	BA	BA	JD	BA	BA	JD	BA	BA	JD	BA	BA	JD

Investigators' Signatures
Bruce Ascough
Frank Pinchard
Marshall Faircloth
James Dodd
Nicole Wellenhoff
REVIEWER

Concentrations prepared by: BA
Loading verified by: MF
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 23.4 max. 26.1 mean 25.1
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 25.9 mean 25.1

Remarks: 96 hour temperatures recorded in 72 hour spaces - moved to 96 hour spaces 4-12-06 MF

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 2.33
95% Confidence Interval: lower 2.23 upper ~~2.44~~ BA 2.44

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Appendix 3. (continued)

FDEP Biology Section - 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: Definitive
Static / Static Renewal
Test Page 1 of 2

Diluent/ Batch#: well 159 3-21-06
Toxicant/ Batch# NaCl 1-4-06

Test Beginning: Date: 3-21-06 Time: 12:50
Test Ending: Date: 3-25-06 Time: 1300

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	mf
Alkalinity (mg/L as $CaCO_3$):	145	Hach	mf
Hardness (mg/L as CaCO3):	136	Hach	mf
Total Ammonia (mg/L as N):	<0.017	Denver	mf
Salinity (ppth):	<1	Mettler	mf

Organism Batch #/ Age: 6-06 / 13 days
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT *P.subcapitata* Artemia
Food Batch: — — GSL-536-90
Chamber size: 1000 mL
Test volume: 500 mL per replicate

0-48 hours

Conc. µg/L (B)	Rep.	Chamber#	Number Live 0 hr (48 hr)	Number Live 24 hr (72 hr)	Number Live 48 hr (96 hr)	pH (SU) 0 hr (48 hr)	pH (SU) 24 hr (72 hr)	pH (SU) 48 hr (96 hr)	Temperature (°C) 0 hr (48 hr)	Temperature (°C) 24 hr (72 hr)	Temperature (°C) 48 hr (96 hr)	D.O. (mg/l) 0 hr (48 hr)	D.O. (mg/l) 24 hr (72 hr)	D.O. (mg/l) 48 hr (96 hr)	UNCORRECTED Cond (mmhos/cm) Cond (µmhos/cm) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)
Control	A	A24	10	10	10	7.9		8.1	24.7		25.0	7.7		6.5	0,270		0.283
	B	A2	10	10	10		8.0			24.7			6.6			0323	
	C																
	D																
6	A	A3	10	9 20	8	7.9		8.1	24.8		24.9	7.7		6.1	10,40		10,47
	B	A4	10	10	10		7.9			24.8			6.0			10.32	
	C																
	D																
7	A	A5	10	10	10	7.9		8.0	24.8		24.8	7.5		5.9	12,04		12.10
	B	A6	10	9 10	9		7.9			25.2			5.7			11.93	
	C																
	D																
8	A	A7	10	6 40	6	7.9		8.0	24.9		25.2	7.5		5.6	1337		13.49
	B	A8	10	8 20	7 10		7.8			24.9			5.8			13,39	
	C																
	D																
9	A	A9	10	3 70	3	7.9		8.0	24.9		25.1	7.4		5.6	15,10		15.19
	B	A10	10	4 60	4		7.9			24.8			5.9			15.15	
	C																
	D																
10	A	A11	10	1 40	1	7.9		8.0	24.8		24.9	7.4		5.3	16,73		16.84
	B	A12	10	1 40	1		7.8			25.0			5.2			16.77	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	JD	MF	BA	MF	MF	TD	MF	MF	BA	MF	MF	BA	MF
Recorded by:			BA	JD	JD	MF	BA	MF	MF	BA	SP	MF	BA	MF	MF	BA	MF

Investigators' Signatures
Bruce Neville
Jason Pickard
Marshall Faircloth
Jason Davis
Erin Lacy
Nicole Nettleton
REVIEWER

Concentrations prepared by: MF
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.2 max. 25.9 mean 25.1
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 25.9 mean 25.1

Remarks:
48 hr 8.46
lower 8.08
upper 8.86

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 8.46
95% Confidence Interval: lower 8.08 upper 8.86

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Appendix 3. (continued)

FDEP Biology Section - Acute SRT Bench Sheet

[redacted]

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: (Definitive) Static / Static Renewal
Test Page 2 of 2

Diluent/ Batch#: well H2O / 3-21-06
Toxicant/ Batch# NaCl / 1-4-06

Test Beginning: Date: 3-21-06 Time: 1250
Test Ending: Date: 3-25-06 Time: 1300

48-96 hours

Water Quality Parameters:	Diluent	Method	Ininals
Total Residual Cl_2 (mg/L):	<0.03	Hach	mf/sw
Alkalinity (mg/L as $CaCO_3$):	145	Hach	SA/MF
Hardness (mg/L as CaCO3):	130	Hach	SA/MF
Total Ammonia (mg/L as N):	<0.017	Denver	MF/SA
Salinity (ppth):	<1	Mettler	MF

Organism Batch #/ Age: 6-06 / 13 days
Feeding: (Prior to test) Prior to renewal / Daily
Food: YCT — P.*subcapitata* — Artemia
Food Batch: — — GSL-536-90
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L (61)	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 Cond. (mmhos/cm) Cond. (µmhos/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	A24	10 / 10 / 10	7.9 / 7.9 / 8.2	24.9 / 24.4 / 24.0	7.6 / 5.6 / 7.8	0.264 / 0.286 / 0285
	B	A2	10 / 10 / 10				
	C						
	D						
6	A	A3	8 / 8 / 8	7.9 / 7.9 / 8.1	24.8 / 24.4 / 24.0	7.4 / 5.6 / 6.4	10.45 / 10.79 / 11.37
	B	A4	10 / 10 / 10				
	C						
	D						
7	A	A5	10 / 10 / 10	7.9 / 8.0 / 8.1	25.0 / 24.4 / 24.1	7.5 / 6.0 / 7.1	12.11 / 12.63 / 12.77
	B	A6	9 / 9 / 9				
	C						
	D						
8	A	A7	6 / 6 / 6	7.9 / 8.0 / 8.1	24.9 / 24.4 / 24.0	7.4 / 6.2 / 7.3	13.52 / 14.41 / 14.1
	B	A8	7 / 7 / 7				
	C						
	D						
9	A	A9	3 / 3 / 3	7.9 / 8.0 / 8.2	24.9 / 24.7 / 24.2	7.3 / 6.1 / 7.4	15.22 / 15.85 / 16.4
	B	A10	4 / 4 / 4				
	C						
	D						
10	A	A11	1 / 0(1) / —	7.9 / — / —	24.8 / 24.5 / 24.1	7.3 / 6.0 / 7.3	16.83 / 17.30 / 17.6
	B	A12	1 / 1 / 1				
	C						
	D						
	A						
	B						
	C						
	D						
Loaded / measured by:			MF / JD / JD	MF / JD / JD	MF / JD / JD	MF / JD / JD	MF / JD / JD
Recorded by:			MF / JD / JD	MF / JD / JD	MF / JD / JD	MF / JD / JD	MF / JD / JD

Investigators' Signatures
Bruce Newton
Sarah Pinkard
Marshall Faircloth
Eric Lenz
James Daniels
Nicole Wellendorf
REVIEWER

Concentrations prepared by: MF/BA
Loading verified by: NA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.4 max. 24 mean 25.1
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 25.9 mean 25.1

Remarks:

Statistical Results: Method: Spearman-Karber
48 (96) hour LC50: 8.43
95% Confidence Interval: lower 8.08 upper 8.81

Revised 02/21/06

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Appendix 3. (continued)

Ceriodaphnia dubia Acute Standard Reference Toxicant Test

DATE: 3/21/06 DURATION: 48 h TOXICANT : NaCl
SPECIES: *C. dubia*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	.00	20	0
	1.50	20	0
	2.00	20	1
	2.50	20	7
	3.00	20	19
	4.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 2.55
95% LOWER CONFIDENCE: 2.41
95% UPPER CONFIDENCE: 2.69

Cyprinella leedsi Acute Standard Reference Toxicant Test

DATE: 3/21/06 DURATION: 48 H TOXICANT : NaCl
SPECIES: *C. leedsi*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	.00	20	0
	6.00	20	2
	7.00	20	1
	8.00	20	7
	9.00	20	13
	10.00	20	18

SPEARMAN-KARBER TRIM: 10.00%

SPEARMAN-KARBER ESTIMATES: LC50: 8.46
95% LOWER CONFIDENCE: 8.08
95% UPPER CONFIDENCE: 8.86

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

Appendix 4. Test Organism Receipts

11842 Research Circle
Alachua, FL 32615
T. (386) 462-7889
F. (386) 462-7264
www.hydrosphere.net

HYDROSPHERE
research

Packaging List

Date	Customer Number	Order Shipped Via
3/20/2006	NA	Hydrosphere Research
Customer		**Order Prepared By**
FDEP Marshall Faircloth Biology Mail Stop 6515 2600 Blair Stone Road Tallahassee, Fl 32399-2400		P. Meyer

Quantity	Description
250	C. leedsi, CL#1047, Hatched 3/8/06

Appendix 4. (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: 4/24/06

Shipped to: SEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia					
Menidia beryllina					
Cyprinella leedsi	100+	10 days	CHL0414	25°C	
Pimephales promelas					

Packed by: Frank Gaw

Shipped Via: FEDEX

Notes: _____

Thank you for your order.

Appendix 5. Chemical Analyses performed on the effluent from the Former Sprague Electronics NPDES Ground Water Remediation Outfall D-001, sampled on April 24, 2006.

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
04/24/06 09:30	SPRAG	Bio-AGP/LimNut	Algal Growth Potential	0.379	mg DryWt/L	I	0.3	0.9
04/24/06 09:30	SPRAG	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/24/06 09:30	SPRAG	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.5	ug/L	U	1.5	4.5
04/24/06 09:30	SPRAG	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
04/24/06 09:30	SPRAG	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
04/24/06 09:30	SPRAG	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
04/24/06 09:30	SPRAG	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
04/24/06 09:30	SPRAG	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
04/24/06 09:30	SPRAG	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
04/24/06 09:30	SPRAG	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
04/24/06 09:30	SPRAG	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
04/24/06 09:30	SPRAG	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Benzidine	95	ug/L	U	95	380
04/24/06 09:30	SPRAG	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8

Appendix 5. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
04/24/06 09:30	SPRAG	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
04/24/06 09:30	SPRAG	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
04/24/06 09:30	SPRAG	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
04/24/06 09:30	SPRAG	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
04/24/06 09:30	SPRAG	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
04/24/06 09:30	SPRAG	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
04/24/06 09:30	SPRAG	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
04/24/06 09:30	SPRAG	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
04/24/06 09:30	SPRAG	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
04/24/06 09:30	SPRAG	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
04/24/06 09:30	SPRAG	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
04/24/06 09:30	SPRAG	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
04/24/06 09:30	SPRAG	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
04/24/06 09:30	SPRAG	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
04/24/06 09:30	SPRAG	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
04/24/06 09:30	SPRAG	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	11

Appendix 5. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
04/24/06 09:30	SPRAG	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
04/24/06 09:30	SPRAG	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
04/24/06 10:30	BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
04/24/06 10:30	BLANK	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
04/24/06 10:30	BLANK	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
04/24/06 10:30	BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
04/24/06 10:30	BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
04/24/06 10:30	BLANK	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Benzidine	95	ug/L	U	95	380
04/24/06 10:30	BLANK	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8

Appendix 5. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
04/24/06 10:30	BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
04/24/06 10:30	BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
04/24/06 10:30	BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
04/24/06 10:30	BLANK	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
04/24/06 10:30	BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
04/24/06 10:30	BLANK	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
04/24/06 10:30	BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
04/24/06 10:30	BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
04/24/06 10:30	BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
04/24/06 10:30	BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
04/24/06 10:30	BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
04/24/06 10:30	BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
04/24/06 10:30	BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
04/24/06 10:30	BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
04/24/06 10:30	BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
04/24/06 10:30	BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	11
04/24/06 10:30	BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
04/24/06 10:30	BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8

Appendix 5. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
04/24/06 10:30	BLANK	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
04/24/06 10:30	BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
04/24/06 09:30	SPRAG	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
04/24/06 09:30	SPRAG	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
04/24/06 09:30	SPRAG	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
04/24/06 09:30	SPRAG	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
04/24/06 09:30	SPRAG	GC-Water	Bromacil	11	ug/L		0.19	0.76
04/24/06 09:30	SPRAG	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
04/24/06 09:30	SPRAG	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
04/24/06 09:30	SPRAG	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
04/24/06 09:30	SPRAG	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19
04/24/06 09:30	SPRAG	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
04/24/06 09:30	SPRAG	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
04/24/06 09:30	SPRAG	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
04/24/06 09:30	SPRAG	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
04/24/06 09:30	SPRAG	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
04/24/06 09:30	SPRAG	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
04/24/06 09:30	SPRAG	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
04/24/06 09:30	SPRAG	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
04/24/06 09:30	SPRAG	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
04/24/06 09:30	SPRAG	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
04/24/06 09:30	SPRAG	GC-Water	Naled	0.76	ug/L	U	0.76	3
04/24/06 09:30	SPRAG	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
04/24/06 09:30	SPRAG	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
04/24/06 09:30	SPRAG	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
04/24/06 09:30	SPRAG	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
04/24/06 09:30	SPRAG	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
04/24/06 09:30	SPRAG	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
04/24/06 10:30	BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
04/24/06 10:30	BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
04/24/06 10:30	BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
04/24/06 10:30	BLANK	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
04/24/06 10:30	BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
04/24/06 10:30	BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
04/24/06 10:30	BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
04/24/06 10:30	BLANK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
04/24/06 10:30	BLANK	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19

Appendix 5. (continued)

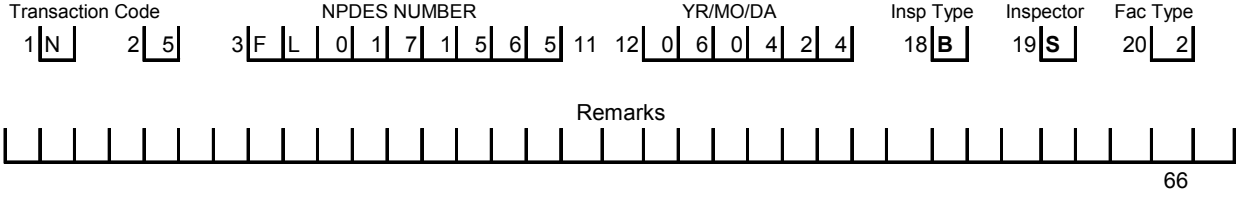
Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
04/24/06 10:30	BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
04/24/06 10:30	BLANK	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
04/24/06 10:30	BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
04/24/06 10:30	BLANK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
04/24/06 10:30	BLANK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
04/24/06 10:30	BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
04/24/06 10:30	BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
04/24/06 10:30	BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
04/24/06 10:30	BLANK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
04/24/06 10:30	BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
04/24/06 10:30	BLANK	GC-Water	Naled	0.76	ug/L	U	0.76	3
04/24/06 10:30	BLANK	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
04/24/06 10:30	BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
04/24/06 10:30	BLANK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
04/24/06 10:30	BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
04/24/06 10:30	BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
04/24/06 10:30	BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
04/24/06 09:30	SPRAG	Metals-Water	Aluminum	5	ug/L	U	5	20
04/24/06 09:30	SPRAG	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
04/24/06 09:30	SPRAG	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
04/24/06 09:30	SPRAG	Metals-Water	Calcium	9.1	mg/L		0.05	0.2
04/24/06 09:30	SPRAG	Metals-Water	Chromium	2	ug/L	U	2	8
04/24/06 09:30	SPRAG	Metals-Water	Copper	1.15	ug/L		0.25	1
04/24/06 09:30	SPRAG	Metals-Water	Iron	13	ug/L	I	10	40
04/24/06 09:30	SPRAG	Metals-Water	Lead	0.17	ug/L	I	0.075	0.3
04/24/06 09:30	SPRAG	Metals-Water	Magnesium	2.5	mg/L		0.01	0.04
04/24/06 09:30	SPRAG	Metals-Water	Nickel	1	ug/L	U	1	4
04/24/06 09:30	SPRAG	Metals-Water	Selenium	2.8	ug/L		0.5	2
04/24/06 09:30	SPRAG	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
04/24/06 09:30	SPRAG	Metals-Water	Zinc	3.8	ug/L	I	3	12
04/24/06 10:30	BLANK	Metals-Water	Aluminum	5	ug/L	U	5	20
04/24/06 10:30	BLANK	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
04/24/06 10:30	BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
04/24/06 10:30	BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
04/24/06 10:30	BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
04/24/06 10:30	BLANK	Metals-Water	Copper	0.59	ug/L	I	0.25	1
04/24/06 10:30	BLANK	Metals-Water	Iron	10	ug/L	U	10	40

Appendix 5. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
04/24/06 10:30	BLANK	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
04/24/06 10:30	BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
04/24/06 10:30	BLANK	Metals-Water	Nickel	1	ug/L	U	1	4
04/24/06 10:30	BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
04/24/06 10:30	BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
04/24/06 10:30	BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
04/24/06 09:30	SPRAG	Nutrients-Liquid	Alkalinity	24	mg CaCO3/L		0.65	2.5
04/24/06 09:30	SPRAG	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
04/24/06 09:30	SPRAG	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
04/24/06 09:30	SPRAG	Nutrients-Liquid	NO2NO3-N	1.3	mg N/L		0.02	0.05
04/24/06 09:30	SPRAG	Nutrients-Liquid	O-Phosphate-P	0.44	mg P/L		0.04	0.1
04/24/06 09:30	SPRAG	Nutrients-Liquid	Total-P	0.52	mg P/L	A	0.02	0.06
04/24/06 10:30	BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
04/24/06 10:30	BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
04/24/06 10:30	BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
04/24/06 10:30	BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
04/24/06 10:30	BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06

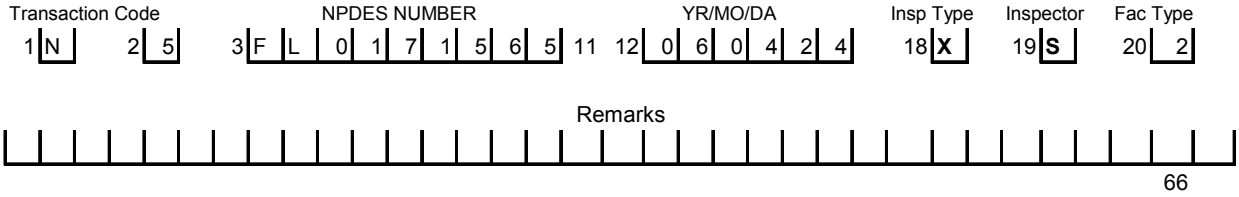
The Bioassay of Former Sprague Electronics NPDES Ground Water Remediation effluent sampled on April 24, 2006. NPDES #FL0171565.

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



The Priority Pollutants Analysis of Former Sprague Electronics NPDES Ground Water Remediation effluent sampled on April 24, 2006. NPDES #FL0171565.

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



Biological Analyses of Former Sprague Electronics NPDES Ground Water Remediation effluent sampled on April 24, 2006. NPDES #FL0171565.

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

