

Bioassays of

Middleburg Bluffs Wastewater Treatment Facility

Clay County

NPDES #FL0113743

Sampled December 6, 2004

March 2005

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Middleburg Bluffs Wastewater Treatment Facility, Iris Street and State Road 218, Middleburg, Clay County, Florida, NPDES #FL0113743. Effluent samples for this facility were collected on December 6, 2004.

Introduction

Middleburg Bluffs Wastewater Treatment Facility (WWTF) uses the extended-aeration process to treat domestic wastewater to secondary standards. The facility has a design flow of 0.0099 million gallons per day (MGD), and had an average flow of 0.00925 MGD from August 2003 to July 2004. Effluent is disinfected with liquid chlorine, dechlorinated through time in detention ponds, and discharged into a rapid rate infiltration basin (RIB) land application system consisting of two percolation ponds. These ponds discharge at D-001 into a stormwater pond that flows to an unnamed ditch, thence to the Class III fresh waters of the Dillaberry Branch of Black Creek. The point of discharge is located approximately at latitude 30° 03' 45" N, longitude 81° 53' 45" W. There are no mixing zones for this facility. Sampling locations include EFA-1 (immediately after disinfection), EFF-1 (overflow structure to stormwater pond) and SWI-1 (approximately 5 feet west from the discharge point D-001). There is no toxicity testing requirement for this facility (facility information provided by Gloria Berges of FDEP Northeast District).

Methods

Bioassay samples and water chemistry samples for metals and organic constituents were collected from the EFF-1 NPDES sampling point, while nutrients were sampled from EFA-1. Sampling was conducted by Pat O'Connor and Sandra Marquez (FDEP Northeast 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 toxicity tests and algal growth potential test were performed following internal DEP SOP's TA07_01,TA07_02, and TA08_01 through TA08_07. 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 December 7-9, 2004.

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

Bioassay samples did not show toxicity to the test organisms.

See Appendix 1 for bioassay bench sheets.

*NOTE: In a 48-hr 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.)

Algal Growth Potential

The effluent Algal Growth Potential (AGP) at EFF-1 was 171 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. Sufficient analytical chemistry was not collected at that outfall to determine nutrient limitation or predict AGP values based on available nutrients.

See Table 1 for AGP results.

Chemistry Results

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

Aluminum, iron, and zinc were detected in the EFF-1 effluent at levels that comply with Class III fresh water quality criteria. Copper and lead were detected at EFF-1 between the laboratory minimum detection limits (MDL) and practical quantitation limits (PQL). The EFA-1 effluent nitrate concentration (20 mg/L) exceeded the single sample limit specified in the permit for that site (12.0 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 samples collected from EFF-1 for this facility on December 6, 2004, did not show acute toxicity to either test species during the 48-hour bioassays. The effluent AGP result exceeded the "problem” threshold for fresh receiving waters. The effluent nitrate concentration exceeded the single sample permit limit. Effluent water quality samples did not exceed any applicable water quality standards.

Literature Cited

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. Algal growth potential (AGP; mg dry weight/L) of Pseudokirchneriella subcapitata *and nitrogen to phosphorus ratios for samples collected from Middleburg Bluffs WWTF on December 6, 2004.*

Location	AGP (measured)	Total N:P ratio
Effluent - Eastern Percolation Pond (EFF-1)	171	-
Effluent - Chlorine Contact Chamber (EFA-1)	-	9.51

Table 2. Effluent limits, Class III Fresh Water Criteria and chemical data for Middleburg Bluffs WWTF, sampled on December 6, 2004.

Middleburg Bluffs WWTF	Class III Fresh Stds	Effluent Limits (EFF-1)	Effluent Limits (EFA-1)	Effluent - Eastern Percolation Pond (EFF-1)	Effluent - Chlorine Contact Chamber (EFA-1)
Organic Constituents (µg/L)					
None Detected	-	-	-	-	-
Metals (µg/L unless otherwise noted)					
Aluminum	-	-	-	639	-
Arsenic	≤ 50	-	-	6 U	-
Cadmium	≤ 1 b	-	-	0.075 U	-
Calcium (mg/L)	-	-	-	20.6	-
Chromium-III	≤ 74.1 b	-	-	2 U	-
Copper	≤ 8 b	-	-	1.7 I	-
Iron	≤ 1000	-	-	131	-
Lead	≤ 2.5 b	-	-	0.66 I	-
Magnesium (mg/L)	-	-	-	7.7	-
Nickel	≤ 44.6 b	-	-	2 U	-
Selenium	≤ 5	-	-	0.5 U	-
Silver	≤ 0.07	-	-	0.02 U	-
Zinc	≤ 102.5 b	-	-	21	-
Nutrients (mg/L)					
Nitrate-N	-	-	≤12.0 s	-	20 A
Ortho-phosphate	-	-	-	1.6	-
Total Phosphorus	-	-	-	-	2.7
Ammonia	-	-	-	-	0.01 U
Unionized Ammonia	≤ 0.02	Report	-	-	≤ 0.02 c
Nitrate+Nitrite	-	-	-	-	25
Total Kjeldahl Nitrogen	-	-	-	-	0.67 I
Organic Nitrogen	-	-	-	-	0.67 c
Total Nitrogen	-	-	-	-	25.67 c
General Physical and Chemical Parameters					
Dissolved Oxygen (mg/L)	≥ 5	-	-	5.4	5.3
pH (S.U.)	6.0 - 8.5	Report	6.0 - 8.5	6.9	6.9
Conductivity (umhos/cm)	≤ 1275	-	-	349	404
Temperature (C)	-	Report	-	13.4	19.8
TSS (mg/L)	-	-	≤20.0 a, ≤60.0 s	-	5 I
CBOD (mg/L)	-	-	≤20.0 a, ≤60.0 s	-	-
BOD (mg/L)	-	-	-	-	0.2 U
Hardness (mg/L)	-	-	-	83.1 c	-
Total Residual Chlorine (mg/L)	≤ 0.01	≤ 0.01	≥ 0.5	-	-

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

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 Bioassay Bench Sheets

Facility: Middleburg Bluffs WWTF

Address: IRIS STREET and State Road 218

City: Middleburg County: Clay

Contact/District: Pat O'Connor / Northeast

NPDES Permit #: FL 0113743

LIMS Job #: TLH-2004-12-07-03 LIMS Sample #: 840953

Sample Collection: Date: 12-6-04 Time: ~~0810~~ 1040 (A)

Hold time Start: Date: 12-6-04 Time: ~~0810~~ 1040

Comments: (A) Incorrect Time from Field Sheet MF-12-10-04

Lims Data Entry: mf 12-10-04 Data Entry Verification: 12-10-04 J.D.

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

Test Type: Screening/Definitive

Static / Static Renewal / Flow-through

Test Duration: 48 96 Hours.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Initial sample handling:

Test 1 validation:
Control survival ≥90%: Yes No
Temperature Range ≤3°C: Yes No

Test 2 validation:
Control survival ≥90%: Yes No
Temperature Range ≤3°C: Yes No

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 25.8 - 26.0
Room B246: 24.3 - 24.4
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

Chiara Pierini

Marshall Faircloth

Sarah Pritchard

Dean Nicholson
James Dawe

Nicole Wellendorf

REVIEWER

Water Quality Parameters	20% DMW	Well Water	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Moderately Hard Water	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	N/A	N/A	N/A	N/A	N/A	NM	—	—	DN
Lab Total Residual Cl2 (mg/L):	<0.03	<0.03				<0.03	HACH	CAC/BP	DN
Alkalinity (mg/L as $CaCO_3$):	101	158				112	HACH	JD	DN
Hardness (mg/L as $CaCO_3$):	84	156				116	HACH	JD	DN
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	DN	JD
Salinity (ppth):	<1	<1				<1	YSI Mettler	SD	MF

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FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 800953 Test #: 1 Test Started: Date 12-7-04 Time: 1230

Organism: C. dubia Test Ended: Date 12/9/04 Time: 1300

Organism Batch: 44 Diluent/ Batch: 20% DMW / 43

Organism Age: <1 day Food: YCT P. subcapitata Artemia

Chamber Size 30 mL Batch: 5 41

Test Volume 20 mL Feeding: Prior to test, Prior to renewal - Daily

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	G1	5	5	5			
	B	G2	5	5	5			
	C	G3	5	5	5			
	D	G4	5	5	5			
100%	A	G5	5	5	5			
	B	G6	5	5	5			
	C	G7	5	5	5			
	D	G8	5	5	5			
Organisms loaded by: JW		Checked by:	MF	JD	JJ			

Loading Verified by: MF (initials)

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 Bench Sheet

Survival

LIMS Sample #: 800953 Test #: 2

Test Started: Date 12-7-04 Time: 1235

Organism: C. leedsi

Test Ended: Date 12/9/04 Time: 1300

Organism Batch: 30 Diluent/ Batch: Well / N/A

Organism Age: 12 days Food: YCT P. subcapitata (Artemia)

Chamber Size 1000 mL Batch: 41254256

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	G9	5	5	5			
	B	G10	5	5	5			
	C	G11	5	5	5			
	D	G12	5	5	5			
100%	A	G13	5	5	5			
	B	G14	5	5	5			
	C	G15	5	5	5			
	D	G16	5	5	5			
Organisms loaded by: JJ		Checked by:	MF	JJ	JJ			

Loading Verified by: MF (initials)

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 # : 800953 **Test # :** 1 of 2

TEST SOP: TA07_ 01 **Test Species:** (*Ceriodaphnia dubia*) *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

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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		8.1			
Temperature °C	24.3	DN 24.5	24.3			
Dissolved Oxygen mg/L	7.6		7.8			
Conductivity (µmhos) mmhos	190		210			
(initials) Measured by:	MF		DN			
(initials) Recorded by:	MF		DN			

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.)	6.8		8.2			
Temperature °C	24.5	24.5 DN	24.3			
Dissolved Oxygen mg/L	7.7		7.8			
Conductivity (µmhos) mmhos	365		395			
(initials) Measured by:	MF		DN			
(initials) Recorded by:	MF		DN			

Comments:

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

Comments:

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

Comments:

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V.1 2/24/04

Bioassay Parameters

LIMS Sample # : 800953 Test # : 2 of 2

TEST SOP: TA07_ 02 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.)	7.9	8.2	8.3			
Temperature °C	26.0	24.0	24.0			
Dissolved Oxygen mg/L	7.5	7.2	7.5			
Conductivity ~~µmhos~~ mmhos	275	285	300			
(initials) Measured by:	CAP	DN	DN			
(initials) Recorded by:	CAP	SP	DN			

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.)	6.8	7.9	8.1			
Temperature °C	24.5	24.5	24.0			
Dissolved Oxygen mg/L	7.7	7.4	7.6			
Conductivity ~~µmhos~~ mmhos	365	380	390			
(initials) Measured by:	MF	DN	DN			
(initials) Recorded by:	MF	SP	DN			

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:

Appendix 2. Chemical Analyses performed on the effluent from the Middleburg Bluffs WWTF Outfalls EFF-1 (Eastern Percolation Pond) and EFA-1 (Chlorine Contact Chamber), sampled on December 6, 2004.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
12/6/2004 10:40	EASTERN PERCOLATION POND	Bio-AGP/LimNut	Algal Growth Potential	171	mg DryWt/L		0.3	0.9
12/6/2004 10:20	CHLORINE CONTACT CHAMBER	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.2	mg/L	U		
12/6/2004 10:40	EASTERN PERCOLATION POND	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	70	ug/L	A	1.9	5.8
12/6/2004 10:40	EASTERN PERCOLATION POND	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.3	ug/L	A	1.9	5.8
12/6/2004 10:40	EASTERN PERCOLATION POND	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia	100	LC50	L		
12/6/2004 10:40	EASTERN PERCOLATION POND	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish	100	LC50	L		
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2,4-Dinitrophenol	14	ug/L	UJ	14	57
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	UJ	2.9	11
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	4-Nitrophenol	14	ug/L	UJ	14	57
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Benzidine	95	ug/L	U	95	380
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
12/6/2004 10:40	EASTERN PERCOLATION POND	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	UJ	14	58
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	UJ	2.9	12
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	4-Nitrophenol	14	ug/L	UJ	14	58
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Benzidine	96	ug/L	U	96	380
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12

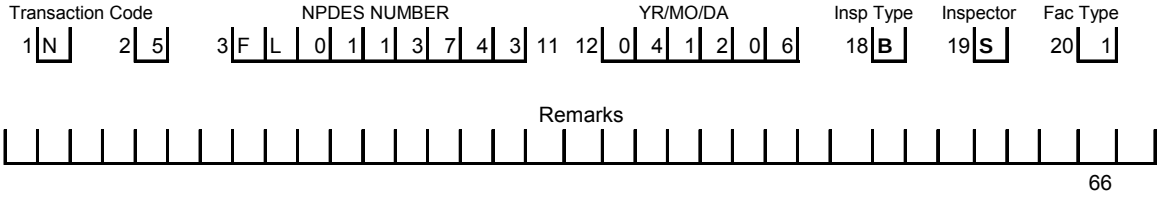
Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
12/6/2004 8:10	EQUIPMENT BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Alachlor	0.6	ug/L	U	0.6	2.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Azinphos Methyl	0.05	ug/L	U	0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Diazinon	0.05	ug/L	UJ	0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Naled	0.8	ug/L	UJ	0.8	3.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Norflurazon	0.1	ug/L	U	0.1	0.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
12/6/2004 10:40	EASTERN PERCOLATION POND	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.19
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.38
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Ethoprop	0.096	ug/L	U	0.096	0.38
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.38
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.38
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.38
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Naled	0.77	ug/L	UJ	0.77	3.1
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Norflurazon	0.096	ug/L	U	0.096	0.38
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.38
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
12/6/2004 8:10	EQUIPMENT BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Aluminum	639	ug/L		5	20
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Arsenic	6	ug/L	U	6	24
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Calcium	20.6	mg/L		0.05	0.2
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Chromium	2	ug/L	U	2	8
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Copper	1.7	ug/L	I	0.75	3
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Iron	131	ug/L		10	40
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Lead	0.66	ug/L	I	0.18	0.72
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Magnesium	7.7	mg/L		0.02	0.08
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Nickel	2	ug/L	U	2	8
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
12/6/2004 10:40	EASTERN PERCOLATION POND	Metals-Water	Zinc	21	ug/L		3	12
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Aluminum	5	ug/L	U	5	20
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Arsenic	6	ug/L	U	6	24
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Copper	0.75	ug/L	U	0.75	3
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Iron	10	ug/L	U	10	40
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
12/6/2004 8:10	EQUIPMENT BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
12/6/2004 10:20	CHLORINE CONTACT CHAMBER	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
12/6/2004 10:20	CHLORINE CONTACT CHAMBER	Nutrients-Liquid	Kjeldahl Nitrogen	0.67	mg N/L	I	0.3	1
12/6/2004 10:20	CHLORINE CONTACT CHAMBER	Nutrients-Liquid	NO2NO3-N	25	mg N/L		0.4	1
12/6/2004 10:20	CHLORINE CONTACT CHAMBER	Nutrients-Liquid	Nitrate-N	20	mg N/L	A	0.1	0.2
12/6/2004 10:20	CHLORINE CONTACT CHAMBER	Nutrients-Liquid	TSS	5	mg/L	I	4	16
12/6/2004 10:20	CHLORINE CONTACT CHAMBER	Nutrients-Liquid	Total-P	2.7	mg P/L		0.1	0.3
12/6/2004 10:40	EASTERN PERCOLATION POND	Nutrients-Liquid	O-Phosphate-P	1.6	mg P/L		0.08	0.2
12/6/2004 8:10	EQUIPMENT BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
12/6/2004 8:10	EQUIPMENT BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	mg N/L	U	0.06	0.2
12/6/2004 8:10	EQUIPMENT BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
12/6/2004 8:10	EQUIPMENT BLANK	Nutrients-Liquid	Nitrate-N	0.02	mg N/L	U	0.02	0.04
12/6/2004 8:10	EQUIPMENT BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
12/6/2004 8:10	EQUIPMENT BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06

The Bioassay of Middleburg Bluffs WWTF effluent sampled on December 6, 2004, NPDES #FL0113743.

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



The Priority Pollutants Analysis for Bioassay of Middleburg Bluffs WWTF effluent sampled on December 6, 2004, NPDES #FL0113743.

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

