

Bioassays of

Rinker Materials Corporation - Center Hill Mine

Sumter County

NPDES #FL0031895

Sampled May 22, 2006

July 2006

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Rinker Materials Corporation - Center Hill Mine, 530 Kings Highway, Center Hill, Sumter County, Florida, NPDES #FL0031895. Effluent samples for this facility were collected on May 22, 2006.

Introduction

Rinker Materials Corporation – Center Hill Mine is a limerock mine which includes on-site crushing and processing plants. The facility does not have a design flow. The annual average daily flow (AADF) from May 2005 – April 2006 was 7.08 million gallons per day (MGD). On-site water (from dewatering activities) is circulated from the inactive mine pit (south pit) and used in the limestone grinding facility and the truck wash facility. This water, along with water from the active mine pits and stormwater, is routed to the inactive mining pit. No chemicals are added to the recirculation system. When there is excess water in the south pit, it flows by gravity to the north pit retention area and overflows through Outfall D-001 into the Class III freshwaters of Jumper Creek Canal thence into the Withlacoochee River. Outfall D-001 is located at approximately latitude 28º 40' 4.3" N, longitude 82º 00' 42.4" W.

The mine is currently discharging under the Bypass Provision granted under the current NPDES permit. The outfall structure (D-001) was lowered on February 22, 2006, to increase the discharge under the Bypass Provision. The facility is submitting monthly reports to the Florida Department of Environmental Protection and the Southwest Florida Water Management District (SWFWMD) concerning the discharge. The facility has agreed to apply for a permit revision to link discharges to long-term hydrologic conditions and to maintain consistency with the SWFWMD's water use permit. Although there is not a toxicity test provision in the current permit, the facility has begun bi-monthly acute toxicity testing when discharging from Outfall D-001. The first toxicity test was performed in January 2006 and was a passing test. (Facility information provided by Lori Pillsbury and Cari Butler of FDEP Southwest District)

Methods

Samples were collected from the EFF-1 NPDES sampling point for Outfall D-001 by Lori Pillsbury and Peter Wenner (FDEP Southwest District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOPs are available on the web at: http://www.floridadep.org/labs/qa/sops.htm

See Appendix A for the completed chain of custody form.

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

Toxicity Test Results

Tests were performed May 23 - 25, 2006.

Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours
Cyprinella leedsi 48-hour acute screening bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours

The bioassay sample was not acutely toxic to the test organisms.

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

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of < 20% provides reasonable assurance that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Rule 62-302.500 (1)(a)4, F.A.C.). Mortality between 20-50% indicates low to moderate levels of toxicity, and further action may be required. Mortality of > 50% provides reasonable assurance that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3)(a), F.A.C.).

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was less than the laboratory method detection limit (MDL) of 0.300 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. Nitrite-nitrate was detected between the laboratory method detection limit (MDL) and the Practical Quantitation Limit (PQL). Ammonia, ortho-phosphate, and total phosphorus were not detected in the effluent. These results suggest that the effluent is co-limited by both nitrogen and phosphorus. Due to primary nutrients (nitrogen and phosphorus) either not being detected or being less than the PQL, AGP values could not be predicted (Miller et al. 1978).

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 not detected in the sample collected and preserved for chemical analysis; therefore, unionized ammonia could not be calculated.

Arsenic and selenium were detected in the effluent at levels that comply with Class III fresh water quality criteria. Aluminum was detected between the laboratory MDL and PQL.

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

Conclusion

The effluent sample collected from Outfall D-001 for this facility on May 22, 2006, was not acutely toxic to either test species during the 48-hour acute screen bioassays. The effluent AGP result was less than the "problem" threshold for fresh receiving waters. 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 algal growth potential (AGP; mg dry weight/L) for the freshwater species Pseudokirchneriella subcapitata *for the sample collected from Rinker Materials Corporation- Center Hill Mine on May 22, 2006.*

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
Effluent Samples	0.300 U	NC *	NC *	NC *	NC *	NC *	NC *

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

* Predicted AGP values and nitrogen to phosphorus ratios are not calculable because ammonia, ortho-phosphate, and total phosphorus were not detected in the effluent

Table 2. Effluent limits, Class III Freshwater Criteria, and chemical data for samples collected from Rinker Materials Corporation-Center Hill Mine on May 22, 2006.

Rinker Materials Corp.- Center Hill Mine NPDES# FL0031895	Class III Freshwater Stds	Effluent Limits	Effluent Samples	Background
Organic Constituents (µg/L)				
None Detected	-	-	-	-
Metals (µg/L unless otherwise noted)				
Aluminum	-	-	11 I	-
Arsenic	≤ 50	-	2.4	-
Cadmium	≤ 1.4 b	-	0.05 U	-
Calcium (mg/L)	-	-	49.6	-
Chromium-III	≤ 107.7 b	-	2.6 U	-
Copper	≤ 11.8 b	-	0.2 U	-
Iron	≤ 1,000	-	5 U	-
Lead	≤ 4.5 b	-	0.2 U	-
Magnesium (mg/L)	-	-	1.8	-
Nickel	≤ 65.7 b	-	1 U	-
Selenium	≤ 5	-	3.5	-
Silver	≤ 0.07	-	0.025 U	-
Zinc	≤ 150.9 b	-	3.6 U	-
Nutrients (mg/L)				
Ortho-phosphate	-	-	0.004 U	-
Total Phosphorus	-	-	0.02 U	-
Ammonia	-	-	0.01 U	-
Unionized Ammonia	≤ 0.02	-	< 0.02 c	-
Nitrate+Nitrite	-	-	0.004 I	-
Total Kjeldahl Nitrogen	-	-	0.16 U	-
Organic Nitrogen	-	-	< 0.16 c	-
Total Nitrogen	-	-	< 0.164 c	-
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 5	-	8.5	-
pH (S.U.)	6-8.5	6-8.5	8	-
Conductivity (umhos/cm)	≤ 1,275	-	289	-
Temperature (C)	-	-	26.6	-
CBOD (mg/L)	-	-	0.39 AI	-
Chlorophyll-A (mg/L)	-	-	0.85 U	-
Phaeophytin-A (mg/L)	-	-	1.5 U	-
Oil and Grease (mg/L)	≤ 5	≤ 5	1.7 U	-
Flow (MGD)	-	Report	7.08 a	-
Hardness (mg/L)	-	-	131.3 c	-
TSS (mg/L)	-	-	4 U	-
Turbidity (NTU)	31.5	31.5	1.1	2.5

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

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

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2006-05-22-17
Rinker Materials Corporation-Center Hill Limerock Mine

Requester: Shannan Bogdanov
Field Report Prepared By: LPillsbury

Customer: SW-DIST
Collected By: LPillsbury, PWenner
Send Final Report To Ilia Balcom

Project ID: FYI3
Sampling Agency: FDEP

PMAS: 1163

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	Outfall D001	☐ Comp ☑ Grab Date 05/22/06 Time 1040 Eastern Central	Date Time Eastern Central	A
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L) 8.52	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) FRESH	Temp (C) 26.61	pH 7.95	Sample Depth ☐ m ☐ ft CUTFALL 0.14
	Latitude N 28° 40' 04.5"	Longitude W 082° 00' 43.7"	Comments	☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm) 289 NPDES Number FL0031895

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	Background	☐ Comp ☑ Grab Date 05/22/06 Time 1040 Eastern Central	Date Time Eastern Central	A
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) FRESH	Temp (C)	pH	Sample Depth ☑ m ☐ ft 0.2 ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm) NPDES Number
	Latitude o ' "	Longitude o ' "	Comments	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	Field Blank	☐ Comp ☑ Grab Date 05/22/06 Time 1025 Eastern Central	Date Time Eastern Central	B
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) FRESH	Temp (C)	pH	Sample Depth ☐ m ☐ ft ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm) NPDES Number
	Latitude o ' "	Longitude o ' "	Comments	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
		☐ Comp ☐ Grab Date Time Eastern Central	Date Time Eastern Central	
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm) NPDES Number
	Latitude o ' "	Longitude o ' "	Comments 2 Dissolved 10:30 5.23.06 JD	

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	05/22/06 1430	DHL	ABB	5-23-06 09:30				

* 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: Rinker Materials Corp. - Center Hill Mine
Address: 530 Kings Highway (Highway 48 West)
City: Center Hill County: Sumter
Contact/District: Lon Pillsbury / Southwest District
NPDES Permit #: FL 0031895
LIMS Job #: TLH-2006-05-23-18 LIMS Sample #: 924801
Lims Data Entry: 6-2-06 SP Data Entry Verification: 6-2-06 MF

Sample Collection: Date: 5-22-06 Time: 1040
Hold Time Start: Date: 5-22-06 Time: 1040

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 233-256
Room B246 240-249
Waterbath: MF

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
Bess Ake
Eric Wood
Jason Veach
Marshall Faircloth
Greg Cooper
Mandi 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	MF
Alkalinity (mg/L as $CaCO_3$):	~~80~~ 101	136				136	HACH	EW/SM/A	SP
Hardness (mg/L as $CaCO_3$):	85	137				133	HACH	EW/SM/BA	SP
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	MF	SP
Salinity (ppth):	<1	<1				<1	YSI / Mettler	SP	MF

V 1.4 9/12/05

Appendix B. (continued)



FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 924801 Test #: 1 Test Started: Date 5.23.06 Time: 11:50

Organism: C. dubia SOP #: TA 07_ 01 Test Ended: Date 5-25-06 Time: ~~11:50~~ BA 10:50

Organism Batch: 22-06 Diluent/ Batch: DMW / 13-06

Organism Age: <24 hrs Food: YCT *P. subcapitata* *Artemia*

Chamber Size: 30 mL Batch: ~~SB 20~~ 505 2-06 —

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: BA Checked by: [redacted] BA MF

Loading Verified by: JS

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 B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 924801
Organism: C. leedsi
Organism Batch: 10-06
Organism Age: 12 days
Chamber Size: 1000 mL
Test Volume: 500 mL

Test #: 2
SOP #: TA 07_02
Diluent/ Batch: Well #20 / 5-23-06

Food:	YCT	*P. subcapitata*	*Artemia*
Batch:	–	–	GSL 536-90

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

Test Started: Date 5.23.06 Time: 1200
Test Ended: Date ~~5-24-06~~ 5-25-06 Time: 10:30

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	E1	5	5	5			
	B	E2	5	5	5			
	C	E3	5	5	5			
	D	E4	5	5	5			
100%	A	E5	5	5	5			
	B	E6	5	5	5			
	C	E7	5	5	5			
	D	E8	5	5	5			
Organisms loaded by: JD		Checked by:	[redacted]	JD	SP			

Loading Verified by: SP

Comments:

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

Test Results:
% mortality in 100% sample: 0
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 # : 924801 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.)	8.1	|	8.2			
Temperature °C	25.0	|	24.1			
Dissolved Oxygen mg/L	7.6	|	7.4			
Conductivity ~~µmhos~~ mmhos	390	|	330			
(initials) Measured by:	[illegible]		[illegible]			
(initials) Recorded by:	[illegible]		[illegible]			

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.)	8.1	|	8.2			
Temperature °C	25.5	|	24.0			
Dissolved Oxygen mg/L	7.7	|	7.6			
Conductivity ~~µmhos~~ mmhos	295	|	295			
(initials) Measured by:	[illegible]		[illegible]			
(initials) Recorded by:	[illegible]		[illegible]			

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 Section - Bioassay Parameter Sheet

LIMS Sample # : 924801 **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.)	8.1	8.2	8.3			
Temperature °C	25.2	24.4	24.7			
Dissolved Oxygen mg/L	7.6	6.9	7.0			
Conductivity ~~µmhos~~ mmhos	277	306	270			
(initials) Measured by:	GR	JD	MF/SP			
(initials) Recorded by:	~~GR~~	JD	MF/SP			

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.)	8.1	8.2	8.3			
Temperature °C	25.6	24.3	24.7			
Dissolved Oxygen mg/L	7.7	6.7	7.0			
Conductivity ~~µmhos~~ mmhos	297	329	313			
(initials) Measured by:	SP	JD	MF/SP			
(initials) Recorded by:	~~SP~~	JD	MF/SP			

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

Appendix C. SRT Bench Sheets and Statistical Analysis

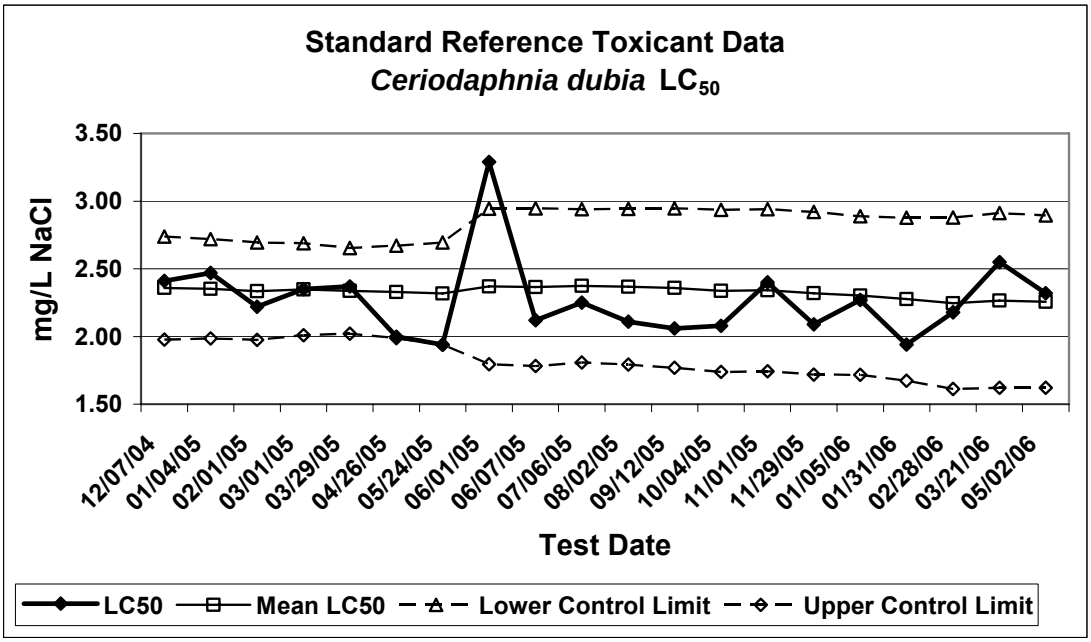
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
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 C. (continued)

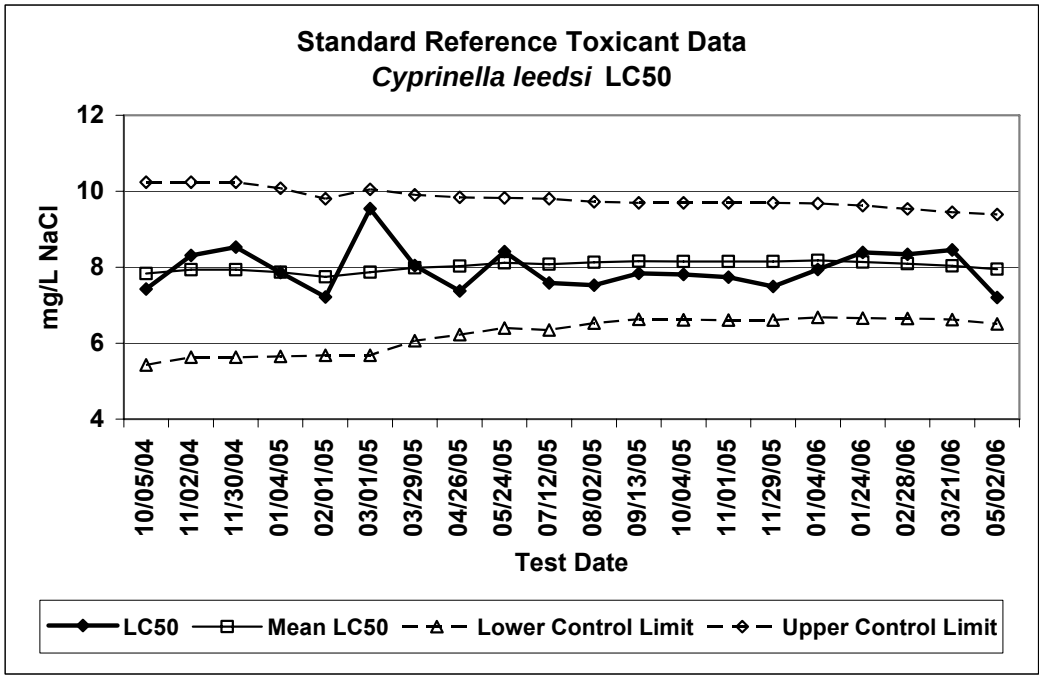
Florida Department of Environmental Protection
Bureau of Laboratories

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

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
10/05/04	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 = 9.06
EPA reference 75th quartile CV = 19%



Appendix C. (continued)

[redacted]

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 / 11-06
Toxicant/ Batch# NaCl / 5-06

Test Beginning: Date: 5-2-06 Time: 1230
Test Ending: Date: 5-6-06 Time: 0830

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BP
Alkalinity (mg/L as $CaCO_3$):	87	Hach	EW
Hardness (mg/L as CaCO3):	93	Hach	EW
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 20-06 / <24hrs
Feeding: Prior to test/ Prior to renewal / Daily
Food: YCT *P.subcapitata* Artemia
Food Batch: 5-05 2-06 -
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc. µg/L (Cu)	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) 0 hr (48 hr)	UNCORRECTED Cond. (µmhom/cm) 24 hr (72 hr)	UNCORRECTED Cond. (µmhom/cm) 48 hr (96 hr)
Control	A	A	5	5	5	7.7		8.1	24.0		24.0	6.5		7.3	0.190		0.205
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	7.7		8.0	24.5		24.3	7.1		7.1	(A) 4.35		3.85
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	5	4 10	7.8		8.1	24.8		24.34	7.3		7.2	(B) 4.48		5.01
	B	B	5	5	4 10												
	C	C	5	5	5												
	D	D	5	5	5												
2.5	A	A	5	5	3 10	7.9		8.1	24.6		24.3	7.2		7.0	4.32		5.34
	B	B	5	5	2 10												
	C	C	5	5	1 10												
	D	D	5	5	0 10												
3.0	A	A	5	4 10	0 10	8.0		8.2	24.3		24.2	7.3		6.9	5.41		6.96
	B	B	5	5	0 10												
	C	C	5	4 10	0 10												
	D	D	5	3 10	0 10												
4.0	A	A	5	0 10	–	8.0		–	24.3		–	7.4		–	7.32		–
	B	B	5	0 10	–		8.0			24.0			7.0			8.2	
	C	C	5	0 10	–												
	D	D	5	0 10	–												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA/SP	MF	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA
Recorded by:			SP	BA/SP	MF	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA

Investigators' Signatures
Janet Pritchard
Mantell Fowler
Nicole Wellenhof
REVIEWER

Concentrations prepared by: BA
Loading verified by: EW
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.1 max. 26.9 mean 26.2
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 25.1 mean 24.5

Remarks: (A) 2.235 BA
(B) 3.25 ns BA

Statistical Results: Method: Spearman-Karber
(B) 96 hour LC50: 2.32
95% Confidence Interval: lower 2.19 upper 2.44

Revised 02/21/06

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Appendix C. (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 2 of 2

Diluent/ Batch#: DMW / 11-06
Toxicant/ Batch# NaCl / 6-06

Test Beginning: Date: 5-2-06 Time: 1230
Test Ending: Date: 5-6-06 Time: 0520

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	SP
Alkalinity (mg/L as $CaCO_3$):	87	Hach	EW
Hardness (mg/L as CaCO3):	93	Hach	EW
Total Ammonia (mg/L as N):	<0.1	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 20-06 / <24 hrs
Feeding: (Prior to test) Prior to renewal / Daily
Food: YCT P.subcapitata Artemia
Food Batch: 5-05 2-06 –
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc. ug/L (A)	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) 0 hr / 48 hr	UNCORRECTED Cond. (mmhos/cm) 24 hr / 72 hr	UNCORRECTED Cond. (mmhos/cm) 48 hr / 96 hr
Control	A	A	24/5	5	5	24.1		8.1	8.0 (B)		24.2	6.7		7.6	0.228		0.220
	B	B	5	5	5												
	C	C	5	5	4 (D)												
	D	D	5	5	5												
1.5	A	A	25/5	4 (D)	3 (D)	25.2		8.1	7.9		24.5	6.9		7.6	2.92		3.35
	B	B	5	4 (D)	4												
	C	C	5	5	5												
	D	D	5	4 (D)	4												
2.0	A	A	25/5	0 (D)	—	25.2		8.2	8.0		24.8	7.1		7.6	3.66		4.31
	B	B	4	3 (D)	1 (D)												
	C	C	5	5	4 (D)												
	D	D	5	5	5												
25	A	A	32/5	0 (D)	–	25.1		–	8.0		–	7.0		–	4.65		–
	B	B	2	0 (D)	–		8.0			24.5			7.8			4.79	
	C	C	1	0 (D)	–												
	D	D	0	<	–												
3.0	A	A	24/0	–	–	24.1		–	8.1		–	6.8		–	5.38		–
	B	B	0	–	–												
	C	C	0	–	–												
	D	D	0	–	–												
4.0	A	A	–	–	–	–		–	–		–	–		–	–		–
	B	B	–	–	–												
	C	C	–	–	–												
	D	D	–	–	–												
	A																
	B																
	C																
	D																
Loaded / measured by:			MF	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF
Recorded by:			MF	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF

Investigators' Signatures (A)
Sarah Pickard
EW
Marshall Faircloth
Brian Anson
Nicole Mettler
REVIEWER

Concentrations prepared by: BA
Loading verified by: EW
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.1 max. 26.9 mean 26.2
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 25.1 mean 24.5

Remarks: (A) Transcription error: Number live (48hr) in Rep A: Ctrl: 5, 1.5% 5, 2.0% 2.5% 3, 3.0% 0 BA
(B) pH & temp switched @ 48 hr, Rep A BA

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 1.95
95% Confidence Interval: lower 1.79 upper 2.13

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Appendix C. (continued)

[redacted]

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#: We1H2O / 5-1-06
Toxicant/ Batch# NaCL / 5-06

Test Beginning: Date: 5-2-06 Time: 1340
Test Ending: Date: 5-6-06 Time: 0810

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	SP
Alkalinity (mg/L as $CaCO_3$):	148	Hach	CW
Hardness (mg/L as $CaCO_3$):	138	Hach	SW
Total Ammonia (mg/L as N):	<0.05	Denver	[illegible]
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 9-06 / 4days
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 (ug/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. (~~µmhos/cm~~) Cond. (µmhom/cm) 0 hr (~~48 hr~~)	UNCORRECTED Cond. (~~µmhos/cm~~) Cond. (µmhom/cm) 24 hr (~~72 hr~~)	UNCORRECTED Cond. (~~µmhos/cm~~) Cond. (µmhom/cm) 48 hr (~~96 hr~~)
Control	A	A13	10	10	10	8.0		8.2	24.8		24.8	7.1		7.0	0.277		0.298
	B	A14	10	10	10		8.2			24.9			6.8			0.340	
	C																
	D																
6.0	A	A15	10	9 10D	9	7.9		8.1	25.2		25.1	7.1		6.9	1090		10.27
	B	A16	10	9 10D	9		8.0			24.9			6.4			10.1	
	C																
	D																
7.0	A	A17	10	8 2D	7 10	7.8		8.1	25.9		25.1	7.1		6.6	12.65		12.43
	B	A18	10	6 4D	6		8.0			25.0			6.3			12.2	
	C																
	D																
8.0	A	A19	10	3 7D	2 8	7.8		8.1	25.4		25.3	7.0		6.5	14.32		14.15
	B	A20	10	1 9D	1		8.0			25.1			6.1			13.9	
	C																
	D																
9.0	A	A21	10	1 9D	1	7.8		8.1	25.3		25.1	7.1		6.3	15.77		15.64
	B	A22	10	0 10D	–		7.9			25.3			6.2			15.5	
	C																
	D																
10.0	A	A23	10	1 9D	0 10	7.8		8.1	25.3		24.9	7.0		6.3	17.49		17.04
	B	A24	10	1 9D	0 10		8.0			25.1			6.0			12.1	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	BA	JD	BA	JD	BA	BA	BA	BA	BA	JD	BA	BA	JD	BA
Recorded by:			SP	BA	JD	BA	JD	BA	BA	BA	BA	BA	JD	BA	BA	JD	BA

Investigators' Signatures
[illegible] David
[illegible]
[illegible]
Marshall Fairbrother
[illegible]
Nicole Wellendorf
REVIEWER

Concentrations prepared by: BA / JD
Loading verified by: SP
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 3 min. 24.9 max. 25.6 mean 25.3
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.7 max. 25.1 mean 24.5

Remarks:

Statistical Results: Method: Spearman-Karber
96 hour LC50: 7.20
95% Confidence Interval: lower 6.87 upper 7.54

Revised 02/21/06

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Appendix C. (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 2 of 2

Diluent/ Batch#: $Wpll^{H_2O}$ / 5-1-06
Toxicant/ Batch# NaCl / 5-06

Test Beginning: Date: 5-2-06 Time: 1340
Test Ending: Date: 5-6-06 Time: 0810

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	SP
Alkalinity (mg/L as $CaCO_3$):	146	Hach	EW
Hardness (mg/L as CaCO3):	138	Hach	EW
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 9-06 / 4 days
Feeding: ~~Prior to test~~ ~~Prior to renewal~~ Daily
Food: YCT – P.*subcapitata* – Artemia GSL-536-90
Food Batch:
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L (g/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 Cond. ~~(mmhos/cm)~~ Cond. (µmhom/cm) ~~0 hr~~ 48 hr	~~24 hr~~ 72 hr	~~48 hr~~ 96 hr
Control	A	A13	10	10	10	8.0		8.4	24.0		25.9	7.0		7.1	0.290		0.300
	B	A14	10	10	10		8.1			25.4			6.9			0.286	
	C																
	D																
60	A	A15	9	9	9	7.9		8.2	24.4		25.8	6.9		6.9	10.05		10.6
	B	A16	9	9	9		8.0			25.2			6.4			10.2	
	C																
	D																
70	A	A17	7 1D	7	7	7.9		8.3	24.6		25.7	6.8		6.9	12.12		12.4
	B	A18	6	6	5 1D		8.1			25.5			6.6			12.4	
	C																
	D																
80	A	A19	2 1D	1 1D	1	7.9		8.3	24.7		25.9	6.8		7.0	13.47		13.9
	B	A20	1	1	1		8.1			25.4			6.7			13.6	
	C																
	D																
90	A	A21	1	1	1	8.0		8.3	24.7		25.8	7.0		6.9	15.48		15.9
	B	A22	–	–	–		8.2			25.4			6.9			15.7	
	C																
	D																
100	A	A23	–	–	–	–		–	–		–	–		–	–		–
	B	A24	–	–	–		–			–			–			–	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			SB	SB	MF	BA	SP	MF	BA	SP	MF	BA	SP	MF	BA	SP	MF
Recorded by:			JD	JD	MF	BA	SP	MF	BA	SP	MF	BA	SP	MF	BA	SP	MF

Investigators' Signatures
Concentrations prepared by: BA/SP
Loading verified by: SP
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 3 min. 24.9 max. 25.6 mean 25.3
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 25.1 mean 24.5
REVIEWER

Remarks:

Statistical Results: Method: Spearman-Karber
48 / (96) hour LC50: 7.09
95% Confidence Interval: lower 6.79 upper 7.40
Revised 02/21/06

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Appendix C. (continued)

Ceriodaphnia dubia Acute Standard Reference Toxicant Test

DATE: 5/2/06 DURATION: 48 h TOXICANT : NaCl
SPECIES: *C. dubia*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0.00	20	0
1.50	20	0
2.00	20	2
2.50	20	14
3.00	20	20
4.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC_{50}: 2.32
95% LOWER CONFIDENCE: 2.19
95% UPPER CONFIDENCE: 2.44

Cyprinella leedsi Acute Standard Reference Toxicant Test

DATE: 5/2/06 DURATION: 48 H TOXICANT : NaCl
SPECIES: *C. leedsi*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0.00	20	0
6.00	20	2
7.00	20	7
8.00	20	17
9.00	20	19
10.00	20	20

SPEARMAN-KARBER TRIM: 10.00%

SPEARMAN-KARBER ESTIMATES: LC_{50}: 7.20
95% LOWER CONFIDENCE: 6.87
95% UPPER CONFIDENCE: 7.54

Appendix D. 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
5/1/2006	NA	Hydrosphere Research
Customer		**Order Prepared By**
FDEP Marshall Faircloth Biology Mail Stop 6515 2600 Blair Stone Road Tallahassee, Fl 32399-2400		D. Chash

Quantity	Description
150	C. leedsi, CL#1098, Hatched 4/28/2006
150	P. promelas, FM#1023, Hatched 4/27/2006
150	M. bahia from Aquatic Indicators
150	M. beryllina from Aquatic Indicators

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: 5/22/06

Shipped to: I-DEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia					
Menidia beryllina					
Cyprinella leedsi	25+	11 Day	CL0605	25°C	
Pimephales promelas					

Packed by: I-Tank Group

Shipped Via: I-DEP

Notes: _____

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the Rinker Materials Corporation- Center Hill Mine Outfall D-001, sampled on May 22, 2006.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/22/2006 10:40	OUTFALL D001	Bio-AGP/LimNut	Algal Growth Potential	0.3	mg DryWt/L	U	0.3	0.9
5/22/2006 10:40	OUTFALL D001	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.39	mg/L	AI	0.2	2.0
5/22/2006 10:40	OUTFALL D001	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
5/22/2006 10:40	OUTFALL D001	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.5	ug/L	U	1.5	4.5
5/22/2006 10:40	OUTFALL D001	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
5/22/2006 10:40	OUTFALL D001	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
5/22/2006 10:40	OUTFALL D001	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
5/22/2006 10:40	OUTFALL D001	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
5/22/2006 10:40	OUTFALL D001	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
5/22/2006 10:40	OUTFALL D001	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
5/22/2006 10:40	OUTFALL D001	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
5/22/2006 10:40	OUTFALL D001	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
5/22/2006 10:40	OUTFALL D001	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Benzidine	96	ug/L	U	96	380
5/22/2006 10:40	OUTFALL D001	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/22/2006 10:40	OUTFALL D001	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
5/22/2006 10:40	OUTFALL D001	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
5/22/2006 10:40	OUTFALL D001	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
5/22/2006 10:40	OUTFALL D001	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
5/22/2006 10:40	OUTFALL D001	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
5/22/2006 10:40	OUTFALL D001	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
5/22/2006 10:40	OUTFALL D001	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
5/22/2006 10:40	OUTFALL D001	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
5/22/2006 10:40	OUTFALL D001	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
5/22/2006 10:40	OUTFALL D001	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
5/22/2006 10:40	OUTFALL D001	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
5/22/2006 10:40	OUTFALL D001	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/22/2006 10:40	OUTFALL D001	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
5/22/2006 10:40	OUTFALL D001	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
5/22/2006 10:40	OUTFALL D001	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	12
5/22/2006 10:40	OUTFALL D001	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
5/22/2006 10:40	OUTFALL D001	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
5/22/2006 10:40	OUTFALL D001	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
5/22/2006 10:25	FIELD BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
5/22/2006 10:25	FIELD BLANK	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
5/22/2006 10:25	FIELD BLANK	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
5/22/2006 10:25	FIELD BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
5/22/2006 10:25	FIELD BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
5/22/2006 10:25	FIELD BLANK	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Benzidine	95	ug/L	U	95	380
5/22/2006 10:25	FIELD BLANK	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/22/2006 10:25	FIELD BLANK	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
5/22/2006 10:25	FIELD BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
5/22/2006 10:25	FIELD BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
5/22/2006 10:25	FIELD BLANK	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
5/22/2006 10:25	FIELD BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
5/22/2006 10:25	FIELD BLANK	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
5/22/2006 10:25	FIELD BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
5/22/2006 10:25	FIELD BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
5/22/2006 10:25	FIELD BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
5/22/2006 10:25	FIELD BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
5/22/2006 10:25	FIELD BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
5/22/2006 10:25	FIELD BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
5/22/2006 10:25	FIELD BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/22/2006 10:25	FIELD BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
5/22/2006 10:25	FIELD BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
5/22/2006 10:25	FIELD BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	11
5/22/2006 10:25	FIELD BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
5/22/2006 10:25	FIELD BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
5/22/2006 10:25	FIELD BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
5/22/2006 10:40	OUTFALL D001	GC-Water	Alachlor	0.6	ug/L	U	0.6	2.4
5/22/2006 10:40	OUTFALL D001	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
5/22/2006 10:40	OUTFALL D001	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
5/22/2006 10:40	OUTFALL D001	GC-Water	Azinphos Methyl	0.2	ug/L	U	0.2	0.8
5/22/2006 10:40	OUTFALL D001	GC-Water	Bromacil	0.2	ug/L	UJ	0.2	0.8
5/22/2006 10:40	OUTFALL D001	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
5/22/2006 10:40	OUTFALL D001	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
5/22/2006 10:40	OUTFALL D001	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
5/22/2006 10:40	OUTFALL D001	GC-Water	Diazinon	0.05	ug/L	UJ	0.05	0.2
5/22/2006 10:40	OUTFALL D001	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
5/22/2006 10:40	OUTFALL D001	GC-Water	Ethoprop	0.1	ug/L	UJ	0.1	0.4
5/22/2006 10:40	OUTFALL D001	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
5/22/2006 10:40	OUTFALL D001	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
5/22/2006 10:40	OUTFALL D001	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
5/22/2006 10:40	OUTFALL D001	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
5/22/2006 10:40	OUTFALL D001	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
5/22/2006 10:40	OUTFALL D001	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
5/22/2006 10:40	OUTFALL D001	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
5/22/2006 10:40	OUTFALL D001	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
5/22/2006 10:40	OUTFALL D001	GC-Water	Naled	0.8	ug/L	U	0.8	3.2
5/22/2006 10:40	OUTFALL D001	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
5/22/2006 10:40	OUTFALL D001	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
5/22/2006 10:40	OUTFALL D001	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
5/22/2006 10:40	OUTFALL D001	GC-Water	Phorate	0.05	ug/L	UJ	0.05	0.2
5/22/2006 10:40	OUTFALL D001	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
5/22/2006 10:40	OUTFALL D001	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
5/22/2006 10:25	FIELD BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
5/22/2006 10:25	FIELD BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
5/22/2006 10:25	FIELD BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/22/2006 10:25	FIELD BLANK	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
5/22/2006 10:25	FIELD BLANK	GC-Water	Bromacil	0.19	ug/L	UJ	0.19	0.76
5/22/2006 10:25	FIELD BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
5/22/2006 10:25	FIELD BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
5/22/2006 10:25	FIELD BLANK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
5/22/2006 10:25	FIELD BLANK	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19
5/22/2006 10:25	FIELD BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
5/22/2006 10:25	FIELD BLANK	GC-Water	Ethoprop	0.095	ug/L	UJ	0.095	0.38
5/22/2006 10:25	FIELD BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
5/22/2006 10:25	FIELD BLANK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
5/22/2006 10:25	FIELD BLANK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
5/22/2006 10:25	FIELD BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
5/22/2006 10:25	FIELD BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
5/22/2006 10:25	FIELD BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
5/22/2006 10:25	FIELD BLANK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
5/22/2006 10:25	FIELD BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
5/22/2006 10:25	FIELD BLANK	GC-Water	Naled	0.76	ug/L	U	0.76	3
5/22/2006 10:25	FIELD BLANK	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
5/22/2006 10:25	FIELD BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
5/22/2006 10:25	FIELD BLANK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
5/22/2006 10:25	FIELD BLANK	GC-Water	Phorate	0.048	ug/L	UJ	0.048	0.19
5/22/2006 10:25	FIELD BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
5/22/2006 10:25	FIELD BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
5/22/2006 10:40	OUTFALL D001	Metals-Water	Aluminum	11	ug/L	I	4	16
5/22/2006 10:40	OUTFALL D001	Metals-Water	Arsenic	2.4	ug/L		0.5	2
5/22/2006 10:40	OUTFALL D001	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
5/22/2006 10:40	OUTFALL D001	Metals-Water	Calcium	49.6	mg/L		0.02	0.08
5/22/2006 10:40	OUTFALL D001	Metals-Water	Chromium	2.6	ug/L	U	2.6	10
5/22/2006 10:40	OUTFALL D001	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
5/22/2006 10:40	OUTFALL D001	Metals-Water	Iron	5	ug/L	U	5	20
5/22/2006 10:40	OUTFALL D001	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
5/22/2006 10:40	OUTFALL D001	Metals-Water	Magnesium	1.8	mg/L		0.005	0.02
5/22/2006 10:40	OUTFALL D001	Metals-Water	Nickel	1	ug/L	U	1	4
5/22/2006 10:40	OUTFALL D001	Metals-Water	Selenium	3.5	ug/L		0.5	2
5/22/2006 10:40	OUTFALL D001	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
5/22/2006 10:40	OUTFALL D001	Metals-Water	Zinc	3.6	ug/L	U	3.6	14

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/22/2006 10:25	FIELD BLANK	Metals-Water	Aluminum	4	ug/L	U	4	16
5/22/2006 10:25	FIELD BLANK	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
5/22/2006 10:25	FIELD BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
5/22/2006 10:25	FIELD BLANK	Metals-Water	Calcium	0.048	mg/L	U	0.048	0.19
5/22/2006 10:25	FIELD BLANK	Metals-Water	Chromium	0.3	ug/L	U	0.3	1.2
5/22/2006 10:25	FIELD BLANK	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
5/22/2006 10:25	FIELD BLANK	Metals-Water	Iron	5	ug/L	U	5	20
5/22/2006 10:25	FIELD BLANK	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
5/22/2006 10:25	FIELD BLANK	Metals-Water	Magnesium	0.005	mg/L	U	0.005	0.02
5/22/2006 10:25	FIELD BLANK	Metals-Water	Nickel	1	ug/L	U	1	4
5/22/2006 10:25	FIELD BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
5/22/2006 10:25	FIELD BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
5/22/2006 10:25	FIELD BLANK	Metals-Water	Zinc	3.6	ug/L	U	3.6	14
5/22/2006 10:40	OUTFALL D001	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
5/22/2006 10:40	OUTFALL D001	Nutrients-Liquid	Kjeldahl Nitrogen	0.16	mg N/L	U	0.16	0.4
5/22/2006 10:40	OUTFALL D001	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	I	0.004	0.01
5/22/2006 10:40	OUTFALL D001	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
5/22/2006 10:40	OUTFALL D001	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
5/22/2006 10:40	OUTFALL D001	Nutrients-Liquid	TSS	4	mg/L	U	4	16
5/22/2006 10:40	OUTFALL D001	Nutrients-Liquid	Turbidity	1.1	NTU		0.05	0.05
5/22/2006 10:25	FIELD BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
5/22/2006 10:25	FIELD BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
5/22/2006 10:25	FIELD BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
5/22/2006 10:25	FIELD BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
5/22/2006 10:25	FIELD BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
5/22/2006 10:40	BACKGROUND	Nutrients-Liquid	Turbidity	2.5	NTU		0.05	0.05
5/22/2006 10:40	OUTFALL D001	Overflow	Oil and Grease	1.7	mg/L	U		
5/22/2006 10:25	FIELD BLANK	Overflow	Oil and Grease	1.7	mg/L	U		

The Bioassay of Rinker Materials Corporation- Center Hill Mine effluent sampled on May 22, 2006. NPDES #FL0031895.

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

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 3 1 8 9 5 11	12 0 6 0 5 2 2	18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Rinker Materials Corporation- Center Hill Mine effluent sampled on May 22, 2006. NPDES #FL0031895.

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

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 3 1 8 9 5 11	12 0 6 0 5 2 2	18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Rinker Materials Corporation- Center Hill Mine effluent sampled on May 22, 2006. NPDES #FL0031895.

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

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 3 1 8 9 5 11	12 0 6 0 5 2 2	18 **S**	19 **S**	20 2

Remarks

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