

Bioassays of

Morton Salt

Brevard County

NPDES FL0042005

Sampled September 19, 2005

February 2006

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Morton Salt, 450 Cargo Road, Port Canaveral, Brevard County, Florida, NPDES FL0042005. Effluent samples for this facility were collected on September 19, 2005.

Introduction

Morton Salt is an industrial facility that processes bulk sea salt (solar evaporated sea salt from the Bahamas) into water conditioning and animal feed products. These products are distributed in both bulk and packaged form. The facility has a design flow of 0.0840 million gallons per day (MGD). The average annual daily flow (AADF) from September 2004 through August 2005 was 0.0526 MGD. The flow during the sampling event was 0.0578 MGD.

The facility, using deep well water as the source water, generates three on-site wastewater streams: 1) the wet scrubber wastewater stream produced by the reduction of salt in the air discharges at a rate of 50 gallons per minute (GPM) directly into a catch basin, 2) the process wastewater stream from the wash down of vehicles and equipment used in the handling of salt is discharged into the retention pond, and 3) the waste stream consisting of stormwater runoff and non-process water created by contact of rainfall with the salt being stockpiled or handled also flows into the retention pond. No treatment is provided to the scrubber wastewater. The waste streams discharged to the retention pond are settled and then overflow into the catch basin. Wastewater is discharged from the catch basin through Outfall D-001 to the Class III Marine waters of the Port Canaveral Middle Turning Basin. The point of discharge for Outfall D-001 is located approximately at latitude 28º24'50.63" N, longitude 80º36'46.55" W.

There are no Administrative Orders or Consent Orders for this facility. The facility has no toxicity testing requirements or mixing zones. In January 2005, the facility exceeded the permit limit for chloride (facility information provided by Michael Eckoff of FDEP Central District).

Methods

Samples were collected from the EFF-02 NPDES sampling point for Outfall D-001 by Phil Kane, 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.

The 48-hour acute screening toxicity tests and algal growth potential test were performed following internal DEP SOP's TA07_03, TA07_04, 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. 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 September 20 - 22, 2005.

Americamysis bahia 48-hour acute screening bioassay –	LC_{50} < 100%, 100% mortality* in 100% sample at 24 hours
Menidia beryllina 48-hour acute screening bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours

The bioassay sample was acutely toxic to the mysid, *Americamysis bahia*. The mysid test was terminated at 24 hours due to 100% mortality in the sample. The bioassay sample was not acutely toxic to the fish, *Menidia beryllina.*

See Appendix 1 for bioassay bench sheets.

*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% mortality 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 chemistry results confirmed that the ion makeup of the sample was not in seawater proportions. The observed mortality in the *A. bahia* test is due, at least in part, to the seawater-ion imbalance of the sample. Effluent calcium concentration was 191 mg/L at 22.6 ppth salinity (salinity based on conductivity and temperature), which is 72% of the normal concentration (approximately 265 mg/L) for calcium in seawater of this salinity. Effluent magnesium concentration was measured at 92.8 mg/L at 22.6 ppth salinity, which is 11.1% of the normal concentration (approximately 832 mg/L) for magnesium in seawater of this salinity. Previous research conducted by the FDEP Biology Section demonstrated that *A. bahia* is much more sensitive to seawater-ion imbalances than is *M. beryllina* (DEP, 1995). The decreased calcium and particularly the decreased magnesium concentrations are two potential sources of the observed mortality in this sample, but other unidentified sources of toxicity cannot be ruled out without performing the major seawater-ion imbalance toxicity testing protocols cited above.

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 14.8 mg dry wt/L of the saltwater species *Dunaliella tertiolecta.* Raschke and Shultz found that AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment (personal communication with Ron Raschke USEPA Region 4 1987). The analytical chemistry suggests that the effluent is phosphorus-limited.

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine was not detected in the bioassay sample in the laboratory. Total ammonia was detected at a concentration of 1.61 mg/L in the bioassay sample in the laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 1.9 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was 0.14 mg/L.

Aluminum and nickel were detected in the effluent at levels that comply with Class III marine water quality criteria. Chromium, lead, and zinc were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL). The effluent copper concentration (7.49 µg/L) and the effluent iron concentration (621 µg/L) exceeded the Class III marine water quality criteria of ≤3.7 µg/L for copper (62-302.530(24), F.A.C.) and ≤300 µg/L for iron (62-302.530(39), F.A.C.). The effluent dissolved oxygen concentration (4.01 mg/L) was less than the permitted limit (≥5.0) mg/L).

See Table 2 for results of analytes detected in the effluent, and corresponding limits.

See Appendix 2 for a complete list of chemical analyses performed.

Conclusion

The effluent sample collected from Outfall D-001 for this facility on September 19, 2005, was acutely toxic to the mysid test organisms, but not to the fish test organisms, during the acute

screen 48-hour bioassays. The effluent AGP result exceeded the "problem" threshold for marine receiving waters. Effluent copper and iron concentrations exceeded the Class III marine water quality criteria. Effluent dissolved oxygen concentration failed to meet the permitted limit.

Literature Cited

FDEP. 1995. Protocols for determining Major-Seawater-Ion Toxicity in Membrane-Technology Water-Treatment Concentrate. Biology and Chemistry Section, FDEP Bureau of Laboratories, Tallahassee, Florida. 99 pp.

Table 1. Measured and predicted algal growth potential (AGP; mg dry wt/L) of Dunaliella tertiolecta *and ratios of nitrogen to phosphorus for samples collected from Morton Salt on September 19, 2005.*

Location	AGP (measured)	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	14.8 AV	21.65	27.7

A - Value reported is the mean of two or more determinations
V - Analyte was detected in both the sample and the method blank

Table 2. Effluent limits, Class III Marine Criteria, and chemical data for samples collected from Morton Salt on September 19, 2005.

Morton Salt NPDES# 05-FL0042005	Class III Marine Stds	Effluent Limits	Effluent Samples
Organic Constituents (µg/L)			
PAHs	≤ 0.031 a	-	0.94 U
Metals (µg/L unless otherwise noted)			
Aluminum	≤ 1,500	-	105
Arsenic	≤ 50	-	8 U
Cadmium	≤ 9.3	-	0.25 U
Calcium (mg/L)	-	-	191
Chromium-III	-	-	6.6 I
Copper	≤ 3.7	-	7.49
Iron	≤ 300	-	621
Lead	≤ 8.5	-	0.75 I
Magnesium (mg/L)	-	-	92.8
Nickel	≤ 8.3	-	5
Selenium	≤ 71	-	5 U
Silver	≤ 2.3	-	0.12 U
Zinc	≤ 86	-	8.7 I
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.091
Total Phosphorus	-	Report	0.1 A
Ammonia	-	-	1.9 A
Unionized Ammonia	-	-	0.14 c
Nitrate+Nitrite	-	-	0.07
Total Kjeldahl Nitrogen	-	-	2.7
Organic Nitrogen	-	-	0.8 c
Total Nitrogen	-	Report	2.77 c
General Physical and Chemical Parameters			
Dissolved Oxygen (mg/L)	≥ 4.0 s	≥ 5.0 s	4.01
pH (S.U.)	6.5-8.5 s	6.5-8.5 s	7.5
Conductivity (umhos/cm)	-	-	48,500
Temperature (C)	-	-	43.8
Chlorides (mg/L)	-	Report e	12,000 A
TDS (mg/L)	-	Report	19,400
TSS (mg/L)	-	Report	10 I
Oil and Grease (mg/L)	≤ 5.0	≤ 5.0	1.7 U
Flow (AADF MGD)	-	0.0840 m	0.0526 ap
Flow during survey (MGD)	-	0.0840 m	0.0578 p
Hardness (mg/L)	-	-	859.1 c

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

a - Annual average
c - Calculated value
e - chloride concentrations shall not exceed 10% above ambient levels as measured at sampling location SWA-01
m - Monthly average
p - permitted sampling point for this limit is EFF-01
s - Single sample
A - Value reported is the mean of two or more determinations
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U - Material analyzed for but not detected; value reported is the minimum detection limit

FDEP Biology Section - Acute Screen Bioassay Bench Sheets

Facility: Morton Salt

Address: 450 Caraway Road

City: Port Canaveral County:

Contact/District: Phil Kane / Central District

NPDES Permit #: FL 0042005

LIMS Job #: TLH-2005-09-20-15 LIMS Sample #: 865120

Sample Collection: Date: 9-19-05 Time: 10:19

Hold Time Start: Date: 9-19-05 Time: 10:19

Comments: mysid test Terminated at 24 hours. 100% mortality in 100% sample - Mysids appeared digesthatized within 10 minutes of contact with the test solution. mF 9-23-05

Lims Data Entry: MF 9-23-05 Data Entry Verification: 9-23-05 SP

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 03

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation: Test 2: SOP TA 04

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Initial sample handling:

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

Aeration : yes (no) Initial DO: ____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 # 3 Range 24.8-25.7

Room B246: 24.1-25.1

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

Marshall Faircloth

Jane Davis

Nicki 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	SP	MF
Alkalinity (mg/L as $CaCO_3$):			197	197		205	HACH	MF	SP
Hardness (mg/L as $CaCO_3$):			—	—		—	HACH	—	—
Total Ammonia (mg/L as N):			<0.051	<0.051		1.61	DENVER	MF	SP
Salinity (ppth):			~22.5	~22.5		22.6	YSI / Mettler	SP	MF

V 1.4 9/12/05

Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet
Survival

LIMS Sample #: 865120 Test #: 1 Test Started: Date 9-20-05 Time: 1540
Organism: A.bahia Test Ended: Date 9-21-05 Time: 1300
Organism Batch: 22-05 Diluent/ Batch: ASW / 12-05
Organism Age: 3 days Food: YCT *P. subcapitata* *Artemia* SOP: TA_07.03
Chamber Size: 1000 mL Batch: - - 35138425GR
Test Volume: 500 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	B1	5	5				
	B	B2	5	5				
	C	B3	5	5				
	D	B4	5	5				
100%	A	B5	5	c 5D				
	B	B6	5	c 5D				
	C	B7	5	c 5D				
	D	B8	5	c 5D				
Organisms loaded by: BR		Checked by:	[redacted]	JD				

Loading Verified by: JD

Comments:

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

Test Results:

% mortality in 100% sample 100

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 1. Bench Sheets (continued)



FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 865120 Test #: 2 Test Started: Date 9-20-05 Time: 1530

Organism: Mysidopsis Test Ended: Date 9-22-05 Time: 1400

Organism Batch: 2445 Diluent/ Batch: ASW / 12-05

Organism Age: 12 days Food: YCT *P. subcapitata* *Artemia* SOP: TA 07.04

Chamber Size: 1000 mL Batch: - - 35138425 GR

Test Volume: 500 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	B9	5	5	5			
	B	B10	5	5	5			
	C	B11	5	5	5			
	D	B12	5	5	5			
100%	A	B13	5	5	5			
	B	B14	5	5	5			
	C	B15	5	5	5			
	D	B16	5	5	5			

Organisms loaded by: JD Checked by: [redacted] JD JD

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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Bioassay Parameters

LIMS Sample # : 805120 Test # : 1 of 2

TEST SOP: TA07_03_ Test Species: *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* (*Americamysis bahia*) *Menidia beryllina* Other:

~~V.1 2/24/04~~

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B				
pH (S.U.)	8.3	~~8.5~~ 8.3				
Temperature °C	25.1	24.0				
Dissolved Oxygen mg/L	7.3	5.5				
Conductivity µmhos (mmhos)	35.5	35.7				
(initials) Measured by:	JJ	SR				
(initials) Recorded by:	JJ	SR				

Comments:
(A) Correct value 8.3 mistakenly written DC

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B				
pH (S.U.)	7.5	~~5.7~~ (E) 5.80				
Temperature °C	25.1	24.0				
Dissolved Oxygen mg/L	5.4	5.7				
Conductivity µmhos (mmhos)	35.7	35.5				
(initials) Measured by:	BP	CJ				
(initials) Recorded by:	BP	SR				

Comments: (B) Correct value 8.3 mistakenly written DO

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: ~~A~~

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

000024

Bioassay Parameters

LIMS Sample # : 865120 **Test # :** 2 **of** 2

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

V.1 2/24/04

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.)	8.3	8.3	8.2			
Temperature °C	25.1	24.0	24.7			
Dissolved Oxygen mg/L	7.3	5.9	5.7			
Conductivity µmhos (mmhos)	359	35.4	37.7			
(initials) Measured by:	JD	[illegible]	[illegible]			
(initials) Recorded by:	JD	[illegible]	[illegible]			

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.)	7.5	8.0	8.1			
Temperature °C	25.0	24.0	24.4			
Dissolved Oxygen mg/L	5.3	5.9	5.9			
Conductivity µmhos (mmhos)	35.6	35.7	37.2			
(initials) Measured by:	[illegible]	[illegible]	[illegible]			
(initials) Recorded by:	[illegible]	[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

Appendix 2. Chemical Analyses performed on the effluent from the Morton Salt Outfall D-001, sampled on September 19, 2005.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/19/2005 10:19	SALT	Bio-AGP/LimNut	Algal Growth Potential	14.8	mg DryWt/L	AV	0.3	0.9
9/19/2005 10:19	SALT	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	1.1	ug/L	I	0.85	2.6
9/19/2005 10:19	SALT	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.8	ug/L	J	0.85	2.6
9/19/2005 10:19	SALT	Bio-Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	LC50	L		
9/19/2005 10:19	SALT	Bio-Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	LC50	K		
9/19/2005 10:19	SALT	BNA-Water	1,2,4-Trichlorobenzene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	1,2-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	1,3-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	1,4-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	2,4,6-Trichlorophenol	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	2,4-Dichlorophenol	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	2,4-Dimethylphenol	47	ug/L	U	47	190
9/19/2005 10:19	SALT	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
9/19/2005 10:19	SALT	BNA-Water	2,4-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	2,6-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	2-Chloronaphthalene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	2-Chlorophenol	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	2-Methyl-4,6-dinitrophenol	2.8	ug/L	U	2.8	11
9/19/2005 10:19	SALT	BNA-Water	2-Nitrophenol	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/19/2005 10:19	SALT	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	4-Bromophenyl phenyl ether	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	4-Chloro-3-methylphenol	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.5
9/19/2005 10:19	SALT	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
9/19/2005 10:19	SALT	BNA-Water	Acenaphthene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Acenaphthylene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Anthracene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Benzidine	94	ug/L	U	94	380
9/19/2005 10:19	SALT	BNA-Water	Benzo(a)anthracene	0.94	ug/L	U	0.94	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/19/2005 10:19	SALT	BNA-Water	Benzo(a)pyrene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Benzo(b)fluoranthene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Benzo(g,h,i)perylene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Benzo(k)fluoranthene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Bis(2-chloroethoxy)methane	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Bis(2-chloroethyl)ether	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Bis(2-chloroisopropyl)ether	2.8	ug/L	U	2.8	11
9/19/2005 10:19	SALT	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
9/19/2005 10:19	SALT	BNA-Water	Butyl benzyl phthalate	4.7	ug/L	U	4.7	19
9/19/2005 10:19	SALT	BNA-Water	Chrysene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Dibenzo(a,h)anthracene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Diethyl phthalate	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Dimethyl phthalate	47	ug/L	U	47	190
9/19/2005 10:19	SALT	BNA-Water	Di-n-butyl phthalate	4.7	ug/L	U	4.7	19
9/19/2005 10:19	SALT	BNA-Water	Di-n-octyl phthalate	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/19/2005 10:19	SALT	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/19/2005 10:19	SALT	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/19/2005 10:19	SALT	BNA-Water	Fluoranthene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Fluorene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
9/19/2005 10:19	SALT	BNA-Water	Hexachlorobenzene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Hexachlorobutadiene	2.8	ug/L	U	2.8	11
9/19/2005 10:19	SALT	BNA-Water	Hexachlorocyclopentadiene	2.8	ug/L	U	2.8	11
9/19/2005 10:19	SALT	BNA-Water	Hexachloroethane	2.8	ug/L	U	2.8	11
9/19/2005 10:19	SALT	BNA-Water	Indeno(1,2,3-cd)pyrene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Isophorone	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Naphthalene	0.94	ug/L	U	0.94	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/19/2005 10:19	SALT	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.5
9/19/2005 10:19	SALT	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.5
9/19/2005 10:19	SALT	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.5
9/19/2005 10:19	SALT	BNA-Water	N-Nitrosodiphenylamine	2.8	ug/L	U	2.8	11
9/19/2005 10:19	SALT	BNA-Water	Pentachlorophenol	2.8	ug/L	U	2.8	11
9/19/2005 10:19	SALT	BNA-Water	Phenanthrene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:19	SALT	BNA-Water	Phenol	13	ug/L	U	13	53
9/19/2005 10:19	SALT	BNA-Water	Pyrene	0.94	ug/L	U	0.94	3.8
9/19/2005 10:55	BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
9/19/2005 10:55	BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
9/19/2005 10:55	BLANK	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
9/19/2005 10:55	BLANK	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/19/2005 10:55	BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
9/19/2005 10:55	BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
9/19/2005 10:55	BLANK	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/19/2005 10:55	BLANK	BNA-Water	Benzidine	95	ug/L	U	95	380
9/19/2005 10:55	BLANK	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
9/19/2005 10:55	BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
9/19/2005 10:55	BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
9/19/2005 10:55	BLANK	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
9/19/2005 10:55	BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
9/19/2005 10:55	BLANK	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/19/2005 10:55	BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/19/2005 10:55	BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/19/2005 10:55	BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
9/19/2005 10:55	BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
9/19/2005 10:55	BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
9/19/2005 10:55	BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
9/19/2005 10:55	BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/19/2005 10:55	BLANK	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
9/19/2005 10:55	BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
9/19/2005 10:55	BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
9/19/2005 10:55	BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
9/19/2005 10:55	BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
9/19/2005 10:55	BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:55	BLANK	BNA-Water	Phenol	14	ug/L	U	14	56
9/19/2005 10:55	BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
9/19/2005 10:19	SALT	GC-Water	Alachlor	0.6	ug/L	UJ	0.6	2.4
9/19/2005 10:19	SALT	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
9/19/2005 10:19	SALT	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
9/19/2005 10:19	SALT	GC-Water	Azinphos Methyl	0.2	ug/L	U	0.2	0.8
9/19/2005 10:19	SALT	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
9/19/2005 10:19	SALT	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
9/19/2005 10:19	SALT	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
9/19/2005 10:19	SALT	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
9/19/2005 10:19	SALT	GC-Water	Diazinon	0.05	ug/L	U	0.05	0.2
9/19/2005 10:19	SALT	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
9/19/2005 10:19	SALT	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
9/19/2005 10:19	SALT	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
9/19/2005 10:19	SALT	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
9/19/2005 10:19	SALT	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
9/19/2005 10:19	SALT	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
9/19/2005 10:19	SALT	GC-Water	Metalaxyl	0.25	ug/L	UJ	0.25	1
9/19/2005 10:19	SALT	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
9/19/2005 10:19	SALT	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
9/19/2005 10:19	SALT	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
9/19/2005 10:19	SALT	GC-Water	Naled	0.8	ug/L	UJ	0.8	3.2
9/19/2005 10:19	SALT	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
9/19/2005 10:19	SALT	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
9/19/2005 10:19	SALT	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
9/19/2005 10:19	SALT	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
9/19/2005 10:19	SALT	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/19/2005 10:19	SALT	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
9/19/2005 10:55	BLANK	GC-Water	Alachlor	0.57	ug/L	UJ	0.57	2.3
9/19/2005 10:55	BLANK	GC-Water	Ametryn	0.047	ug/L	U	0.047	0.19
9/19/2005 10:55	BLANK	GC-Water	Atrazine	0.047	ug/L	U	0.047	0.19
9/19/2005 10:55	BLANK	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
9/19/2005 10:55	BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
9/19/2005 10:55	BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
9/19/2005 10:55	BLANK	GC-Water	Chlorpyrifos Ethyl	0.047	ug/L	U	0.047	0.19
9/19/2005 10:55	BLANK	GC-Water	Chlorpyrifos Methyl	0.094	ug/L	U	0.094	0.38
9/19/2005 10:55	BLANK	GC-Water	Diazinon	0.047	ug/L	U	0.047	0.19
9/19/2005 10:55	BLANK	GC-Water	Ethion	0.047	ug/L	U	0.047	0.19
9/19/2005 10:55	BLANK	GC-Water	Ethoprop	0.094	ug/L	U	0.094	0.38
9/19/2005 10:55	BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
9/19/2005 10:55	BLANK	GC-Water	Fonofos	0.094	ug/L	U	0.094	0.38
9/19/2005 10:55	BLANK	GC-Water	Hexazinone	0.094	ug/L	U	0.094	0.38
9/19/2005 10:55	BLANK	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
9/19/2005 10:55	BLANK	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
9/19/2005 10:55	BLANK	GC-Water	Metolachlor	0.47	ug/L	U	0.47	1.9
9/19/2005 10:55	BLANK	GC-Water	Metribuzin	0.094	ug/L	U	0.094	0.38
9/19/2005 10:55	BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
9/19/2005 10:55	BLANK	GC-Water	Naled	0.75	ug/L	UJ	0.75	3
9/19/2005 10:55	BLANK	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
9/19/2005 10:55	BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
9/19/2005 10:55	BLANK	GC-Water	Parathion Methyl	0.094	ug/L	U	0.094	0.38
9/19/2005 10:55	BLANK	GC-Water	Phorate	0.047	ug/L	U	0.047	0.19
9/19/2005 10:55	BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
9/19/2005 10:55	BLANK	GC-Water	Simazine	0.047	ug/L	U	0.047	0.19
9/19/2005 10:19	SALT	Metals-Water	Aluminum	105	ug/L		10	40
9/19/2005 10:19	SALT	Metals-Water	Arsenic	8	ug/L	U	8	32
9/19/2005 10:19	SALT	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
9/19/2005 10:19	SALT	Metals-Water	Calcium	191	mg/L		0.1	0.4
9/19/2005 10:19	SALT	Metals-Water	Chromium	6.6	ug/L	I	4	16
9/19/2005 10:19	SALT	Metals-Water	Copper	7.49	ug/L		0.25	1
9/19/2005 10:19	SALT	Metals-Water	Iron	621	ug/L		20	80
9/19/2005 10:19	SALT	Metals-Water	Lead	0.75	ug/L	I	0.45	1.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/19/2005 10:19	SALT	Metals-Water	Magnesium	92.8	mg/L		0.02	0.08
9/19/2005 10:19	SALT	Metals-Water	Nickel	5	ug/L		0.075	0.3
9/19/2005 10:19	SALT	Metals-Water	Selenium	5	ug/L	U	5	20
9/19/2005 10:19	SALT	Metals-Water	Silver	0.12	ug/L	U	0.12	0.5
9/19/2005 10:19	SALT	Metals-Water	Zinc	8.7	ug/L	I	6	24
9/19/2005 10:55	BLANK	Metals-Water	Aluminum	5	ug/L	U	5	20
9/19/2005 10:55	BLANK	Metals-Water	Arsenic	4	ug/L	U	4	16
9/19/2005 10:55	BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
9/19/2005 10:55	BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
9/19/2005 10:55	BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
9/19/2005 10:55	BLANK	Metals-Water	Copper	0.25	ug/L	U	0.25	1
9/19/2005 10:55	BLANK	Metals-Water	Iron	10	ug/L	U	10	40
9/19/2005 10:55	BLANK	Metals-Water	Lead	0.45	ug/L	U	0.45	1.8
9/19/2005 10:55	BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
9/19/2005 10:55	BLANK	Metals-Water	Nickel	0.26	ug/L	U	0.26	1
9/19/2005 10:55	BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
9/19/2005 10:55	BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
9/19/2005 10:55	BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
9/19/2005 10:19	SALT	Nutrients-Liquid	Ammonia-N	1.9	mg N/L	A	0.2	0.4
9/19/2005 10:19	SALT	Nutrients-Liquid	Chloride	12,000	mg Cl/L	A	200	500
9/19/2005 10:19	SALT	Nutrients-Liquid	Kjeldahl Nitrogen	2.7	mg N/L		0.12	0.4
9/19/2005 10:19	SALT	Nutrients-Liquid	NO2NO3-N	0.07	mg N/L		0.004	0.01
9/19/2005 10:19	SALT	Nutrients-Liquid	O-Phosphate-P	0.091	mg P/L		0.008	0.02
9/19/2005 10:19	SALT	Nutrients-Liquid	TDS	19,400	mg/L		150	600
9/19/2005 10:19	SALT	Nutrients-Liquid	Total-P	0.1	mg P/L	A	0.02	0.06
9/19/2005 10:19	SALT	Nutrients-Liquid	TSS	10	mg/L	I	4	16
9/19/2005 10:55	BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
9/19/2005 10:55	BLANK	Nutrients-Liquid	Chloride	12,000	mg Cl/L		200	500
9/19/2005 10:55	BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	mg N/L	U	0.06	0.2
9/19/2005 10:55	BLANK	Nutrients-Liquid	NO2NO3-N	0.024	mg N/L		0.004	0.01
9/19/2005 10:55	BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
9/19/2005 10:55	BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
9/19/2005 10:19	SALT	Overflow	Oil and Grease	1.7	mg/L	U		
9/19/2005 10:55	BLANK	Overflow	Oil and Grease	1.7	mg/L	U		

The Bioassay of Morton Salt effluent sampled on September 19, 2005. NPDES #FL0042005.

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 4 2 0 0 5 11	12 0 5 0 9 1 9	18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Morton Salt effluent sampled on September 19, 2005. NPDES #FL0042005.

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 4 2 0 0 5 11	12 0 5 0 9 1 9	18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Morton Salt effluent sampled on September 19, 2005. NPDES #FL0042005.

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 4 2 0 0 5 11	12 0 5 0 9 1 9	18 **S**	19 **S**	20 2

Remarks

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