

Bioassays of

Marsh Cove Condominiums WWTP

Nassau County

NPDES #FL0032654-004

Sampled August 11, 2003

February 2004

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

The Marsh Cove Condominiums Water Treatment Facility, 123 West Hirth Road, Fernandina Beach, Nassau County, Florida, NPDES #FL0032654. Effluent samples for this facility were collected on August 11, 2003.

Introduction

This wastewater treatment facility (WWTF) contains two plants. The "Old Plant" has a design flow of 0.050 MGD and an average daily flow of 0.0301 MGD (January 1, 2003-March 31, 2003). Plant #2, designated as the "New Plant", has a design flow of 0.120 MGD; however, it was not in operation at the time of this inspection. The "Old Plant" consists of an aeration basin, two secondary clarifiers, a chlorine contact chamber, and an aerobic digester. Effluent is chlorinated by the use of chlorine tablets. Effluent is discharged to a tidally influenced herbaceous wetland at Discharge Location D-001 (facility information provided by Brian Kelsay, FDEP, Jacksonville).

Methods

Samples were collected from the NPDES sampling point by Patrick O'Connor and Brian Kelsay (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 and algal growth potential tests discussed in this report were performed following internal DEP SOP's TA07_03, TA07_04, and TA08_01 through TA08_06. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp

In accordance with the facility's permit, the bioassay samples were adjusted from an initial salinity of approximately 1 ppt to a salinity of approximately 7 ppt, using 40 Fathoms® artificial seas salts for the *A. bahia* and *M. beryllina* tests. The sample was aerated for 15 minutes prior to initiating the test to adjust the sample dissolved oxygen concentration (DO) from an initial concentration of 4.5 mg/L to 6.7 mg/L. All test replicates were aerated continuously throughout the test because the dissolved oxygen concentrations in the 100% sample replicates started decreasing immediately after the test was set up.

Toxicity Test Results

Tests were performed August 12-13, 2003.

Americamysis bahia 48-hr acute screening bioassay – Toxic, LC_{50} < 100%, 100% mortality within 24 hours

Menidia beryllina 48-hr acute screening bioassay – Toxic, LC_{50} < 100%, 100% mortality within 24 hours

See Table 1 for bioassay bench sheets.

Algal Growth Potential

Raschke and Shultz found that Algal Growth Potential (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 effluent AGP was 82.6 mg dry wt/L of *Dunaliella tertiolecta.*

Chemistry Results

The effluent total residual chlorine (TRC) concentration measured in the field was 0.024 mg/L. TRC was undetected in the bioassay sample in the laboratory. Total ammonia was detected in the bioassay sample in the laboratory at a concentration of 29.1 mg/L. The calculated unionized ammonia concentration was 1.764 mg/L.

See Tables 1 and 2 for results of analytes detected in the effluent.
See Appendix 1 for a complete list of chemical analyses performed.

Conclusion

The effluent samples collected from D-001 for this facility on August 11, 2003, showed acute toxicity to both test species within 24 hours of initiating the bioassay tests. The observed toxicity is primarily attributed to the unionized ammonia concentration in the effluent. The unionized ammonia concentration (1.764 mg/L) exceeds the concentration reported to produce a 48-hour LC_{50} in *Americamysis bahia* (~1.0 mg/L) and *Menidia beryllina* (~0.9 mg/L, Miller *et al*, 1990). The effluent AGP result was 8 times greater than the "problem threshold" for marine receiving waters.

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.

Miller et al. 1990. *The Acute and Chronic Toxicity of Ammonia to Marine Fish and Invertebrates*, Archives of Environmental Contamination and Toxicology 19:40-48.

Table 1. Data recorded during the 48-hour acute screening bioassays of a sample of effluent from Marsh Cove Condominiums WWTF, 123 West Hirth Road, Fernandina Beach, Nassau County, Florida, NPDES# FL0032654, performed from day 12 to 13 August 2003.

Facility:	**Marsh Cove Condominiums WWTF**	**NPDES #:**	**FL0032654**	Facility Type:	**Wastewater Treatment Facility**		
Location:	123 West Hirth Road, Fernandina Beach	Contact/District:	Patrick O'Connor/Northeast			**Analysts:**	Christa Pierini
County:	Nassau	Test type:	static acute screen				Joshua Ayres
Sample Collection Date:	8/11/2003 Time: 1215	# tests:	2	Receiving Water:	Class III marine		James Daniels
Test Beginning Date:	8/12/2003 Time: 1500	Chlorination Type:	chlorinated		tidally influenced herbaceous wetland		Marshall Faircloth
Test Ending Date:	8/13/2003 Time: 1330	FDEP SOP#:	SOP TA07_03/04		**Page 1 of 1**	**Reviewer:**	Rob Buda

Test terminated at 24 hours due to 100% mortality in both test species in 100% sample concentration.

Organism: ***Americamysis bahia*** Life stage: 4 days [A]Feeding: artemia Conductivity Uncorrected

Chamber size: 1 L Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature °C[B]			Diss. Oxygen mg/L			mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hour	48 hr
Control A	0/500	5	5		8.2	8.4		24.7	25.7		7.2	7.0		11.82	
Control B	0/500	5	5		8.2	8.4		24.8	25.6		7.3	7.1		11.39	
Control C	0/500	5	5		8.2	8.4		24.8	25.5		7.3	7.1		11.80	
Control D	0/500	5	5		8.2	8.4		24.8	25.6		7.4	7.1		12.02	
Salt Control A	0/500	5	5		8.1	8.3		24.6	25.6		7.4	7.1		11.91	
Salt Control B	0/500	5	5		8.1	8.3		24.6	25.6		7.8	6.9		12.01	
Salt Control C	0/500	5	5		8.1	8.3		24.6	25.5		7.8	7.0		12.02	
Salt Control D	0/500	5	5		8.1	8.4		24.5	25.6		7.8	7.0		12.02	
100% A	500/0	5	0		8.0	8.3		24.5	25.7		6.4	7.0		11.97	
100% B	500/0	5	0		7.9	8.3		24.4	25.7		6.4	7.0		12.04	
100% C	500/0	5	0		8.0	8.3		24.4	25.6		6.4	6.3		12.07	
100% D	500/0	5	0		8.0	8.4		24.4	25.5		6.5	6.3		12.07	

[A] Organisms fed daily.

Temperatures of room and test incubator were continuously recorded on a strip chart recorder.

Room Temperature range for the test period was 23.5 - 25.5°C.

Incubator #3 temperature range for the test period was 25.0 - 26.5 °C.

Light Intensity during the test was 50-100 foot candles.

Photoperiod during the test was 16 hours of light : 8 hours of dark.

Organism: ***Menidia beryllina*** Life stage: 13 days [C]Feeding: artemia Conductivity Uncorrected

Chamber size: 1 L Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature °C[D]			Diss. Oxygen mg/L			mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hour	48 hr
Control A	0/500	5	5		8.2	8.4		24.9	25.7		7.1	7.2		11.82	
Control B	0/500	5	5		8.2	8.4		24.9	25.6		7.2	7.3		11.81	
Control C	0/500	5	5		8.2	8.4		24.8	25.6		7.3	7.3		12.03	
Control D	0/500	5	5		8.2	8.4		24.8	25.6		7.4	7.3		12.02	
Salt Control A	0/500	5	5		8.1	8.4		24.7	25.7		7.4	7.2		12.08	
Salt Control B	0/500	5	5		8.1	8.4		24.6	25.5		7.7	7.2		12.05	
Salt Control C	0/500	5	5		8.1	8.4		24.5	25.5		7.7	7.2		12.05	
Salt Control D	0/500	5	5		8.1	8.4		24.5	25.5		7.8	7.2		11.73	
100% A	500/0	5	0		8.0	8.3		24.5	25.7		6.6	6.6		12.05	
100% B	500/0	5	0		8.0	8.3		24.4	25.6		6.6	6.5		11.94	
100 % C	500/0	5	0		8.0	8.3		24.4	25.6		6.5	6.2		12.02	
100% D	500/0	5	0		8.0	8.3		24.4	25.6		6.5	6.3		12.07	

[A] Organisms fed prior to testing.

Temperatures of room and test incubator were continuously recorded on a strip chart recorder.

Room Temperature range for the test period was 23.5 - 25.5°C.

Incubator #3 temperature range for the test period was 25.0 - 26.5 °C.

Light Intensity during the test was 50-100 foot candles.

Photoperiod during the test was 16 hours of light : 8 hours of dark.

LIMS	
Job number:	TLH-2003-08-12-29
sample number:	694877

Data Transcription Verification
date: 12/01/2003
by: Cathy Oaks

Total Residual CL2	mg/L	Method
Field 100% sample:	0.024	-
Lab 100% sample:	<0.03	Hach
Control water (mysids):	<0.03	Hach
Control water (fish):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (mysids):	<0.017	<0.017
Control water (fish):	<0.017	<0.017
100% Sample:	29.10	1.764

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (mysids):	168	-
Control water (fish):	168	
100% Sample:	290	-

Mortality	Percent
Control water (mysids):	0%
100% (mysids):	0%
Control water (fish):	0%
100 % (fish):	0%

Salinity [F]	ppt
Mysid control:	~7
Menidia control:	~7
Mysid 100% sample:	~7
Menidia 100% sample:	~7
unadjusted 100% sample:	~1

[F] Salinity based on conductivity and temperature.

Sample salinity adjusted from ~1 ppt to an apparent ~7 ppt with 40 Fathoms ® artificial sea salts.

Table 2. Effluent chemical analyses results

Metals

Aluminum	57 ug/L	
Calcium	62.1 mg/L	
Copper	4.5 ug/L	I
Iron	248 ug/L	
Lead	0.19 ug/L	I
Magnesium	36.2 mg/L	
Zinc	24 ug/L	

Pesticides and Herbicides

None detected

Nutrients

Ammonia-N	29 mg/NL	A
Nitrates and Nitrites	0.046 mg N/L	
Total Kjeldahl Nitrogen	35 mg N/L	
Ortho-Phosphate	16 mg P/L	
Total-Phosphorous	16 mg P/L	

Base, Neutral, & Acid Extractable Organics

None detected

[A] The reported value is an average of two or more values.
[I] The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Table 3. Chemical Analyses performed on the effluent from the Marsh Cove Condominiums WWTF sampled on August 11, 2003.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,2,4,5-Tetrachlorobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,2,4-Trichlorobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,2-Dichlorobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,3,5-Trinitrobenzene	4.2	ug/L	U	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,3-Dichlorobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,3-Dinitrobenzene	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,4-Dichlorobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1,4-Naphthoquinone	21	ug/L	UJ	21	84
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	1-Naphthylamine	11	ug/L	U	11	42
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,3,4,6-Tetrachlorophenol	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,4,5-Trichlorophenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,4,6-Trichlorophenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,4-Dichlorophenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,4-Dimethylphenol	53	ug/L	U	53	210
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrophenol	16	ug/L	U	16	63
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrotoluene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,6-Dichlorophenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2,6-Dinitrotoluene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Acetylaminofluorene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Chloronaphthalene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Chlorophenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Methylnaphthalene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Naphthylamine	11	ug/L	U	11	42
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Nitroaniline	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Nitrophenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	2-Picoline	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	3,3'-Dichlorobenzidine	42	ug/L	U	42	170
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	3,3'-Dimethylbenzidine	21	ug/L	UJ	21	84
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	3-Methylcholanthrene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	3-Nitroaniline	1.1	ug/L	UJ	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4,4'-DDD	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4,4'-DDE	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4,4'-DDT	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4-Aminobiphenyl	4.2	ug/L	U	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4-Bromophenyl phenyl ether	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4-Chloro-3-methylphenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4-Chloroaniline	1.1	ug/L	UJ	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4-Chlorophenyl phenyl ether	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4-Nitroaniline	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	4-Nitrophenol	16	ug/L	U	16	63
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	5-Nitro-o-toluidine	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	7,12-Dimethylbenz(a)anthracene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Acenaphthene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Acenaphthylene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Acetophenone	1.1	ug/L	I	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Aldrin	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Aniline	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Anthracene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Benzidine	110	ug/L	U	110	420
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Benzo(a)anthracene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Benzo(a)pyrene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Benzo(b)fluoranthene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Benzo(g,h,i)perylene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Benzo(k)fluoranthene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Benzyl alcohol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethoxy)methane	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethyl)ether	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	16	ug/L	U	16	63
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Butyl benzyl phthalate	5.3	ug/L	U	5.3	21
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Chrysene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Di-n-butyl phthalate	5.3	ug/L	U	5.3	21
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Di-n-octyl phthalate	1.1	ug/L	U	1.1	4.2

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Dibenzo(a,h)anthracene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Dibenzofuran	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Dieldrin	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Diethyl phthalate	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Dimethyl phthalate	53	ug/L	U	53	210
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Dimethylaminoazobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Dinoseb	4.2	ug/L	U	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Diphenylamine	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Endosulfan I	4.2	ug/L	U	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Endosulfan II	4.2	ug/L	U	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Endosulfan sulfate	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Endrin	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Endrin aldehyde	4.2	ug/L	U	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Ethyl methanesulfonate	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Fluoranthene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Fluorene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Heptachlor	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Heptachlor epoxide	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Hexachlorobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Hexachlorobutadiene	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Hexachlorocyclopentadiene	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Hexachloroethane	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Hexachloropropene	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Isophorone	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Isosafrole	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Methapyrilene	4.2	ug/L	UJ	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Methyl methanesulfonate	1.1	ug/L	UJ	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-butylamine	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-propylamine	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiethylamine	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosodimethylamine	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiphenylamine	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosomethylethylamine	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosomorpholine	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosopiperidine	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	N-Nitrosopyrrolidine	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Naphthalene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Nitrobenzene	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Nitroquinoline-1-oxide	21	ug/L	UJ	21	84
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Pentachlorobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Pentachloroethane	53	ug/L	U	53	210
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Pentachloronitrobenzene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Pentachlorophenol	3.2	ug/L	U	3.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Phenacetin	4.2	ug/L	U	4.2	13
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Phenanthrene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Phenol	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Pyrene	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Pyridine	4.2	ug/L	UJ	4.2	17
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	Safrole	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	alpha-BHC	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	beta-BHC	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	delta-BHC	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	gamma-BHC	1.6	ug/L	U	1.6	6.3
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	m,p-Cresols	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	o-Cresol	2.1	ug/L	U	2.1	8.4
8/11/2003 11:45	EQUIPMENT BLANK	BNA-Water	o-Toluidine	1.1	ug/L	U	1.1	4.2
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.32
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.1	0.38
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Diazinon	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Ethion	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Ethoprop	0.096	ug/L	U	0.1	0.38
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76

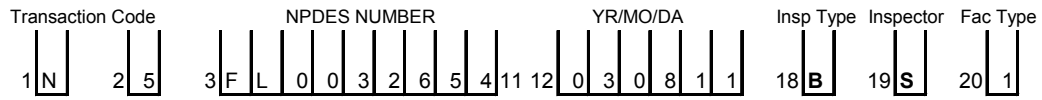
Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Fonofos	0.096	ug/L	U	0.1	0.38
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Hexazinone	0.096	ug/L	U	0.1	0.38
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Metribuzin	0.096	ug/L	U	0.1	0.38
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Naled	0.77	ug/L	U	0.77	3.08
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Norflurazon	0.096	ug/L	U	0.1	0.38
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Parathion Methyl	0.096	ug/L	U	0.1	0.38
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Phorate	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
8/11/2003 11:45	EQUIPMENT BLANK	GC-Water	Simazine	0.048	ug/L	U	0.05	0.19
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Aluminum	10	ug/L	U	10	40
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Arsenic	5	ug/L	U	5	20
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.03	0.1
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Copper	1.2	ug/L	U	1.2	4.8
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Iron	15	ug/L	U	15	60
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Lead	0.05	ug/L	U	0.05	0.2
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Nickel	2.5	ug/L	U	2.5	10
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Selenium	1	ug/L	U	1	4
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
8/11/2003 11:45	EQUIPMENT BLANK	Metals-Water	Zinc	4	ug/L	U	4	16
8/11/2003 11:45	EQUIPMENT BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
8/11/2003 11:45	EQUIPMENT BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0	0.01
8/11/2003 11:45	EQUIPMENT BLANK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
8/11/2003 11:45	EQUIPMENT BLANK	Nutrients-Liquid	O-Phosphate-P	0.005	mg P/L	I	0	0.01
8/11/2003 11:45	EQUIPMENT BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	77
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	1-Naphthylamine	9.6	ug/L	U	9.6	38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,4,5-Trichlorophenol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,6-Dichlorophenol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Acetylaminofluorene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Methylnaphthalene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Naphthylamine	9.6	ug/L	U	9.6	38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Nitroaniline	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	2-Picoline	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	77
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	3-Methylcholanthrene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	3-Nitroaniline	0.96	ug/L	UJ	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4-Chloroaniline	0.96	ug/L	UJ	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4-Nitroaniline	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	5-Nitro-o-toluidine	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Acetophenone	1.9	ug/L	I	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Aniline	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Benzidine	96	ug/L	U	96	380
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Benzyl alcohol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Dibenzofuran	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Dimethylaminoazobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Ethyl methanesulfonate	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Isosafrole	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Methapyrilene	3.8	ug/L	UJ	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Methyl methanesulfonate	0.96	ug/L	UJ	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosodi-n-butylamine	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosodiethylamine	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosomorpholine	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosopiperidine	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	UJ	19	77
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Pentachlorobenzene	0.96	ug/L	U	0.96	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Pentachloronitrobenzene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	12
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Pyridine	3.8	ug/L	UJ	3.8	15
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	Safrole	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.7
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	BNA-Water	o-Toluidine	0.96	ug/L	U	0.96	3.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Bio-AGP/LimNut	Algal Growth Potential	82.6	mg DryWt/L		0.1	0.3
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	9.7	ug/L		0.85	2.6
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.52	ug/L		0.85	2.6
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Bio-Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	LC50	K		
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Bio-Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	LC50	K		
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.32
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Ametryn	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Atrazine	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.1	0.38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Diazinon	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Ethion	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Ethoprop	0.096	ug/L	U	0.1	0.38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Fonofos	0.096	ug/L	U	0.1	0.38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Hexazinone	0.096	ug/L	U	0.1	0.38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Metribuzin	0.096	ug/L	U	0.1	0.38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Naled	0.77	ug/L	U	0.77	3.08
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Norflurazon	0.096	ug/L	U	0.1	0.38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Parathion Methyl	0.096	ug/L	U	0.1	0.38
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Phorate	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	GC-Water	Simazine	0.048	ug/L	U	0.05	0.19
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Aluminum	57	ug/L		10	40
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Arsenic	5	ug/L	U	5	20
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Cadmium	0.025	ug/L	U	0.03	0.1
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Calcium	62.1	mg/L		0.05	0.2
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Chromium	7.8	ug/L	U	2	8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Copper	4.5	ug/L	I	1.2	4.8
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Iron	248	ug/L		15	60
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Lead	0.19	ug/L	I	0.05	0.2
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Magnesium	36.2	mg/L		0.02	0.08
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Nickel	2.5	ug/L	U	2.5	10
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Selenium	1	ug/L	U	1	4
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Metals-Water	Zinc	24	ug/L		4	16
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Nutrients-Liquid	Ammonia-N	29	mg N/L	A	1	2
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Nutrients-Liquid	NO2NO3-N	0.046	mg N/L		0	0.01
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Nutrients-Liquid	N_KJEL_TOT	35	mg N/L		1.2	4
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Nutrients-Liquid	O-Phosphate-P	16	mg P/L		0.8	2
8/11/2003 12:15	MARSH COVE FINAL EFFLUENT	Nutrients-Liquid	Total-P	16	mg P/L		0.4	1.2

The Bioassay of Marsh Cove Condominiums WWTF effluent sampled on August 11, 2003, NPDES #FL0032654.

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





The Priority Pollutants Analysis for Bioassay of Marsh Cove Condominiums WWTF effluent sampled on August 11, 2003, NPDES #FL0032654.

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

