

Biological Assessment of

Flagler Beach WWTP

Flagler County

NPDES #FL0026611

Sampled April 30, 2003

December 2003

Biology Section

Bureau of Laboratories

Division of Resource Assessment and Management

Quality Manual No. 870346G

NELAC Certification No. E31780

Florida Department of Environmental Protection

Fifth Year Inspection Summary

Discharger:	Flagler Beach WWTP
County:	Flagler
NPDES Number:	FL0026611
Permit Expiration:	2/5/2008

Toxics Sampling Inspection **(XSI)**

Date Sampled: April 30, 2003

Results: Aluminum, copper, iron, lead, selenium and zinc were detected in the effluent sample at levels that complied with Class III Marine Water Quality Criteria. The organic pollutants atrazine and diazinon were detected in the effluent. The concentration of atrazine was below that reported to have deleterious effects on test organisms based on the USEPA Acquire ECOTOX database. The concentration of diazinon was between the No Observed Effect Concentration and the Lowest Observed Effect Concentration for *Ceriodaphnia dubia* (USEPA Acquire ECOTOX database).

Compliance Biomonitoring Inspection **(CBI)**

Date Sampled: April 30, 2003

Results: The effluent sample was not toxic to the fish, *Cyprinella leedsi,* or to the water flea, *Ceriodaphnia dubia,* during 48-hour acute screening bioassays.

Water Quality Inspection **(WQI)**

Date Sampled: April 30, 2003

Results: Fecal and total coliforms were detected in the effluent and receiving waters at levels that did not exceed Class III Marine Water Quality Criteria and facility permit limits. Dissolved oxygen and pH in the effluent and at the receiving water stations complied with Class III Marine Water Quality Criteria and facility's permit limits. Nutrient levels in the effluent were elevated, especially for nitrate + nitrite and orthophosphate. Nutrient levels in the receiving water were similar to those in the effluent. Algal growth potential was above the suggested "problem" threshold at all receiving water stations. It cannot be determined if the facility's effluent was responsible for these results, because there were other potential sources of nutrient inputs in the vicinity of the outfall.

Impact Bioassessment Inspection **(IBI)**

Date Sampled: April 30, 2003

Results: Sediments at all stations were mixtures of sands and shell hash. Percent organic content was ~1% at all stations. No organic constituents were detected in sediment samples. Sediment metal concentrations were not elevated near the outfall and none of the metals detected exceeded Threshold Effect Level (TEL) values. Quantitative measures of benthic macroinvertebrate assemblages from ponar samples showed no consistent differences in Shannon-Weaver diversity among sites. Macroinvertebrate assemblages were degraded at all sites, with the majority of the samples consisting of pollution-tolerant polychaetes, ribbon worms, and tubificid oligochaetes.

Biological assessments are prepared by FDEP staff to provide information for review of NPDES permit renewal applications. Biological assessments, in conjunction with other information concerning the subject facility and its receiving-water body, are used to determine appropriate permit conditions.

Introduction

The Flagler Beach Wastewater Treatment Plant is located in Flagler County, Florida (Appendix 1). This facility is a domestic wastewater treatment plant. The wastewater treatment facility consists of an influent structure, a manually-cleaned bar screen, one oxidation ditch (0.65 Mgal), one secondary clarifier (58-foot diameter, 0.25 Mgal), one chlorine contact chamber (0.02 Mgal), one dechlorination chamber, one sludge holding tank (0.112 Mgal), eight sludge drying beds, and one Parshall Flume effluent flow meter (see Facility Summary in Appendix 2). The effluent is then discharged into the Intracoastal Waterway at a depth of approximately 1 m. The design flow of the wastewater system is 1.0 million gallons per day (MGD). The actual mean flow during this survey was 0.76 MGD (per B. Kelsey, FDEP Northeast District).

Class III Marine Surface Water Quality Criteria and facility permit limits are listed in Table 1. According to the facility's discharge monitoring reports, the plant had no permit violations or plant upsets between December 2001 and January 2003 (Appendix 2).

Methods

The purpose of this investigation was to determine the potential effects of the facility's effluent on the biota of the receiving waters. Chemical and biological comparisons were made along a gradient of effluent exposure. Exposure to effluent was estimated by adding rhodamine dye to the effluent and measuring fluorescence in the receiving water during incoming and outgoing tides. Stations were located at approximate exposures of 40%, 8%, and 1% percent effluent. Detailed methods are given in Appendix 3.

All field and laboratory biological methods followed Biology Section Standard Operating Procedures (SOPs, see http://www.floridadep.org/labs/qa/2002sops.htm for details) and met DEP quality assurance/quality control standards (see http://www.floridadep.org/labs/qa/index.htm).

The following were involved in this investigation: Patrick O'Connor and Sharon Evans (FDEP Northeast District), Joy Jackson, Kenneth Espy and Michael Heyn (FDEP Central Laboratory in Tallahassee), and FDEP Central Laboratory personnel. The report was reviewed by District representatives and the Point Source Studies Review Committee (Wayne Magley, Chuck Ziegmont and Michael Tanski).

Results and Discussion

- Specific chemical results from the grab effluent sample are reported in Table 1 and a complete list of chemical analytes can be reviewed in Appendix 4. Aluminum, copper, iron and lead were detected in the effluent above the minimum detection limit (MDL) but below the practical quantitation limit (PQL). Selenium and zinc were detected in the effluent sample above the PQL. All effluent metal concentrations complied with Class III Marine Water Quality Criteria (FAC 62-302).
- The organic pollutants atrazine and diazinon were detected in the effluent (See Table 1). The concentration of atrazine in the effluent was above the MDL but below the PQL. The concentration of atrazine was below reported effect levels to standard toxicity test organisms (based on the USEPA Acquire ECOTOX database). The level of diazinon in the effluent was between No Observed Effect Concentration and the Lowest Observed Effect Concentration for *Ceriodaphnia dubia* (USEPA Acquire ECOTOX database).
- Effluent pH (Standard Units) and dissolved oxygen (mg/L) complied with Class III Marine Water Quality Criteria (62-302 F.A.C.) and facility permit limits.
- The effluent sample was not toxic to the fish, *Cyprinella leedsi,* or to the water flea, *Ceriodaphnia dubia,* during 48-hour acute screening bioassays (See Table 1 for percent mortality and Appendix 7 for bioassay bench sheets).
- The Flagler Beach WWTP Outfall pipe 001 is located in the Intracoastal Waterway. The adjoining shoreline was developed, with numerous docks, lawns and a large stormwater drain. The opposite shore was an undeveloped saltmarsh. The outfall is in approximately 0.5 m of water at low tide and the conductivity in the receiving water varies from approximately 16,000-36,000 µmhos/cm (P. O'Connor, personal communication).
- Rhodamine dye was fed into the effluent at a level that would yield approximately 50 ppb at the end of the effluent pipe during an approximate 6-hr continuous injection (see Appendix 3 for a complete methods description). The dye plume was followed for approximately three hours during the flowing tide and for approximately three hours on the ebbing tide on April 29, 2003. The presence of docks changed sediment texture and habitat quality north of the outfall on an outgoing (ebbing) tide. Stations were therefore placed in pairs at approximately the same depth in a southerly direction following the plume from the outfall

Table 1. Effluent limits, Class III Criteria for predominately marine waters and chemical, microbiological and toxicological data.

Flagler Beach WWTP	Class III Marine Criteria	Effluent Limits	Effluent Samples	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Effluent exposure									
Percent effluent in overlying water	-	-	-	40%	40%	8%	8%	1%	1%
Organic Constituents (µg/L)									
Atrazine	-	-	0.11 I	-	-	-	-	-	-
Diazinon	-	-	0.22	-	-	-	-	-	-
Metals (µg/L unless otherwise noted, Class III Criteria are less than or equal to the value given)									
Aluminum	1500	-	69 I	-	-	-	-	-	-
Arsenic	50	-	5 U	-	-	-	-	-	-
Cadmium	9.3	-	0.025 U	-	-	-	-	-	-
Calcium (mg/L)	-	-	85	-	-	-	-	-	-
Chromium	-	-	7.6 U	-	-	-	-	-	-
Copper	3.7	-	2.2 I	-	-	-	-	-	-
Iron	300	-	30 I	-	-	-	-	-	-
Lead	8.5	-	0.24 I	-	-	-	-	-	-
Magnesium (mg/L)	-	-	84.6	-	-	-	-	-	-
Nickel	8.3	-	2.5 U	-	-	-	-	-	-
Selenium	71	-	5.6	-	-	-	-	-	-
Silver	2.3	-	0.02 U	-	-	-	-	-	-
Zinc	86	-	25	-	-	-	-	-	-
Nutrients (mg/L)									
Ortho-phosphate	-	Report	1.5 Q	0.35	0.15	0.17	0.083	0.027	0.12
Total Phosphorus	-	Report	1.4	0.47 A	0.16	0.17	0.19	0.11	0.19
Total Ammonia	-	Report	0.036	0.033	0.018 I	0.021	0.02 I	0.016 I	0.021
Un-ionized Ammonia	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Nitrate and Nitrite	-	Report	14	3	0.5	0.65	0.73	0.013	0.77
Total Kjeldahl Nitrogen	-	Report	0.99	1.1 A	0.91	0.92	0.97	0.88	0.89
Organic Nitrogen	-	Report	0.954	1.067	0.892	0.899	0.95	0.864	0.869
Total Nitrogen	-	Report	14.99	4.1	1.41	1.57	1.7	0.893	1.66
General Physical and Chemical Parameters									
Dissolved Oxygen (mg/L) surface	≥ 4.0 s	5.0	7.0	5.2	8.8	8.5	8.3	8.4	8.7
Dissolved Oxygen (mg/L) mid depth	≥ 4.0 s	-	-	5.1	7.8	7.7	7.4	7.7	7.3
Dissolved Oxygen (mg/L) bottom	≥ 4.0 s	-	-	6.8	7.7	7.8	7.0	7.5	7.1
pH (SU) surface	6.5-8.5 s	6.5-8.5 s	6.8	7.3	7.7	7.7	7.8	7.8	7.8
pH (SU) mid depth	6.5-8.5 s	-	-	7.3	7.6	7.7	7.6	7.7	7.6
pH (SU) bottom	6.5-8.5 s	-	-	7.5	7.6	7.6	7.6	7.6	7.6
Conductivity (µmhos/cm) surface	-	-	4620	35500	34700	34900	35840	35300	34400
Conductivity (µmhos/cm) mid depth	-	-	-	35800	37600	37400	37500	37200	37300
Conductivity (µmhos/cm) bottom	-	-	-	33140	38800	38560	39341	38100	28500
Temperature (°C) surface	-	-	24.0	26.1	28.8	29.2	29.6	29.5	29.1
Temperature (°C) mid depth	-	-	-	26.1	28.2	28.0	28.1	28.5	28.0
Temperature (°C) bottom	-	-	-	26.7	28.1	27.9	27.8	28.0	27.6
Total Suspended Solids (mg/L)	-	60.0 s	4 U	21	23	19	23	19	18
Residual Chlorine (mg/L)	≤ 0.01	≤ 0.01	-	-	-	-	-	-	-
CBOD, 5 day (mg/L)	-	60.0 s	2 K	-	-	-	-	-	-
Chlorophyll *a* (µg/L)	-	-	-	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Phaeophytin (µg/L)	-	-	-	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Oils and Greases (mg/L)	5.0	-	1.3 IV	-	-	-	-	-	-
Chloride (mg/L)	-	Report	-	-	-	-	-	-	-
Flow (MGD)	-	1 MGD a	0.76	-	-	-	-	-	-
Toxicity (48-hour static, screening bioassay, percent mortality in 100% effluent)									
Bioassay - Water flea	-	NOEC	0%	-	-	-	-	-	-
Bioassay - Fish	-	NOEC	5%	-	-	-	-	-	-
Microbiology (Number of counts/100ml)									
Fecal Coliforms	800 s	800 s	40 B	17 A B	28 A B	51 A B	56 A B	76	40 A B
Total Coliforms	2400 s	-	100 B	156	67 A B	69 A B	56	100	72 A
Algal Growth Potential (mg dry weight/L)									
AGP (test species *Dunaliella*)	-	-	9.76	11.7	36.3	38.6	31.1	15.5	22.8

a - Annual average
A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptable range
I - Value reported is < the minimum quantitation limit, and ≥ the minimum detection limit
U - Material analyzed for but not detected; value reported is the minimum detection limit
s - Single sample
NOEC - A no observed effect concentration less than 100% effluent will constitute a violation of this permit

at average effluent exposures of 40%, 8% and 1% effluent (Appendix 1). It was not possible to place stations at 0% exposure to effluent because additional docks were present to the north and south, and sediment type differed at nearby unexposed locations.

- Dissolved oxygen (DO as mg/L) and pH (Standard Units) at the receiving water stations complied with Class III Marine Water Quality Criteria (Table 1, 62-302.530 F.A.C.).
- Fecal and total coliforms were detected in the effluent and receiving waters at levels that did not exceed Class III Marine Water Quality Criteria and facility permit limits (See Table 1 for results and Appendix 7 for laboratory work-sheets).
- The effluent total nitrogen concentration was 14.99 mg/L and total phosphorus concentration was 1.4 mg/L (Table 1). Over 90% of the effluent nitrogen was nitrate + nitrite while all phosphorus released was in the form of orthophosphate. Effluent nutrients contributed to elevated levels in the receiving water stations, especially for nitrate + nitrite. Levels of nitrate + nitrite at five of six of the receiving water sites were 2-13 times higher than those at 95% of typical Florida estuaries (Appendix 6). Orthophosphate was higher than levels at 60-90% of typical Florida estuaries at five of six stations (Appendix 6). It is not possible to attribute these nutrient levels solely to the facility's effluent. There were numerous sources of both stormwater and non-point source nutrients in the vicinity of the outfall. It may also be possible that the effluent is not completely flushed from the area around Outfall 001 between tidal cycles, leading to high nutrient concentration in the receiving waters. In general, nutrient levels in the receiving water were similar at all sampling sites and reflected the levels released in the facility's effluent.
- Algal growth potential (AGP) is a measure of nutrients available for algal growth (Miller *et al.* 1978). Raschke and Shultz (1987) found that AGP above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment. The AGP values of the receiving water were all above this threshold, ranging from 11.7-38.6 mg dry weight/L (Table 1). Despite high nutrient concentrations in the effluent, little dry weight was produced in AGP tests (9.76 mg dry weight/L), suggesting growth inhibition in the effluent sample. However, it is not possible to test directly for inhibition, because this was not developed in the original USEPA method for saltwater effluents (Appendix 3).
- Chlorophyll *a* was not detected in the effluent sample or in water samples from the receiving water stations (Table 1).
- Sediments at all sites were predominantly fine-grained sands mixed with shell hash (Table 2, Figure 1). Percent organic content was approximately 1% at all sites and did not show a pattern with respect to the 001 outfall (Figure 2). It was not possible to measure the depth of the discontinuity layer (boundary between oxic and anoxic zone) because sediments were too loose to section.
- Sediment content of organic constituents and metals was measured. Metals were extracted using total recoverable metals techniques. However, because it was not possible to use perchloric and hydrofluoric acid digestions, results are underestimates of sediment total metal content. Data were compared to Florida Sediment Quality Guidelines (MacDonald 1994). No organic constituents were detected in sediment samples. Aluminum, cadmium, chromium, copper and lead were detected in sediment samples at all sites. No metals were present above Threshold Effects Levels (TEL). TEL values are the sediment content of a contaminant that has been associated with toxic effects in 15% of toxicity test data used to generate the Florida Sediment Quality Guidelines. There was no consistent pattern of enrichment in metals content with distance from the outfall.
- Quantitative measures of benthic macroinvertebrate assemblages from ponar samples showed no consistent differences among sites (Table 3, Appendix 8) and Shannon-Weaver diversity was similar to that of the highest 50-70% percentile of typical Florida estuaries (Appendix 6). In general, macroinvertebrate assemblages were degraded, with the majority of the samples consisting of pollution-tolerant polychaetes (e.g. *Capitella capitata* complex), ribbon worms (Nemertea) and tubificid oligochaetes.

Summary

Aluminum, copper, iron, lead, selenium and zinc were detected in the effluent sample at levels that complied with Class III Marine Water Quality Criteria. The organic pollutants atrazine and diazinon were detected in the effluent. The concentration of atrazine was below that reported to have deleterious effects on standard toxicity test organisms based on the USEPA Acquire ECOTOX database, while the concentration of diazinon was between No Observed

Table 2. Sediment characterisitcs, presence of organic constituents and metals content

Flagler Beach WWTP	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Effluent exposure						
Percent effluent in overlying water	40%	40%	8%	8%	1%	1%
Particle size distribution (percent volume <2mm)						
<0.063 mm	6.07	4.96 A	9.11	9.63	14.3	12.7
0.063-0.125 mm	3.77	3.7 A	6.35	5.67	9.14	9.15
0.125-0.25 mm	47.3	41.2 A	51.8	53.2	49.3	54
0.25-0.5 mm	34	32.8 A	26.2	28.4	21.4	21.8
0.5-2.0 mm	8.87	17.3 A	6.59	3.11	5.84	2.38
>2.0 mm (percent dry weight)	2.3	5.2 A	0.78	0.55	0.58	0.5
Organic content						
Organic content as percent of dry weight	1.1	0.87	1.1	0.9	1.4	1.2
Organic constituents (ug/kg)						
None detected	-	-	-	-	-	-
Metals (mg/kg)						
Aluminum	940.0 J	1250.0 J	1180.0 J	1270.0 J	1850.0 J	2050.0 J
Cadmium	0.018 I	0.018 I	0.02 I	0.02 I	0.028 I	0.028 I
Chromium	1.96 J	2.37 J	2.88 J	2.35 J	3.58 J	4.03 J
Copper	1.1 I	1.8 I	2 I	3.5 J	1.5 I	1.7 I
Lead	1.2	1.4	1.4	1.5	1.7	1.8
Nickel	0.32 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Silver	0.0 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U

* Exceeds the threshold efflects level from the Sediment Quality Guidelines (MacDonald et al. 1984)

** Exceeds the probable efflects level from the Sediment Quality Guidelines (MacDonald et al. 1984)

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

I - Value reported is < the minimum quantitation limit, and ≥ the minimum detection limit

J - Estimated value

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

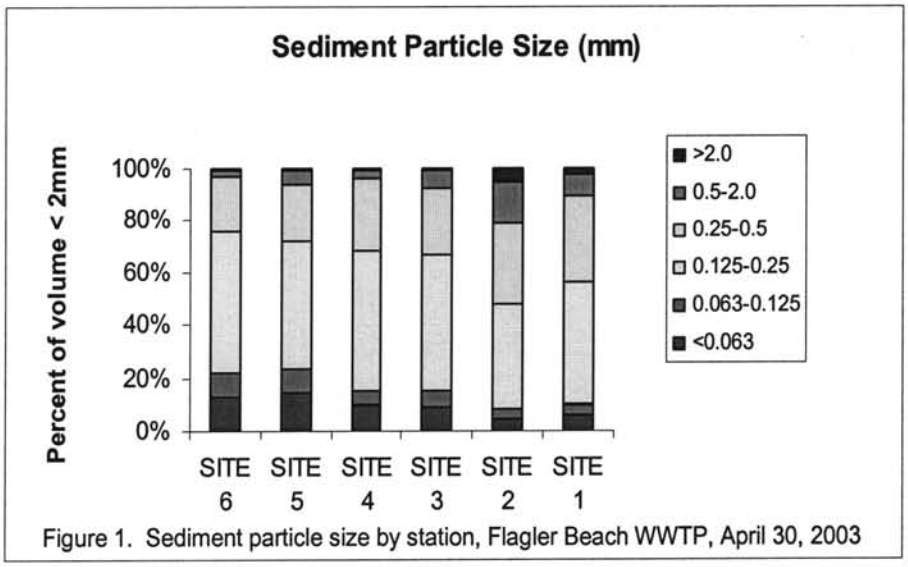


Figure 1. Sediment particle size by station, Flagler Beach WWTP, April 30, 2003

Effect Concentration and the Lowest Observed Effect Concentration for *Ceriodaphnia dubia*. Effluent pH and dissolved oxygen complied with Class III Marine Water Quality Criteria and facility permit limits. The effluent sample was not toxic to the fish, *Cyprinella leedsi,* or to the water flea, *Ceriodaphnia dubia,* during 48-hour acute screening bioassays.

Fecal and total coliforms were detected in the effluent and receiving waters at levels that did not exceed Class III Marine Water Quality Criteria and facility permit limits. Dissolved oxygen and pH in the receiving water complied with Class III Marine Water Quality Criteria.

Effluent nutrients were elevated, especially for nitrate + nitrite and orthophosphate, and may have been at least partially responsible for elevated nutrient levels in the receiving water. Algal growth potential exceeded the suggested "problem" threshold at all receiving water sites. These data are cause for concern regarding nutrient loading from the facility.

Sediments at all stations were mixtures of sands and shell hash. Percent organic content was approximately 1% at all stations. No organic constituents were detected in sediment samples. There was no consistent pattern of sediment metal enrichment with distance from the outfall and no metal exceeded TEL values, but results are based on total recoverable metals extractions, which may have underestimated actual metal content. Quantitative measures of benthic macroinvertebrate assemblages from ponar samples showed no consistent differences in Shannon-Weaver diversity among sites. Macroinvertebrate

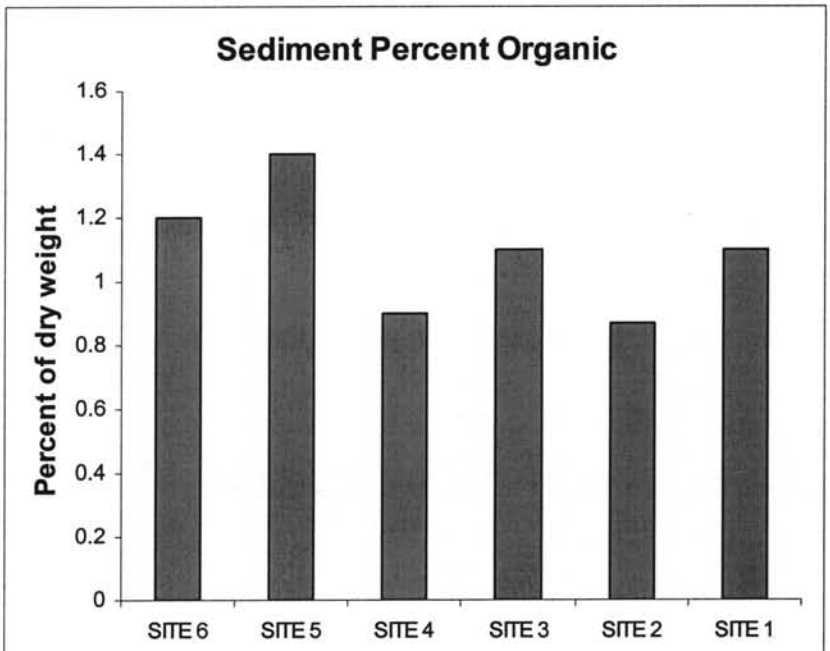


Figure 2. Sediment % organic content, Flagler Beach WWTP, April 30, 2003.

assemblages were degraded at all sites, with the majority of the samples consisting of pollution-tolerant polychaetes, ribbon worms, and tubificid oligochaetes.

Literature Cited

American Public Health Association (APHA). 1992. Standard methods for the examination of water and wastewater. 18th edition.

Barbour, M. T., J. Gerritsen, G. E. Griffith, R. Frydenborg, E. McCarron, J. S. White and M. L. Bastian. 1996a. A framework for biological criteria for Florida streams using benthic macroinvertebrates. J. N. Am. Benthol. Soc. 15(2): 185-211.

Barbour, M. T., J. Gerritsen, and J. S. White. 1996b. Development of the Stream Condition Index for Florida. Prepared for the Florida Department of Environmental Protection. 105 p.

Barbour, M. T. and J. B. Stribling. 1994. A technique for assessing stream habitat structure. In: Proceedings of Riparian Ecosystems in the Humid United States: Functions and Values. U. S. Dept. Agriculture. 15-18 March 1993, Atlanta, Ga. 22 pp.

Beck, W. M. Jr. 1954. Studies in stream pollution biology 1. A simplified ecological classification of organisms. Quart. J. Fla. Acad. Sci. 17(4): 211-227.

EA Engineering, Science, and Technology and Tetra Tech, Inc. 1994. Bioassessment for the nonpoint source program (draft). Prepared for the Florida Department of Environmental Protection. Unpaginated.

FDEP. 1994. Lake bioassessments for the determination of nonpoint source impairment in Florida. Florida Department of Environmental Protection, Biology Section, Tallahassee, Fla. 73 p.

Magurran, A. E. 1988. Ecological diversity and its measurement. Princeton University Press, Princeton, New Jersey.

Miller, W. E., T. E. Maloney, and J. C. Greene. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA-600/9-78-018. U. S. EPA, Cincinnati, Ohio. 126 p.

Plafkin, J. L., M. T. Barbour, K. D. Porter, S. K. Gross and R. M. Hughes. 1989. Rapid bioassessment protocols for use in streams and rivers: Benthic macroinvertebrates and fish. U. S. EPA, Office of Water Regulations and Standards, Washington D.C., EPA 440-4-89-001

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.

Ross, L. T. 1990. Methods for aquatic biology. Florida Department of Environmental Regulation Technical Series 10(1): 1-47.

Sokal, R. R. and F. J. Rohlf. 1995. Biometry, Third edition. W. H. Freeman and Company, New York.

Stevenson, R. J. and L. L. Bahls. 1999. Periphyton protocols. Pp. 6.1-6.22 in: Rapid bioassessment protocols for use in wadeable streams and rivers. 2nd edition. By: M. T. Barbour, J. Gerritsen, B. D. Snyder and J. B. Stribling. EPA 841-B-99-002. U. S. Environmental Protection Agency, Office of Water, Washington, D. C.

Wallace, J. B., J. W. Grubaugh and M. R. Whiles. 1996. Biotic indices and stream ecosystem processes: results from an experimental study. Ecol. Appl. 6(1): 140-151.

Weber, C. I. 1993. Methods for measuring the acute toxicity of effluents to freshwater and marine organisms. 4th edition. EPA/600/4-90/027. U. S. EPA, Cincinnati, Ohio. 216 pp.

USEPA. 2002. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms. 4th Edition. EPA-821-R-02-013

Table 3. Macroinvertebrate Ponar Samples - Quantitative						
Flagler Beach WWTP	**Site 1**	**Site 2**	**Site 3**	**Site 4**	**Site 5**	**Site 6**
Effluent exposure						
Percent effluent in overlying water	40%	40%	8%	8%	1%	1%
Summary Statistics						
Shannon-Weaver Diversity	2.97	3.30	3.38	3.80	3.45	3.45
Number of Taxa	19	30	28	25	26	29
Percent Dominant Taxon	43.98	34.01	20.63	16.07	22.55	19.47
Dominant Taxon (name)	*Capitella capitata* complex	*Capitella capitata* complex	Nemertea/*Capitella capitata* complex	Tubificidae	Nemertea	Tubificidae
Dominant Taxon (group)	Polychaeta	Polychaeta	Nemertea/Polychaeta	Oligochaeta	Nemertea	Oligochaeta
Number of samples/site	5	5	5	5	5	5
Total Number of Individuals	191	544	320	361	470	529
Community Composition: Percent of total						
Bivalvia	17.8	25.0	22.5	14.7	26.0	32.7
Crustacea	11.0	8.3	8.4	26.6	8.3	7.0
Gastropoda	0.5	0.9	1.6	3.3	8.3	1.7
Nemertea	8.4	14.5	20.6	9.1	22.6	12.7
Polychaeta	57.6	44.5	27.8	30.2	26.0	25.9
Oligochaeta	2.6	6.6	17.8	16.1	8.3	19.5
Other	2.1	0.2	1.3	0.0	0.6	0.6
Functional Feeding Groups: Percent of total						
Browser / Grazer	0.3	0.9	1.6	2.5	1.2	1.4
Burrowing Deposit Feeders	51.3	42.5	42.2	35.7	29.6	40.3
Parasite	0.0	0.2	0.4	0.0	0.0	0.0
Predators	11.5	18.8	23.3	14.8	24.7	14.8
Surface Deposit Feeders	6.0	3.6	2.3	5.0	3.1	3.0
Suspension Feeders	29.6	32.0	27.8	37.8	32.0	37.0
Scavenger	0.3	1.1	1.6	2.5	1.2	1.4
Scrapers	0.0	0.4	0.4	1.4	7.2	1.5
Shredders	0.5	0.1	0.2	0.0	0.0	0.1
Unknown	0.5	0.6	0.3	0.3	1.1	0.6

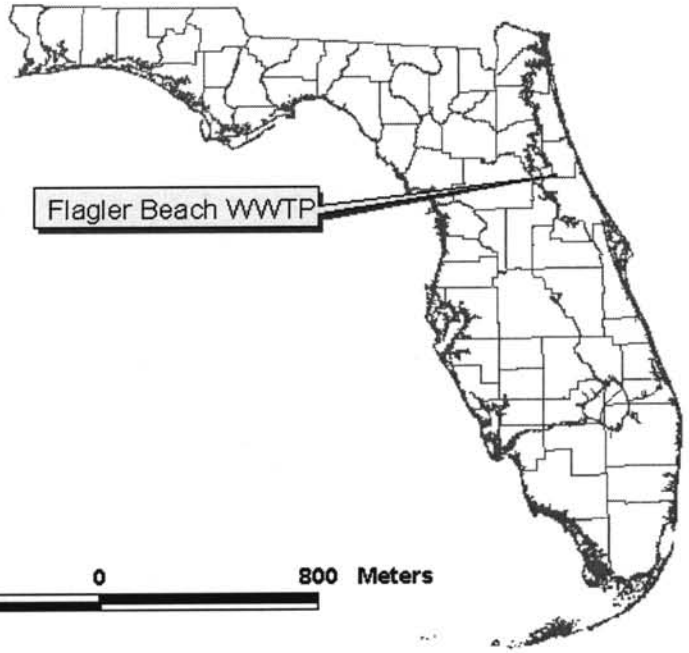
Appendices

- Appendix 1. Map of facility
- Appendix 2. Facility summary
- Appendix 3. Measurements and data interpretations
- Appendix 4. Chemical analyses of effluent and receiving water.
- Appendix 5. Typical values for selected parameters in Florida estuaries
- Appendix 6. Additional physical, chemical, toxicological and microbiological results
- Appendix 7. Habitat Assessment field sheets
- Appendix 8a. Ponar samples: Taxa list and macroinvertebrate density (average number of individuals per m^2)
- Appendix 8b. Ponar samples: Taxa list and total number of macroinvertebrates counted

Appendix 1

Flagler Beach WWTP



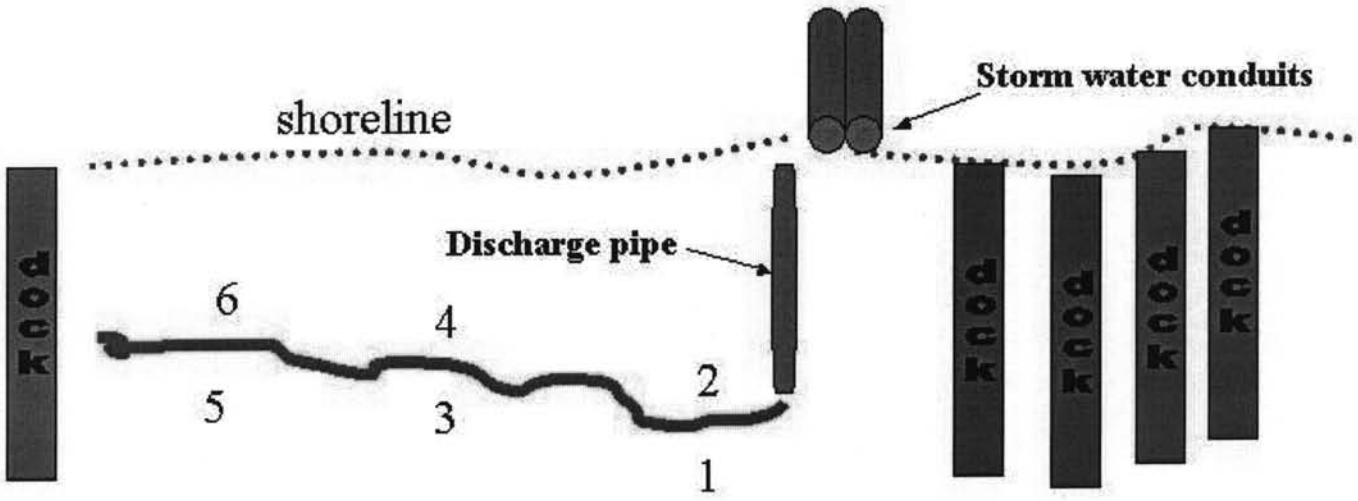




800 0 800 Meters

Fifth Year Inspection Program
FDEP- Bureau of Laboratories
Created on: November 17, 2003
Created by: Julie Espy

Flagler Beach Sampling Stations



Appendix 2

State of Florida
Department of Environmental Protection
Facility Summary

Facility Name: Flagler Beach WWTP		**Prepared By:** Brian Kelsay **Date:** 03/11/03
Location: (See Attached Map)	**County:** Flagler	**District:** Northeast
Federal Permit No.: FL0026611 **Expiration Date:** 2/5/2008	**State GMS #:** **State Expiration Date:**	**Facility Type:** Domestic
Function of Facility: Domestic Wastewater		
Description of treatment process: The wastewater treatment facility consists of an influent structure and manually cleaned bar screen, one oxidation ditch (0.65 Mgal.), one secondary clarifier (58-foot diameter, 0.25 Mgal.), one chlorine contact chamber (0.02 Mgal), one dechlorination chamber, one sludge holding tank (0.112 Mgal.), eight sludge drying beds, and one Parshall Flume effluent flow meter.		
Receiving Waters: Intracoastal Waterway(D001),		**Classification:** Class III – Marine
Design Flow: 1.0 MGD	**Mean Flow:** 0.676 MGD (12/01-01/03)	**Flow during survey:**
Discharge is: **Continuous** Intermittent Seasonal Rainfall Dependent Other		
Facility Mixing Zone Details: N/A		
List effluent limits:		

Parameter	Limit	Describe special permit conditions and permit modifications:
OUTFALL 001 Intracoastal waterway		
Flow (MGD)	Annual Average 1.0	
	Monthly Average Report Only	Continuous Monitoring
CBOD5 (mg/l)	Annual Average 20.0	
	Monthly Average 25.0	
	Weekly Average 45.0	Sample Weekly , 8 hour flow proportioned composite
	Single Maximum 60.0	
Total Suspended Solids (mg/l)	Annual Average 20.0	
	Monthly Average 30.0	
	Weekly Average 45.0	Sample Weekly , 8 hour flow proportioned composite
	Single Maximum 60.0	

pH	Daily Minimum 6.5	
	Daily Maximum 8.5	Continuous meter
Fecal Coliform (#/100mL)	Annual Average 200	
	Mo. Goe. Mean Report Only	Weekly grab sample
	Maximum 800	
TRC(for disinfection) (mg/L)	Minimum 0.5	Continuous Meter
TRC(for dechlorination) (mg/L)	Daily Maximum 0.01	Daily Grab Sample
Dissolved Oxygen (mg/L)	Minimum 5.0	Daily Grab Sample, 7days per week
Chloride as CL (mg/L)	Monthly Report	Grab Sample
Nitrate and Nitrite (mg/L)	Quarterly Report	8 hour flow proportioned composite
Total Kjeldahl Nitrogen	Quarterly Report	8 hour flow proportioned composite
Total Ammonia as N (mg/L)	Quarterly Report	8 hour flow proportioned composite
Organic Nitrogen, total as N (mg/l)	Quarterly Report	8 hour flow proportioned composite
Total Nitrogen as N (mg/L)	Quarterly Report	8 hour flow proportioned composite

Phosphorus, Total as P (mg/l)	Quarterly Report	8 hour flow proportioned composite
Ortho-Phosphorous as P (mg/L)	Quarterly Report	Filtered Grab Sample
Description of permitted outfall: Outfall D-001 is an in-stream-sampling point approx. 4 feet below the water surface.		
List permit violations (DMR data) and plant upsets that occurred at the plant within the past year: None were noted from December 2001 to January 2003.		
Describe previous impact bioassessments, WQBEL's, and previous or current enforcement actions: The last bioassay was completed on December 17, 2001 and did not show acute toxicity. Further chemical analysis did show the presence of several metals (Al, Cu, Ca, Mg).		
Discuss MOR trends to prior data; is the trend improving or declining: The trend appears to be relatively consistent.		
Additional Information: N/A		

Appendix 3

Measurements and data interpretation

(1) Quality Assurance and Quality Control

FDEP's quality assurance requirements for analytical laboratories and field activities are codified in Chapter 62-160, F.A.C., Quality Assurance (QA Rule) and in internal Standard Operating Procedures (FDEP SOPs). Methods for all analyses are on file at the FDEP Central Laboratory in Tallahassee and may be viewed on the web at http://www.floridadep.org/labs/sop/index.htm and/or http://www.floridadep.org/labs/qa/index.htm .

(2) Chemical Analyses of the Effluent

The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following FDEP SOPs. A list of the analytes tested for, results, data qualifiers, the minimum detection limits and the practical quantitation limits are given in Appendix 4. The results from these analyses were compared with Water Quality Criteria (62-302 F.A.C.) and facility permit limits (Table 1, Appendix 2). Exceedances of Water Quality Criteria may be violations of specific provisions of Chapter 62-302 (F.A.C.) and/ or facility permit limits.

(3) Toxicity Bioassays

Acute screening toxicity bioassays were performed on the effluent sample using the water flea, *Ceriodaphnia dubia,* and the fish, *Cyprinella leedsi* following FDEP SOPs TA07_01 and TA07_02. Failure of toxicity testing may constitute a violation of 62-302.520(21), 62-302.530(62) and/or facility permit limits.

(4) Bacteriological Testing

The effluent and water from sampling stations were analyzed for the presence and concentration of total and fecal coliform bacteria following FDEP SOPs MB1_0 and MB1_1. High levels of fecal or total coliform bacteria may constitute violation of 62-302.530(6), 62-302.530(7) and/or facility permit limits.

(5) Establishment of Sampling Stations

Chemical and biological comparisons were made among six sampling stations located on an effluent dilution gradient leading from close to the outfall where dilution was minimal (two stations) to an area of intermediate dilution (two stations) and an area unexposed to effluent (two control stations).

Rhodamine dye was continuously fed into the effluent stream and tracked in the receiving water using a fluorometer. Rhodamine is a conservative tracer and may be used to track dilution to <1% of effluent. Background readings of fluorescence were taken to correct for interference in the water column. Dye concentration was adjusted to give approximately 40 ppb at the end of the discharge pipe. The dye study was conducted on 29 April 2003. Dye injection began on an incoming tide (predicted high tide of 0.9 ft) and continued through slack water until low tide (predicted low tide of 0.1 ft, approximately 6 hr). A boat was used to travel through the receiving water, continuously pumping receiving water through the fluorometer, recording the dye concentration at the end of the outfall and tracking the path of the effluent plume. Weather conditions were good during collections with light winds and sunny skies.

Replicate stations were then established after measurement of effluent dilution in the receiving water. Because the effluent plume moved approximately parallel to the shoreline, stations were selected in the same depth of water at similar distances from the shoreline. Because shoreline structures interfered, stations were placed to the north of the outfall, tracking the effluent plume. Two stations (1 and 2) were located close to the outfall after the effluent entered the Intracoastal Waterway at estimated effluent exposures of 40%. Stations 3 and 4 were located at estimated effluent dilutions of 8%. Stations 5 and 6 were located where ~1% effluent was detected in the water column during the dye study. It was not possible to match habitat and substrate characteristics farther from the effluent plume, so all stations had some effluent exposure.

(6) Algal Growth Potential (AGP)

The effluent and water samples from the six stations were autoclaved, filtered (0.45μm), inoculated with the unicellular green alga, *Dunaliella tertiolecta*. Samples were incubated for 14 days (FDEP SOP TA08_05). The algal growth potential (AGP) value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. Raschke and Shultz (1987) found that an AGP above 10.0 mg dry weight/L represents a "problem" threshold for marine receiving waters, implying nutrient enrichment. High AGP values may constitute one line of evidence for violation of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C. and/or 62-302.530(48)(b) F.A.C..

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP in a low salinity sample under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al.* 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of ± 20%. When the ratio of nitrogen to phosphorus (N:P) is less than 10:1, nitrogen limitation of algal production is likely. When the N:P ratio is 20:1 or greater, phosphorus limitation is likely (EPA-822-B-00-002). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may be a violation of 62-302.530(62) F.A.C.. Expected AGP cannot be calculated for marine samples incubated with *Dunaliella.*

(7) Sediment Sampling

Sediment cores were collected with a stainless steel core tube at all sampling stations following QA Rule SOP FS4000. Samples were analyzed for metals, organic constituents, pesticides, organic content and sediment grain size in the laboratory following FDEP SOPs.

When cores were collected, the core was split and the depth of the discontinuity layer was measured to the nearest mm with a ruler. The discontinuity layer, where present, is a line at varying depths in the sediment where the sediments become black and anoxic. Where it can be measured, the discontinuity layer provides an estimate of the oxygenation depth of sediments. For example, in polluted or highly organic sediments, the discontinuity layer is usually <10 mm deep while in well-aerated sediments, it may be >10 cm.

(8) Phytoplankton

Methods: Phytoplankton were sampled using a 1 L grab sample (QA Rule SOP FS7100).
Chlorophyll *a* Content: Chlorophyll *a* content is measured in both phytoplankton and periphyton samples to estimate algal biomass (FDEP SOP BB05). High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be a violation of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C. and/or 62-302.530(48)(b) F.A.C..

(9) Benthic Macroinvertebrate Assemblages

Methods: Benthic macroinvertebrates were collected using a petite ponar dredge following QA Rule SOP FS7530. Five replicate ponar samples were collected at each station and sieved through a 500 μm mesh. Benthic macroinvertebrates were sorted and identified to the lowest practical taxonomic level, usually species (FDEP SOP IZ06).

Taxa richness: Taxa richness is the number of distinct macroinvertebrate taxa present in a sample. Decreases in taxa richness related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C., 62-302.530(48)(b) F.A.C. and/or 62-302.530(62) F.A.C..

Percent Contribution of Dominant Taxon: Percent contribution of the dominant taxon is calculated by dividing the number of individuals in the most abundant taxa by the total number of individuals counted. Percent contribution of the dominant taxon tends to increase with increasing perturbation (Plafkin *et al.*, 1989). Increases in the percent contribution of the dominant taxon related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C. and/or 62-302.530(48)(b) F.A.C..

Community Composition: Shifts in proportions of major groups of organisms downstream of a point source, compared to upstream, control conditions, may indicate negative effects of a discharge (Karr and Chu 1998). Shifts in community composition related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C., 62-302.530(48)(b) F.A.C. and/or 62-302.530(62) F.A.C..

Functional Feeding Groups: Environmental degradation may differentially affect groups of invertebrates based on how the group feeds (e.g. predators, deposit feeders, etc.). Changes in the proportions of functional feeding groups related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C., 62-302.530(48)(b) F.A.C. and/or 62-302.530(62) F.A.C..
Shannon-Weaver Diversity Index: This index is specified in the Florida Administrative Code 62-302 as a measure of biological integrity. Low diversity scores are undesirable. Where diversity is low, only a few taxa are abundant as compared to an area where many taxa are present in equitable abundance among taxa (Magurran 1988). A difference of 25% in Shannon-Weaver diversity between results from petite ponar samples at test and control sites constitutes a violation of 62-302.530(11) F.A.C..

(10) Statistical Comparisons

Statistical comparisons of the proportions of taxa, major groups or feeding groups were made using 95% confidence intervals on proportions. A 95% confidence interval is the range of values above and below a given proportion that has a 95% chance of containing the true proportion (Sokal and Rohlf 1995). If the 95% confidence intervals for two proportions do not overlap, then the proportion of X in sample 1 is significantly different from the proportion of X in sample 2 at $p<0.05$. A "$p<0.05$" level of significance means that there is less than a 5% chance that the true proportions in the two samples are the same. All comparisons that are labeled as significant in the text have a probability <0.05 that the proportions are the same.

Appendix 4

Chemical analysis of effluent and receiving water

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,2,4,5-Tetrachlorobenzene	1	ug/L	UJ	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,2,4-Trichlorobenzene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,2-Dichlorobenzene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,3,5-Trinitrobenzene	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,3-Dichlorobenzene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,3-Dinitrobenzene	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,4-Dichlorobenzene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1,4-Naphthoquinone	21	ug/L	UJ	21	82
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	1-Naphthylamine	10	ug/L	U	10	41
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,3,4,6-Tetrachlorophenol	2.1	ug/L	UJ	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,4,5-Trichlorophenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,4,6-Trichlorophenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,4-Dichlorophenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,4-Dimethylphenol	52	ug/L	U	52	210
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,4-Dinitrophenol	15	ug/L	U	15	62
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,4-Dinitrotoluene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,6-Dichlorophenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2,6-Dinitrotoluene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Acetylaminofluorene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Chloronaphthalene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Chlorophenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Methyl-4,6-dinitrophenol	3.1	ug/L	U	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Methylnaphthalene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Naphthylamine	10	ug/L	U	10	41
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Nitroaniline	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Nitrophenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	2-Picoline	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	3,3'-Dichlorobenzidine	41	ug/L	U	41	160
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	3,3'-Dimethylbenzidine	21	ug/L	UJ	21	82
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	3-Methylcholanthrene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	3-Nitroaniline	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4,4'-DDD	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4,4'-DDE	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4,4'-DDT	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4-Aminobiphenyl	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4-Bromophenyl phenyl ether	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4-Chloro-3-methylphenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4-Chloroaniline	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4-Chlorophenyl phenyl ether	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4-Nitroaniline	1	ug/L	UJ	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	4-Nitrophenol	15	ug/L	U	15	62
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	5-Nitro-o-toluidine	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	7,12-Dimethylbenz(a)anthracene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Acenaphthene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Acenaphthylene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Acetophenone	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Aldrin	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Aniline	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Anthracene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Azobenzene/1,2-Diphenylhydrazine	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Benzidine	100	ug/L	U	100	410
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Benzo(a)anthracene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Benzo(a)pyrene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Benzo(b)fluoranthene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Benzo(g,h,i)perylene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Benzo(k)fluoranthene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Benzyl alcohol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Bis(2-chloroethoxy)methane	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Bis(2-chloroethyl)ether	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Bis(2-chloroisopropyl)ether	3.1	ug/L	U	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	62
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Butyl benzyl phthalate	5.2	ug/L	U	5.2	21
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Chrysene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Di-n-butyl phthalate	5.2	ug/L	U	5.2	21
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Di-n-octyl phthalate	1	ug/L	UJ	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Dibenzo(a,h)anthracene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Dibenzofuran	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Dieldrin	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Diethyl phthalate	1	ug/L	U	1	4.1

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Dimethyl phthalate	52	ug/L	U	52	210
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Dimethylaminoazobenzene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Dinoseb	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Diphenylamine	3.1	ug/L	U	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Endosulfan I	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Endosulfan II	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Endosulfan sulfate	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Endrin	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Endrin aldehyde	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Ethyl methanesulfonate	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Fluoranthene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Fluorene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Heptachlor	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Heptachlor epoxide	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Hexachlorobenzene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Hexachlorobutadiene	3.1	ug/L	UJ	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Hexachlorocyclopentadiene	3.1	ug/L	UJ	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Hexachloroethane	3.1	ug/L	UJ	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Hexachloropropene	2.1	ug/L	UJ	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Indeno(1,2,3-cd)pyrene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Isophorone	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Isosafrole	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Methapyrilene	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Methyl methanesulfonate	1	ug/L	UJ	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosodi-n-butylamine	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosodi-n-propylamine	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosodiethylamine	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosodimethylamine	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosodiphenylamine	3.1	ug/L	U	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosomethylethylamine	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosomorpholine	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosopiperidine	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	N-Nitrosopyrrolidine	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Naphthalene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Nitrobenzene	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Nitroquinoline-1-oxide	21	ug/L	U	21	82
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Pentachlorobenzene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Pentachloroethane	52	ug/L	U	52	210
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Pentachloronitrobenzene	1	ug/L	UJ	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Pentachlorophenol	3.1	ug/L	U	3.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Phenacetin	4.1	ug/L	U	4.1	12
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Phenanthrene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Phenol	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Pyrene	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Pyridine	4.1	ug/L	U	4.1	16
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	Safrole	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	alpha-BHC	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	beta-BHC	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	delta-BHC	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	gamma-BHC	1.5	ug/L	U	1.5	6.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	m,p-Cresols	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	o-Cresol	2.1	ug/L	U	2.1	8.2
04/30/03	BLANK CORE	BNA-Water	W-EQPMT-BK	o-Toluidine	1	ug/L	U	1	4.1
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Alachlor	0.62	ug/L	U	0.62	2.48
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Aldrin	0.01	ug/L	U	0.01	0.04
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Alpha-BHC	0.01	ug/L	U	0.01	0.04
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Ametryn	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Atrazine	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Azinphos Methyl	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Beta-BHC	0.01	ug/L	U	0.01	0.04
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Bromacil	0.21	ug/L	U	0.21	0.84
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Butylate	0.21	ug/L	U	0.21	0.84
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Chlordane	0.21	ug/L	U	0.21	0.84
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Chlorpyrifos Ethyl	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	DDD-p,p'	0.021	ug/L	U	0.021	0.084
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	DDE-p,p'	0.021	ug/L	U	0.021	0.084
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	DDT-p,p'	0.031	ug/L	U	0.031	0.124
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Delta-BHC	0.01	ug/L	U	0.01	0.04
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Diazinon	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Dieldrin	0.021	ug/L	U	0.021	0.084
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Endosulfan I	0.021	ug/L	U	0.021	0.084
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Endosulfan II	0.021	ug/L	U	0.021	0.084
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Endosulfan Sulfate	0.021	ug/L	U	0.021	0.084

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Endrin	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Endrin Aldehyde	0.021	ug/L	U	0.021	0.084
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Ethion	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Ethoprop	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Fenamiphos	0.21	ug/L	U	0.21	0.84
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Fonofos	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Gamma-BHC	0.01	ug/L	U	0.01	0.04
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Heptachlor	0.01	ug/L	U	0.01	0.04
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Heptachlor Epoxide	0.021	ug/L	U	0.021	0.084
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Hexazinone	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Malathion	0.16	ug/L	UJ	0.16	0.64
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Metalaxyl	0.26	ug/L	U	0.26	1.04
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Methoxychlor	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Metolachlor	0.52	ug/L	U	0.52	2.08
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Metribuzin	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Mevinphos	0.21	ug/L	U	0.21	0.84
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Naled	0.83	ug/L	U	0.83	3.32
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Norflurazon	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Parathion Ethyl	0.16	ug/L	UJ	0.16	0.64
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Parathion Methyl	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Phorate	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Prometryn	0.16	ug/L	U	0.16	0.64
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Simazine	0.052	ug/L	U	0.052	0.208
04/30/03	BLANK CORE	GC-Water	W-EQPMT-BK	Toxaphene	0.78	ug/L	U	0.78	3.12
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Aluminum	10	ug/L	U	10	40
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Arsenic	5	ug/L	U	5	20
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Cadmium	0.025	ug/L	U	0.025	0.1
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Calcium	0.05	mg/L	U	0.05	0.2
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Chromium	2	ug/L	U	2	8
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Copper	1.8	ug/L	U	0.8	3.2
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Iron	15	ug/L	U	15	60
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Lead	0.1	ug/L	U	0.1	0.4
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Magnesium	0.02	mg/L	U	0.02	0.08
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Nickel	2.5	ug/L	U	2.5	10
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Selenium	1	ug/L	U	1	4
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Silver	0.02	ug/L	U	0.02	0.08
04/30/03	BLANK CORE	Metals-Water	W-EQPMT-BK	Zinc	4	ug/L	U	4	16
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,2,4,5-Tetrachlorobenzene	0.95	ug/L	UJ	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1,4-Naphthoquinone	19	ug/L	UJ	19	76
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	1-Naphthylamine	9.5	ug/L	U	9.5	38
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,3,4,6-Tetrachlorophenol	1.9	ug/L	UJ	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,4,5-Trichlorophenol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,4-Dimethylphenol	48	ug/L	U	48	190
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,4-Dinitrophenol	14	ug/L	U	14	57
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,6-Dichlorophenol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Acetylaminofluorene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Methylnaphthalene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Naphthylamine	9.5	ug/L	U	9.5	38
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Nitroaniline	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	2-Picoline	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	76
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	3-Methylcholanthrene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	3-Nitroaniline	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4,4'-DDD	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4,4'-DDE	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4,4'-DDT	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4-Chloroaniline	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4-Nitroaniline	0.95	ug/L	UJ	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	4-Nitrophenol	14	ug/L	U	14	57
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	5-Nitro-o-toluidine	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	7,12-Dimethylbenz(a)anthracene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Acenaphthene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Acenaphthylene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Acetophenone	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Aldrin	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Aniline	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Anthracene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Azobenzene/1,2-Diphenylhydrazine	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Benzidine	95	ug/L	U	95	380
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Benzyl alcohol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Chrysene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Di-n-octyl phthalate	0.95	ug/L	UJ	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Dibenzofuran	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Dieldrin	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Dimethyl phthalate	48	ug/L	U	48	190
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Dinoseb	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Diphenylamine	2.9	ug/L	U	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Endosulfan I	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Endosulfan II	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Endrin	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Endrin aldehyde	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Ethyl methanesulfonate	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Fluoranthene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Fluorene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Heptachlor	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Hexachloroethane	2.9	ug/L	UJ	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Hexachloropropene	1.9	ug/L	UJ	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Isophorone	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Isosafrole	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Methapyrilene	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Methyl methanesulfonate	0.95	ug/L	UJ	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Naphthalene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Nitrobenzene	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Nitroquinoline-1-oxide	19	ug/L	U	19	76
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Pentachloroethane	48	ug/L	U	48	190
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Pentachloronitrobenzene	0.95	ug/L	UJ	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Pentachlorophenol	2.9	ug/L	U	2.9	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Phenacetin	3.8	ug/L	U	3.8	11
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Phenanthrene	0.95	ug/L	U	0.95	3.8

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Phenol	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Pyrene	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Pyridine	3.8	ug/L	U	3.8	15
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	Safrole	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	alpha-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	beta-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	delta-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	gamma-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	m,p-Cresols	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	o-Cresol	1.9	ug/L	U	1.9	7.6
04/29/03	BLANK EFFLUENT	BNA-Water	W-EQPMT-BK	o-Toluidine	0.95	ug/L	U	0.95	3.8
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Alachlor	0.57	ug/L	U	0.57	2.28
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Aldrin	0.0095	ug/L	U	0.0095	0.038
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Alpha-BHC	0.0095	ug/L	U	0.0095	0.038
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Ametryn	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Atrazine	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Beta-BHC	0.0095	ug/L	U	0.0095	0.038
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Bromacil	0.19	ug/L	U	0.19	0.76
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Butylate	0.19	ug/L	U	0.19	0.76
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Chlordane	0.19	ug/L	U	0.19	0.76
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	DDD-p,p'	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	DDE-p,p'	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	DDT-p,p'	0.028	ug/L	U	0.028	0.112
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Delta-BHC	0.0095	ug/L	U	0.0095	0.038
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Diazinon	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Dieldrin	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Endosulfan I	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Endosulfan II	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Endosulfan Sulfate	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Endrin	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Endrin Aldehyde	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Ethion	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Ethoprop	0.095	ug/L	U	0.095	0.38
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Fenamiphos	0.19	ug/L	U	0.19	0.76
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Fonofos	0.095	ug/L	U	0.095	0.38
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Gamma-BHC	0.0095	ug/L	U	0.0095	0.038
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Heptachlor	0.0095	ug/L	U	0.0095	0.038
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Heptachlor Epoxide	0.019	ug/L	U	0.019	0.076
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Hexazinone	0.095	ug/L	U	0.095	0.38
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Malathion	0.14	ug/L	UJ	0.14	0.56
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Metalaxyl	0.24	ug/L	U	0.24	0.96
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Methoxychlor	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Metolachlor	0.48	ug/L	U	0.48	1.92
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Metribuzin	0.095	ug/L	U	0.095	0.38
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Mevinphos	0.19	ug/L	U	0.19	0.76
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Naled	0.76	ug/L	U	0.76	3.04
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Norflurazon	0.095	ug/L	U	0.095	0.38
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Parathion Ethyl	0.14	ug/L	UJ	0.14	0.56
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Parathion Methyl	0.095	ug/L	U	0.095	0.38
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Phorate	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Prometryn	0.14	ug/L	U	0.14	0.56
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Simazine	0.048	ug/L	U	0.048	0.192
04/29/03	BLANK EFFLUENT	GC-Water	W-EQPMT-BK	Toxaphene	0.71	ug/L	U	0.71	2.84
04/29/03	BLANK EFFLUENT	Nutrients-Liquid	W-EQPMT-BK	Ammonia-N	0.01	mg N/L	U	0.01	0.02
04/29/03	BLANK EFFLUENT	Nutrients-Liquid	W-EQPMT-BK	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
04/29/03	BLANK EFFLUENT	Nutrients-Liquid	W-EQPMT-BK	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
04/29/03	BLANK EFFLUENT	Nutrients-Liquid	W-EQPMT-BK	O-Phosphate-P	0.004	mg P/L	UQ	0.004	0.01
04/29/03	BLANK EFFLUENT	Nutrients-Liquid	W-EQPMT-BK	TSS	4	mg/L	U	4	16
04/29/03	BLANK EFFLUENT	Nutrients-Liquid	W-EQPMT-BK	Total-P	0.015	mg P/L	U	0.015	0.04
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,2,4,5-Tetrachlorobenzene	0.94	ug/L	UJ	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,2,4-Trichlorobenzene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,2-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,3-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,4-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1,4-Naphthoquinone	19	ug/L	UJ	19	75
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	1-Naphthylamine	9.4	ug/L	U	9.4	38
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,3,4,6-Tetrachlorophenol	1.9	ug/L	UJ	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,4,5-Trichlorophenol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,4,6-Trichlorophenol	0.94	ug/L	U	0.94	3.8

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,4-Dichlorophenol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,4-Dimethylphenol	47	ug/L	U	47	190
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,4-Dinitrophenol	14	ug/L	U	14	57
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,4-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,6-Dichlorophenol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2,6-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Acetylaminofluorene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Chloronaphthalene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Chlorophenol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Methyl-4,6-dinitrophenol	2.8	ug/L	U	2.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Methylnaphthalene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Naphthylamine	9.4	ug/L	U	9.4	38
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Nitroaniline	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Nitrophenol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	2-Picoline	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	75
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	3-Methylcholanthrene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	3-Nitroaniline	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4,4'-DDD	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4,4'-DDE	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4,4'-DDT	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4-Bromophenyl phenyl ether	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4-Chloro-3-methylphenol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4-Chloroaniline	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4-Nitroaniline	0.94	ug/L	UJ	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	4-Nitrophenol	14	ug/L	U	14	57
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	5-Nitro-o-toluidine	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	7,12-Dimethylbenz(a)anthracene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Acenaphthene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Acenaphthylene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Acetophenone	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Aldrin	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Aniline	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Anthracene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Azobenzene/1,2-Diphenylhydrazine	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Benzidine	94	ug/L	U	94	380
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Benzo(a)anthracene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Benzo(a)pyrene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Benzo(b)fluoranthene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Benzo(g,h,i)perylene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Benzo(k)fluoranthene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Benzyl alcohol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Bis(2-chloroethoxy)methane	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Bis(2-chloroethyl)ether	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Bis(2-chloroisopropyl)ether	2.8	ug/L	U	2.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Butyl benzyl phthalate	4.7	ug/L	U	4.7	19
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Chrysene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Di-n-butyl phthalate	4.7	ug/L	U	4.7	19
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Di-n-octyl phthalate	0.94	ug/L	UJ	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Dibenzo(a,h)anthracene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Dibenzofuran	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Dieldrin	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Diethyl phthalate	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Dimethyl phthalate	47	ug/L	U	47	190
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Dimethylaminoazobenzene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Dinoseb	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Diphenylamine	2.8	ug/L	U	2.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Endosulfan I	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Endosulfan II	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Endrin	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Endrin aldehyde	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Ethyl methanesulfonate	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Fluoranthene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Fluorene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Heptachlor	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Hexachlorobenzene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Hexachlorobutadiene	2.8	ug/L	UJ	2.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Hexachlorocyclopentadiene	2.8	ug/L	UJ	2.8	11

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Hexachloroethane	2.8	ug/L	UJ	2.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Hexachloropropene	1.9	ug/L	UJ	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Indeno(1,2,3-cd)pyrene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Isophorone	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Isosafrole	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Methapyrilene	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Methyl methanesulfonate	0.94	ug/L	UJ	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosodi-n-butylamine	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosodiethylamine	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosodiphenylamine	2.8	ug/L	U	2.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosomorpholine	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosopiperidine	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Naphthalene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Nitrobenzene	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Nitroquinoline-1-oxide	19	ug/L	U	19	75
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Pentachlorobenzene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Pentachloroethane	47	ug/L	U	47	190
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Pentachloronitrobenzene	0.94	ug/L	UJ	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Pentachlorophenol	2.8	ug/L	U	2.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Phenacetin	3.8	ug/L	U	3.8	11
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Phenanthrene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Phenol	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Pyrene	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Pyridine	3.8	ug/L	U	3.8	15
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	Safrole	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	alpha-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	beta-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	delta-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	gamma-BHC	1.4	ug/L	U	1.4	5.7
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	m,p-Cresols	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	o-Cresol	1.9	ug/L	U	1.9	7.5
04/29/03	EFFLUENT	BNA-Water	W-EFFLUENT	o-Toluidine	0.94	ug/L	U	0.94	3.8
04/29/03	EFFLUENT	Bio-AGP/LimNut	W-EFFLUENT	Algal Growth Potential	9.76	mg DryWt/L		0.1	0.3
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Alachlor	0.58	ug/L	U	0.58	2.32
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Aldrin	0.0097	ug/L	U	0.0097	0.0388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Alpha-BHC	0.0097	ug/L	U	0.0097	0.0388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Ametryn	0.048	ug/L	U	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Atrazine	0.11	ug/L	I	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Beta-BHC	0.0097	ug/L	U	0.0097	0.0388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Bromacil	0.19	ug/L	U	0.19	0.76
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Butylate	0.19	ug/L	U	0.19	0.76
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Chlordane	0.19	ug/L	U	0.19	0.76
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	DDD-p,p'	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	DDE-p,p'	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	DDT-p,p'	0.029	ug/L	U	0.029	0.116
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Delta-BHC	0.0097	ug/L	U	0.0097	0.0388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Diazinon	0.22	ug/L		0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Dieldrin	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Endosulfan I	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Endosulfan II	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Endosulfan Sulfate	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Endrin	0.048	ug/L	U	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Endrin Aldehyde	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Ethion	0.048	ug/L	U	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Ethoprop	0.097	ug/L	U	0.097	0.388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Fenamiphos	0.19	ug/L	U	0.19	0.76
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Fonofos	0.097	ug/L	U	0.097	0.388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Gamma-BHC	0.014	ug/L	U	0.0097	0.0388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Heptachlor	0.0097	ug/L	UJ	0.0097	0.0388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Heptachlor Epoxide	0.019	ug/L	U	0.019	0.076
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Hexazinone	0.097	ug/L	U	0.097	0.388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Malathion	0.14	ug/L	UJ	0.14	0.56
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Metalaxyl	0.24	ug/L	U	0.24	0.96
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Methoxychlor	0.048	ug/L	UJ	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Metolachlor	0.48	ug/L	U	0.48	1.92
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Metribuzin	0.097	ug/L	U	0.097	0.388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Mevinphos	0.19	ug/L	U	0.19	0.76

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Naled	0.78	ug/L	U	0.78	3.12
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Norflurazon	0.097	ug/L	U	0.097	0.388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Parathion Ethyl	0.14	ug/L	UJ	0.14	0.56
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Parathion Methyl	0.097	ug/L	U	0.097	0.388
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Phorate	0.048	ug/L	U	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Prometryn	0.14	ug/L	U	0.14	0.56
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Simazine	0.048	ug/L	U	0.048	0.192
04/29/03	EFFLUENT	GC-Water	W-EFFLUENT	Toxaphene	0.73	ug/L	U	0.73	2.92
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Aluminum	69	ug/L	I	10	40
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Arsenic	5	ug/L	U	5	20
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Cadmium	0.025	ug/L	U	0.025	0.1
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Calcium	85	mg/L		0.05	0.2
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Chromium	7.6	ug/L	U	2	8
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Copper	2.2	ug/L	I	0.8	3.2
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Iron	30	ug/L	I	15	60
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Lead	0.24	ug/L	I	0.1	0.4
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Magnesium	84.6	mg/L		0.02	0.08
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Nickel	2.5	ug/L	U	2.5	10
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Selenium	5.6	ug/L		1	4
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Silver	0.02	ug/L	U	0.02	0.08
04/29/03	EFFLUENT	Metals-Water	W-EFFLUENT	Zinc	25	ug/L		4	16
04/29/03	EFFLUENT	Nutrients-Liquid	W-EFFLUENT	Ammonia-N	0.036	mg N/L		0.01	0.02
04/29/03	EFFLUENT	Nutrients-Liquid	W-EFFLUENT	NO2NO3-N	14	mg N/L		0.4	1
04/29/03	EFFLUENT	Nutrients-Liquid	W-EFFLUENT	N_KJEL_TOT	0.99	mg N/L		0.06	0.2
04/29/03	EFFLUENT	Nutrients-Liquid	W-EFFLUENT	O-Phosphate-P	1.5	mg P/L	Q	0.04	0.1
04/29/03	EFFLUENT	Nutrients-Liquid	W-EFFLUENT	TSS	4	mg/L	U	4	16
04/29/03	EFFLUENT	Nutrients-Liquid	W-EFFLUENT	Total-P	1.4	mg P/L		0.09	0.24
04/29/03	EFFLUENT	Overflow	W-EFFLUENT	Oil and Grease	1.3	mg/l	IV		
04/29/03	FINAL EFFLUENT	Bio-Toxicology	W-SURF-FRH	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50			L
04/29/03	FINAL EFFLUENT	Bio-Toxicology	W-SURF-FRH	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50			L
04/30/03	STATION 5	BNA-Waste	S-MARINESD	1,2,4-Trichlorobenzene	250	ug/kg	U	250	980
04/30/03	STATION 5	BNA-Waste	S-MARINESD	1,2-Dichlorobenzene	250	ug/kg	U	250	980
04/30/03	STATION 5	BNA-Waste	S-MARINESD	1,3-Dichlorobenzene	250	ug/kg	U	250	980
04/30/03	STATION 5	BNA-Waste	S-MARINESD	1,4-Dichlorobenzene	250	ug/kg	U	250	980
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2,4,6-Trichlorophenol	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2,4-Dichlorophenol	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2,4-Dimethylphenol	2500	ug/kg	U	2500	9800
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2,4-Dinitrophenol	490	ug/kg	UJ	490	2000
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2,4-Dinitrotoluene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2,6-Dinitrotoluene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2-Chloronaphthalene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2-Chlorophenol	250	ug/kg	U	250	980
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2-Methyl-4,6-dinitrophenol	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	2-Nitrophenol	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	3,3'-Dichlorobenzidine	4900	ug/kg	U	4900	20000
04/30/03	STATION 5	BNA-Waste	S-MARINESD	4,4'-DDD	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	4,4'-DDE	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	4,4'-DDT	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	4-Bromophenyl phenyl ether	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	4-Chloro-3-methylphenol	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	4-Chlorophenyl phenyl ether	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	4-Nitrophenol	82	ug/kg	UJ	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Acenaphthene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Acenaphthylene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Aldrin	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Anthracene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Azobenzene/1,2-Diphenylhydrazine	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Benzidine	1800	ug/kg	U	1800	7100
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Benzo(a)anthracene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Benzo(a)pyrene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Benzo(b)fluoranthene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Benzo(g,h,i)perylene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Benzo(k)fluoranthene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Bis(2-chloroethoxy)methane	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Bis(2-chloroethyl)ether	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Bis(2-chloroisopropyl)ether	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Bis(2-ethylhexyl)phthalate	490	ug/kg	U	490	2000
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Butyl benzyl phthalate	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Chrysene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Di-n-butyl phthalate	490	ug/kg	U	490	2000
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Di-n-octyl phthalate	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Dibenzo(a,h)anthracene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Dieldrin	82	ug/kg	UJ	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Diethyl phthalate	82	ug/kg	U	82	330

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Dimethyl phthalate	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Endosulfan I	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Endosulfan II	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Endosulfan sulfate	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Endrin	82	ug/kg	UJ	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Endrin aldehyde	82	ug/kg	UJ	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Fluoranthene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Fluorene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Heptachlor	82	ug/kg	UJ	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Heptachlor epoxide	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Hexachlorobenzene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Hexachlorobutadiene	250	ug/kg	U	250	980
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Hexachlorocyclopentadiene	82	ug/kg	UJ	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Hexachloroethane	250	ug/kg	U	250	980
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Indeno(1,2,3-cd)pyrene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Isophorone	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	N-Nitrosodi-n-propylamine	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	N-Nitrosodimethylamine	490	ug/kg	U	490	2000
04/30/03	STATION 5	BNA-Waste	S-MARINESD	N-Nitrosodiphenylamine	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Naphthalene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Nitrobenzene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Pentachlorophenol	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Phenanthrene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Phenol	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	Pyrene	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	alpha-BHC	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	beta-BHC	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	delta-BHC	82	ug/kg	U	82	330
04/30/03	STATION 5	BNA-Waste	S-MARINESD	gamma-BHC	82	ug/kg	U	82	330
04/30/03	STATION 5	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment % Organic		1.4	% dry wt		
04/30/03	STATION 5	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.063-0.125mm		9.14	% vol <2mm		
04/30/03	STATION 5	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.125-0.25 mm		49.3	% vol <2mm		
04/30/03	STATION 5	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.25-0.5 mm		21.4	% vol <2mm		
04/30/03	STATION 5	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.5-2.0 mm		5.84	% vol <2mm		
04/30/03	STATION 5	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, <0.063 mm		14.3	% vol <2mm		
04/30/03	STATION 5	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, >2.0 mm		0.58	%tot drywt		
04/30/03	STATION 5	GC-Soil	S-MARINESD	Alachlor	27	ug/kg	U	27	108
04/30/03	STATION 5	GC-Soil	S-MARINESD	Aldrin	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Alpha-BHC	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Ametryn	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Atrazine	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Azinphos Methyl	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Beta-BHC	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Bromacil	18	ug/kg	U	18	72
04/30/03	STATION 5	GC-Soil	S-MARINESD	Chlordane	6.8	ug/Kg	U	6.8	27.2
04/30/03	STATION 5	GC-Soil	S-MARINESD	Chlorpyrifos Ethyl	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Chlorpyrifos Methyl	4.5	ug/kg	U	4.5	18
04/30/03	STATION 5	GC-Soil	S-MARINESD	DDD-p,p'	0.9	ug/Kg	U	0.9	3.6
04/30/03	STATION 5	GC-Soil	S-MARINESD	DDE-p,p'	0.9	ug/Kg	U	0.9	3.6
04/30/03	STATION 5	GC-Soil	S-MARINESD	DDT-p,p'	1.4	ug/Kg	U	1.4	5.6
04/30/03	STATION 5	GC-Soil	S-MARINESD	Delta-BHC	0.9	ug/Kg	U	0.9	3.6
04/30/03	STATION 5	GC-Soil	S-MARINESD	Diazinon	4.5	ug/kg	U	4.5	18
04/30/03	STATION 5	GC-Soil	S-MARINESD	Dieldrin	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Endosulfan I	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Endosulfan II	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Endosulfan Sulfate	0.9	ug/Kg	U	0.9	3.6
04/30/03	STATION 5	GC-Soil	S-MARINESD	Endrin	1.8	ug/Kg	U	1.8	7.2
04/30/03	STATION 5	GC-Soil	S-MARINESD	Endrin Aldehyde	0.9	ug/Kg	U	0.9	3.6
04/30/03	STATION 5	GC-Soil	S-MARINESD	Ethion	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Ethoprop	4.5	ug/kg	U	4.5	18
04/30/03	STATION 5	GC-Soil	S-MARINESD	Fenamiphos	18	ug/kg	U	18	72
04/30/03	STATION 5	GC-Soil	S-MARINESD	Fonofos	4.5	ug/kg	U	4.5	18
04/30/03	STATION 5	GC-Soil	S-MARINESD	Gamma-BHC	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Heptachlor	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Heptachlor Epoxide	0.45	ug/Kg	U	0.45	1.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Hexazinone	9	ug/kg	U	9	36
04/30/03	STATION 5	GC-Soil	S-MARINESD	Malathion	6.8	ug/kg	U	6.8	27.2
04/30/03	STATION 5	GC-Soil	S-MARINESD	Methamidophos	22	ug/kg	U	22	88
04/30/03	STATION 5	GC-Soil	S-MARINESD	Methoxychlor	2.2	ug/Kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Metolachlor	22	ug/kg	U	22	88
04/30/03	STATION 5	GC-Soil	S-MARINESD	Metribuzin	4.5	ug/kg	U	4.5	18
04/30/03	STATION 5	GC-Soil	S-MARINESD	Mevinphos	9	ug/kg	U	9	36
04/30/03	STATION 5	GC-Soil	S-MARINESD	Monocrotophos	45	ug/kg	U	45	180
04/30/03	STATION 5	GC-Soil	S-MARINESD	Naled	36	ug/kg	UJ	36	144

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 5	GC-Soil	S-MARINESD	Norflurazon	4.5	ug/kg	U	4.5	18
04/30/03	STATION 5	GC-Soil	S-MARINESD	PCB-1016	14	ug/Kg	U	14	56
04/30/03	STATION 5	GC-Soil	S-MARINESD	PCB-1221	9.5	ug/Kg	U	9.5	38
04/30/03	STATION 5	GC-Soil	S-MARINESD	PCB-1232	20	ug/Kg	U	20	80
04/30/03	STATION 5	GC-Soil	S-MARINESD	PCB-1242	14	ug/Kg	U	14	56
04/30/03	STATION 5	GC-Soil	S-MARINESD	PCB-1248	9.5	ug/Kg	U	9.5	38
04/30/03	STATION 5	GC-Soil	S-MARINESD	PCB-1254	9.5	ug/Kg	U	9.5	38
04/30/03	STATION 5	GC-Soil	S-MARINESD	PCB-1260	14	ug/Kg	U	14	56
04/30/03	STATION 5	GC-Soil	S-MARINESD	Parathion Ethyl	6.8	ug/kg	U	6.8	27.2
04/30/03	STATION 5	GC-Soil	S-MARINESD	Parathion Methyl	6.8	ug/kg	U	6.8	27.2
04/30/03	STATION 5	GC-Soil	S-MARINESD	Phorate	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Prometryn	6.8	ug/kg	U	6.8	27.2
04/30/03	STATION 5	GC-Soil	S-MARINESD	Simazine	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 5	GC-Soil	S-MARINESD	Toxaphene	34	ug/Kg	U	34	136
04/30/03	STATION 5	Metals-Waste	S-MARINESD	Aluminum	1850	mg/Kg	J	35	140
04/30/03	STATION 5	Metals-Waste	S-MARINESD	Cadmium	0.028	mg/Kg	I	0.012	0.05
04/30/03	STATION 5	Metals-Waste	S-MARINESD	Chromium	3.58	mg/Kg	J	0.2	0.79
04/30/03	STATION 5	Metals-Waste	S-MARINESD	Copper	1.5	mg/Kg	I	0.5	2
04/30/03	STATION 5	Metals-Waste	S-MARINESD	Lead	1.7	mg/Kg		0.12	0.5
04/30/03	STATION 5	Metals-Waste	S-MARINESD	Nickel	0.34	mg/Kg	U	0.12	0.5
04/30/03	STATION 5	Metals-Waste	S-MARINESD	Silver	0.015	mg/Kg	U	0.015	0.059
04/30/03	STATION 1	BNA-Waste	S-MARINESD	1,2,4-Trichlorobenzene	230	ug/kg	U	230	920
04/30/03	STATION 1	BNA-Waste	S-MARINESD	1,2-Dichlorobenzene	230	ug/kg	U	230	920
04/30/03	STATION 1	BNA-Waste	S-MARINESD	1,3-Dichlorobenzene	230	ug/kg	U	230	920
04/30/03	STATION 1	BNA-Waste	S-MARINESD	1,4-Dichlorobenzene	230	ug/kg	U	230	920
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2,4,6-Trichlorophenol	77	ug/kg	UJ	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2,4-Dichlorophenol	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2,4-Dimethylphenol	2300	ug/kg	U	2300	9200
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2,4-Dinitrophenol	460	ug/kg	U	460	1800
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2,4-Dinitrotoluene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2,6-Dinitrotoluene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2-Chloronaphthalene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2-Chlorophenol	230	ug/kg	U	230	920
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2-Methyl-4,6-dinitrophenol	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	2-Nitrophenol	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	3,3'-Dichlorobenzidine	4600	ug/kg	U	4600	18000
04/30/03	STATION 1	BNA-Waste	S-MARINESD	4,4'-DDD	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	4,4'-DDE	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	4,4'-DDT	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	4-Bromophenyl phenyl ether	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	4-Chloro-3-methylphenol	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	4-Chlorophenyl phenyl ether	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	4-Nitrophenol	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Acenaphthene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Acenaphthylene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Aldrin	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Anthracene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Azobenzene/1,2-Diphenylhydrazine	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Benzidine	1700	ug/kg	U	1700	6700
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Benzo(a)anthracene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Benzo(a)pyrene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Benzo(b)fluoranthene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Benzo(g,h,i)perylene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Benzo(k)fluoranthene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Bis(2-chloroethoxy)methane	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Bis(2-chloroethyl)ether	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Bis(2-chloroisopropyl)ether	77	ug/kg	UJ	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Bis(2-ethylhexyl)phthalate	460	ug/kg	U	460	1800
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Butyl benzyl phthalate	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Chrysene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Di-n-butyl phthalate	460	ug/kg	U	460	1800
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Di-n-octyl phthalate	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Dibenzo(a,h)anthracene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Dieldrin	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Diethyl phthalate	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Dimethyl phthalate	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Endosulfan I	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Endosulfan II	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Endosulfan sulfate	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Endrin	77	ug/kg	UJ	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Endrin aldehyde	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Fluoranthene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Fluorene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Heptachlor	77	ug/kg	U	77	310

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Heptachlor epoxide	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Hexachlorobenzene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Hexachlorobutadiene	230	ug/kg	UJ	230	920
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Hexachlorocyclopentadiene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Hexachloroethane	230	ug/kg	U	230	920
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Indeno(1,2,3-cd)pyrene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Isophorone	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	N-Nitrosodi-n-propylamine	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	N-Nitrosodimethylamine	460	ug/kg	U	460	1800
04/30/03	STATION 1	BNA-Waste	S-MARINESD	N-Nitrosodiphenylamine	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Naphthalene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Nitrobenzene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Pentachlorophenol	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Phenanthrene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Phenol	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	Pyrene	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	alpha-BHC	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	beta-BHC	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	delta-BHC	77	ug/kg	U	77	310
04/30/03	STATION 1	BNA-Waste	S-MARINESD	gamma-BHC	77	ug/kg	U	77	310
04/30/03	STATION 1	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment % Organic		1.1	% dry wt		
04/30/03	STATION 1	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.063-0.125mm		3.77	% vol <2mm		
04/30/03	STATION 1	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.125-0.25 mm		47.3	% vol <2mm		
04/30/03	STATION 1	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.25-0.5 mm		34	% vol <2mm		
04/30/03	STATION 1	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.5-2.0 mm		8.87	% vol <2mm		
04/30/03	STATION 1	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, <0.063 mm		6.07	% vol <2mm		
04/30/03	STATION 1	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, >2.0 mm		2.3	%tot drywt		
04/30/03	STATION 1	GC-Soil	S-MARINESD	Alachlor	25	ug/kg	U	25	100
04/30/03	STATION 1	GC-Soil	S-MARINESD	Aldrin	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Alpha-BHC	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Ametryn	2.1	ug/kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Atrazine	2.1	ug/kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Azinphos Methyl	2.1	ug/kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Beta-BHC	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Bromacil	17	ug/kg	U	17	68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Chlordane	6.3	ug/Kg	U	6.3	25.2
04/30/03	STATION 1	GC-Soil	S-MARINESD	Chlorpyrifos Ethyl	2.1	ug/kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Chlorpyrifos Methyl	4.2	ug/kg	U	4.2	16.8
04/30/03	STATION 1	GC-Soil	S-MARINESD	DDD-p,p'	0.85	ug/Kg	U	0.85	3.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	DDE-p,p'	0.85	ug/Kg	U	0.85	3.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	DDT-p,p'	1.3	ug/Kg	U	1.3	5.2
04/30/03	STATION 1	GC-Soil	S-MARINESD	Delta-BHC	0.85	ug/Kg	U	0.85	3.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Diazinon	4.2	ug/kg	U	4.2	16.8
04/30/03	STATION 1	GC-Soil	S-MARINESD	Dieldrin	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Endosulfan I	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Endosulfan II	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Endosulfan Sulfate	0.85	ug/Kg	U	0.85	3.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Endrin	1.7	ug/Kg	U	1.7	6.8
04/30/03	STATION 1	GC-Soil	S-MARINESD	Endrin Aldehyde	0.85	ug/Kg	U	0.85	3.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Ethion	2.1	ug/kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Ethoprop	4.2	ug/kg	U	4.2	16.8
04/30/03	STATION 1	GC-Soil	S-MARINESD	Fenamiphos	17	ug/kg	U	17	68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Fonofos	4.2	ug/kg	U	4.2	16.8
04/30/03	STATION 1	GC-Soil	S-MARINESD	Gamma-BHC	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Heptachlor	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Heptachlor Epoxide	0.42	ug/Kg	U	0.42	1.68
04/30/03	STATION 1	GC-Soil	S-MARINESD	Hexazinone	8.5	ug/kg	U	8.5	34
04/30/03	STATION 1	GC-Soil	S-MARINESD	Malathion	6.3	ug/kg	U	6.3	25.2
04/30/03	STATION 1	GC-Soil	S-MARINESD	Methamidophos	21	ug/kg	U	21	84
04/30/03	STATION 1	GC-Soil	S-MARINESD	Methoxychlor	2.1	ug/Kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Metolachlor	21	ug/kg	U	21	84
04/30/03	STATION 1	GC-Soil	S-MARINESD	Metribuzin	4.2	ug/kg	U	4.2	16.8
04/30/03	STATION 1	GC-Soil	S-MARINESD	Mevinphos	8.5	ug/kg	U	8.5	34
04/30/03	STATION 1	GC-Soil	S-MARINESD	Monocrotophos	42	ug/kg	U	42	168
04/30/03	STATION 1	GC-Soil	S-MARINESD	Naled	34	ug/kg	UJ	34	136
04/30/03	STATION 1	GC-Soil	S-MARINESD	Norflurazon	4.2	ug/kg	U	4.2	16.8
04/30/03	STATION 1	GC-Soil	S-MARINESD	PCB-1016	13	ug/Kg	U	13	52
04/30/03	STATION 1	GC-Soil	S-MARINESD	PCB-1221	8.9	ug/Kg	U	8.9	35.6
04/30/03	STATION 1	GC-Soil	S-MARINESD	PCB-1232	19	ug/Kg	U	19	76
04/30/03	STATION 1	GC-Soil	S-MARINESD	PCB-1242	13	ug/Kg	U	13	52
04/30/03	STATION 1	GC-Soil	S-MARINESD	PCB-1248	8.9	ug/Kg	U	8.9	35.6
04/30/03	STATION 1	GC-Soil	S-MARINESD	PCB-1254	8.9	ug/Kg	U	8.9	35.6
04/30/03	STATION 1	GC-Soil	S-MARINESD	PCB-1260	13	ug/Kg	U	13	52
04/30/03	STATION 1	GC-Soil	S-MARINESD	Parathion Ethyl	6.3	ug/kg	U	6.3	25.2

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 1	GC-Soil	S-MARINESD	Parathion Methyl	6.3	ug/kg	U	6.3	25.2
04/30/03	STATION 1	GC-Soil	S-MARINESD	Phorate	2.1	ug/kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Prometryn	6.3	ug/kg	U	6.3	25.2
04/30/03	STATION 1	GC-Soil	S-MARINESD	Simazine	2.1	ug/kg	U	2.1	8.4
04/30/03	STATION 1	GC-Soil	S-MARINESD	Toxaphene	32	ug/Kg	U	32	128
04/30/03	STATION 1	Metals-Waste	S-MARINESD	Aluminum	940	mg/Kg	J	33	130
04/30/03	STATION 1	Metals-Waste	S-MARINESD	Cadmium	0.018	mg/Kg	I	0.012	0.047
04/30/03	STATION 1	Metals-Waste	S-MARINESD	Chromium	1.96	mg/Kg	J	0.19	0.75
04/30/03	STATION 1	Metals-Waste	S-MARINESD	Copper	1.1	mg/Kg	I	0.47	1.9
04/30/03	STATION 1	Metals-Waste	S-MARINESD	Lead	1.2	mg/Kg		0.12	0.47
04/30/03	STATION 1	Metals-Waste	S-MARINESD	Nickel	0.32	mg/Kg	U	0.12	0.47
04/30/03	STATION 1	Metals-Waste	S-MARINESD	Silver	0.014	mg/Kg	U	0.014	0.056
04/30/03	STATION 1	Bio-AGP/LimNut	W-SURF-SLT	Algal Growth Potential	11.7	mg DryWt/L		0.1	0.3
04/30/03	STATION 1	Bio-Chl-a	W-SURF-SLT	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 1	Bio-Chl-a	W-SURF-SLT	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 1	Nutrients-Liquid	W-SURF-SLT	Ammonia-N	0.033	mg N/L		0.01	0.02
04/30/03	STATION 1	Nutrients-Liquid	W-SURF-SLT	NO2NO3-N	3	mg N/L		0.04	0.1
04/30/03	STATION 1	Nutrients-Liquid	W-SURF-SLT	N_KJEL_TOT	1.1	mg N/L	A	0.06	0.2
04/30/03	STATION 1	Nutrients-Liquid	W-SURF-SLT	O-Phosphate-P	0.35	mg P/L		0.016	0.04
04/30/03	STATION 1	Nutrients-Liquid	W-SURF-SLT	TSS	21	mg/L		4	16
04/30/03	STATION 1	Nutrients-Liquid	W-SURF-SLT	Total-P	0.47	mg P/L	A	0.015	0.04
04/30/03	STATION 1 REP.1	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa	8	# Taxa			
04/30/03	STATION 1 REP.2	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa	10	# Taxa			
04/30/03	STATION 1 REP.3	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa	10	# Taxa			
04/30/03	STATION 1 REP.4	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa	12	# Taxa			
04/30/03	STATION 1 REP.5	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa	8	# Taxa			
04/30/03	STATION 2	BNA-Waste	S-MARINESD	1,2,4-Trichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	1,2-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	1,3-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	1,4-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2,4,6-Trichlorophenol	85	ug/kg	UJ	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2,4-Dichlorophenol	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2,4-Dimethylphenol	2500	ug/kg	U	2500	10000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2,4-Dinitrophenol	510	ug/kg	U	510	2000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2,4-Dinitrotoluene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2,6-Dinitrotoluene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2-Chloronaphthalene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2-Chlorophenol	250	ug/kg	U	250	1000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2-Methyl-4,6-dinitrophenol	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	2-Nitrophenol	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	3,3'-Dichlorobenzidine	5100	ug/kg	U	5100	20000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	4,4'-DDD	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	4,4'-DDE	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	4,4'-DDT	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	4-Bromophenyl phenyl ether	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	4-Chloro-3-methylphenol	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	4-Chlorophenyl phenyl ether	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	4-Nitrophenol	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Acenaphthene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Acenaphthylene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Aldrin	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Anthracene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Azobenzene/1,2-Diphenylhydrazine	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Benzidine	1800	ug/kg	U	1800	7300
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Benzo(a)anthracene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Benzo(a)pyrene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Benzo(b)fluoranthene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Benzo(g,h,i)perylene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Benzo(k)fluoranthene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Bis(2-chloroethoxy)methane	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Bis(2-chloroethyl)ether	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Bis(2-chloroisopropyl)ether	85	ug/kg	UJ	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Bis(2-ethylhexyl)phthalate	510	ug/kg	U	510	2000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Butyl benzyl phthalate	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Chrysene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Di-n-butyl phthalate	510	ug/kg	U	510	2000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Di-n-octyl phthalate	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Dibenzo(a,h)anthracene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Dieldrin	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Diethyl phthalate	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Dimethyl phthalate	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Endosulfan I	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Endosulfan II	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Endosulfan sulfate	85	ug/kg	U	85	340

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Endrin	85	ug/kg	UJ	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Endrin aldehyde	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Fluoranthene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Fluorene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Heptachlor	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Heptachlor epoxide	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Hexachlorobenzene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Hexachlorobutadiene	250	ug/kg	UJ	250	1000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Hexachlorocyclopentadiene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Hexachloroethane	250	ug/kg	U	250	1000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Indeno(1,2,3-cd)pyrene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Isophorone	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	N-Nitrosodi-n-propylamine	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	N-Nitrosodimethylamine	510	ug/kg	U	510	2000
04/30/03	STATION 2	BNA-Waste	S-MARINESD	N-Nitrosodiphenylamine	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Naphthalene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Nitrobenzene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Pentachlorophenol	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Phenanthrene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Phenol	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	Pyrene	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	alpha-BHC	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	beta-BHC	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	delta-BHC	85	ug/kg	U	85	340
04/30/03	STATION 2	BNA-Waste	S-MARINESD	gamma-BHC	85	ug/kg	U	85	340
04/30/03	STATION 2	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment % Organic		0.87	% dry wt		
04/30/03	STATION 2	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.063-0.125mm		3.7	% vol	<2mm	A
04/30/03	STATION 2	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.125-0.25 mm		41.2	% vol	<2mm	A
04/30/03	STATION 2	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.25-0.5 mm		32.8	% vol	<2mm	A
04/30/03	STATION 2	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.5-2.0 mm		17.3	% vol	<2mm	A
04/30/03	STATION 2	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, <0.063 mm		4.96	% vol	<2mm	A
04/30/03	STATION 2	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, >2.0 mm		5.2	%tot drywt		A
04/30/03	STATION 2	GC-Soil	S-MARINESD	Alachlor	28	ug/kg	U	28	112
04/30/03	STATION 2	GC-Soil	S-MARINESD	Aldrin	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Alpha-BHC	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Ametryn	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Atrazine	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Azinphos Methyl	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Beta-BHC	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Bromacil	19	ug/kg	U	19	76
04/30/03	STATION 2	GC-Soil	S-MARINESD	Chlordane	7	ug/Kg	U	7	28
04/30/03	STATION 2	GC-Soil	S-MARINESD	Chlorpyrifos Ethyl	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Chlorpyrifos Methyl	4.7	ug/kg	U	4.7	18.8
04/30/03	STATION 2	GC-Soil	S-MARINESD	DDD-p,p'	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 2	GC-Soil	S-MARINESD	DDE-p,p'	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 2	GC-Soil	S-MARINESD	DDT-p,p'	1.4	ug/Kg	U	1.4	5.6
04/30/03	STATION 2	GC-Soil	S-MARINESD	Delta-BHC	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 2	GC-Soil	S-MARINESD	Diazinon	4.7	ug/kg	U	4.7	18.8
04/30/03	STATION 2	GC-Soil	S-MARINESD	Dieldrin	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Endosulfan I	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Endosulfan II	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Endosulfan Sulfate	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 2	GC-Soil	S-MARINESD	Endrin	1.9	ug/Kg	U	1.9	7.6
04/30/03	STATION 2	GC-Soil	S-MARINESD	Endrin Aldehyde	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 2	GC-Soil	S-MARINESD	Ethion	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Ethoprop	4.7	ug/kg	U	4.7	18.8
04/30/03	STATION 2	GC-Soil	S-MARINESD	Fenamiphos	19	ug/kg	U	19	76
04/30/03	STATION 2	GC-Soil	S-MARINESD	Fonofos	4.7	ug/kg	U	4.7	18.8
04/30/03	STATION 2	GC-Soil	S-MARINESD	Gamma-BHC	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Heptachlor	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Heptachlor Epoxide	0.47	ug/Kg	U	0.47	1.88
04/30/03	STATION 2	GC-Soil	S-MARINESD	Hexazinone	9.3	ug/kg	U	9.3	37.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Malathion	7	ug/kg	U	7	28
04/30/03	STATION 2	GC-Soil	S-MARINESD	Methamidophos	23	ug/kg	U	23	92
04/30/03	STATION 2	GC-Soil	S-MARINESD	Methoxychlor	2.3	ug/Kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Metolachlor	23	ug/kg	U	23	92
04/30/03	STATION 2	GC-Soil	S-MARINESD	Metribuzin	4.7	ug/kg	U	4.7	18.8
04/30/03	STATION 2	GC-Soil	S-MARINESD	Mevinphos	9.3	ug/kg	U	9.3	37.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Monocrotophos	47	ug/kg	U	47	188
04/30/03	STATION 2	GC-Soil	S-MARINESD	Naled	38	ug/kg	UJ	38	152
04/30/03	STATION 2	GC-Soil	S-MARINESD	Norflurazon	4.7	ug/kg	U	4.7	18.8
04/30/03	STATION 2	GC-Soil	S-MARINESD	PCB-1016	14	ug/Kg	U	14	56
04/30/03	STATION 2	GC-Soil	S-MARINESD	PCB-1221	9.8	ug/Kg	U	9.8	39.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	PCB-1232	21	ug/Kg	U	21	84

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 2	GC-Soil	S-MARINESD	PCB-1242	14	ug/Kg	U	14	56
04/30/03	STATION 2	GC-Soil	S-MARINESD	PCB-1248	9.8	ug/Kg	U	9.8	39.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	PCB-1254	9.8	ug/Kg	U	9.8	39.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	PCB-1260	14	ug/Kg	U	14	56
04/30/03	STATION 2	GC-Soil	S-MARINESD	Parathion Ethyl	7	ug/kg	U	7	28
04/30/03	STATION 2	GC-Soil	S-MARINESD	Parathion Methyl	7	ug/kg	U	7	28
04/30/03	STATION 2	GC-Soil	S-MARINESD	Phorate	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Prometryn	7	ug/kg	U	7	28
04/30/03	STATION 2	GC-Soil	S-MARINESD	Simazine	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 2	GC-Soil	S-MARINESD	Toxaphene	35	ug/Kg	U	35	140
04/30/03	STATION 2	Metals-Waste	S-MARINESD	Aluminum	1250	mg/Kg	J	35	140
04/30/03	STATION 2	Metals-Waste	S-MARINESD	Cadmium	0.018	mg/Kg	I	0.012	0.05
04/30/03	STATION 2	Metals-Waste	S-MARINESD	Chromium	2.37	mg/Kg	J	0.2	0.8
04/30/03	STATION 2	Metals-Waste	S-MARINESD	Copper	1.8	mg/Kg	I	0.5	2
04/30/03	STATION 2	Metals-Waste	S-MARINESD	Lead	1.4	mg/Kg		0.12	0.5
04/30/03	STATION 2	Metals-Waste	S-MARINESD	Nickel	0.34	mg/Kg	U	0.12	0.5
04/30/03	STATION 2	Metals-Waste	S-MARINESD	Silver	0.015	mg/Kg	U	0.015	0.06
04/30/03	STATION 2	Bio-AGP/LimNut	W-SURF-SLT	Algal Growth Potential	36.3	mg DryWt/L		0.1	0.3
04/30/03	STATION 2	Bio-Chl-a	W-SURF-SLT	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 2	Bio-Chl-a	W-SURF-SLT	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 2	Nutrients-Liquid	W-SURF-SLT	Ammonia-N	0.018	mg N/L	I	0.01	0.02
04/30/03	STATION 2	Nutrients-Liquid	W-SURF-SLT	NO2NO3-N	0.5	mg N/L		0.004	0.01
04/30/03	STATION 2	Nutrients-Liquid	W-SURF-SLT	N_KJEL_TOT	0.91	mg N/L		0.06	0.2
04/30/03	STATION 2	Nutrients-Liquid	W-SURF-SLT	O-Phosphate-P	0.15	mg P/L		0.008	0.02
04/30/03	STATION 2	Nutrients-Liquid	W-SURF-SLT	TSS	23	mg/L		4	16
04/30/03	STATION 2	Nutrients-Liquid	W-SURF-SLT	Total-P	0.16	mg P/L		0.015	0.04
04/30/03	STATION 2 REP.1	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa		# Taxa		
04/30/03	STATION 2 REP.2	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa	11	# Taxa		
04/30/03	STATION 2 REP.3	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa	10	# Taxa		
04/30/03	STATION 2 REP.4	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa		# Taxa		
04/30/03	STATION 2 REP.5	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa	15	# Taxa		
04/30/03	STATION 3	BNA-Waste	S-MARINESD	1,2,4-Trichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	1,2-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	1,3-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	1,4-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2,4,6-Trichlorophenol	84	ug/kg	UJ	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2,4-Dichlorophenol	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2,4-Dimethylphenol	2500	ug/kg	U	2500	10000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2,4-Dinitrophenol	500	ug/kg	U	500	2000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2,4-Dinitrotoluene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2,6-Dinitrotoluene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2-Chloronaphthalene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2-Chlorophenol	250	ug/kg	U	250	1000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2-Methyl-4,6-dinitrophenol	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	2-Nitrophenol	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	3,3'-Dichlorobenzidine	5000	ug/kg	U	5000	20000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	4,4'-DDD	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	4,4'-DDE	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	4,4'-DDT	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	4-Bromophenyl phenyl ether	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	4-Chloro-3-methylphenol	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	4-Chlorophenyl phenyl ether	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	4-Nitrophenol	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Acenaphthene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Acenaphthylene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Aldrin	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Anthracene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Azobenzene/1,2-Diphenylhydrazine	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Benzidine	1800	ug/kg	U	1800	7300
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Benzo(a)anthracene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Benzo(a)pyrene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Benzo(b)fluoranthene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Benzo(g,h,i)perylene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Benzo(k)fluoranthene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Bis(2-chloroethoxy)methane	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Bis(2-chloroethyl)ether	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Bis(2-chloroisopropyl)ether	84	ug/kg	UJ	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Bis(2-ethylhexyl)phthalate	500	ug/kg	U	500	2000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Butyl benzyl phthalate	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Chrysene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Di-n-butyl phthalate	500	ug/kg	U	500	2000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Di-n-octyl phthalate	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Dibenzo(a,h)anthracene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Dieldrin	84	ug/kg	U	84	330

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Diethyl phthalate	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Dimethyl phthalate	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Endosulfan I	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Endosulfan II	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Endosulfan sulfate	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Endrin	84	ug/kg	UJ	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Endrin aldehyde	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Fluoranthene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Fluorene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Heptachlor	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Heptachlor epoxide	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Hexachlorobenzene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Hexachlorobutadiene	250	ug/kg	UJ	250	1000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Hexachlorocyclopentadiene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Hexachloroethane	250	ug/kg	U	250	1000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Indeno(1,2,3-cd)pyrene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Isophorone	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	N-Nitrosodi-n-propylamine	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	N-Nitrosodimethylamine	500	ug/kg	U	500	2000
04/30/03	STATION 3	BNA-Waste	S-MARINESD	N-Nitrosodiphenylamine	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Naphthalene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Nitrobenzene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Pentachlorophenol	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Phenanthrene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Phenol	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	Pyrene	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	alpha-BHC	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	beta-BHC	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	delta-BHC	84	ug/kg	U	84	330
04/30/03	STATION 3	BNA-Waste	S-MARINESD	gamma-BHC	84	ug/kg	U	84	330
04/30/03	STATION 3	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment % Organic		1.1	% dry wt		
04/30/03	STATION 3	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.063-0.125mm		6.35	% vol <2mm		
04/30/03	STATION 3	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.125-0.25 mm		51.8	% vol <2mm		
04/30/03	STATION 3	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.25-0.5 mm		26.2	% vol <2mm		
04/30/03	STATION 3	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.5-2.0 mm		6.59	% vol <2mm		
04/30/03	STATION 3	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, <0.063 mm		9.11	% vol <2mm		
04/30/03	STATION 3	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, >2.0 mm		0.78	%tot drywt		
04/30/03	STATION 3	GC-Soil	S-MARINESD	Alachlor	28	ug/kg	U	28	112
04/30/03	STATION 3	GC-Soil	S-MARINESD	Aldrin	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Alpha-BHC	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Ametryn	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Atrazine	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Azinphos Methyl	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Beta-BHC	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Bromacil	18	ug/kg	U	18	72
04/30/03	STATION 3	GC-Soil	S-MARINESD	Chlordane	6.9	ug/Kg	U	6.9	27.6
04/30/03	STATION 3	GC-Soil	S-MARINESD	Chlorpyrifos Ethyl	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Chlorpyrifos Methyl	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 3	GC-Soil	S-MARINESD	DDD-p,p'	0.92	ug/Kg	U	0.92	3.68
04/30/03	STATION 3	GC-Soil	S-MARINESD	DDE-p,p'	0.92	ug/Kg	U	0.92	3.68
04/30/03	STATION 3	GC-Soil	S-MARINESD	DDT-p,p'	1.4	ug/Kg	U	1.4	5.6
04/30/03	STATION 3	GC-Soil	S-MARINESD	Delta-BHC	0.92	ug/Kg	U	0.92	3.68
04/30/03	STATION 3	GC-Soil	S-MARINESD	Diazinon	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 3	GC-Soil	S-MARINESD	Dieldrin	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Endosulfan I	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Endosulfan II	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Endosulfan Sulfate	0.92	ug/Kg	U	0.92	3.68
04/30/03	STATION 3	GC-Soil	S-MARINESD	Endrin	1.8	ug/Kg	U	1.8	7.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Endrin Aldehyde	0.92	ug/Kg	U	0.92	3.68
04/30/03	STATION 3	GC-Soil	S-MARINESD	Ethion	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Ethoprop	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 3	GC-Soil	S-MARINESD	Fenamiphos	18	ug/kg	U	18	72
04/30/03	STATION 3	GC-Soil	S-MARINESD	Fonofos	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 3	GC-Soil	S-MARINESD	Gamma-BHC	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Heptachlor	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Heptachlor Epoxide	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 3	GC-Soil	S-MARINESD	Hexazinone	9.2	ug/kg	U	9.2	36.8
04/30/03	STATION 3	GC-Soil	S-MARINESD	Malathion	6.9	ug/kg	U	6.9	27.6
04/30/03	STATION 3	GC-Soil	S-MARINESD	Methamidophos	23	ug/kg	U	23	92
04/30/03	STATION 3	GC-Soil	S-MARINESD	Methoxychlor	2.3	ug/Kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Metolachlor	23	ug/kg	U	23	92
04/30/03	STATION 3	GC-Soil	S-MARINESD	Metribuzin	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 3	GC-Soil	S-MARINESD	Mevinphos	9.2	ug/kg	U	9.2	36.8
04/30/03	STATION 3	GC-Soil	S-MARINESD	Monocrotophos	46	ug/kg	U	46	184

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 3	GC-Soil	S-MARINESD	Naled	37	ug/kg	UJ	37	148
04/30/03	STATION 3	GC-Soil	S-MARINESD	Norflurazon	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 3	GC-Soil	S-MARINESD	PCB-1016	14	ug/Kg	U	14	56
04/30/03	STATION 3	GC-Soil	S-MARINESD	PCB-1221	9.7	ug/Kg	U	9.7	38.8
04/30/03	STATION 3	GC-Soil	S-MARINESD	PCB-1232	21	ug/Kg	U	21	84
04/30/03	STATION 3	GC-Soil	S-MARINESD	PCB-1242	14	ug/Kg	U	14	56
04/30/03	STATION 3	GC-Soil	S-MARINESD	PCB-1248	9.7	ug/Kg	U	9.7	38.8
04/30/03	STATION 3	GC-Soil	S-MARINESD	PCB-1254	9.7	ug/Kg	U	9.7	38.8
04/30/03	STATION 3	GC-Soil	S-MARINESD	PCB-1260	14	ug/Kg	U	14	56
04/30/03	STATION 3	GC-Soil	S-MARINESD	Parathion Ethyl	6.9	ug/kg	U	6.9	27.6
04/30/03	STATION 3	GC-Soil	S-MARINESD	Parathion Methyl	6.9	ug/kg	U	6.9	27.6
04/30/03	STATION 3	GC-Soil	S-MARINESD	Phorate	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Prometryn	6.9	ug/kg	U	6.9	27.6
04/30/03	STATION 3	GC-Soil	S-MARINESD	Simazine	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 3	GC-Soil	S-MARINESD	Toxaphene	34	ug/Kg	U	34	136
04/30/03	STATION 3	Metals-Waste	S-MARINESD	Aluminum	1180	mg/Kg	J	35	140
04/30/03	STATION 3	Metals-Waste	S-MARINESD	Cadmium	0.02	mg/Kg	I	0.012	0.049
04/30/03	STATION 3	Metals-Waste	S-MARINESD	Chromium	2.88	mg/Kg	J	0.2	0.79
04/30/03	STATION 3	Metals-Waste	S-MARINESD	Copper	2	mg/Kg	I	0.49	2
04/30/03	STATION 3	Metals-Waste	S-MARINESD	Lead	1.4	mg/Kg		0.12	0.49
04/30/03	STATION 3	Metals-Waste	S-MARINESD	Nickel	0.34	mg/Kg	U	0.12	0.49
04/30/03	STATION 3	Metals-Waste	S-MARINESD	Silver	0.015	mg/Kg	U	0.015	0.059
04/30/03	STATION 3	Bio-AGP/LimNut	W-SURF-SLT	Algal Growth Potential	38.6	mg DryWt/L		0.1	0.3
04/30/03	STATION 3	Bio-Chl-a	W-SURF-SLT	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 3	Bio-Chl-a	W-SURF-SLT	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 3	Nutrients-Liquid	W-SURF-SLT	Ammonia-N	0.021	mg N/L		0.01	0.02
04/30/03	STATION 3	Nutrients-Liquid	W-SURF-SLT	NO2NO3-N	0.65	mg N/L		0.004	0.01
04/30/03	STATION 3	Nutrients-Liquid	W-SURF-SLT	N_KJEL_TOT	0.92	mg N/L		0.06	0.2
04/30/03	STATION 3	Nutrients-Liquid	W-SURF-SLT	O-Phosphate-P	0.17	mg P/L		0.012	0.03
04/30/03	STATION 3	Nutrients-Liquid	W-SURF-SLT	TSS	19	mg/L		4	16
04/30/03	STATION 3	Nutrients-Liquid	W-SURF-SLT	Total-P	0.17	mg P/L		0.015	0.04
04/30/03	STATION 3 REP.1	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa 9	# Taxa			
04/30/03	STATION 3 REP.2	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa 14	# Taxa			
04/30/03	STATION 3 REP.3	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa 17	# Taxa			
04/30/03	STATION 3 REP.4	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa 10	# Taxa			
04/30/03	STATION 3 REP.5	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-#	Taxa 17	# Taxa			
04/30/03	STATION 4	BNA-Waste	S-MARINESD	1,2,4-Trichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	1,2-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	1,3-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	1,4-Dichlorobenzene	250	ug/kg	U	250	1000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2,4,6-Trichlorophenol	84	ug/kg	UJ	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2,4-Dichlorophenol	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2,4-Dimethylphenol	2500	ug/kg	U	2500	10000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2,4-Dinitrophenol	500	ug/kg	U	500	2000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2,4-Dinitrotoluene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2,6-Dinitrotoluene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2-Chloronaphthalene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2-Chlorophenol	250	ug/kg	U	250	1000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2-Methyl-4,6-dinitrophenol	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	2-Nitrophenol	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	3,3'-Dichlorobenzidine	5000	ug/kg	U	5000	20000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	4,4'-DDD	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	4,4'-DDE	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	4,4'-DDT	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	4-Bromophenyl phenyl ether	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	4-Chloro-3-methylphenol	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	4-Chlorophenyl phenyl ether	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	4-Nitrophenol	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Acenaphthene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Acenaphthylene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Aldrin	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Anthracene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Azobenzene/1,2-Diphenylhydrazine	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Benzidine	1800	ug/kg	U	1800	7300
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Benzo(a)anthracene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Benzo(a)pyrene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Benzo(b)fluoranthene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Benzo(g,h,i)perylene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Benzo(k)fluoranthene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Bis(2-chloroethoxy)methane	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Bis(2-chloroethyl)ether	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Bis(2-chloroisopropyl)ether	84	ug/kg	UJ	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Bis(2-ethylhexyl)phthalate	500	ug/kg	U	500	2000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Butyl benzyl phthalate	84	ug/kg	U	84	340

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Chrysene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Di-n-butyl phthalate	500	ug/kg	U	500	2000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Di-n-octyl phthalate	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Dibenzo(a,h)anthracene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Dieldrin	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Diethyl phthalate	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Dimethyl phthalate	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Endosulfan I	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Endosulfan II	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Endosulfan sulfate	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Endrin	84	ug/kg	UJ	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Endrin aldehyde	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Fluoranthene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Fluorene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Heptachlor	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Heptachlor epoxide	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Hexachlorobenzene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Hexachlorobutadiene	250	ug/kg	UJ	250	1000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Hexachlorocyclopentadiene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Hexachloroethane	250	ug/kg	U	250	1000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Indeno(1,2,3-cd)pyrene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Isophorone	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	N-Nitrosodi-n-propylamine	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	N-Nitrosodimethylamine	500	ug/kg	U	500	2000
04/30/03	STATION 4	BNA-Waste	S-MARINESD	N-Nitrosodiphenylamine	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Naphthalene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Nitrobenzene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Pentachlorophenol	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Phenanthrene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Phenol	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	Pyrene	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	alpha-BHC	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	beta-BHC	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	delta-BHC	84	ug/kg	U	84	340
04/30/03	STATION 4	BNA-Waste	S-MARINESD	gamma-BHC	84	ug/kg	U	84	340
04/30/03	STATION 4	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment % Organic		0.9	% dry wt		
04/30/03	STATION 4	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.063-0.125mm		5.67	% vol <2mm		
04/30/03	STATION 4	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.125-0.25 mm		53.2	% vol <2mm		
04/30/03	STATION 4	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.25-0.5 mm		28.4	% vol <2mm		
04/30/03	STATION 4	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.5-2.0 mm		3.11	% vol <2mm		
04/30/03	STATION 4	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, <0.063 mm		9.63	% vol <2mm		
04/30/03	STATION 4	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, >2.0 mm		0.55	%tot drywt		
04/30/03	STATION 4	GC-Soil	S-MARINESD	Alachlor	28	ug/kg	U	28	112
04/30/03	STATION 4	GC-Soil	S-MARINESD	Aldrin	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Alpha-BHC	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Ametryn	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Atrazine	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Azinphos Methyl	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Beta-BHC	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Bromacil	18	ug/kg	U	18	72
04/30/03	STATION 4	GC-Soil	S-MARINESD	Chlordane	7	ug/Kg	U	7	28
04/30/03	STATION 4	GC-Soil	S-MARINESD	Chlorpyrifos Ethyl	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Chlorpyrifos Methyl	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 4	GC-Soil	S-MARINESD	DDD-p,p'	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 4	GC-Soil	S-MARINESD	DDE-p,p'	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 4	GC-Soil	S-MARINESD	DDT-p,p'	1.4	ug/Kg	U	1.4	5.6
04/30/03	STATION 4	GC-Soil	S-MARINESD	Delta-BHC	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 4	GC-Soil	S-MARINESD	Diazinon	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 4	GC-Soil	S-MARINESD	Dieldrin	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Endosulfan I	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Endosulfan II	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Endosulfan Sulfate	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 4	GC-Soil	S-MARINESD	Endrin	1.8	ug/Kg	U	1.8	7.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Endrin Aldehyde	0.93	ug/Kg	U	0.93	3.72
04/30/03	STATION 4	GC-Soil	S-MARINESD	Ethion	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Ethoprop	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 4	GC-Soil	S-MARINESD	Fenamiphos	18	ug/kg	U	18	72
04/30/03	STATION 4	GC-Soil	S-MARINESD	Fonofos	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 4	GC-Soil	S-MARINESD	Gamma-BHC	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Heptachlor	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Heptachlor Epoxide	0.46	ug/Kg	U	0.46	1.84
04/30/03	STATION 4	GC-Soil	S-MARINESD	Hexazinone	9.3	ug/kg	U	9.3	37.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Malathion	7	ug/kg	U	7	28
04/30/03	STATION 4	GC-Soil	S-MARINESD	Methamidophos	23	ug/kg	U	23	92

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 4	GC-Soil	S-MARINESD	Methoxychlor	2.3	ug/Kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Metolachlor	23	ug/kg	U	23	92
04/30/03	STATION 4	GC-Soil	S-MARINESD	Metribuzin	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 4	GC-Soil	S-MARINESD	Mevinphos	9.3	ug/kg	U	9.3	37.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Monocrotophos	46	ug/kg	U	46	184
04/30/03	STATION 4	GC-Soil	S-MARINESD	Naled	38	ug/kg	UJ	38	152
04/30/03	STATION 4	GC-Soil	S-MARINESD	Norflurazon	4.6	ug/kg	U	4.6	18.4
04/30/03	STATION 4	GC-Soil	S-MARINESD	PCB-1016	14	ug/Kg	U	14	56
04/30/03	STATION 4	GC-Soil	S-MARINESD	PCB-1221	9.7	ug/Kg	U	9.7	38.8
04/30/03	STATION 4	GC-Soil	S-MARINESD	PCB-1232	21	ug/Kg	U	21	84
04/30/03	STATION 4	GC-Soil	S-MARINESD	PCB-1242	14	ug/Kg	U	14	56
04/30/03	STATION 4	GC-Soil	S-MARINESD	PCB-1248	9.7	ug/Kg	U	9.7	38.8
04/30/03	STATION 4	GC-Soil	S-MARINESD	PCB-1254	9.7	ug/Kg	U	9.7	38.8
04/30/03	STATION 4	GC-Soil	S-MARINESD	PCB-1260	14	ug/Kg	U	14	56
04/30/03	STATION 4	GC-Soil	S-MARINESD	Parathion Ethyl	7	ug/kg	U	7	28
04/30/03	STATION 4	GC-Soil	S-MARINESD	Parathion Methyl	7	ug/kg	U	7	28
04/30/03	STATION 4	GC-Soil	S-MARINESD	Phorate	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Prometryn	7	ug/kg	U	7	28
04/30/03	STATION 4	GC-Soil	S-MARINESD	Simazine	2.3	ug/kg	U	2.3	9.2
04/30/03	STATION 4	GC-Soil	S-MARINESD	Toxaphene	35	ug/Kg	U	35	140
04/30/03	STATION 4	Metals-Waste	S-MARINESD	Aluminum	1270	mg/Kg	J	35	140
04/30/03	STATION 4	Metals-Waste	S-MARINESD	Cadmium	0.02	mg/Kg	I	0.012	0.05
04/30/03	STATION 4	Metals-Waste	S-MARINESD	Chromium	2.35	mg/Kg	J	0.2	0.79
04/30/03	STATION 4	Metals-Waste	S-MARINESD	Copper	3.5	mg/Kg	J	0.5	2
04/30/03	STATION 4	Metals-Waste	S-MARINESD	Lead	1.5	mg/Kg		0.12	0.5
04/30/03	STATION 4	Metals-Waste	S-MARINESD	Nickel	0.34	mg/Kg	U	0.12	0.5
04/30/03	STATION 4	Metals-Waste	S-MARINESD	Silver	0.015	mg/Kg	U	0.015	0.06
04/30/03	STATION 4	Bio-AGP/LimNut	W-SURF-SLT	Algal Growth Potential	31.1	mg DryWt/L		0.1	0.3
04/30/03	STATION 4	Bio-Chl-a	W-SURF-SLT	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 4	Bio-Chl-a	W-SURF-SLT	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 4	Nutrients-Liquid	W-SURF-SLT	Ammonia-N	0.02	mg N/L	I	0.01	0.02
04/30/03	STATION 4	Nutrients-Liquid	W-SURF-SLT	NO2NO3-N	0.73	mg N/L		0.04	0.1
04/30/03	STATION 4	Nutrients-Liquid	W-SURF-SLT	N_KJEL_TOT	0.97	mg N/L		0.06	0.2
04/30/03	STATION 4	Nutrients-Liquid	W-SURF-SLT	O-Phosphate-P	0.083	mg P/L		0.004	0.01
04/30/03	STATION 4	Nutrients-Liquid	W-SURF-SLT	TSS	23	mg/L		4	16
04/30/03	STATION 4	Nutrients-Liquid	W-SURF-SLT	Total-P	0.19	mg P/L		0.015	0.04
04/30/03	STATION 4 REP.1	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa	16	# Taxa			
04/30/03	STATION 4 REP.2	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 4 REP.3	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 4 REP.4	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 4 REP.5	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 5	Bio-AGP/LimNut	W-SURF-SLT	Algal Growth Potential	15.5	mg DryWt/L		0.1	0.3
04/30/03	STATION 5	Bio-Chl-a	W-SURF-SLT	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 5	Bio-Chl-a	W-SURF-SLT	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 5	Nutrients-Liquid	W-SURF-SLT	Ammonia-N	0.016	mg N/L	I	0.01	0.02
04/30/03	STATION 5	Nutrients-Liquid	W-SURF-SLT	NO2NO3-N	0.013	mg N/L		0.004	0.01
04/30/03	STATION 5	Nutrients-Liquid	W-SURF-SLT	N_KJEL_TOT	0.88	mg N/L		0.06	0.2
04/30/03	STATION 5	Nutrients-Liquid	W-SURF-SLT	O-Phosphate-P	0.027	mg P/L		0.004	0.01
04/30/03	STATION 5	Nutrients-Liquid	W-SURF-SLT	TSS	19	mg/L		4	16
04/30/03	STATION 5	Nutrients-Liquid	W-SURF-SLT	Total-P	0.11	mg P/L		0.015	0.04
04/30/03	STATION 5 REP.1	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 5 REP.2	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 5 REP.3	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 5 REP.4	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 5 REP.5	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa		# Taxa			
04/30/03	STATION 6	BNA-Waste	S-MARINESD	1,2,4-Trichlorobenzene	240	ug/kg	U	240	960
04/30/03	STATION 6	BNA-Waste	S-MARINESD	1,2-Dichlorobenzene	240	ug/kg	U	240	960
04/30/03	STATION 6	BNA-Waste	S-MARINESD	1,3-Dichlorobenzene	240	ug/kg	U	240	960
04/30/03	STATION 6	BNA-Waste	S-MARINESD	1,4-Dichlorobenzene	240	ug/kg	U	240	960
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2,4,6-Trichlorophenol	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2,4-Dichlorophenol	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2,4-Dimethylphenol	2400	ug/kg	U	2400	9600
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2,4-Dinitrophenol	480	ug/kg	UJ	480	1900
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2,4-Dinitrotoluene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2,6-Dinitrotoluene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2-Chloronaphthalene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2-Chlorophenol	240	ug/kg	U	240	960
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2-Methyl-4,6-dinitrophenol	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	2-Nitrophenol	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	3,3'-Dichlorobenzidine	4800	ug/kg	U	4800	19000
04/30/03	STATION 6	BNA-Waste	S-MARINESD	4,4'-DDD	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	4,4'-DDE	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	4,4'-DDT	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	4-Bromophenyl phenyl ether	80	ug/kg	U	80	320

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 6	BNA-Waste	S-MARINESD	4-Chloro-3-methylphenol	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	4-Chlorophenyl phenyl ether	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	4-Nitrophenol	80	ug/kg	UJ	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Acenaphthene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Acenaphthylene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Aldrin	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Anthracene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Azobenzene/1,2-Diphenylhydrazine	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Benzidine	1700	ug/kg	U	1700	6900
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Benzo(a)anthracene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Benzo(a)pyrene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Benzo(b)fluoranthene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Benzo(g,h,i)perylene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Benzo(k)fluoranthene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Bis(2-chloroethoxy)methane	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Bis(2-chloroethyl)ether	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Bis(2-chloroisopropyl)ether	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Bis(2-ethylhexyl)phthalate	480	ug/kg	U	480	1900
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Butyl benzyl phthalate	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Chrysene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Di-n-butyl phthalate	480	ug/kg	U	480	1900
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Di-n-octyl phthalate	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Dibenzo(a,h)anthracene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Dieldrin	80	ug/kg	UJ	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Diethyl phthalate	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Dimethyl phthalate	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Endosulfan I	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Endosulfan II	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Endosulfan sulfate	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Endrin	80	ug/kg	UJ	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Endrin aldehyde	80	ug/kg	UJ	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Fluoranthene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Fluorene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Heptachlor	80	ug/kg	UJ	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Heptachlor epoxide	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Hexachlorobenzene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Hexachlorobutadiene	240	ug/kg	U	240	960
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Hexachlorocyclopentadiene	80	ug/kg	UJ	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Hexachloroethane	240	ug/kg	U	240	960
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Indeno(1,2,3-cd)pyrene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Isophorone	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	N-Nitrosodi-n-propylamine	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	N-Nitrosodimethylamine	480	ug/kg	U	480	1900
04/30/03	STATION 6	BNA-Waste	S-MARINESD	N-Nitrosodiphenylamine	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Naphthalene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Nitrobenzene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Pentachlorophenol	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Phenanthrene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Phenol	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	Pyrene	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	alpha-BHC	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	beta-BHC	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	delta-BHC	80	ug/kg	U	80	320
04/30/03	STATION 6	BNA-Waste	S-MARINESD	gamma-BHC	80	ug/kg	U	80	320
04/30/03	STATION 6	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment % Organic		1.2	% dry wt		
04/30/03	STATION 6	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.063-0.125mm		9.15	% vol <2mm		
04/30/03	STATION 6	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.125-0.25 mm		54	% vol <2mm		
04/30/03	STATION 6	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.25-0.5 mm		21.8	% vol <2mm		
04/30/03	STATION 6	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, 0.5-2.0 mm		2.38	% vol <2mm		
04/30/03	STATION 6	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, <0.063 mm		12.7	% vol <2mm		
04/30/03	STATION 6	Bio-SedPrtSz/AFDW	S-MARINESD	Sediment Particle Size, %, >2.0 mm		0.5	%tot drywt		
04/30/03	STATION 6	GC-Soil	S-MARINESD	Alachlor	26	ug/kg	U	26	104
04/30/03	STATION 6	GC-Soil	S-MARINESD	Aldrin	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Alpha-BHC	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Ametryn	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Atrazine	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Azinphos Methyl	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Beta-BHC	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Bromacil	18	ug/kg	U	18	72
04/30/03	STATION 6	GC-Soil	S-MARINESD	Chlordane	6.6	ug/Kg	U	6.6	26.4
04/30/03	STATION 6	GC-Soil	S-MARINESD	Chlorpyrifos Ethyl	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Chlorpyrifos Methyl	4.4	ug/kg	U	4.4	17.6
04/30/03	STATION 6	GC-Soil	S-MARINESD	DDD-p,p'	0.88	ug/Kg	U	0.88	3.52
04/30/03	STATION 6	GC-Soil	S-MARINESD	DDE-p,p'	0.88	ug/Kg	U	0.88	3.52

Date Sampled	Field ID	Analysis Group	Matrix	Component	Result	Units	Remark	MDL	PQL
04/30/03	STATION 6	GC-Soil	S-MARINESD	DDT-p,p'	1.3	ug/Kg	U	1.3	5.2
04/30/03	STATION 6	GC-Soil	S-MARINESD	Delta-BHC	0.88	ug/Kg	U	0.88	3.52
04/30/03	STATION 6	GC-Soil	S-MARINESD	Diazinon	4.4	ug/kg	U	4.4	17.6
04/30/03	STATION 6	GC-Soil	S-MARINESD	Dieldrin	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Endosulfan I	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Endosulfan II	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Endosulfan Sulfate	0.88	ug/Kg	U	0.88	3.52
04/30/03	STATION 6	GC-Soil	S-MARINESD	Endrin	1.8	ug/Kg	U	1.8	7.2
04/30/03	STATION 6	GC-Soil	S-MARINESD	Endrin Aldehyde	0.88	ug/Kg	U	0.88	3.52
04/30/03	STATION 6	GC-Soil	S-MARINESD	Ethion	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Ethoprop	4.4	ug/kg	U	4.4	17.6
04/30/03	STATION 6	GC-Soil	S-MARINESD	Fenamiphos	18	ug/kg	U	18	72
04/30/03	STATION 6	GC-Soil	S-MARINESD	Fonofos	4.4	ug/kg	U	4.4	17.6
04/30/03	STATION 6	GC-Soil	S-MARINESD	Gamma-BHC	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Heptachlor	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Heptachlor Epoxide	0.44	ug/Kg	U	0.44	1.76
04/30/03	STATION 6	GC-Soil	S-MARINESD	Hexazinone	8.8	ug/kg	U	8.8	35.2
04/30/03	STATION 6	GC-Soil	S-MARINESD	Malathion	6.6	ug/kg	U	6.6	26.4
04/30/03	STATION 6	GC-Soil	S-MARINESD	Methamidophos	22	ug/kg	U	22	88
04/30/03	STATION 6	GC-Soil	S-MARINESD	Methoxychlor	2.2	ug/Kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Metolachlor	22	ug/kg	U	22	88
04/30/03	STATION 6	GC-Soil	S-MARINESD	Metribuzin	4.4	ug/kg	U	4.4	17.6
04/30/03	STATION 6	GC-Soil	S-MARINESD	Mevinphos	8.8	ug/kg	U	8.8	35.2
04/30/03	STATION 6	GC-Soil	S-MARINESD	Monocrotophos	44	ug/kg	U	44	176
04/30/03	STATION 6	GC-Soil	S-MARINESD	Naled	36	ug/kg	UJ	36	144
04/30/03	STATION 6	GC-Soil	S-MARINESD	Norflurazon	4.4	ug/kg	U	4.4	17.6
04/30/03	STATION 6	GC-Soil	S-MARINESD	PCB-1016	13	ug/Kg	U	13	52
04/30/03	STATION 6	GC-Soil	S-MARINESD	PCB-1221	9.2	ug/Kg	U	9.2	36.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	PCB-1232	20	ug/Kg	U	20	80
04/30/03	STATION 6	GC-Soil	S-MARINESD	PCB-1242	13	ug/Kg	U	13	52
04/30/03	STATION 6	GC-Soil	S-MARINESD	PCB-1248	9.2	ug/Kg	U	9.2	36.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	PCB-1254	9.2	ug/Kg	U	9.2	36.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	PCB-1260	13	ug/Kg	U	13	52
04/30/03	STATION 6	GC-Soil	S-MARINESD	Parathion Ethyl	6.6	ug/kg	U	6.6	26.4
04/30/03	STATION 6	GC-Soil	S-MARINESD	Parathion Methyl	6.6	ug/kg	U	6.6	26.4
04/30/03	STATION 6	GC-Soil	S-MARINESD	Phorate	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Prometryn	6.6	ug/kg	U	6.6	26.4
04/30/03	STATION 6	GC-Soil	S-MARINESD	Simazine	2.2	ug/kg	U	2.2	8.8
04/30/03	STATION 6	GC-Soil	S-MARINESD	Toxaphene	33	ug/Kg	U	33	132
04/30/03	STATION 6	Metals-Waste	S-MARINESD	Aluminum	2050	mg/Kg	J	35	140
04/30/03	STATION 6	Metals-Waste	S-MARINESD	Cadmium	0.028	mg/Kg	I	0.012	0.05
04/30/03	STATION 6	Metals-Waste	S-MARINESD	Chromium	4.03	mg/Kg	J	0.2	0.8
04/30/03	STATION 6	Metals-Waste	S-MARINESD	Copper	1.7	mg/Kg	I	0.5	2
04/30/03	STATION 6	Metals-Waste	S-MARINESD	Lead	1.8	mg/Kg		0.12	0.5
04/30/03	STATION 6	Metals-Waste	S-MARINESD	Nickel	0.34	mg/Kg	U	0.12	0.5
04/30/03	STATION 6	Metals-Waste	S-MARINESD	Silver	0.015	mg/Kg	U	0.015	0.06
04/30/03	STATION 6	Bio-AGP/LimNut	W-SURF-SLT	Algal Growth Potential	22.8	mg DryWt/L		0.1	0.3
04/30/03	STATION 6	Bio-Chl-a	W-SURF-SLT	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 6	Bio-Chl-a	W-SURF-SLT	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
04/30/03	STATION 6	Nutrients-Liquid	W-SURF-SLT	Ammonia-N	0.021	mg N/L		0.01	0.02
04/30/03	STATION 6	Nutrients-Liquid	W-SURF-SLT	NO2NO3-N	0.77	mg N/L		0.04	0.1
04/30/03	STATION 6	Nutrients-Liquid	W-SURF-SLT	N_KJEL_TOT	0.89	mg N/L		0.06	0.2
04/30/03	STATION 6	Nutrients-Liquid	W-SURF-SLT	O-Phosphate-P	0.12	mg P/L		0.004	0.01
04/30/03	STATION 6	Nutrients-Liquid	W-SURF-SLT	TSS	18	mg/L		4	16
04/30/03	STATION 6	Nutrients-Liquid	W-SURF-SLT	Total-P	0.19	mg P/L		0.015	0.04
04/30/03	STATION 6 REP.1	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa			# Taxa		
04/30/03	STATION 6 REP.2	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa			# Taxa		
04/30/03	STATION 6 REP.3	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa			# Taxa		
04/30/03	STATION 6 REP.4	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa			# Taxa		
04/30/03	STATION 6 REP.5	Bio-Invertebrates	W-SURF-SLT	Macroinvert-Marine-Quan-NatSubstr-# Taxa			# Taxa		

Appendix 5

Typical Values for Selected Parameters in Florida Waters

Percentile Distribution (690 stations)

Site 1

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	**0.85 U**
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	**2.9**	3.15	3.59	4.01	4.53	4.98	**2.97**
Dredge Taxa Richness	4	6	9	11	15	**18.5**	25	35	41	62	90	**19**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	0.82	**0.95**	1.3	1.49	**1.1 A**
NH3+NH4	0.01	0.02	**0.03**	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.033**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	0.08	0.17	**0.23**	**3**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	0.17	0.23	**0.43**	0.59	**0.47 A**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	0.09	0.12	**0.21**	0.44	**0.35**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	**ND**

Site 2

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	**0.85 U**
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	**3.15**	3.59	4.01	4.53	4.98	**3.3**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**30**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	**0.82**	0.95	1.3	1.49	**0.91**
NH3+NH4	**0.01**	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.018 I**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	0.08	0.17	**0.23**	**0.5**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	**0.14**	0.17	0.23	0.43	0.59	**0.16**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	0.09	**0.12**	0.21	0.44	**0.15**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	**ND**

Site 3

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	**0.85 U**
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	**3.15**	3.59	4.01	4.53	4.98	**3.38**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**28**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	**0.82**	0.95	1.3	1.49	**0.92**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.021**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	0.08	0.17	**0.23**	**0.65**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.17**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	0.09	**0.12**	0.21	0.44	**0.17**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	**ND**

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

I - Value reported is < the minimum quantitation limit, and ≥ the minimum detection limit

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

Site 4

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	**0.85 U**
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	3.15	3.59	4.01	4.53	4.98	**3.8**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**25**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	0.82	**0.95**	1.3	1.49	**0.97**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.02 I**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	0.08	0.17	**0.23**	**0.73**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.19**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	**0.07**	0.09	0.12	0.21	0.44	**0.083**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	**ND**

Site 5

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	**0.85 U**
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	3.15	3.59	4.01	4.53	4.98	**3.45**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**26**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	**0.82**	0.95	1.3	1.49	**0.88**
NH3+NH4	**0.01**	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.016 I**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	**0.08**	0.17	0.23	**0.013**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	**0.11**	0.14	0.17	0.23	0.43	0.59	**0.11**
Ortho-Phosphate	0.01	**0.02**	0.03	0.04	0.04	0.05	0.07	0.09	0.12	0.21	0.44	**0.027**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	**ND**

Site 6

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	**0.85 U**
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	**3.15**	3.59	4.01	4.53	4.98	**3.45**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**29**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	**0.82**	0.95	1.3	1.49	**0.89**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.021**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	0.08	0.17	**0.23**	**0.77**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.19**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	0.09	**0.12**	0.21	0.44	**0.12**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	**ND**

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

I - Value reported is < the minimum quantitation limit, and ≥ the minimum detection limit

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

Appendix 6

Additional physical, chemical, toxicological and microbiological results

Table 1. Data recorded during the 48-hour acute screening bioassays of a sample of effluent from the Flagler Beach WWTP, 2000 Avenue A, Flagler Beach, Flagler County, Florida, NPDES# FL0026611, performed from 30 April to 2 May 2003.

Facility:	**Flagler WWTP**		**NPDES #:**	**FL0026611**	Facility Type: **Domestic WWTP**	**Analysts:**	Jacquelyn Brynda
Location:	2000 Avenue A, Flagler Beach		Contact/District:	Wheatherby / NE			Joshua Ayres
County:	Flagler		Test type:	static acute screen			James Daniels
Sample Collection Date:	4/29/2003	Time: 0930	# tests:	2	Receiving Water: Intercoastal Waterway		Marshall Faircloth
Test Beginning Date:	4/30/2003	Time: 1400	Chlorination Type:	chlorinated (dechlorinated by facility)			
Test Ending Date:	5/2/2003	Time: 1315	FDEP SOP#:	TA07_01 / 02	**Page 1 of 1**	**Reviewer:**	Rob Buda

Organism: ***Ceriodaphnia dubia*** (water flea) Life stage: <24 hours Chamber size: 30 mL [A] Feeding: YCT/Algae Food Batch #: 1/13

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature (°C) 0 hour	24 hour	48 hour	Diss. Oxygen (mg/L) 0 hour	24 hour	48 hour	[B] Conductivity 0 hour	48 hour
Control A	0/20	5	5	5	8.2	-	8.2	25.2	-	25.5	7.9	-	7.4	180	250
Control B	0/20	5	5	5	-	-	8.2	-	-	25.5	-	-	7.4	-	230
Control C	0/20	5	5	5	-	-	8.2	-	-	25.4	-	-	7.4	-	220
Control D	0/20	5	5	5	-	-	8.2	-	-	25.4	-	-	7.5	-	195
100% A	20/0	5	5	5	7.1	-	8.1	24.9	-	25.5	8.2	-	7.4	4500	5400
100% B	20/0	5	5	5	-	-	8.1	-	-	25.4	-	-	7.4	-	5200
100% C	20/0	5	5	5	-	-	8.1	-	-	25.4	-	-	7.4	-	4930
100% D	20/0	5	5	5	-	-	8.1	-	-	25.3	-	-	7.5	-	4730

[A] Organisms fed prior to testing.

Temperatures of room and test incubator were continuously recorded on a strip chart recorder. Light Intensity during the test was 50-100 foot candles.

Room Temperature range for the test period was 25.0-27.0°C. Photoperiod during the test was 16 hours of light : 8 hours of dark.

Incubator #3 temperature range for the test period was 24.0°25.0C. [B] Conductivity value is uncorrected µmhos/cm.

LIMS	
Job number:	TLH-2003-04-30-06
sample number:	670607

Data Transcription Verification	
date:	9/3/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	-	-
Lab:	<0.03	Hach

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

Organism: ***Cyprinella leedsi*** (fish) Life stage: 8 days Chamber size: 1000 mL [C] Feeding: *Artemia* Food Batch #: 01940425G

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature (°C) 0 hour	24 hour	48 hour	Diss. Oxygen (mg/L) 0 hour	24 hour	48 hour	[D] Conductivity 0 hour	48 hour
Control A	0/500	5	5	5	7.9	8.3	8.4	25.3	24.4	25.5	8.2	7.7	7.7	265	370
Control B	0/500	5	5	5	7.9	8.3	8.4	25.5	24.4	25.3	8.2	7.8	7.6	270	340
Control C	0/500	5	5	5	7.9	8.3	8.4	25.5	24.4	24.8	8.2	7.8	7.6	275	390
Control D	0/500	5	5	5	7.9	8.3	8.4	25.5	24.3	25.5	8.2	7.8	7.6	275	380
100% A	500/0	5	5	5	7.1	7.6	7.9	24.6	24.4	25.6	8.2	7.7	7.3	4510	4960
100% B	500/0	5	5	4	7.1	7.6	7.9	24.6	24.4	25.6	8.2	7.6	7.1	4510	4890
100 % C	500/0	5	5	5	7.1	7.6	7.9	24.6	24.3	24.9	8.2	7.6	7.2	4530	4830
100% D	500/0	5	5	5	7.1	7.6	7.9	24.6	24.4	25.1	8.2	7.5	7.2	4530	4770

[C] Organisms fed prior to testing.

Temperatures of room and test incubator were continuously recorded on a strip chart recorder. Light Intensity during the test was 50-100 foot candles.

Room Temperature range for the test period was 25.0-27.0°C. Photoperiod during the test was 16 hours of light : 8 hours of dark.

Incubator #3 temperature range for the test period was 24.0-25.0°C. [D] Conductivity value is uncorrected µmhos/cm.

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:		
(water flea):	80	80
Control water:		
(fish)	140	135
100% Sample:	80	535

Mortality	Percent
Control water (water flea):	0%
100% (water flea):	0%
Control water (fish):	0%
100 % (fish):	5%

STATE OF FLORIDA
DEPT. OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT

Division of Water Facilities
Surface Water Section

MICROBIOLOGICAL ANALYSIS REPORT

NAME OF SURVEY			COLLECTOR
Flagler WWTP			O'Connor
DATE: COLLECTED	**RECEIVED**	**PROCESS START**	**COMPLETED**
4/29/03	13:10 4/29/03	13:45 4/29/03	14:10 4/30/03
SURVEY TYPE	**SAMPLE TYPE**	**COUNTY**	**ANALYTICAL METHOD**
Domestic Waste Compliance	Final Effluent	Flagler	Membrane Filter
ANALYST	**COMMENTS**		
Parrish			

LAB NO.	STORET NO.	SITE LOCATION	COLL TIME	SET UP TIME	TOTAL COLIFORM		FECAL COLIFORM	
					#/100ML	CODE	#/100ML	CODE
		Flagler WWTP						
030522		Final Effluent	9:35	14:00	100	B	40	B

RESULTS APPROVED BY:	DATE
Jeremy Parrish	5/1/03

STATE OF FLORIDA
DEPT. OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT

MICROBIOLOGICAL ANALYSIS REPORT

REMARK CODES

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

B - Results based on colony counts outside the acceptable range.

I - Value reported is less than the minimum quantitation limit, and greater than or equal to the minimum detection limit.

J - Estimated Value.

K - Actual value is known to be less than value given.

L - Actual value is known to be greater than value given.

N - Presumptive evidence of presence of material.

O - Sampled, but analysis lost or not performed.

Q - Sample held beyond normal holding time.

T - Value reported is less than the criterion of detection.

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

V - Analyte was detected in both sample and method blank.

Z - Colonies were too numerous to count (TNTC).

Examples: 20 colonies from 1ml of sample would be reported as 2000 / 100ml.
2 colonies from 1ml of sample would be reported as 200B / 100ml.
30 colonies from 1ml of sample that exceeded holding time would be reported as 100Q / 100ml.

DEPT. OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT

Division of Water Facilities
Surface Water Section

MICROBIOLOGICAL ANALYSIS REPORT

NAME OF SURVEY			COLLECTOR
Flagler WWTP sites upstream/downstream			O'Connor
DATE: COLLECTED	**RECEIVED**	**PROCESS START**	**COMPLETED**
4/30/03	16:00 4/30/03	16:15 4/30/03	16:15 5/1/03
SURVEY TYPE	**SAMPLE TYPE**	**COUNTY**	**ANALYTICAL METHOD**
Domestic Waste Compliance	Site specific	Flagler	Membrane Filter
ANALYST	**COMMENTS**		
Parrish			

LAB NO.	STORET NO.	SITE LOCATION	COLL TIME	SET UP TIME	TOTAL COLIFORM		FECAL COLIFORM	
					#/100ML	CODE	#/100ML	CODE
		Flagler WWTP						
030524		Site 1	13:30	17:17	156		17	AB
030525		Site 2	13:15	17:17	67	AB	28	AB
030526		Site 3	12:45	17:17	69	AB	51	AB
030527		Site 4	13:00	17:17	56		56	AB
030528		Site 5	12:30	16:40	100		76	
030529		Site 6	12:13	16:40	72	A	40	AB

RESULTS APPROVED BY:	DATE
Jeremy Parrish	5/1/03

Page 1

STATE OF FLORIDA
DEPT. OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT

MICROBIOLOGICAL ANALYSIS REPORT

REMARK CODES

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

B - Results based on colony counts outside the acceptable range.

I - Value reported is less than the minimum quantitation limit, and greater than or equal to the minimum detection limit.

J - Estimated Value.

K - Actual value is known to be less than value given.

L - Actual value is known to be greater than value given.

N - Presumptive evidence of presence of material.

O - Sampled, but analysis lost or not performed.

Q - Sample held beyond normal holding time.

T - Value reported is less than the criterion of detection.

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

V - Analyte was detected in both sample and method blank.

Z - Colonies were too numerous to count (TNTC).

Examples: 20 colonies from 1ml of sample would be reported as 2000 / 100ml.
2 colonies from 1ml of sample would be reported as 200B / 100ml.
30 colonies from 1ml of sample that exceeded holding time would be reported as 100Q / 100ml.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT
7825 BAYMEADOWS WAY, SUIT B-200 **Comp.QAP # 880236**
JACKSONVILLE, FL 32256-7577

SAMPLE ID : 030522 STATION : DATE: 04/29/03 TIME: 09:30
SAMPLE SOURCE Flagler WWTP 5YI SAMPLER: PO/BK/SE
STATION LOCATION: Final Effluent
PROGRAM MOD.: DW COMPLIANCE: ☒ ENFORCEMENT: ☐
FIELD MEASUREMENTS

Tot. Depth:		Sample Depth:	0.64	W.Temp. °C:	24.0
Conductivity: µmoh/cm (EPA 120.1) :	4620	Diss. Oxygen (EPA 360.1)	6.95	EPA 170.1	
Stream Velocity:		Salinity:	2.47	T.R.C.:	
pH:(EPA 150.1)	6.77	Secchi:		EPA 330.5	

WEATHER CONDITIONS:

LABORATORY MEASUREMENTS

Turbidity (NTU) : EPA 180.1		Color (PtCo): EPA 110.2			
pH (standard unit): EPA 150.1		Conductivity(µmohs/cm) EPA 120.1			

The following values are in mg/L

B.O.D : EPA 405.1		C.B.O.D : SM 5210-B	2 K	C.O.D : EPA 410.4	
Tot. S.S : EPA 160.2	2	Vol. S.S: EPA 160.4	2	Fix. S.S :	1 K
Tot.Solids : EPA 160.3		T.D.S EPA 160.1			
T. Alkalinity: EPA 310.1		Settleable Matter: EPA 160.5		Diss. Oxygen: EPA 360.2	

COMMENTS:

Sample Custody
Sample Released to: Bipin Adhyaru Date: 04/29/2003

Preservation: Ice Time: 13:30

Reported by: Bipin Adhyaru Date:: 05/05/2003

K = Actual value is known to be less than the value given.
A = Value is the mean of two or more determinations.
O = Sampled, but analysis lost or not performed.
Q = Sample held beyond the accepted holding time.
T = Value reported is less than the laboratory method detection limit.
U = Indicates that the compound was analyzed for but not detected.
Y = The laboratory analysis was from an unpreserved or improperly preserved sample.
REJ = Data is rejected and should not be used.
L = Off - scale high. Actual value is known to be greater than value given
J = Estimated value; value not accurate.

Appendix 7

Habitat Assessment Field Sheets.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
		1/30/03	0925	ICW

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	FLAGLER	FLAGLER BEACH WWTP	STATION 1

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☒ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side: 2-5

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☒ some recovery ☐ mostly recovered, more sinuous
Artificially Impounded ☐ yes

High Water Mark: 0.6 (m above present water level) + 0.25 (present depth in m) = 0.85 (m above bed)

Tide Types and Times

AM : PM — AM : PM
AM : PM — AM : PM

Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☒ Anaerobic: ☐ Other: ☐

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight moderate severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand	80		
Rock or Shell Rubble				Mud/Muck/Silt	15		
Aquatic Vegetation				Other: Shellhash	5		

Community Types

Mangroves ☒ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☒ MUD FLAT

WATER QUALITY	Depth (m/ft)	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Do%	SAI	Secchi (m):
Top	0.05	26.1	7.25	5.26	35,500	73.4	22.4	0.25L
Mid-depth	0.127	26.1	7.29	5.08	35,800	64.0	23.6	
Bottom	0.25	26.1	7.49	4.83	33,100	60% 58.5	21.2	

System Type : Stream: ☐ (1st - 2nd order, 3rd - 4th order, 5th - 6th order, 7th order or greater) Estuary: ☐ Other: ☒ ICW

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☒ Green (algae): ☐ Clear: ☐ Other: ☐

Weather Conditions/Notes: OVERCAST LARGE BOAT TRAFFIC (WAKES) LOW TIDE OUTGOING

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☒
Fish	☐	☐	☒	☐
Aquatic Macrophytes	☒	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☒	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
EVANS, O'CONNOR	Patricia Evans	4/30/03

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		4/30/03	INTRACOASTAL WATERWAY

REMARKS:	LOCATION:	FIELD ID/NAME:
OUTGOING TIDE (FLOWING NORTH)	FLAGLER BEACH WWTP	STATION 1

Habitat Parameter (score)	Excellent	Good	Fair	Poor
Littoral Alterations (1)	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed (30)	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation (3)	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations (4)	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action (9)	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type (10)	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE 60

COMMENTS: DOCKS, SEAWALLS, BOATS + STORMWATER RUNOFF IN IMMEDIATE AREA.

ANALYSIS DATE:	ANALYST:	SIGNATURE:
4/30/03	JOY A JACKSON	Joy A Jackson

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
		4/30/03	1315	ICW

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	Flagler	Flagler Beach WWTP	Station 2

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☒ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side: 2-5

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☒ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: 0.6 (m above present water level) + 0.25 (present depth in m) = 0.85 (m above bed)

Tide Types and Times

AM : PM — AM : PM

AM : PM — AM : PM

Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☒ Other: ☐

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight (moderate) severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand	80		
Rock or Shell Rubble				Mud/Muck/Silt	15		
Aquatic Vegetation				Other:	5		

Community Types

Mangroves ☒ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☒ MUD FLATS

WATER QUALITY	Depth (m/ft)	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) ~~or Salinity (ppt)~~:	SAL	DO%	Secchi (m):
Top	0.05	28.8	7.65	8.82	34700	21.4	127.4	0.25
Mid-depth	0.15	28.2	7.62	7.82	37600	23.7	114	
Bottom	0.5	28.1	7.64	7.70	38800	24.66	113.2	

System Type : Stream: ☐ (1st - 2nd order, 3rd - 4th order, 5th - 6th order, 7th order or greater) Estuary: ☐ Other: ☒ ICW

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☒ Green (algae): ☐ Clear: ☐ Other: ☐

Weather Conditions/Notes: OVERCAST LARGE BOAT TRAFFIC (WAKES) LOW TIDE INCOMING PONARS @ 1025

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☒
Fish	☐	☐	☒	☐
Aquatic Macrophytes	☒	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☒	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
EVANS, O'CONNOR	Patrick O'Connor	4/30/03

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		4/30/03	INTRACOASTAL WATERWAY

REMARKS:	LOCATION:	FIELD ID/NAME:
FLOWING SOUTH INCOMING TIDE	FLAGLER BEACH WWTP	STATION 2

Habitat Parameter (score)	Excellent	Good	Fair	Poor
Littoral Alterations (4)	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed (30)	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation (3)	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations (4)	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action (7)	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type (10)	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE 60

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
9/30/03	Joy A Jackson	Joy A Jackson

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
		4/30/03	1245	ICW

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	FLAGLER	FLAGLER BEACH RWTP	STATION 3

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☒ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side: 5-7 m

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☒ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: 0.6 (m above present water level) + 0.4 (present depth in m) = 1.0 (m above bed)

Tide Types and Times

AM : PM — AM : PM

AM : PM — AM : PM

Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight moderate severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand	98	5	PONAR
Rock or Shell Rubble	2			Mud/Muck/Silt	10		
Aquatic Vegetation				Other:			

Community Types

Mangroves ☒ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☒ grass/mud flat

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	SAL	DO %	Secchi (m):
Top	0.05	29.2	7.71	8.51	34900	21.7	127	0.3K
Mid-depth	0.25	28.0	7.65	7.70	37400	23.7	112.6	
Bottom	0.31	27.9	7.64	7.76	38560	24.45	113.2	

System Type : Stream: ☐ (1st - 2nd order / 3rd - 4th order / 5th - 6th order / 7th order or greater) Estuary: ☐ Other: ☒ INTERCOASTAL WATERWAY

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☒ Green (algae): ☒ SLIGHT Clear: ☐ Other: ☐

Weather Conditions/Notes:
Partly cloudy; SE breeze; INCOMING TIDE

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☒	☐
Fish	☐	☐	☒	☐
Aquatic Macrophytes	☒	☐	☐	☐
Iron/sulfur Bacteria	☒	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
JACKSON, ESPY, HEYN, OCONNOR, EVANS		4/30/03

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		4/30/03	ICW

REMARKS:	LOCATION:	FIELD ID/NAME:
INCOMING TIDE	FLAGLER BEACH WWTP	STATION 3

Habitat Parameter (score)	Excellent	Good	Fair	Poor
Littoral Alterations (5)	None—Unaltered shoreline. **9-10 points**	Mostly natural shoreline, but with occasional riprap. **6-8 points**	Shoreline consisting mostly of riprap and vertical seawalls. **3-5 points**	Shoreline consisting almost entirely of vertical seawalls. **0-2 points**
Community Types Observed (32)	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. **38-50 points**	Two or three communities observed from those listed. **26-37 points**	One community observed from those listed. **13-25 points**	No communities observed from those listed. **0-12 points**
Tidal Fluctuation (3)	>0.75 m. **4-5 points**	0.5 - 0.75 m. **3 points**	0.25 - 0.5 m. **2 points**	<0.25 m. **0-1 point**
Freshwater Discharges/ Alterations (1)	Only natural runoff.. **9-10 points**	Mostly natural runoff, but with a few, small stormwater sources. **6-8 points**	Considerable stormwater discharge from local roads, parking lots, etc. **3-5 points**	Extensive manmade discharges, especially from canals draining large tracts of land. **0-2 points**
Flow and Wave Action (9)	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. **9-10 points**	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. **0-2 points**
Sediment Type (11)	Combination of sand, gravel, and shell. **12-15 points**	Primarily sand, with small areas of mud. **8-11 points**	Mixture of sand and mud, or well-aerated mud only. **4-7 points**	Anaerobic mud. **0-3 points**

TOTAL SCORE 64

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
4/30/03	JOYA JACKSON	

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
N 29°28'2		4/30/02	1300	

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	FLAGLER	FLAGLER BEACH WWTP	STATION 4

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☒ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side: 5-7 m

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☒ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: 0.6 (m above present water level) + 0.4 (present depth in m) = 1.1 (m above bed)

Tide Types and Times

: AM / PM	: AM / PM
: AM / PM	: AM / PM

Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight moderate severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand	88	5	PONAR
Rock or Shell Rubble	2			Mud/Muck Silt	10		
Aquatic Vegetation				Other:			

Community Types

Mangroves ☒ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☒ grasses/mud flats

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) ~~or Salinity (ppt)~~	DO%	SAL	Secchi (m):
Top	0.05	29.6	7.77	8.32	35840	123.5	22.5	0.35K
Mid-depth	0.29	28.1	7.63	7.37	37500	108.1	23.7	
Bottom	0.4	27.8	7.61	7.04	39341	103.1	24.99	

System Type : Stream: ☐ (1st - 2nd order / 3rd - 4th order / 5th - 6th order / 7th order or greater) Estuary: ☐ Other: ☒ INTERCOASTAL WATERWAY

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☒ Green (algae): ☒ SLIGHT Clear: ☐ Other: ☐

Weather Conditions/Notes:
PARTLY CLOUDY; SEBREEZE; LOW 60'S
INCOMING TIDE

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☒	☐
Fish	☐	☐	☒	☐
Aquatic Macrophytes	☒	☐	☐	☐
Iron/sulfur Bacteria	☒	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
JACKSON, ESPY, HEYN, O'CONNOR, EVANS		4/30/02

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		4/30/03	ICW

REMARKS:	LOCATION:	FIELD ID/NAME:
INCOMING TIDE	FLAGLER BEACH WWTP	STATION 4

Habitat Parameter (score)	Excellent	Good	Fair	Poor
Littoral Alterations (5)	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed (32)	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation (3)	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations (4)	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action (9)	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type (11)	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE 64

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
4/30/03	JOY A JACKSON	Joy A Jackson

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (5-10-96)

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
		4/30/03	1230	ICW

REMARKS:	COUNTY:	LOCATION:	FIELD ID/NAME:
	FLAGLER	FLAGLER BEACH WWTP	STATION 5

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☒ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side: 7-10m

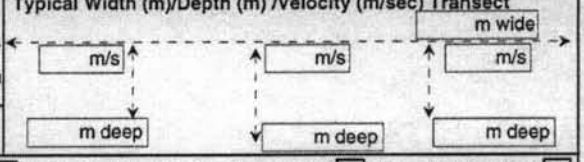
List & map dominant vegetation on back

Artificially Channelized ☐ no ☐ recent, severe ☒ some recovery ☐ mostly recovered

Artificially Impounded ☐ yes more sinuous

High Water Mark: 0.6 (m above present water level) + 0.35 (present depth in m) = 0.95 (m above bed)

Typical Width (m)/Depth (m) /Velocity (m/sec) Transect



Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☒ Other: ☐

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none (slight) moderate severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Woody Debris (Snags)				Sand	80		
Leaf Packs or Mats				Mud/Muck/Silt	15		
Aquatic Vegetation				Other:			
Rock or Shell Rubble				Other: SHELL HASH	5		
Undercut banks/Roots				*Draw aerial view sketch of habitats found in 100 m section*			

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) ~~or Salinity (ppt)~~:	SAL	DO %	Secchi (m):
Top	0.05	29.5	7.78	8.36	35,300	22.1	123.2	
Mid-depth	0.27	28.5	7.68	7.67	37200	23.5	112.3	
Bottom	0.36	28.0	7.64	7.47	38100	24.1	109.4	

System Type : Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Lake: ☐ Wetland: ☒ Estuary: ☐ Other: ☐

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☒ Green (algae): ☐ Clear: ☐ Other: ☐

Weather Conditions/Notes:
mostly sunny; SE breeze; incoming tide (counteracted to some degree by wind)

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☒	☐
Fish	☐	☐	☒	☐
Aquatic Macrophytes	☒	☐	☐	☐
Iron/sulfur Bacteria	☐	☒	☐	☐

SAMPLING TEAM: O'CONNOR, EVANS, JACKSON, ESPY, HEIN

SIGNATURE: Jay Jackson

DATE: 4/30/03

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		4/30/03	ICW

REMARKS:	LOCATION:	FIELD ID/NAME:
INCOMING TIDE	Flagler Beach WWTP	STATION 5

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations 6	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed 32	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation 4	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations 4	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type 11	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE 66

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
4/30/03	JOYA JACKSON	Joya Jackson

DEP-SOP-001/01: Form FD 9000-3 (June 20 2001)

PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
		4/30/03	1213	ICW

REMARKS:	COUNTY:	LOCATION:	FIELD ID/NAME:
	FLAGLER	FLAGLER BEACH WWTP	STATION 6

RIPARIAN ZONE/STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

FOREST/NATURAL	SILVICULTURE	FIELD/PASTURE	AGRICULTURAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER (SPECIFY)

LOCAL WATERSHED EROSION (check box): None ☐ Slight ☐ Moderate ☒ Heavy ☐

LOCAL WATERSHED NPS POLLUTION (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

WIDTH OF RIPARIAN VEGETATION (m) On least buffered side: 7-10m

LIST & MAP DOMINANT VEGETATION ON BACK

ARTIFICIALLY CHANNELIZED ☐ no ☐ ☒ ☐ recent, severe some recovery mostly recovered more sinuous

ARTIFICIALLY IMPOUNDED ☐ yes

HIGH WATER MARK: 0.6 (m above present water level) + 0.35 (present depth in m) = 0.95 (m above bed)

TYPICAL WIDTH (M) DEPTH (M)/VELOCITY (M/SEC) TRANSECT

m wide		
m/s	m/s	m/s
m deep	m deep	m deep

CANOPY COVER %: OPEN: ☒ LIGHTLY SHADED (11-45%): ☐ MODERATELY SHADED (46-80%): ☐ HEAVILY SHADED: ☐

SEDIMENT/SUBSTRATE

SEDIMENT ODORS: NORMAL: ☐ SEWAGE: ☐ PETROLEUM: ☐ CHEMICAL: ☐ ANAEROBIC: ☒ OTHER: ☐

SEDIMENT OILS: ABSENT: ☒ SLIGHT: ☐ MODERATE: ☐ PROFUSE: ☐

SEDIMENT DEPOSITION: SLUDGE: ☐ SAND SMOTHERING: NONE SLIGHT MODERATE SEVERE SILT SMOTHERING: NONE (SLIGHT) MODERATE SEVERE OTHER:

SUBSTRATE TYPE	% COVERAGE	# TIMES SAMPLED	METHOD	SUBSTRATE TYPES	% COVERAGE	# TIMES SAMPLED	METHOD
WOODY DEBRIS (SNAGS)				SAND	80	5	PONAR
LEAF PACKS OF MATS				MUD/MUCK/SILT	15		
AQUATIC VEGETATION				OTHER:			
ROCK OR SHELL RUBBLE				OTHER:	5		
UNDERCUT BANKS/ROOTS				DRAW AERIAL VIEW SKETCH OF HABITATS FOUND IN 100 M SECTION			

WATER QUALITY	DEPTH (M):	TEMP. (°C):	PH (SU):	D.O. (MG/L):	COND. (UMHO/CM) OR SALINITY (PPT):	SAL	DO%	SECCHI (M):
SURFACE ~~FOR~~ Bottom	0.35	27.6	7.60	7.08	28500 us/cm	24.45	103	0.35L
MID-DEPTH ~~MID~~	0.20.64	28.0	7.64	7.34	37300	23.5	109.8	
~~BOTTOM~~ TOP	0.05	29.1	7.77	8.66	34400	21.5	126	

SYSTEM TYPE: STREAM: 1ST-2ND ORDER ☐ 3RD-4TH ORDER ☐ 5TH – 6TH ORDER ☐ 7TH ORDER OR GREATER ☐ LAKE: ☐ WETLAND: ☐ ESTUARY: ☒ OTHER: ☐

WATER ODORS (CHECK BOX): NORMAL: ☒ SEWAGE: ☐ PETROLEUM: ☐ CHEMICAL: ☐ OTHER: ☐

WATER SURFACE OILS (CHECK BOX): NONE: ☒ SHEEN: ☐ GLOBS: ☐ SLICK: ☐

CLARITY (CHECK BOX): CLEAR: ☐ SLIGHTLY TURBID: ☒ TURBID: ☐ OPAQUE: ☐

COLOR (CHECK BOX): TANNIC: ☒ GREEN (ALGAE): ☐ CLEAR: ☐ OTHER: ☐

WEATHER CONDITIONS/NOTES: mostly sunny; SE breeze; incoming tide

ABUNDANCE:	ABSENT	RARE	COMMON	ABUNDANT
PERIPHYTON	☐	☐	☒	☐
FISH	☐	☐	☒	☐
AQUATIC MACROPHYTES	☒	☐	☐	☐
IRON/SULFUR BACTERIA	☐	☒	☒	☐

SAMPLING TEAM: JACKSON, OCONNOR, ESPY, HEYN, EVANS

SIGNATURE:

DATE: 4/30/03

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		4/30/02	ICW

REMARKS:	LOCATION:	FIELD ID/NAME:
INCOMING TIDE	Flagler Beach WWTP	STATION 6

Habitat Parameter score	Excellent	Good	Fair	Poor
Littoral Alterations 6	None—Unaltered shoreline. **9-10 points**	Mostly natural shoreline, but with occasional riprap. **6-8 points**	Shoreline consisting mostly of riprap and vertical seawalls. **3-5 points**	Shoreline consisting almost entirely of vertical seawalls. **0-2 points**
Community Types Observed 32	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. **38-50 points**	Two or three communities observed from those listed. **26-37 points**	One community observed from those listed. **13-25 points**	No communities observed from those listed. **0-12 points**
Tidal Fluctuation 3	>0.75 m. **4-5 points**	0.5 - 0.75 m. **3 points**	0.25 - 0.5 m. **2 points**	<0.25 m. **0-1 point**
Freshwater Discharges/ Alterations 9	Only natural runoff.. **9-10 points**	Mostly natural runoff, but with a few, small stormwater sources. **6-8 points**	Considerable stormwater discharge from local roads, parking lots, etc. **3-5 points**	Extensive manmade discharges, especially from canals draining large tracts of land. **0-2 points**
Flow and Wave Action 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. **9-10 points**	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. **0-2 points**
Sediment Type 11	Combination of sand, gravel, and shell. **12-15 points**	Primarily sand, with small areas of mud. **8-11 points**	Mixture of sand and mud, or well-aerated mud only. **4-7 points**	Anaerobic mud. **0-3 points**

TOTAL SCORE 66

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
4/30/03	JOY A JACKSON	Joy A Jackson

Appendix 8a

Benthic macroinvertebrates collected from ponar samples from upstream and downstream of the Flagler Beach WWTP facility (4/30/03). Taxa collected and density (average number of individuals/m^2) rounded to the nearest individual (n = 5 samples/site). See SOP LT 7100 sect. 4.2.1 for method on collapsing taxa.

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Annelida						
Oligochaeta						
Tubificidae	42	300	475	483	325	858
Polychaeta						
Eteone heteropoda	42	183	25	108	33	83
Nereididae	-	-	8	-	-	-
Nereis sp.	-	-	-	8	-	-
Ampharetidae	42	-	-	-	-	-
Capitella capitata complex	700	1,542	550	433	800	775
Dipolydora socialis	-	-	-	8	8	-
Heteromastus sp.	-	8	-	-	-	-
Heteromastus filiformis	-	-	8	-	-	-
Hobsonia florida	-	117	50	92	117	108
Leitoscoloplos sp.	-	67	-	133	-	25
Leitoscoloplos fragilis	75	-	92	-	-	-
Leitoscoloplos robustus	-	-	-	-	42	-
Mediomastus sp.	-	-	-	25	-	-
Mediomastus ambiseta	-	-	-	-	8	-
Mediomastus californiensis	-	-	-	-	8	100
Onuphidae	-	8	-	-	-	-
Pectinaria sp.	-	8	-	-	-	8
Scolelepis sp.	8	-	8	8	-	10
Streblospio sp.	50	83	-	92	-	31
Arthropoda						
Crustacea						
Amphipoda						
Americhelidium sp.	8	-	-	-	-	-
Ameroculodes sp.	8	-	-	-	-	-
Ameroculodes sp. a	-	-	-	8	-	-
Aoridae	-	-	-	-	8	-
Cerapus sp.	-	8	8	-	8	-
Gammarus mucronatus	-	-	8	-	17	33
Grandidierella bonnieroides	-	-	8	42	-	8
Melitidae	-	-	8	-	-	-
Monocorophium sp.	-	-	8	-	-	17
Cumacea						
Cyclaspis varians	-	133	33	150	42	58
Oxyurostylis sp.	-	142	75	-	108	100
Oxyurostylis smithi	158	-	-	467	-	-
Decapoda						
Undetermined Decapoda	-	8	-	-	-	-
Isopoda						
Edotea triloba	-	75	50	108	58	83
Mysidacea						
Americamysis sp.	-	8	-	-	-	-
Bowmaniella sp.	-	-	25	17	25	-
Tanaidacea						
Halmyrapseudes bahamensis	-	-	-	8	-	-
Hargeria rapax	-	-	-	-	58	8

(continued on next page)

Appendix 8a (continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Arthropoda						
Insecta						
Diptera						
Chironomus sp.	8	-	-	-	-	-
Paratanytarsus sp.	-	-	8	-	-	-
Polypedilum scalaenum grp.	17	8	8	-	-	8
Cnidaria						
Actiniaria	-	-	17	-	-	-
Mollusca						
Bivalvia						
Amygdalum papyrium	67	383	113	159	292	495
Brachidontes sp.	-	-	-	-	-	8
Corbula sp.	-	8	-	-	-	-
Cardiidae	-	8	-	-	-	8
Chione sp.	-	9	-	-	-	-
Gemma sp.	158	375	-	-	-	-
Gemma gemma	-	-	217	177	292	142
Lucinidae	-	8	-	-	-	-
Mactra fragilis	-	17	-	-	-	-
Mulinia lateralis	17	17	9	27	25	75
Tellinidae	42	308	261	80	408	712
Gastropoda						
Acteocina sp.	-	-	10	8	-	-
Cylichnidae	-	8	-	-	-	-
Haminoea succinea	-	17	-	-	-	-
Hydrobiidae	8	-	-	-	-	-
Nudibranchia	-	8	21	58	42	11
Opisthobranchia	-	-	-	-	-	8
Pyramidellidae	-	8	10	-	-	-
Rictaxis punctostriatus	-	-	-	-	8	21
Turbonilla sp.	-	-	-	33	275	43
Nemertea						
Undetermined Nemertea	133	658	550	275	883	558
Platyhelminthes						
Polycladida	-	-	-	-	8	-
Turbellaria	8	-	-	-	-	-
Sipuncula						
Undetermined Sipuncula	-	-	-	-	17	8

Appendix 8b

Benthic macroinvertebrates collected in ponar samples from upstream and downstream of the Flagler Beach WWTP facility (4/30/03). Taxa collected and total number of individuals counted (n = 5 samples per site).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Annelida						
Oligochaeta						
Tubificidae	5	36	57	58	39	103
Polychaeta						
Eteone heteropoda	5	22	3	13	4	10
Nereididae	-	-	1	-	-	-
Nereis sp.	-	-	-	1	-	-
Ampharetidae	5	5	3	5	-	-
Capitella capitata complex	84	185	66	52	96	93
Dipolydora socialis	-	-	-	1	1	-
Heteromastus sp.	-	1	-	-	-	-
Heteromastus filiformis	-	-	1	-	-	-
Hobsonia florida	-	9	3	6	14	13
Leitoscoloplos sp.	1	8	10	16	4	3
Leitoscoloplos fragilis	6	-	1	-	-	-
Leitoscoloplos robustus	-	-	-	-	1	-
Mediomastus sp.	-	-	-	3	-	7
Mediomastus ambiseta	-	-	-	-	1	-
Mediomastus californiensis	-	-	-	-	1	5
Onuphidae	-	1	-	-	-	-
Orbiniidae	2	-	-	-	-	-
Pectinaria sp.	-	1	-	-	-	1
Scolelepis sp.	1	-	1	1	-	1
Spionidae	-	2	-	-	-	1
Streblospio sp.	6	8	-	11	-	3
Arthropoda						
Crustacea						
Amphipoda						
Americhelidium sp.	1	-	-	-	-	-
Ameroculodes sp.	1	-	-	-	-	-
Ameroculodes sp. a	-	-	-	1	-	-
Aoridae	-	-	-	-	1	-
Cerapus sp.	-	1	1	-	1	-
Corophiidae	-	-	-	3	-	-
Gammarus mucronatus	-	-	1	-	2	4
Grandidierella bonnieroides	-	-	1	2	-	1
Melitidae	-	-	1	-	-	-
Monocorophium sp.	-	-	1	-	-	2
Cumacea						
Cyclaspis sp.	-	1	-	-	-	-
Cyclaspis varians	-	15	4	18	5	7
Oxyurostylis sp.	17	17	9	45	13	12
Oxyurostylis smithi	2	-	-	11	-	-
Decapoda						
Undetermined Decapoda	-	1	-	-	-	-
Isopoda						
Edotea triloba	-	9	6	13	7	10
Mysidacea						
Americamysis sp.	-	1	-	-	-	-
Bowmaniella sp.	-	-	3	2	1	-
Mysidae	-	-	-	-	2	-
Tanaidacea						
Halmyrapseudes bahamensis	-	-	-	1	-	-
Hargeria rapax	-	-	-	-	7	1

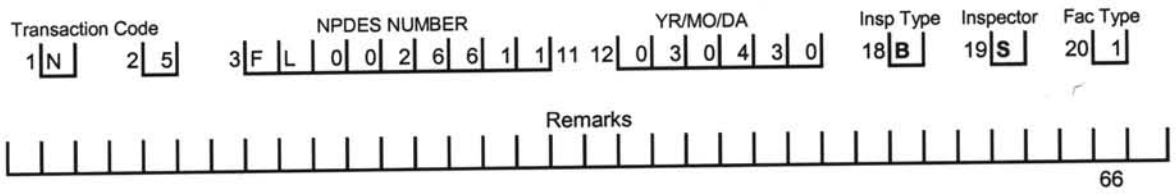
(continued on next page)

Appendix 8b (continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Arthropoda						
Insecta						
Diptera						
Chironomus sp.	1	-	-	-	-	-
Paratanytarsus sp.	-	-	1	-	-	-
Polypedilum scalaenum grp.	2	1	1	-	-	1
Cnidaria						
Actiniaria	-	-	2	-	-	-
Mollusca						
Bivalvia						
Amygdalum papyrium	8	46	13	18	35	59
Brachidontes sp.	-	-	-	-	-	1
Cardiidae	-	1	-	-	-	1
Chione sp.	-	1	-	-	-	-
Corbula sp.	-	1	-	-	-	-
Gemma sp.	17	44	10	-	-	11
Gemma gemma	-	-	15	17	33	3
Lucinidae	-	1	-	-	-	-
Mactra fragilis	-	2	-	-	-	-
Mulinia lateralis	2	2	1	3	3	9
Tellinidae	5	37	30	9	49	85
Undetermined Bivalvia	-	-	3	3	-	1
Veneridae	2	1	-	3	2	3
Gastropoda						
Acteocina sp.	-	-	1	1	-	-
Cylichnidae	-	1	-	-	-	-
Haminoea sp.	-	1	-	-	-	-
Haminoea succinea	-	1	-	-	-	-
Hydrobiidae	1	-	-	-	-	-
Nudibranchia	-	1	2	7	5	1
Opisthobranchia	-	-	-	-	-	1
Pyramidellidae	-	1	1	3	6	-
Rictaxis punctostriatus	-	-	-	-	1	2
Turbonilla sp.	-	-	-	1	27	4
Undetermined Gastropoda	-	-	1	-	-	2
Nemertea						
Undetermined Nemertea	16	79	66	33	106	67
Platyhelminthes						
Polycladida	-	-	-	-	1	-
Turbellaria	1	-	-	-	-	-
Sipuncula						
Undetermined Sipuncula	-	-	-	-	2	1

The Bioassay of Flagler Beach WWTP effluent sampled on April 30, 2003, NPDES #FL0026611.

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



The Priority Pollutants Analysis for Bioassay of Flagler beach WWTP effluent sampled on April 30, 2003, NPDES #FL0026611.

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

