

Biological Assessment of

Ormond Beach Wastewater Treatment Facility

Volusia County

NPDES #FL0020532

Sampled December 8, 2008

September 2009

Biology Section

Bureau of Laboratories

Division of Environmental Assessment and Restoration

Quality Manual No. 870346G

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CONTENTS

Summary

Facility Overview

Methods

Results and Discussion

Literature Cited

Tables

Table 1	Effluent limits, Class III Criteria for predominantly marine waters and chemical, microbiological and toxicological data.
Table 2	Measured and predicted algal growth potential (AGP)
Table 3	Sediment data
Table 4	Macroinvertebrate Petite Ponar samples – Quantitative

Figures

Figure 1	Sediment Particle Size (mm)
Figure 2	Sediment Percent Organics

Appendices

Appendix A	Map of facility
Appendix B	Facility summary
Appendix C	Explanation of measurements
Appendix D	Chain of Custody
Appendix E	Chemical analyses of effluent and receiving water
Appendix F	Toxicological results
Appendix G	Physical/Chemical and Habitat Assessment field sheets
Appendix H-1	Ponar samples: Taxa list and macroinvertebrate density (average number of individuals per m2)
Appendix H-2	Ponar samples: Taxa list and total number of macroinvertebrates counted

EPA End Sheet

Fifth Year Inspection Summary

The Fifth Year Inspection of the Ormond Beach Wastewater Treatment Facility conducted on December 8, 2008 produced the following notable results. In the effluent, no organic constituents were detected above the laboratory practical quantitation limit (PQL) and there were no metal exceedances of effluent permit limits. Iron at the Control Site, approximately 0.25 mile across the Halifax River from the discharge, exceeded the Class III Marine Water Quality Criterion (62-302.530(38) F.A.C.) and was approximately 9 times greater than concentrations at the Test Sites north and south of the discharge. This exceedence is not attributable to the effluent. At the Control Site, sediment concentrations of chromium III, lead, and mercury exceeded the Threshold Effects Level (TEL) for sediment metals. Higher sediment metal levels at the Control Site may be due to greater binding affinity of metals to smaller sediment particle sizes, which were in greater proportion at the Control Site compared to the North and South Test Sites.

The dechlorinated effluent was not toxic to the fish, *Cyprinella leedsi,* or to the water flea, *Ceriodaphnia dubia*, during the 48-hour definitive bioassays, and therefore is expected to comply with effluent permit limits.

General physical-chemical and microbiological measurements complied with water quality criteria and effluent permit limits. Nutrient enrichment was not detected in the receiving water despite comparatively elevated levels of nitrogen and phosphorus in the effluent.

The North Test Site Shannon Weaver Diversity score is 42.4% lower than that of the South Test Site, and the number of taxa at the North Test Site was approximately half that of the South Test Site. The path of the effluent plume was not identified prior to sampling; and therefore, the reduction in the biological integrity of benthic macroinvertebrate assemblages at the North Site is difficult to attribute to the effluent. The Shannon Weaver Diversity score at the North Test Site shows a greater than 25% reduction compared to the Control Site, an exceedence of the Biological Integrity Criterion (62-302.530(10)). Despite the Control Site being poorly located (see Results and Discussion), the difference between the North Test Site and the Control Site indicates a level of degradation at the North Test Site above and beyond what may be occurring from other sources in the system.

Under Consent Order OGC File No. 04-1990, this facility has interim limits for dichlorobromomethane, cyanide, and mercury. For this inspection, the dichlorobromomethane analysis was mistakenly not scheduled. The samplers performing the inspection did not have the correct preservative for the cyanide samples, making results for this analyte unreliable. Mercury, for which there has not been any exceedence since 2005 (DMR data), was undetected in samples collected during this survey.

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.

Facility Overview

The Ormond Beach Wastewater Treatment Facility is an Advanced Domestic Wastewater Treatment (AWT) facility. The effluent is discharged into the Halifax River, a Class III Marine Water (see map in Appendix A). The design flow of the wastewater system is 6.0 million gallons per day (MGD). The total flow to the river on the day the samples were collected was1.34 MGD. The total flow to the reuse system on the day the samples were collected was 3.14 MGD (Central District sampling staff).

See the Facility Summary (Appendix B) for a description of the facility, a summary of permit limits, and details on previous inspection, consent order (CO), and discharge monitoring

report (DMR) information. This facility is under Consent Order OGC File No. 04-1990 with interim limits for dichlorobromomethane, cyanide, and mercury.

Methods

The purpose of this investigation was to determine the discharge's effects on the biota of the receiving waters. The Ormond Beach WTF was sampled on December 8, 2008. Chemical and biological comparisons were made 100ft north (North Test Site) and 100ft south (South Test Site) of Outfall D-001 and at a Control Site approximately 0.25 mile across the Halifax River from D-001. These three locations were used because they are historical sampling sites for this facility. The facility was discharging to the river for 3-4 hours and Fifth Year sampling was conducted during this time. Sites were sampled on an outgoing tide (water flowing south); the effluent pipe's diffuser boil could be seen at the time of sampling. Effluent samples for all analyses were taken as grab samples from monitoring location EFA-1, prior to dechlorination, therefore samples for toxicity testing were dechlorinated in the laboratory.

All field and laboratory biological methods followed Bureau of Laboratories and Biology Section Standard Operating Procedures (see http://www.floridadep.org/labs/sop/index.htm for details) and met DEP quality assurance/quality control standards (see http://www.floridadep.org/labs/qa/index.htm). Explanations of specific methods and measurements can be found in Appendix C. See Appendix D for the completed chain of custody form.

Samples were collected by Phil Kane, Dave Scharr, and Steve Kent (FDEP Central District). Analyses were performed by the FDEP Central Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Michael Tanski, Jennifer Paris, and Nancy Ross).

Results and Discussion

Organic Constituents – Water (See Table 1 and Appendix E)

- Atrazine was measured in the effluent at a level between the method detection limit (MDL) and the practical quantitation limit (PQL).
- Dichlorobromomethane, an effluent permitted analyte, was not sampled during this inspection.
- No organic constituents were detected in the receiving waters.

Metals – Water (See Table 1 and Appendix E)

- Iron, nickel and zinc in the effluent were detected at levels that complied with Class III Marine Water Quality Criteria (62-302.530 F.A.C.) and effluent permit limits.
- Arsenic, copper, selenium and silver in the effluent were detected at levels between the MDL and PQL.
- Iron at the Control Site (1,050 µg/L) exceeded the Class III Marine Water Quality Criterion (62-302.530(38) F.A.C.) and was approximately 9 times greater than concentrations at the North and South Test Sites.
- Aluminum at the Control Site, although meeting the criterion, was approximately 5 times greater than at the North and South Test Sites.
- All other metals in the receiving water complied with Class III Marine Water Quality Criteria (62-302.530 F.A.C.).
- Nickel was detected in the field blank at a level between the MDL and the PQL.

Toxicity Whole Effluent Test (See Table 1 and Appendices E and F)

- The lids of 2 of the 3 sample bottles broke during transport therefore 48 hour definitive bioassays were run instead of 96 hour definitive bioassays. Tests were performed December 9-11, 2008.
- The original (non-dechlorinated) effluent samples were acutely toxic to the fish, *Cyprinella leedsi,* and to the water flea, *Ceriodaphnia dubia,* during the 48-hour acute screen bioassays. Toxicity was attributed to the total residual chlorine in the sample.
- The dechlorinated effluent sample was not toxic to the fish, *Cyprinella leedsi,* or to the water flea, *Ceriodaphnia dubia,* during the 48-hour definitive bioassays, and therefore is expected to comply with effluent permit limits.

Physical and Chemical Parameters (See Table 1 and Appendices D, E, and G)

- The Habitat Assessment score was lower at the Control Site (39) than at the North (51) and South (51) Test Sites due to greater littoral zone alterations, fewer communities observed, and muddier sediments. The Control Site was near a dock and was likely influenced by prop wash from a modified lobster boat.
- Dissolved oxygen (mg/L) and pH (Standard Units) of the effluent and the receiving water complied with Class III Marine Water Quality Criteria (62-302.530 F.A.C.) and effluent permit limits.
- At the time of effluent sampling, the Ormond Beach facility's chlorine meter read 2.5 mg/L prior to dechlorination for total residual chlorine (TRC). The DMR reports that TRC after disinfection was less than or equal to 0.01 mg/L.
- Chlorophyll a was detected in the 3 receiving water sites and was approximately 2.5 times greater at the Control Site than at the North and South Test Sites.
- Analysis of cyanide samples, an effluent permitted analyte, did not provide accurate results because the correct sample preservative was not available in the field.

Microbiology (See Table 1 and Appendix E)

- Fecal coliforms were not detected in the effluent or the North and South Test Sites. Control Site fecal coliforms were detected at levels that complied with the Class III Marine Water Quality Criterion (62-302.530 F.A.C.).

Nutrients (See Table 1 and Appendices E)

- There was no detectable nutrient enrichment from the effluent at the North and South Test Sites despite elevated levels of nitrogen and phosphorus measured in the effluent. Ortho-phosphate was not collected from the South Test Site.
- Ortho-phosphate and total ammonia were detected in the field blank at a level between the MDL and PQL.

Algal Growth Potential (See Table 2 and Appendix E)

- Algal growth potential (AGP) is a measure of nutrients available for algal growth (Miller et al. 1978). Raschke and Shultz (1987) found that AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment. The AGP values in the effluent and all receiving water sites were undetected and therefore, below this threshold. This indicates no nutrient enrichment in this portion of the Halifax River related to the Ormond Beach discharge.

Sediments (See Table 3, Figures 1 and 2, and Appendix E)

- The South Test Site sediment sample container for metals broke during shipping. Material was used from the sediment particle size container to complete all analyses except the organic constituents.
- The North and South Test Site sediments were shell and mud and the Control Site sediment was mud. The North and South Test Site substrates were comparable; the North Test Site contained slightly more fine and very fine sands, and the South Test Site contained more gravel. The Control Site sample was 78.9% silts and clay. Sediment percent organic content was approximately 5 times greater at the Control Site than at the North and South Test Sites bracketing the effluent.
- In sediments, benzo(b)fluoranthene was detected at the Control Site at a level between the MDL and PQL. Chromium III, lead, and mercury levels at the Control Site exceeded the Threshold Effects Level (TEL) for sediment metals. Beryllium, cadmium, chromium III, copper, lead, mercury, nickel, and silver were present at the Control Site at levels greater than in the sediments at the North and South Test Sites. Higher sediment metal levels at the Control site may be due to greater binding affinity of metals to smaller sediment particle sizes (Horowitz, 1985) which were in greater proportion at the Control Site compared to the North and South Test Sites.

Bioassessment - Macroinvertebrates (See Table 4 and Appendices H-1 and H-2)

- No study establishing the path of the effluent plume was conducted prior to sampling. The effluent plume was assumed to move both North and South of Outfall D-001. Historical sampling sites were used for this assessment.
- The Shannon-Weaver Diversity score at the North Test Site (1.52) showed a 47.2% reduction compared to the Control Site score (2.88), an exceedence of the Biological Integrity Criterion (62-302.530(10)).
- The Control Site sample contained only 10 taxa. The benthic invertebrate community was depauperate at the Control Site; only 69 individuals were collected in the Control Site sample, which is 12-17% the number of individuals obtained from the North and South Test Sites. The Control Site diversity score (2.88) may be negatively biased due to calculation based on fewer than 300 individuals (Lande 1996).
- The South Test Site sample (Shannon Weaver Diversity score 2.63) contained approximately twice as many taxa and included some orders of arthropods not present in the North Test Site sample. This difference between Test Sites may be related to the subtle shifts in sediment particle size or to differences in effluent exposure.
- The biological results for the Control Site are influenced by human disturbance imposed by the dock and boat and by the sediment organic content and particle size. The benthic organisms at the Control Site may also be responding to the elevated levels of iron and aluminum detected in the water column samples and the elevated concentration of sediment metals. Despite the less than optimal location for the Control Site, this bioassessment detected a level of degradation at the North Test Site greater than what may be occurring from other sources affecting the receiving water.

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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.

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

Ormond Beach WWTF	Class III Criteria	Effluent Limits	Effluent	North Site	South Site	Control Site
Organic Constituents (µg/L)						
Atrazine	-	-	0.12 I	0.046 U	0.046 U	0.047 U
Dichlorobromomethane	≤ 22 a,p	≤ 100 a,p *	-	-	-	-
Metals (µg/L unless otherwise noted)						
Aluminum	≤ 1500	-	60 U	250 I	240 U	1320
Arsenic	≤ 50	-	0.39 I	1.9 I	1.41	2.3 I
Beryllium	≤ 0.13 a	≤ 0.13 a,p *	0.025 U	0.12 U	0.12 U	0.12 U
Cadmium	≤ 8.8	-	0.03 U	0.12 U	0.03 U	0.12 U
Calcium (mg/L)	-	-	119	339 A	335	332
Chromium-III	-	-	0.7 U	2.8 U	1.94 I	3.6 I
Copper	≤ 3.7	-	1.2 I	2 U	1.2 I	2 U
Iron	≤ 300	-	260	110 I	130 I	1050
Lead	≤ 8.5	-	0.3 U	0.8 U	0.3 U	1.2 I
Magnesium (mg/L)	-	-	16.6	1010 A	992	950
Mercury	≤ 0.025	≤ 0.4 s,p *	0.12 U	0.12 U	0.12 U	0.12 U
Nickel	≤ 8.3	≤ 8.3 s,p *	1.33	1 U	0.7 I	1 U
Selenium	≤ 71	-	0.33 I	2.4 I	1.05	2 I
Silver	≤ 2.3	-	0.013 I	0.04 U	0.016 I	0.04 U
Zinc	≤ 86	≤ 86 s,p *	40	15 I	22 I	17 I
Nutrients (mg/L)						
Ortho-phosphate	-	-	0.32	0.034	-	0.049
Total Phosphorus	-	≤ 2.0 s,p *	0.5	0.053	0.061	0.095 A
Total Ammonia	-	-	0.37	0.01 U	0.01 U	0.01 U
Un-ionized Ammonia	-	-	≤ 0.02 c	≤ 0.02 c	≤ 0.02 c	≤ 0.02 c
Nitrate and Nitrite	-	-	1.5	0.006 I	0.061	0.006 I
Total Kjeldahl Nitrogen	-	-	1.6	0.66	0.7	0.81
Organic Nitrogen	-	-	1.23 c	0.655 c	0.695 c	0.805 c
Total Nitrogen	-	≤ 6.0 s,p *	3.1 c	0.666 c	0.761 c	0.816 c
General Physical and Chemical Parameters						
Habitat Assessment	-	-	-	51	51	39
Dissolved Oxygen (mg/L)	≥ 4.0	≥ 2.0 s	8.5 J	8.3 J	8.5 J	8.4 J
pH (SU)	6.5 - 8.5	6.5 - 8.5	7.3	7.4	7.4	7.5
Conductivity (µmhos/cm)	-	-	1274	41538	41638	41485
Temperature (°C)	-	-	19.8	15.7	16.2	15.8
Salinity	-	-	0.71 c	33.2 c	32.8 c	33 c
Sample Depth (m)	-	-	-	0.5	0.5	0.5
Total Residual Chlorine (mg/L) - for disinfection	-	≥ 0.5 s	2.5	-	-	-
Total Residual Chlorine (mg/L) - for dechlorination	≤ 0.01	≤ 0.01 s	-	-	-	-
Chlorophyll *a* (µg/L) - Corrected	-	-	0.55 U	2.7	3	7.6
Phaeophytin (µg/L)	-	-	0.24 U	0.24 U	0.24 U	0.6 U
Total Suspended Solids (mg/L)	-	≤ 10.0 s,p *	4 U	8 I	14 I	22 A
CBOD, 5 day (mg/L), N - inhibited	-	≤ 10.0 s,p *	0.33 I	1.5 I	1 I	2.5
Cyanide (µg/L)	≤ 1.0	≤ 2.8 s	0.019 IY	0.005 UY	0.005 UY	0.005 UY
Flow (MGD)	-	≤ 6.0	1.34	-	-	-
Hardness (mg $CaCO_3$)	-	-	365.50 c	5005.66 c	4921.55 c	4741.10 c
Toxicity (48-hour acute screen and 48 hour definitive bioassays, percent mortality in 100% effluent)						
Screen - Water flea *(Ceriodaphnia dubia)* - chlorinated	-	≤ 50%	100%	-	-	-
Screen - Fish *(Cyprinella leedsi)* - chlorinated	-	≤ 50%	100%	-	-	-
Definitive - Water flea *(Ceriodaphnia dubia)* - dechlorinated	-	≤ 50%	0%	-	-	-
Definitive - Fish *(Cyprinella leedsi)* - dechlorinated	-	≤ 50%	0%	-	-	-
Microbiology (Number of colony forming units/100ml)						
Fecal Coliforms @	≤ 400 s #	< 800 s	1 U	2 U	2 U	23 B

Value exceeds the Class III Water Quality Criteria or permit limits

* limit for 24-hr flow proportioned composite but grab sample taken and analyzed

@ - Analysis performed by Test America Orland Division

- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)

a - Annual average

b - Value is calculated based on hardness

c - Value is calculated

p - 24 hour flow proportioned composite

s - Single sample

t - Shall not exceed 29 NTUs above background

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

B - Results based on colony counts outside the acceptance range

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

J - Estimated value

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

Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Table 2. Measured and predicted algal growth potential (AGP; mg dry weight/L) of the saltwater species *Dunaliella tertiolecta* and ratios of nitrogen to phosphorus.

Ormond Beach WWTF			
Location	AGP (measured)	Inorganic N:P ratio	Total N:P ratio
Effluent *	3.0 U	5.8	6.2
North Site	3.0 U	0.5	12.6
South Site	3.0 U	**	12.5
Control Site	3.0 U	0.3	8.6

* sample salinity adjusted to 7ppt

** Ortho-Phosphate was not collected at the South Site; ratio can not be calculated.

Table 3. Sediment Data for Ormond Beach WWTF

Ormond Beach WWTF	Sediment Quality Assessment Guidelines		North Site	South Site	Control Site
	TEL	PEL			
Particle Size Distribution (percent volume < 2mm)					
< 0.063 mm	-	-	50.2	63.8	79.8 A
0.063 - 0.125 mm	-	-	8.32	5.57	12.4 A
0.125 - 0.25 mm	-	-	18	10.4	5.38 A
0.25 - 0.5 mm	-	-	14.9	11.6	1.92 A
0.5 - 2.0 mm	-	-	8.49	8.6	0.365 A
> 2.0 mm (percent dry weight)	-	-	4.9	15	1 K
Organic Content					
Organic Content (percent dry weight)	-	-	4.5	7.2	32 A
Organic Constituents (ug/kg)					
Benzo(b)fluoranthene	-	-	170 U	-	340 I
Metals (mg/kg)					
Beryllium	-	-	0.62	0.62	1.5
Cadmium	0.676	4.21	0.1 U	0.097 U	0.099 U
Chromium III	52.3	160	28.9	29	67 *
Copper	18.7	108	7.07 A	7.66	17.2
Lead	30.2	112	17.3 A	16.5	38.2 *
Mercury	0.13	0.696	0.072	-	0.15 *
Nickel	15.9	42.8	6.1	5.93	14.3
Silver	0.733	1.77	0.14 A	0.11	0.31

Sediment Quality Assessment Guidlines (MacDonald 1994): TEL = Threshold Effects Level; PEL = Probable Effects Level

* Exceeds the threshold effects level from Sediment Quality Assessment Guidlines (MacDonald 1994)

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

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

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

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

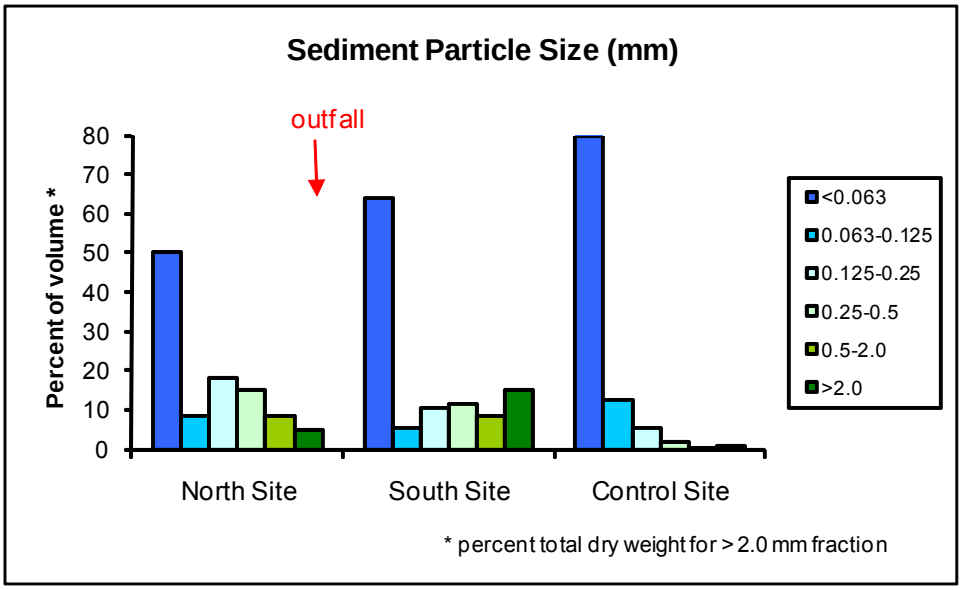


Figure 1. Sediment particle size for 3 sampling sites at Ormond Beach WWTP, December 8, 2008.

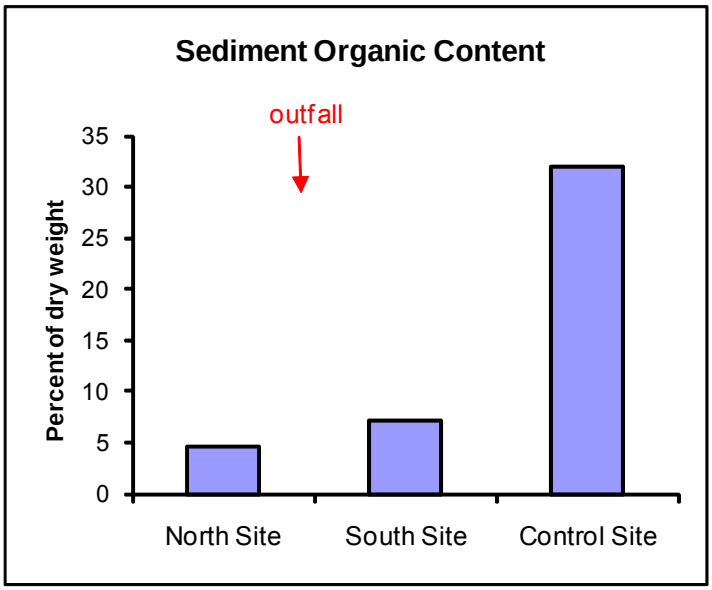


Figure 2. Sediment organic content for 3 sampling sites at Ormond Beach WWTP, December 8, 2008.

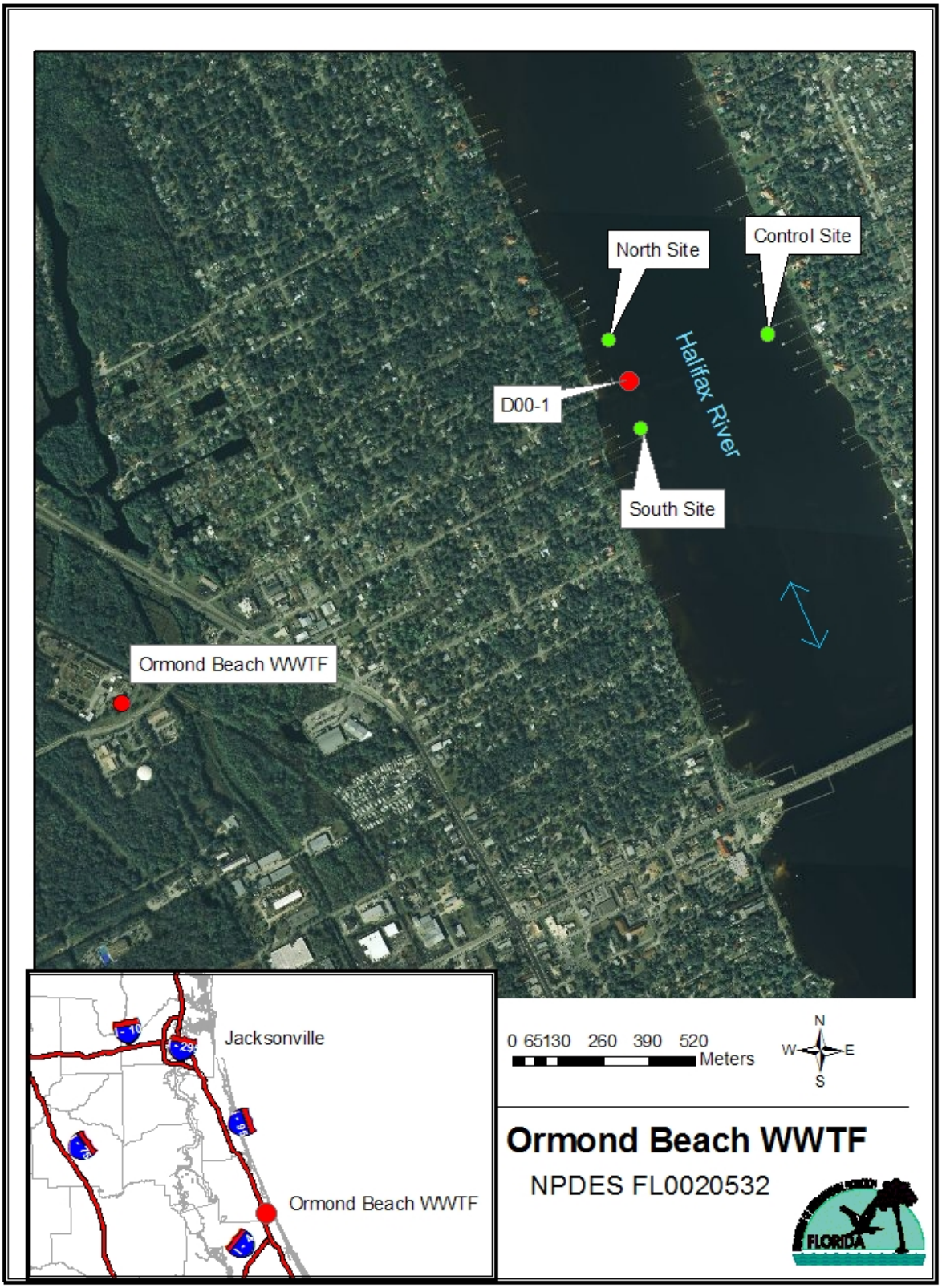
Table 4. Macroinvertebrate Petite Ponar Samples - Quantitative.

Ormond Beach WWTF	North Site	South Site	Control Site
Summary Statistics			
Shannon-Weaver Diversity	1.52	2.64	2.88 *
Number of Taxa	18	32	10
Percent Dominant Taxon	74.9	56.0	21.7
Dominant Taxon Name	*Mediomastus* sp. (Polychaeta)	*Mediomastus californiensis* (Polychaeta)	*Mediomastus* sp. (Polychaeta)
Number of samples/site	5	5	5
Total Number of Individuals (counted)	610	414	69
Community Composition: Percent of total			
Amphipoda	0.0	0.5	1.5
Bivalvia	12.6	16.2	24.6
Cnidaria	0.0	0.2	0.0
Cumacea	1.6	3.1	0.0
Decapoda	0.5	0.0	0.0
Gastropoda	1.8	4.6	1.5
Isopoda	0.0	0.2	0.0
Mysidacea	0.0	0.2	0.0
Nemertea	2.3	7.3	0.0
Oligochaeta	0.0	1.0	0.0
Polychaeta	81.1	66.7	72.4
Functional Feeding Groups: Percent of total			
Browser-Grazers	0.3	0.4	0.7
Burrowing Deposit Feeders	75.2	63.0	23.2
Piercers	0.0	0.0	0.0
Predators	3.4	9.3	8.7
Scavengers	0.4	1.1	0.7
Scrapers	1.8	2.7	0.0
Shredders	0.0	0.0	0.0
Surface Deposit Feeders	2.3	1.3	12.3
Suspension Feeders	16.6	22.2	36.9
Unknown	0.0	0.0	17.4

* - Shannon Weaver Diversity scores calculated on samples with < 300 individulas have the potential for negative bias (lower diversity scores compared to sites with more individuals) (Lande 1996).

Appendix A

Map of Facility



Appendix B

Facility Summary

State of Florida
Department of Environmental Protection
Facility Introduction & Summary

PART I: Information gathered prior to sampling event	
Prepared By: David Smicherko	**Contact Number:** 407-893-3313
Facility Name (as it appears on permit): Ormond Beach Wastewater Treatment Facility(WWTF)	**Former Names:**
NPDES Permit Number: FL0020532	**Permit Expiration Date:** August 17, 2008
Physical Address: **550 North Orchard Street, Ormond Beach, Fl, 32174**	
District: Central	**County:** Volusia
Function of Facility: Domestic Wastewater Treatment Plant	
Facility Type: Domestic Wastewater	**Permitted Capacity (MGD):** 6.0
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): D001 outfall flow: 2.59 million gallon per day (MGD) annual average daily flow (aadf), as reported on the July 2008 DMR (August 2007 through July 2008 reporting period).	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): R001 reuse flow: 1.53 MGD aadf, as reported on the July 2008 DMR (August 2007 through July 2008 reporting period).	
Description of type of Discharge: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify** **(with Public Access reuse)**	

Description of Sampling Location(s) - actual permit designation of permitted sampling point(s): The sampling location is designated as EFD-1, it is a sampling point after dechlorination.
Description of Permitted Outfall(s): The D001 outfall is in the Halifax River approximately 1000 feet long at a discharge depth of approximately 5 feet.
Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility): Ormond Beach WTF is an Advanced Domestic Wastewater Treatment (AWT) facility consisting of an odor control system, influent screening, grit removal, biological nutrient removal (carousel type, 5-stage Bardenpho™ Process), re-aeration, chemical feed facilities, secondary clarification, tertiary filtration, high level disinfection, postaeration and dechlorination for the river discharge, with thickening and dewatering of residuals. A permit modification was issued on October 31, 2007 to allow the mixing of the up to 1.0 MGD of demineralization concentrate with reclaimed water/effluent.

PART I: Continued

List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under
(Leave cell blank if not applicable)

			Effluent Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow, in conduit or thru treatment plant	MGD	Maximum	6.0	-	-	-	Continuous	Recording flow meters and totalizers	FLW-1	
BOD, Carbonaceous 5 day, 20C	MG/L	Maximum	5.0	6.25	7.5	10.0	5 Days/Week	24-hour flow proportioned composite	EFD-1	
Solids, Total Suspended	MG/L	Maximum	5.0	6.25	7.5	10.0	5 Days/Week	24-hour flow proportioned composite	EFD-1	
pH	SU	Range	-	-	-	6.5 to 8.5	Continuous	Analyzer	EFD-1	
Coliform, Fecal	#/100 ML	Maximum	200	200 Geometric mean	400 90^{th} percentile	800	5 Days/Week	Grab	EFA-1	
Total Residual Chlorine (For Dechlorination)	MG/L	Maximum	-	-	-	0.01	Daily	Grab	EFD-1	
Total Residual Chlorine (For Disinfection)	MG/L	Minimum	-	-	-	0.5	Continuous	Analyzer	EFA-1	
Nitrogen, Total	MG/L	Maximum	3.0	3.0	4.5	6.0	5 Days/Week	24-hour flow proportioned composite	EFD-1	
Phosphorus, Total (as P)	MG/L	Maximum	1.0	1.0	1.5	2.0	5 Days/Week	24-hour flow proportioned composite	EFD-1	
Oxygen, Dissolved (DO)	MG/L	Minimum	-	-	-	2.0	Daily	Grab	EFD-1	
Whole Effluent Toxicity									EFD-1	
Beryllium, Total Recoverable	UG/L	Maximum	0.13	-	-	-	Monthly	24-hour flow proportioned composite	EFD-1	

Mercury, Total Recoverable	UG/L	Maximum		-	-	**0.4 (interim)**	Monthly	24-hour flow proportioned composite	EFD-1	
Nickel, Total Recoverable	UG/L	Maximum		-	-	8.3	Monthly	24-hour flow proportioned composite	EFD-1	
Cyanide, Total (as CN)	UG/L	Maximum		-	-	**2.8 (interim)**	Monthly	Grab	EFD-1	
Dichlorobromomethane	UG/L	Maximum	**100 (interim)**	-	-	-	Monthly	24-hour flow proportioned composite	EFD-1	
Zinc, Total Recoverable	UG/L	Maximum	-	-	-	86	Monthly	24-hour flow proportioned composite	EFD-1	

PART I: Continued

Receiving Waters:	Classification (indicate whether fresh or marine):
Halifax River	Class III marine

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):

The permittee shall initiate the series of tests described below beginning in accordance with the current testing schedule to evaluate whole effluent toxicity of the discharge from outfall D-001. All test species, procedures and quality assurance criteria used shall be in accordance with Methods for Measuring Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-90/027F, or the most current edition. The control water and dilution water used will be moderately hard water as described in EPA/600/4-90/027F, Table 6, or the most current edition. A standard reference toxicant (SRT) quality assurance (QA) acute toxicity test shall be conducted concurrently or no greater than 30 days before the date of the "routine" test, with each species used in the toxicity tests. The results of all toxicity tests shall be submitted with the discharge monitoring report (DMR). Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use.

a. (1)The permittee shall conduct 96-hour acute static renewal toxicity tests using the daphnid, Ceriodaphnia dubia, and the bannerfin shiner, Cyprinella leedsi. All tests will be conducted on four separate grab samples collected at evenly-spaced (6-hr) intervals over a 24-hour period and used in four separate tests in order to catch any peaks of toxicity and to account for daily variations in effluent quality.

(2) If control mortality exceeds 10% for either species in any test, the test for that species (including the control) shall be repeated. A test will be considered valid only if control mortality does not exceed 10% for either species. If, in any separate grab sample test, 100% mortality occurs prior to the end of the test, and control mortality is less than 10% at that time, that test (including the control) shall be terminated with the conclusion that the sample demonstrates unacceptable acute toxicity.

b (1) The toxicity tests specified above shall be conducted once every six months. These tests are referred to as "routine" tests.

(2) Results from "routine" tests shall be reported according to EPA/600/4-90/027F, Section 12, Report Preparation (or the most current edition), and shall be submitted to:

Florida Department of Environmental Protection
Central
3319 Maguire Boulevard Suite 232
Orlando, FL, Florida 32803-3767

(3) Results from "routine" tests shall be reported on the Discharge Monitoring Report (DMR) as follows:

i. If greater than 50% mortality occurs in any of the four separate grab sample tests for the test species, "<100" (less than 100% effluent) should be entered on the DMR for that test species.

ii. If 50% or less mortality occurs in all four separate grab sample tests for the test species, ">100" (greater than 100% effluent) should be entered on the DMR for that test species.

iii. For each of the additional tests required, the calculated LC50 value should be entered on the DMR for that test species.

c. (1)All "routine" test shall be conducted using a control (0% effluent) and test concentration of 100% final effluent.

(2) Mortalities of greater than 50% in a 100% effluent in any "routine" sample or an LC50 of less than 100% effluent in any additional definitive test will constitute a violation of these permit conditions, and Rule 62-302.200(1), Rule 62-302.500(1)(a)4 and Rule 62-4.244(3)(a), F. A. C.

d. (1) If unacceptable acute toxicity (greater than 20% mortality of either test species in any of the four separate grab sample tests) is found in a "routine" test, the permittee shall conduct two additional definitive tests on each species indicating unacceptable toxicity. The first additional test will include four grab samples taken as described in a. and run as four separate definitive analyses. The second additional definitive test will be run on a single grab sample collected on the day and time when the greatest toxicity was identified in the "routine" test. Results for each additional test will include the determination of LC50 values with 95% confidence limits.
(2) The first additional test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5% and 6.25% effluent and a control (0% effluent). The dilution series may be modified in the second test to more accurately identify the toxicity, such that at least two dilutions above and two dilutions below the target toxicity and a control (0% effluent) are run.
(3) For each additional test, the sample collection requirements and the test acceptability criteria specified in section a. above must be met for the test to be considered valid. The first test shall begin within two weeks of the end of the "routine" tests, and shall be conducted weekly thereafter until two additional, valid tests are completed. The additional tests will be used to determine if the toxicity found in the "routine" test is still present.
(4) Results from additional tests, required due to unacceptable acute toxicity in the "routine" tests, shall be submitted in a single report prepared according to EPA/600/4-90/027F, Section 12, or the most current edition and submitted within 45 days of completion of the third additional, valid test. If the additional test(s) demonstrate unacceptable acute toxicity, the permittee will meet with the Department within 30 days of the report submittal to identify corrective actions necessary to remedy the unacceptable acute toxicity.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.):
Consent Order OGC File No. 04-1990 was executed on January 31, 2005. A Consent Order was entered into for exceeding permitted effluent limits. Cyanide, mercury and dichlorobromomethane received interim limits for discharge to the Halifax River. The facility has received a time extension on implementation of corrective actions in order for a permit renewal application to be processed.

Facility Mixing Zone Details (if applicable):
No Mixing zone.

List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year:

Date	Parameter and Units	Limit	Result
October 2007	pH standard units (SU)	6.5 (minimum)	**6.0**
January 2008	Total Nitrogen (mg/L)	3.0 (maximum)	**3.06**
June 2008	Cyanide (ug/L)	2.7 (maximum)	**5.0**

Describe previous FYI and WQBEL study:
A FYI3 was performed on September 30, 2002. The samples of effluent collected from this facility did not show acute toxicity to test species *Ceriodaphnia dubia* and *Cyprinella leedsi* during the 48-hour acute screen bioassay tests.

Describe previous or current Enforcement Actions (including WLs):
The facility is currently under Consent Order OGC File No. 04-1990 described above.

Describe any violations or problems noted in previous inspection:
The last inspection of this facility was performed on December 22, 2007. Items listed in the noncompliance letter included monitoring frequency and ground water monitoring deficiencies. Also a problem with the grit removal system.

Discuss whether DMR trends within previous five years are improving or declining:
The graphs generated by the PCS database show that based on an annual average in the last five years the discharge to the river has increase slightly while effluent quality has improved.

Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):

PART II: Sampling Event Information

Date(s) sample collected:	Sampler(s):
December 8, 2008	Phil Kane, Dave Scharr and Steve Kent

Temperature (Deg C):	**pH (SU):**
Dissolved Oxygen (mg/L):	**Conductivity (umhos/cm):**
Total Residual Chlorine (mg/L): 1.8 mg/L(minimum for day)	**Total Residual Chlorine - after Disinfection (mg/L):** <0.01 mg/L(maximum for day)
Method of Chlorination: Sodium Hypochlorite	**Method of De-chlorination:** Sodium Bisulfite
Flow During Sample Collection for each outfall(MGD): Flow to river on day of sample collection was 1.34 MGD.	
Mean Flow for each outfall for previous 12 months based on sampling date (If samples are taken on more than one day, indicate Mean Flow for each day): D001 outfall flow: 2.57 million gallon per day (MGD) annual average daily flow (aadf), as reported on the December 2008 DMR (January through December 2008 reporting period).	
Describe Discharge during Sampling Event: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify**	
Describe any conditions, difficulties or abnormal events that occurred during the sample collection and any other additional comments here NA	

Appendix C

Explanation of Measurements

(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

The effluent and water from sampling stations were analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides. The results from these analyses were compared with Water Quality Criteria (62-302 F.A.C.) and facility permit limits. Exceedances of Water Quality Criteria may constitute violations of specific provisions of Chapter 62-302 (F.A.C.) and/ or facility permit limits.

(3) Toxicity Bioassays

Greater than 50% mortality in an acute toxicity test may constitute an exceedence of 62-302.500(1)a and/or a violation of facility permit limits. An inhibition concentration greater than 25% in a chronic test may constitute exceedences of 62-302.530(20), 62-302.530(61) and/or a violation of facility permit limits.

(4) Bacteriological Testing

High levels of fecal coliform bacteria may constitute an exceedence of 62-302.530(6) and/or a violation of facility permit limits.

(5) Chlorophyll *a* Content

Chlorophyll *a* content is an estimate algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may constitute exceedences of 62-302.530(46) F.A.C., 62-302.530(47)(a) F.A.C. and/or 62-302.530(47)(b) F.A.C..

(6) Algal Growth Potential (AGP)

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 exceedences of 62-302.530(46) F.A.C., 62-302.530(47)(a) F.A.C. and/or 62-302.530(47)(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 $\pm$ 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 constitute an exceedence of 62-302.530(61) F.A.C.. Expected AGP is not calculated for marine samples incubated with *Dunaliella.*

(7) Sediment Sampling

Sediments were collected using a petite ponar dredge at all sampling stations. Sediment samples were analyzed for metals, organic constituents, pesticides, organic content and sediment grain size. The results from these analyses were compared with sediment quality assessment guidelines applicable to Florida coastal waters (Table 4. in MacDonald 1994). The range of sediment contaminant concentrations that fall below the threshold effects level (TEL) are not likely to be associated with adverse biological effects on aquatic organisms. The range of sediment contaminant concentrations that fall above the probable effects level (PEL) are usually or always associated with adverse biological effects. Within the range of concentrations delineated by the TEL (lower limit) and the PEL (upper limit), adverse biological effects are possible but it is difficult to predict the occurrence, nature, and/or severity of these effects (MacDonald 1994).

(8) Benthic Macroinvertebrate Assemblages

Benthic macroinvertebrates were collected using a petite ponar dredge at all sampling stations. 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.

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 exceedences of 62-302.530(46) F.A.C., 62-302.530(47)(a) F.A.C., 62-302.530(47)(b) F.A.C. and/or 62-302.530(61) 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 exceedences of 62-302.530(46) F.A.C., 62-302.530(47)(a) F.A.C. and/or 62-302.530(47)(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 exceedences of 62-302.530(46) F.A.C., 62-302.530(47)(a) F.A.C., 62-302.530(47)(b) F.A.C. and/or 62-302.530(61) 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 exceedences of 62-302.530(46) F.A.C., 62-302.530(47)(a) F.A.C., 62-302.530(47)(b) F.A.C. and/or 62-302.530(61) 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 samples at test and control sites constitutes exceedences of 62-302.530(10) F.A.C..

Appendix D

Chain of Custody

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2008-12-08-22
Ormond Beach WWTP

Requester: Jennifer Paris

Field Report Prepared By: KANE

Customer: CEN-DIST

Collected By: KANE, KENT, SCHARR

Send Final Report To Phil Kane

Project ID: FYI5

Sampling Agency: FDEP CENTRAL DISTRICT

PMAS: 1143

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N. ORCHARD ST. 32174 | Field ID OB

Matrix (Include type e.g. Salt, Fresh, etc): EFFLUENT | Temp (C): 19.81 | pH: 7.33

Latitude: N 29.28960 | Longitude: W081.07352

☐ Comp ☑ Grab | Collection (begin) Eastern Date 12/08/08 Time 0915 Central | Collection (end) PK Eastern Date Time Central | Bottle Group(s)**

Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L): 8.53 | Storet Station Number

Sample Depth ☑ m ☐ ft: 1 | 1274 | ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number FL0020532

Comments: chlorinated 2.5 residual CN-NOT PRESERVED NO NAOH

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N ORCHARD ST. 32174 | Field ID OB

Matrix (Include type e.g. Salt, Fresh, etc): BLANK | Temp (C) | pH

Latitude | Longitude

☐ Comp ☑ Grab | Collection (begin) Eastern Date 12/08/08 Time 0930 Central | Collection (end) PK Eastern Date Time Central | Bottle Group(s)**

Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) | Storet Station Number

~~Sample Depth~~ ☐ m ☐ ft | ~~Salinity (PPTh)~~ ☐ Sp Conductance (umho/cm) | ~~NPDES Number~~ FL0020532

Comments: CN-NOT PRESERVED NO NAOH

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N. ORCHARD ST. 32174 | Field ID OB

Matrix (Include type e.g. Salt, Fresh, etc): SALT H2O NORTH SED. | Temp (C): 15.7 | pH: 7.4

Latitude: N 29.29819 | Longitude: W 81.05737

☐ Comp ☑ Grab | Collection (begin) Eastern Date 12/08/08 Time 1100 Central | Collection (end) PK Eastern Date Time Central | Bottle Group(s)**

Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L): 8.35 | Storet Station Number

Sample Depth ☐ m ☐ ft: .5 | 41,538 | ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number FL0020532

Comments:

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N. ORCHARD ST. 32174 | Field ID OB NORTH

Matrix (Include type e.g. Salt, Fresh, etc): SALT H2O NORTH SEDIMENT | Temp (C): 15.7 | pH: 7.4

Latitude: N29.29819 | Longitude: W 81.05737

☐ Comp ☑ Grab | Collection (begin) Eastern Date 12/08/08 Time 1100 Central | Collection (end) PK Eastern Date Time Central | Bottle Group(s)**

Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L): 8.35 | Storet Station Number

Sample Depth ☑ m ☐ ft: .5 | 41,538 | ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number FL0020532

Comments: PARTICLE SIZE

Relinquished By:	Date/Time	Shipping Method: FDEX	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
							JC	12-9-08 7:35

BA -12-9-08 13:35

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Page 1 of 3

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Request Number: RQ-2008-12-08-22
Ormond Beach WWTP

Event ID *

Requester: Jennifer Paris
Field Report Prepared By: KANE
Collected By: KANE, KENT, SCHARR
Send Final Report To Phil Kane
Sampling Agency: FDEP CENTRAL DISTRICT

Customer: CEN-DIST
Project ID: FYI5
PMAS: 1143

Lab ID *
Location: CITY OF ORMOND BEACH WWTF, 550 N ORCHARD STREET, 32174
Field ID: OB NORTH
Matrix (Include type e.g. Salt, Fresh, etc): SALT H_2O NORTH SED.
Temp (C): 15.7 | pH: 7.4
Latitude: N 29 29 8.14 | Longitude: W 81 05 7.37
☑ Comp ☐ Grab | Collection (begin) Date: 12/08/08 Time: 1100 (Eastern / Central) | Collection (end) Date: — Time: — (Eastern / Central)
Tot Res Chlorine (mg/L): | Diss Oxygen (mg/L): 8.25 | Storet Station Number:
Sample Depth: .5 ☐ m ☐ ft | 41,538 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number: FL0020532
Comments: METALS
Bottle Group(s)**:

Lab ID *
Location: CITY OF ORMOND BEACH WWTF, 550 N ORCHARD STREET, 32174
Field ID: OB SOUTH
Matrix (Include type e.g. Salt, Fresh, etc): SALT H_2O SOUTH
Temp (C): 16.2 | pH: 7.4
Latitude: N 29.29695 | Longitude: W 81.05655
☐ Comp ☑ Grab | Collection (begin) Date: 12/08/08 Time: 1155 (Eastern / Central) | Collection (end) Date: — Time: — (Eastern / Central)
Tot Res Chlorine (mg/L): | Diss Oxygen (mg/L): 8.49 | Storet Station Number:
Sample Depth: .5 ☐ m ☐ ft | 41,638 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number: FL0020532
Comments:
Bottle Group(s)**:

Lab ID *
Location: CITY OF ORMOND BEACH WWTF, 550 N. ORCHARD STREET, 32174
Field ID: OB SOUTH
Matrix (Include type e.g. Salt, Fresh, etc): SALT H_2O SOUTH SED.
Temp (C): 16.2 | pH: 7.4
Latitude: N. 29.29695 | Longitude: W 81 05 65 5
☐ Comp ☑ Grab | Collection (begin) Date: 12/08/08 Time: 1200 (Eastern / Central) | Collection (end) Date: — Time: — (Eastern / Central)
Tot Res Chlorine (mg/L): | Diss Oxygen (mg/L): 8.49 | Storet Station Number:
Sample Depth: 5 ☐ m ☐ ft | 41,638 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number: FL0020532
Comments: PARTICLE SIZE
Bottle Group(s)**:

Lab ID *
Location: CITY OF ORMOND BEACH WWTF, 550 N. ORCHARD STREET, 32174
Field ID: OB SOUTH
Matrix (Include type e.g. Salt, Fresh, etc): SALT H_2O SOUTH SED.
Temp (C): 16.2 | pH: 7.4
Latitude: N 29.29695 | Longitude: W 81 05 65 5
☑ Comp ☐ Grab | Collection (begin) Date: 12/08/08 Time: 1155 (Eastern / Central) | Collection (end) Date: — Time: — (Eastern / Central)
Tot Res Chlorine (mg/L): | Diss Oxygen (mg/L): 8.49 | Storet Station Number:
Sample Depth: 5 ☐ m ☐ ft | 41,638 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number: FL0020532
Comments: METALS
Bottle Group(s)**:

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
		FDEX						12-9-08

13A 12-9-08 1337

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2008-12-08-22
Ormond Beach WWTP

Requester: Jennifer Paris
Field Report Prepared By: KANE

Customer: CEN-DIST
Collected By: KANE, KENT, SCHARR
Send Final Report To Phil Kane

Project ID: FYI5
Sampling Agency: FDEP CENTRAL DISTRICT

PMAS: 1143

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N. ORCHARD ST. 32174 | ☐ Comp ☑ Grab | Collection (begin) Date 12/08/08 Time 1235 Eastern Central | Collection (end) Date Time Eastern Central | Bottle Group(s)**
Field ID OB REFERENCE | Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) 8.40 | Storet Station Number
Matrix (Include type e.g. Salt, Fresh, etc) SALT H2O REFERENCE | Temp (C) 15.8 | pH 7.5 | Sample Depth .5 ☑ m ☐ ft | 41,485 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number FL0002532
Latitude N29.29849 | Longitude W81.05426 | Comments

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N. ORCHARD ST. 32174 | ☐ Comp ☑ Grab | Collection (begin) Date 12/08/08 Time 1240 Eastern Central | Collection (end) Date Time Eastern Central | Bottle Group(s)**
Field ID OB REFERENCE | Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) 8.40 | Storet Station Number
Matrix (Include type e.g. Salt, Fresh, etc) SALT H2O REFERENCE SED. | Temp (C) 15.8 | pH 7.5 | Sample Depth .5 ☑ m ☐ ft | 41,485 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number FL0002532
Latitude N29.29849 | Longitude W81.05426 | Comments PART. SIZE

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N. ORCHARD ST. 32174 | ☑ Comp ☐ Grab | Collection (begin) Date 12/08/08 Time 1245 Eastern Central | Collection (end) Date Time Eastern Central | Bottle Group(s)**
Field ID OB REFERENCE | Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) 8.40 | Storet Station Number
Matrix (Include type e.g. Salt, Fresh, etc) SALT H2O REFERENCE SED. | Temp (C) 15.8 | pH 7.5 | Sample Depth .5 ☑ m ☐ ft | 41,485 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number FL0002532
Latitude N29 29849 | Longitude W81.05426 | Comments 0920 METALS

Lab ID * | Location CITY OF ORMOND BEACH WWTF 550 N ORCHARD ST. 32174 | ☐ Comp ☑ Grab | Collection (begin) Date 12/08/08 Time 1245 Eastern Central | Collection (end) Date Time Eastern Central | Bottle Group(s)**
Field ID OB [redacted] BIOASSAY | Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) 8.53 | Storet Station Number
Matrix (Include type e.g. Salt, Fresh, etc) EFFLUENT | Temp (C) 19.81 | pH 7.33 | Sample Depth 0 ☑ m ☐ ft | 1274 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm) | NPDES Number FL0002532
Latitude N29.28900 | Longitude W08107352 | Comments chlorinated 2.5 residual EFFLUENT

Relinquished By:	Date/Time	Shipping Method: FDEX	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
							SJC	12/9/08 9:25
							DA	12-9-08 13:37

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Appendix E

Chemical analysis of effluent and receiving water

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 9:20	Effluent	ORMOND BEACH	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
12/8/2008 9:20	Effluent	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.33	I	mg/L	0.2	2
12/8/2008 9:20	Effluent	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.55	U	ug/L	0.55	1.7
12/8/2008 9:20	Effluent	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.24	U	ug/L	0.24	0.71
12/8/2008 9:20	Effluent	ORMOND BEACH	Overflow	Fecal Coliforms-Membrane Filter	1	U	#/100 mL	1	
12/8/2008 9:20	Effluent	ORMOND BEACH	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	K	LC50		
12/8/2008 9:20	Effluent	ORMOND BEACH	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	K	LC50		
12/8/2008 9:20	Effluent	ORMOND BEACH	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50-dechlor	100	L	LC50		
12/8/2008 9:20	Effluent	ORMOND BEACH	Toxicology	Bioassay-Acute-Df-FW-C.dubia,LC50-dechlr	100	L	LC50		
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Aluminum	60	U	ug/L	60	240
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Mercury	0.12	U	ug/L	0.12	0.5
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Cadmium	0.03	U	ug/L	0.03	0.12
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Silver	0.013	I	ug/L	0.01	0.04
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Copper	1.2	I	ug/L	0.5	2
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Lead	0.3	U	ug/L	0.3	1.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Nickel	1.33		ug/L	0.25	1
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Iron	260		ug/L	30	120
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Magnesium	16.6		mg/L	0.04	0.16
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Zinc	40		ug/L	5	20
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Calcium	119		mg/L	0.075	0.3
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Arsenic	0.39	I	ug/L	0.25	1
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Selenium	0.33	I	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Metals	Chromium	0.7	U	ug/L	0.7	2.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Nutrients	Cyanide	0.019	IY	mg CN/L	0.005	0.02
12/8/2008 9:20	Effluent	ORMOND BEACH	Nutrients	Ammonia-N	0.37		mg N/L	0.01	0.02
12/8/2008 9:20	Effluent	ORMOND BEACH	Nutrients	O-Phosphate-P	0.32		mg P/L	0.02	0.05
12/8/2008 9:20	Effluent	ORMOND BEACH	Nutrients	Total-P	0.5		mg P/L	0.02	0.06
12/8/2008 9:20	Effluent	ORMOND BEACH	Nutrients	TSS	4	U	mg/L	4	16
12/8/2008 9:20	Effluent	ORMOND BEACH	Nutrients	Kjeldahl Nitrogen	1.6		mg N/L	0.08	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Nutrients	NO2NO3-N	1.5		mg N/L	0.04	0.1
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Diazinon	0.05	UJ	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Phorate	0.05	U	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Dieldrin	0.02	U	ug/L	0.02	0.08

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Endrin	0.05	U	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Heptachlor	0.01	U	ug/L	0.01	0.04
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Heptachlor Epoxide	0.02	U	ug/L	0.02	0.08
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Alachlor	0.6	U	ug/L	0.6	2.4
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	PCB-1016	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Simazine	0.052	U	ug/L	0.052	0.21
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Chlordane	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	DDE-p,p'	0.02	U	ug/L	0.02	0.08
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	PCB-1221	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	PCB-1254	0.3	U	ug/L	0.3	1.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Toxaphene	0.75	U	ug/L	0.75	3
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Atrazine	0.12	I	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Norflurazon	0.15	UJ	ug/L	0.15	0.6
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	DDT-p,p'	0.03	U	ug/L	0.03	0.12
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Gamma-BHC	0.01	U	ug/L	0.01	0.04
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	PCB-1232	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Hexazinone	0.1	UJ	ug/L	0.1	0.4
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Alpha-BHC	0.01	U	ug/L	0.01	0.04
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	PCB-1248	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	PCB-1260	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Naled	0.8	U	ug/L	0.8	3.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Delta-BHC	0.01	U	ug/L	0.01	0.04
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Endosulfan Sulfate	0.02	U	ug/L	0.02	0.08
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Endrin Aldehyde	0.02	U	ug/L	0.02	0.08
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Aldrin	0.013	U	ug/L	0.013	0.052
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Beta-BHC	0.023	U	ug/L	0.023	0.092
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	DDD-p,p'	0.02	U	ug/L	0.02	0.08
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Methoxychlor	0.05	U	ug/L	0.05	0.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	PCB-1242	0.3	U	ug/L	0.3	1.2
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Endosulfan I	0.02	U	ug/L	0.02	0.08
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Endosulfan II	0.02	U	ug/L	0.02	0.08
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Azinphos Methyl	0.2	UJ	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Diethyl phthalate	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)pyrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Dimethyl phthalate	9.5	UJ	ug/L	9.5	38
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	11
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Anthracene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Acenaphthylene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Phenanthrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)anthracene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Fluoranthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	11
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Pyrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Acenaphthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Naphthalene	0.95	U	ug/L	0.95	3.8

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Benzo(k)fluoranthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Fluorene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	UJ	ug/L	2.9	11
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Benzo(b)fluoranthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Chrysene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
12/8/2008 9:20	Effluent	ORMOND BEACH	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
12/8/2008 11:00	North Site	ORMOND BEACH	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
12/8/2008 11:00	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	2.7		ug/L	0.55	1.7
12/8/2008 11:00	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.24	U	ug/L	0.24	0.71
12/8/2008 11:00	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1.5	I	mg/L	0.2	2
12/8/2008 11:00	North Site	ORMOND BEACH	Overflow	Fecal Coliforms-Membrane Filter	2	U	#/100 mL	2	
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Selenium	2.4	I	ug/L	0.8	3.2
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Lead	0.8	U	ug/L	0.8	3.2
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Arsenic	1.9	I	ug/L	1	4
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Iron	110	I	ug/L	90	360
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Calcium	339	A	mg/L	0.22	0.9
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Nickel	1	U	ug/L	1	4
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Chromium	2.8	U	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Copper	2	U	ug/L	2	8
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Cadmium	0.12	U	ug/L	0.12	0.48
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Aluminum	250	I	ug/L	180	720
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Silver	0.04	U	ug/L	0.04	0.16
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Magnesium	1010	A	mg/L	2	8
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Zinc	15	I	ug/L	15	60
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Mercury	0.12	U	ug/L	0.12	0.5
12/8/2008 11:00	North Site	ORMOND BEACH	Metals	Beryllium	0.12	U	ug/L	0.12	0.5
12/8/2008 11:00	North Site	ORMOND BEACH	Nutrients	Total-P	0.053		mg P/L	0.008	0.02
12/8/2008 11:00	North Site	ORMOND BEACH	Nutrients	NO2NO3-N	0.006	I	mg N/L	0.004	0.01
12/8/2008 11:00	North Site	ORMOND BEACH	Nutrients	Kjeldahl Nitrogen	0.66		mg N/L	0.16	0.4
12/8/2008 11:00	North Site	ORMOND BEACH	Nutrients	TSS	8	I	mg/L	4	16
12/8/2008 11:00	North Site	ORMOND BEACH	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:00	North Site	ORMOND BEACH	Nutrients	Cyanide	0.005	UY	mg CN/L	0.005	0.02
12/8/2008 11:00	North Site	ORMOND BEACH	Nutrients	O-Phosphate-P	0.034		mg P/L	0.004	0.01
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Atrazine	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Ethion	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Beta-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	DDE-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	PCB-1242	0.28	U	ug/L	0.28	1.1
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Ametryn	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Metalaxyl	0.23	U	ug/L	0.23	0.92
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Metolachlor	0.46	U	ug/L	0.46	1.8
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Simazine	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Aldrin	0.0093	U	ug/L	0.009	0.037
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Alpha-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	DDT-p,p'	0.028	U	ug/L	0.028	0.11
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Azinphos Methyl	0.19	UJ	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Fonofos	0.093	U	ug/L	0.093	0.37
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Hexazinone	0.093	UJ	ug/L	0.093	0.37
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Delta-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Dieldrin	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Endosulfan I	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Endrin Aldehyde	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Phorate	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Heptachlor	0.0093	U	ug/L	0.009	0.037
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Methoxychlor	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	PCB-1221	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	PCB-1232	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Diazinon	0.046	UJ	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Ethoprop	0.093	U	ug/L	0.093	0.37
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Norflurazon	0.14	UJ	ug/L	0.14	0.56
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Endosulfan II	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	PCB-1016	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	PCB-1254	0.28	U	ug/L	0.28	1.1
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	PCB-1260	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Toxaphene	0.69	U	ug/L	0.69	2.8
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Chlorpyrifos Ethyl	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Endosulfan Sulfate	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Alachlor	0.56	U	ug/L	0.56	2.2
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Chlorpyrifos Methyl	0.093	U	ug/L	0.093	0.37
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	DDD-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Gamma-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Metribuzin	0.093	U	ug/L	0.093	0.37
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Naled	0.74	U	ug/L	0.74	3
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Parathion Methyl	0.093	U	ug/L	0.093	0.37
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Chlordane	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Endrin	0.046	U	ug/L	0.046	0.18
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	Heptachlor Epoxide	0.019	U	ug/L	0.019	0.076
12/8/2008 11:00	North Site	ORMOND BEACH	Pesticides	PCB-1248	0.19	U	ug/L	0.19	0.76
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	56
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Anthracene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Diethyl phthalate	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Nitrophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzidine	93	U	ug/L	93	370
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.8	U	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Fluorene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Naphthalene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.8	U	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(k)fluoranthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Fluoranthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobenzene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.5
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dimethylphenol	9.3	U	ug/L	9.3	37
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)anthracene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(b)fluoranthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Butyl benzyl phthalate	4.7	U	ug/L	4.7	19
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.8	UJ	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.5

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Pyrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dichlorophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2,6-Dinitrotoluene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Chrysene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachloroethane	2.8	U	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Isophorone	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Pentachlorophenol	2.8	U	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	56
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrotoluene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthylene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-butyl phthalate	4.7	U	ug/L	4.7	19
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Dimethyl phthalate	9.3	UJ	ug/L	9.3	37
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.8	U	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.5
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Chloronaphthalene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Chlorophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	3,3'-Dichlorobenzidine	37	UJ	ug/L	37	150
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.5
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)pyrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	56
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-octyl phthalate	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobutadiene	2.8	U	ug/L	2.8	11
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Phenanthrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Priority Organic Pollutants	Phenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:00	North Site	ORMOND BEACH	Field Parameter	Total Residual Chlorine			mg/L		
12/8/2008 11:00	North Site	ORMOND BEACH	Field Parameter	Dissolved Oxygen	8.25		mg/L		
12/8/2008 11:00	North Site	ORMOND BEACH	Field Parameter	Sample Depth	0.5		m		
12/8/2008 11:00	North Site	ORMOND BEACH	Field Parameter	Specific Conductance	41538		umhos/cm		
12/8/2008 11:00	North Site	ORMOND BEACH	Field Parameter	Temperature	15.7		C		
12/8/2008 11:00	North Site	ORMOND BEACH	Field Parameter	pH	7.4				
12/8/2008 11:05	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	50.2		% vol <2mm	0	0.01
12/8/2008 11:05	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	14.9		% vol <2mm	0	0.01
12/8/2008 11:05	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	4.9		%tot drywt	0	1
12/8/2008 11:05	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment % Organic	4.5		% dry wt		
12/8/2008 11:05	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	8.32		% vol <2mm	0	0.01
12/8/2008 11:05	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	18		% vol <2mm	0	0.01
12/8/2008 11:05	North Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	8.49		% vol <2mm	0	0.01
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Lead	17.3	A	mg/Kg	0.37	1.5
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Nickel	6.1		mg/Kg	0.15	0.6
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Cadmium	0.1	U	mg/Kg	0.1	0.4

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Beryllium	0.62		mg/Kg	0.04	0.16
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Mercury	0.072		mg/Kg	0.009	0.038
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Chromium	28.9		mg/Kg	0.1	0.4
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Copper	7.07	A	mg/Kg	0.25	0.99
12/8/2008 11:05	North Site	ORMOND BEACH	Metals	Silver	0.14	A	mg/Kg	0.012	0.05
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Endrin Ketone	0.71	U	ug/Kg	0.71	2.8
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Ethion	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Metribuzin	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Mevinphos	19	U	ug/kg	19	76
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Monocrotophos	47	U	ug/kg	47	190
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Norflurazon	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Simazine	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	PCB-1221	19	U	ug/Kg	19	76
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	PCB-1242	28	U	ug/Kg	28	110
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	DDD-p,p'	0.71	U	ug/Kg	0.71	2.8
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Heptachlor	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Alachlor	28	U	ug/kg	28	110
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Ametryn	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Chlorpyrifos Ethyl	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Diazinon	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Hexazinone	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Malathion	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Alpha-BHC	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Naled	37	UJ	ug/kg	37	150
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Parathion Methyl	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Alpha-Chlordane	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Heptachlor Epoxide	0.36	U	ug/kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Azinphos Methyl	14	U	ug/kg	14	56
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Ethoprop	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Parathion Ethyl	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	PCB-1232	42	U	ug/Kg	42	170
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	DDT-p,p'	1.1	U	ug/Kg	1.1	4.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Dieldrin	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Gamma-Chlordane	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Hexachlorobenzene	0.71	U	ug/Kg	0.71	2.8
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Mirex	1.4	U	ug/kg	1.4	5.6
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Atrazine	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Methamidophos	47	U	ug/kg	47	190
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Metolachlor	28	U	ug/kg	28	110
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Phorate	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	PCB-1260	28	U	ug/Kg	28	110

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Endosulfan II	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Endosulfan Sulfate	0.71	U	ug/Kg	0.71	2.8
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Endrin	1.8	U	ug/Kg	1.8	7.2
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Endrin Aldehyde	0.71	U	ug/Kg	0.71	2.8
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Gamma-BHC	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Toxaphene	27	U	ug/Kg	27	110
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Fonofos	4.7	U	ug/kg	4.7	19
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Prometryn	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	PCB-1254	19	U	ug/Kg	19	76
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Aldrin	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	DDE-p,p'	0.71	U	ug/Kg	0.71	2.8
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Delta-BHC	0.71	U	ug/Kg	0.71	2.8
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Bromacil	19	U	ug/kg	19	76
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Fenamiphos	19	U	ug/kg	19	76
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	PCB-1016	28	U	ug/Kg	28	110
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	PCB-1248	19	U	ug/Kg	19	76
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Beta-BHC	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Chlordane	5.4	U	ug/Kg	5.4	22
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Endosulfan I	0.36	U	ug/Kg	0.36	1.4
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Methoxychlor	1.8	U	ug/kg	1.8	7.2
12/8/2008 11:05	North Site	ORMOND BEACH	Pesticides	Chlorpyrifos Methyl	9.3	U	ug/kg	9.3	37
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	1,2,4-Trichlorobenzene	500	U	ug/kg	500	2000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrotoluene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Nitrophenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-butyl phthalate	1000	U	ug/kg	1000	4000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-octyl phthalate	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Dimethyl phthalate	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachloroethane	500	U	ug/kg	500	2000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Pyrene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dichlorophenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dimethylphenol	1000	U	ug/kg	1000	4000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10000	UJ	ug/kg	10000	40000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Azobenzene/1,2-Diphenylhydrazine	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(b)fluoranthene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethyl)ether	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Diethyl phthalate	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4,6-Trichlorophenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzidine	3600	U	ug/kg	3600	15000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)anthracene	170	U	ug/kg	170	670

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(k)fluoranthene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Fluoranthene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Pentachlorophenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrophenol	1000	U	ug/kg	1000	4000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2,6-Dinitrotoluene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Nitrophenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Bromophenyl phenyl ether	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodimethylamine	1000	U	ug/kg	1000	4000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Phenanthrene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)pyrene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1000	U	ug/kg	1000	4000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Chrysene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Phenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	4-Chloro-3-methylphenol	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobenzene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobutadiene	500	U	ug/kg	500	2000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Naphthalene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Fluorene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorocyclopentadiene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Isophorone	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Chloronaphthalene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	2-Chlorophenol	500	U	ug/kg	500	2000
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthylene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Anthracene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(g,h,i)perylene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Butyl benzyl phthalate	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Dibenzo(a,h)anthracene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Priority Organic Pollutants	Nitrobenzene	170	U	ug/kg	170	670
12/8/2008 11:05	North Site	ORMOND BEACH	Nutrients	% Solid	35.6	A	%	1	1
12/8/2008 11:05	North Site	ORMOND BEACH	Field Parameter	Total Residual Chlorine			mg/L		
12/8/2008 11:55	South Site	ORMOND BEACH	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
12/8/2008 11:55	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	3		ug/L	0.55	1.7
12/8/2008 11:55	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1	I	mg/L	0.2	2
12/8/2008 11:55	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.24	U	ug/L	0.24	0.71
12/8/2008 11:55	South Site	ORMOND BEACH	Overflow	Fecal Coliforms-Membrane Filter	2	U	#/100 mL	2	

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Zinc	22	I	ug/L	20	80
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Magnesium	992		mg/L	2	8
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Iron	130	I	ug/L	120	480
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Beryllium	0.12	U	ug/L	0.12	0.5
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Silver	0.016	I	ug/L	0.01	0.04
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Calcium	335		mg/L	0.3	1.2
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Chromium	1.94	I	ug/L	0.7	2.8
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Selenium	1.05		ug/L	0.2	0.8
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Lead	0.3	U	ug/L	0.3	1.2
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Aluminum	240	U	ug/L	240	960
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Nickel	0.7	I	ug/L	0.25	1
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Arsenic	1.41		ug/L	0.25	1
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Copper	1.2	I	ug/L	0.5	2
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Mercury	0.12	U	ug/L	0.12	0.5
12/8/2008 11:55	South Site	ORMOND BEACH	Metals	Cadmium	0.03	U	ug/L	0.03	0.12
12/8/2008 11:55	South Site	ORMOND BEACH	Nutrients	TSS	14	I	mg/L	4	16
12/8/2008 11:55	South Site	ORMOND BEACH	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
12/8/2008 11:55	South Site	ORMOND BEACH	Nutrients	NO2NO3-N	0.061		mg N/L	0.004	0.01
12/8/2008 11:55	South Site	ORMOND BEACH	Nutrients	Cyanide	0.005	UY	mg CN/L	0.005	0.02
12/8/2008 11:55	South Site	ORMOND BEACH	Nutrients	Total-P	0.061		mg P/L	0.008	0.02
12/8/2008 11:55	South Site	ORMOND BEACH	Nutrients	Kjeldahl Nitrogen	0.7		mg N/L	0.16	0.4
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Azinphos Methyl	0.19	UJ	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Endrin Aldehyde	0.019	U	ug/L	0.019	0.076
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Ethion	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Hexazinone	0.094	UJ	ug/L	0.094	0.38
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Metolachlor	0.47	U	ug/L	0.47	1.9
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Alpha-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Beta-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	DDD-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	DDE-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Methoxychlor	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	PCB-1248	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Chlorpyrifos Methyl	0.094	U	ug/L	0.094	0.38
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Endrin	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	PCB-1242	0.28	U	ug/L	0.28	1.1
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Atrazine	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Chlorpyrifos Ethyl	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Naled	0.75	U	ug/L	0.75	3
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Parathion Methyl	0.094	U	ug/L	0.094	0.38
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Dieldrin	0.019	U	ug/L	0.019	0.076
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Endosulfan Sulfate	0.019	U	ug/L	0.019	0.076

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	PCB-1232	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Ethoprop	0.094	U	ug/L	0.094	0.38
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Metribuzin	0.094	U	ug/L	0.094	0.38
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Aldrin	0.0094	U	ug/L	0.009	0.038
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Chlordane	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Delta-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	PCB-1016	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	DDT-p,p'	0.028	U	ug/L	0.028	0.11
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Endosulfan I	0.019	U	ug/L	0.019	0.076
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Heptachlor	0.0094	U	ug/L	0.009	0.038
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	PCB-1254	0.28	U	ug/L	0.28	1.1
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Ametryn	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Metalaxyl	0.23	U	ug/L	0.23	0.92
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Norflurazon	0.14	UJ	ug/L	0.14	0.56
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Phorate	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Simazine	0.047	U	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Alachlor	0.56	U	ug/L	0.56	2.2
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Fonofos	0.094	U	ug/L	0.094	0.38
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Gamma-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Heptachlor Epoxide	0.019	U	ug/L	0.019	0.076
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	PCB-1221	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	PCB-1260	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Toxaphene	0.7	U	ug/L	0.7	2.8
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Diazinon	0.047	UJ	ug/L	0.047	0.19
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Endosulfan II	0.019	U	ug/L	0.019	0.076
12/8/2008 11:55	South Site	ORMOND BEACH	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dichlorophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.8	U	ug/L	2.8	11
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2-Nitrophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.5
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	56
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	56
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Dimethyl phthalate	9.3	UJ	ug/L	9.3	37
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Isophorone	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Phenol	0.93	U	ug/L	0.93	3.7

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrotoluene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	3,3'-Dichlorobenzidine	37	UJ	ug/L	37	150
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.8	U	ug/L	2.8	11
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.8	U	ug/L	2.8	11
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Naphthalene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Phenanthrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)anthracene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)pyrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(b)fluoranthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(k)fluoranthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Butyl benzyl phthalate	4.7	U	ug/L	4.7	19
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.5
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dimethylphenol	9.3	U	ug/L	9.3	37
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2-Chlorophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Benzidine	93	U	ug/L	93	370
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobutadiene	2.8	U	ug/L	2.8	11
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2,6-Dinitrotoluene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Hexachloroethane	2.8	U	ug/L	2.8	11
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.8	UJ	ug/L	2.8	11
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	56
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Diethyl phthalate	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Fluoranthene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobenzene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.5
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.5
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Pentachlorophenol	2.8	U	ug/L	2.8	11
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	2-Chloronaphthalene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthylene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Anthracene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Chrysene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-butyl phthalate	4.7	U	ug/L	4.7	19
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-octyl phthalate	0.93	U	ug/L	0.93	3.7

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Fluorene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Priority Organic Pollutants	Pyrene	0.93	U	ug/L	0.93	3.7
12/8/2008 11:55	South Site	ORMOND BEACH	Field Parameter	Total Residual Chlorine			mg/L		
12/8/2008 12:00	South Site	ORMOND BEACH	Metals	Beryllium	0.62		mg/Kg	0.039	0.16
12/8/2008 12:00	South Site	ORMOND BEACH	Metals	Nickel	5.93		mg/Kg	0.15	0.58
12/8/2008 12:00	South Site	ORMOND BEACH	Metals	Copper	7.66		mg/Kg	0.25	0.99
12/8/2008 12:00	South Site	ORMOND BEACH	Metals	Silver	0.11		mg/Kg	0.012	0.05
12/8/2008 12:00	South Site	ORMOND BEACH	Metals	Cadmium	0.097	U	mg/Kg	0.097	0.39
12/8/2008 12:00	South Site	ORMOND BEACH	Metals	Lead	16.5		mg/Kg	0.37	1.5
12/8/2008 12:00	South Site	ORMOND BEACH	Metals	Chromium	29		mg/Kg	0.097	0.39
12/8/2008 12:00	South Site	ORMOND BEACH	Field Parameter	pH	7.4				
12/8/2008 12:00	South Site	ORMOND BEACH	Field Parameter	Dissolved Oxygen	8.49		mg/L		
12/8/2008 12:00	South Site	ORMOND BEACH	Field Parameter	Sample Depth	0.5		m		
12/8/2008 12:00	South Site	ORMOND BEACH	Field Parameter	Total Residual Chlorine			mg/L		
12/8/2008 12:00	South Site	ORMOND BEACH	Field Parameter	Specific Conductance	41638		umhos/cm		
12/8/2008 12:00	South Site	ORMOND BEACH	Field Parameter	Temperature	16.2		C		
12/8/2008 12:00	South Site	ORMOND BEACH	Nutrients	% Solid	41.6		%		
12/8/2008 12:00	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	10.4		% vol <2mm	0	0.01
12/8/2008 12:00	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	5.57		% vol <2mm	0	0.01
12/8/2008 12:00	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	63.8		% vol <2mm	0	0.01
12/8/2008 12:00	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment % Organic	7.2		% dry wt		
12/8/2008 12:00	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	11.6		% vol <2mm	0	0.01
12/8/2008 12:00	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	8.6		% vol <2mm	0	0.01
12/8/2008 12:00	South Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	15		%tot drywt	0	1
12/8/2008 12:35	Control Site	ORMOND BEACH	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
12/8/2008 12:35	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.6	U	ug/L	0.6	1.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	2.5		mg/L	0.2	2
12/8/2008 12:35	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	7.6		ug/L	1.4	4.2
12/8/2008 12:35	Control Site	ORMOND BEACH	Overflow	Fecal Coliforms-Membrane Filter	23	B	#/100 mL	1	
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Beryllium	0.12	U	ug/L	0.12	0.5
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Zinc	17	I	ug/L	15	60
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Lead	1.2	I	ug/L	0.8	3.2
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Arsenic	2.3	I	ug/L	1	4
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Iron	1050		ug/L	90	360
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Calcium	332		mg/L	0.22	0.9
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Silver	0.04	U	ug/L	0.04	0.16
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Nickel	1	U	ug/L	1	4
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Copper	2	U	ug/L	2	8
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Selenium	2	I	ug/L	0.8	3.2
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Chromium	3.6	I	ug/L	2.8	11

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Magnesium	950		mg/L	2	8
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Cadmium	0.12	U	ug/L	0.12	0.48
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Aluminum	1320		ug/L	180	720
12/8/2008 12:35	Control Site	ORMOND BEACH	Metals	Mercury	0.12	U	ug/L	0.12	0.5
12/8/2008 12:35	Control Site	ORMOND BEACH	Nutrients	Kjeldahl Nitrogen	0.81		mg N/L	0.16	0.4
12/8/2008 12:35	Control Site	ORMOND BEACH	Nutrients	NO2NO3-N	0.006	I	mg N/L	0.004	0.01
12/8/2008 12:35	Control Site	ORMOND BEACH	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
12/8/2008 12:35	Control Site	ORMOND BEACH	Nutrients	Cyanide	0.005	UY	mg CN/L	0.005	0.02
12/8/2008 12:35	Control Site	ORMOND BEACH	Nutrients	Total-P	0.095	A	mg P/L	0.008	0.02
12/8/2008 12:35	Control Site	ORMOND BEACH	Nutrients	TSS	22	A	mg/L	4	16
12/8/2008 12:35	Control Site	ORMOND BEACH	Nutrients	O-Phosphate-P	0.049		mg P/L	0.008	0.02
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Alachlor	0.56	U	ug/L	0.56	2.2
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Chlorpyrifos Ethyl	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Hexazinone	0.093	UJ	ug/L	0.093	0.37
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Chlordane	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	DDD-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	PCB-1232	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Ethion	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Aldrin	0.0093	U	ug/L	0.009	0.037
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Parathion Methyl	0.093	U	ug/L	0.093	0.37
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Simazine	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Endosulfan I	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Atrazine	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Diazinon	0.047	UJ	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	PCB-1260	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Toxaphene	0.7	U	ug/L	0.7	2.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Fonofos	0.093	U	ug/L	0.093	0.37
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Metribuzin	0.093	U	ug/L	0.093	0.37
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Naled	0.75	U	ug/L	0.75	3
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Beta-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Endrin	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Gamma-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Heptachlor	0.0093	U	ug/L	0.009	0.037
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Methoxychlor	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	PCB-1242	0.28	U	ug/L	0.28	1.1
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Norflurazon	0.14	UJ	ug/L	0.14	0.56
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Phorate	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Alpha-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	DDT-p,p'	0.028	U	ug/L	0.028	0.11
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Delta-BHC	0.0093	U	ug/L	0.009	0.037
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Endosulfan Sulfate	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Endrin Aldehyde	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	PCB-1248	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Ametryn	0.047	U	ug/L	0.047	0.19
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Ethoprop	0.093	U	ug/L	0.093	0.37
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Metalaxyl	0.23	U	ug/L	0.23	0.92
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	DDE-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Endosulfan II	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Heptachlor Epoxide	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	PCB-1221	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	PCB-1254	0.28	U	ug/L	0.28	1.1
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Azinphos Methyl	0.19	UJ	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Chlorpyrifos Methyl	0.093	U	ug/L	0.093	0.37
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Metolachlor	0.47	U	ug/L	0.47	1.9
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	Dieldrin	0.019	U	ug/L	0.019	0.076
12/8/2008 12:35	Control Site	ORMOND BEACH	Pesticides	PCB-1016	0.19	U	ug/L	0.19	0.76
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.8	U	ug/L	2.8	11
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-butyl phthalate	4.7	U	ug/L	4.7	19
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Fluoranthene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-octyl phthalate	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Fluorene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Phenanthrene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Pyrene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dimethylphenol	9.4	U	ug/L	9.4	38
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,6-Dinitrotoluene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthylene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Chrysene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Diethyl phthalate	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Dimethyl phthalate	9.4	UJ	ug/L	9.4	38
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.5
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.94	U	ug/L	0.94	3.8

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Nitrophenol	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.8	U	ug/L	2.8	11
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachloroethane	2.8	U	ug/L	2.8	11
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.5
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Anthracene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(b)fluoranthene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Butyl benzyl phthalate	4.7	U	ug/L	4.7	19
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobenzene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobutadiene	2.8	U	ug/L	2.8	11
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Chlorophenol	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)anthracene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)pyrene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(k)fluoranthene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.8	U	ug/L	2.8	11
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.5
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrotoluene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Naphthalene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dichlorophenol	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Chloronaphthalene	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzidine	94	U	ug/L	94	380
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Isophorone	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.5
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.8	UJ	ug/L	2.8	11
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Pentachlorophenol	2.8	U	ug/L	2.8	11
12/8/2008 12:35	Control Site	ORMOND BEACH	Priority Organic Pollutants	Phenol	0.94	U	ug/L	0.94	3.8
12/8/2008 12:35	Control Site	ORMOND BEACH	Field Parameter	Specific Conductance	41485		umhos/cm		
12/8/2008 12:35	Control Site	ORMOND BEACH	Field Parameter	Dissolved Oxygen	8.4		mg/L		
12/8/2008 12:35	Control Site	ORMOND BEACH	Field Parameter	Sample Depth	0.5		m		
12/8/2008 12:35	Control Site	ORMOND BEACH	Field Parameter	Temperature	15.8		C		
12/8/2008 12:35	Control Site	ORMOND BEACH	Field Parameter	pH	7.5				
12/8/2008 12:40	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	79.8	A	% vol <2mm	0	0.01
12/8/2008 12:40	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	12.4	A	% vol <2mm	0	0.01

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 12:40	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	0.365	A	% vol <2mm	0	0.01
12/8/2008 12:40	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	1.92	A	% vol <2mm	0	0.01
12/8/2008 12:40	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment % Organic	32	A	% dry wt		
12/8/2008 12:40	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	5.38	A	% vol <2mm	0	0.01
12/8/2008 12:40	Control Site	ORMOND BEACH	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	1	K	%tot drywt	0	1
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Chromium	67		mg/Kg	0.099	0.4
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Copper	17.2		mg/Kg	0.24	0.98
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Lead	38.2		mg/Kg	0.37	1.5
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Beryllium	1.5		mg/Kg	0.04	0.16
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Cadmium	0.099	U	mg/Kg	0.099	0.4
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Mercury	0.15		mg/Kg	0.016	0.068
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Silver	0.31		mg/Kg	0.012	0.049
12/8/2008 12:40	Control Site	ORMOND BEACH	Metals	Nickel	14.3		mg/Kg	0.15	0.59
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	PCB-1260	45	U	ug/Kg	45	180
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	DDD-p,p'	0.45	U	ug/Kg	0.45	1.8
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	DDE-p,p'	0.45	U	ug/Kg	0.45	1.8
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Endrin	1.1	U	ug/Kg	1.1	4.4
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Heptachlor	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Bromacil	30	U	ug/kg	30	120
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Chlorpyrifos Ethyl	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Fenamiphos	30	U	ug/kg	30	120
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Metolachlor	45	U	ug/kg	45	180
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Norflurazon	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Simazine	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	PCB-1232	67	U	ug/Kg	67	270
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Beta-BHC	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Chlordane	3.4	U	ug/Kg	3.4	14
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Gamma-Chlordane	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Methoxychlor	1.1	U	ug/kg	1.1	4.4
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Mirex	0.89	U	ug/kg	0.89	3.6
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Alachlor	45	U	ug/kg	45	180
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Ametryn	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Atrazine	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Fonofos	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Malathion	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Methamidophos	75	U	ug/kg	75	300
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Parathion Methyl	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	PCB-1016	45	U	ug/Kg	45	180
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	PCB-1221	30	U	ug/Kg	30	120
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	PCB-1248	30	U	ug/Kg	30	120
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Delta-BHC	0.45	U	ug/Kg	0.45	1.8

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Hexachlorobenzene	0.45	U	ug/Kg	0.45	1.8
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Chlorpyrifos Methyl	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Ethoprop	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Naled	60	UJ	ug/kg	60	240
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	PCB-1254	30	U	ug/Kg	30	120
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Aldrin	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Endosulfan Sulfate	0.45	U	ug/Kg	0.45	1.8
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Gamma-BHC	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Phorate	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	DDT-p,p'	0.67	U	ug/Kg	0.67	2.7
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Endosulfan I	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Azinphos Methyl	22	U	ug/kg	22	88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Diazinon	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Hexazinone	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Parathion Ethyl	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	PCB-1242	45	U	ug/Kg	45	180
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Alpha-BHC	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Dieldrin	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Endosulfan II	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Heptachlor Epoxide	0.22	U	ug/kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Toxaphene	17	U	ug/Kg	17	68
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Ethion	7.5	U	ug/kg	7.5	30
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Prometryn	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Endrin Aldehyde	0.45	U	ug/Kg	0.45	1.8
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Alpha-Chlordane	0.22	U	ug/Kg	0.22	0.88
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Endrin Ketone	0.45	U	ug/Kg	0.45	1.8
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Metribuzin	15	U	ug/kg	15	60
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Mevinphos	30	U	ug/kg	30	120
12/8/2008 12:40	Control Site	ORMOND BEACH	Pesticides	Monocrotophos	75	U	ug/kg	75	300
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Pyrene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)anthracene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(b)fluoranthene	340	I	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethyl)ether	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobutadiene	810	UJ	ug/kg	810	3200
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Naphthalene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(g,h,i)perylene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-octyl phthalate	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Dimethyl phthalate	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Fluorene	270	U	ug/kg	270	1100

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorocyclopentadiene	270	UJ	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Anthracene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Azobenzene/1,2-Diphenylhydrazine	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzidine	5800	U	ug/kg	5800	22000
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Isophorone	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodimethylamine	1600	U	ug/kg	1600	6400
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Phenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Nitrophenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Nitrophenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)pyrene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Nitrobenzene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4,6-Trichlorophenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dimethylphenol	1600	U	ug/kg	1600	6400
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrotoluene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Chlorophenol	810	U	ug/kg	810	3200
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Bromophenyl phenyl ether	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1600	U	ug/kg	1600	6400
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Butyl benzyl phthalate	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dichlorophenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2-Chloronaphthalene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	3,3'-Dichlorobenzidine	16000	UJ	ug/kg	16000	64000
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	4-Chloro-3-methylphenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Acenaphthylene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Diethyl phthalate	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachloroethane	810	UJ	ug/kg	810	3200
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Di-n-butyl phthalate	1600	U	ug/kg	1600	6400
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Fluoranthene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Pentachlorophenol	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Phenanthrene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	1,2,4-Trichlorobenzene	810	U	ug/kg	810	3200
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrophenol	1600	U	ug/kg	1600	6400
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	2,6-Dinitrotoluene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Benzo(k)fluoranthene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Chrysene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Dibenzo(a,h)anthracene	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobenzene	270	U	ug/kg	270	1100

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 12:40	Control Site	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	270	U	ug/kg	270	1100
12/8/2008 12:40	Control Site	ORMOND BEACH	Nutrients	% Solid	22.3		%		
12/8/2008 9:30	Blank	ORMOND BEACH	Overflow	Fecal Coliforms-Membrane Filter			#/100 mL		
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Nickel	0.26	I	ug/L	0.25	1
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Aluminum	60	U	ug/L	60	240
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Lead	0.2	U	ug/L	0.2	0.8
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Arsenic	0.25	U	ug/L	0.25	1
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Selenium	0.2	U	ug/L	0.2	0.8
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Zinc	5	U	ug/L	5	20
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Calcium	0.075	U	mg/L	0.075	0.3
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Mercury	0.12	U	ug/L	0.12	0.5
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Iron	30	U	ug/L	30	120
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Chromium	0.7	U	ug/L	0.7	2.8
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Cadmium	0.03	U	ug/L	0.03	0.12
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Copper	0.5	U	ug/L	0.5	2
12/8/2008 9:30	Blank	ORMOND BEACH	Metals	Silver	0.01	U	ug/L	0.01	0.04
12/8/2008 9:30	Blank	ORMOND BEACH	Nutrients	Ammonia-N	0.012	I	mg N/L	0.01	0.02
12/8/2008 9:30	Blank	ORMOND BEACH	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
12/8/2008 9:30	Blank	ORMOND BEACH	Nutrients	Cyanide	0.005	UY	mg CN/L	0.005	0.02
12/8/2008 9:30	Blank	ORMOND BEACH	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
12/8/2008 9:30	Blank	ORMOND BEACH	Nutrients	O-Phosphate-P	0.004	I	mg P/L	0.004	0.01
12/8/2008 9:30	Blank	ORMOND BEACH	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Alachlor	0.56	U	ug/L	0.56	2.2
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Ethoprop	0.094	U	ug/L	0.094	0.38
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Naled	0.75	U	ug/L	0.75	3
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Beta-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	DDE-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Heptachlor	0.0094	U	ug/L	0.009	0.038
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	PCB-1016	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Chlorpyrifos Ethyl	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Aldrin	0.0094	U	ug/L	0.009	0.038
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Alpha-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	DDD-p,p'	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Methoxychlor	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	PCB-1260	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Diazinon	0.047	UJ	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Parathion Methyl	0.094	U	ug/L	0.094	0.38
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Phorate	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Chlordane	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	PCB-1232	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Metribuzin	0.094	U	ug/L	0.094	0.38
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Norflurazon	0.14	UJ	ug/L	0.14	0.56
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Endosulfan II	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Endrin Aldehyde	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	PCB-1254	0.28	U	ug/L	0.28	1.1
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Toxaphene	0.71	U	ug/L	0.71	2.8
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Ametryn	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Fonofos	0.094	U	ug/L	0.094	0.38
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Hexazinone	0.094	UJ	ug/L	0.094	0.38
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	DDT-p,p'	0.028	U	ug/L	0.028	0.11
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Endrin	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Gamma-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Heptachlor Epoxide	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Chlorpyrifos Methyl	0.094	U	ug/L	0.094	0.38
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Endosulfan Sulfate	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	PCB-1242	0.28	U	ug/L	0.28	1.1
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	PCB-1248	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Metolachlor	0.47	U	ug/L	0.47	1.9
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Simazine	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Delta-BHC	0.0094	U	ug/L	0.009	0.038
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Endosulfan I	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Atrazine	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Azinphos Methyl	0.19	UJ	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Ethion	0.047	U	ug/L	0.047	0.19
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	Dieldrin	0.019	U	ug/L	0.019	0.076
12/8/2008 9:30	Blank	ORMOND BEACH	Pesticides	PCB-1221	0.19	U	ug/L	0.19	0.76
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Acenaphthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	11
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Dimethyl phthalate	9.5	UJ	ug/L	9.5	38
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Diethyl phthalate	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	UJ	ug/L	2.9	11
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)pyrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Chrysene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Fluorene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Naphthalene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Acenaphthylene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Phenanthrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Benzo(a)anthracene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Benzo(b)fluoranthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Benzo(k)fluoranthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Pyrene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Fluoranthene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	11
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6

Date_Sampled	UDL	Station	SCH_Group	Component	Value	Qualifier	Units_Word_Result	MDL	PQL
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Anthracene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
12/8/2008 9:30	Blank	ORMOND BEACH	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8

Appendix F

Toxicological results

FDEP Biology Laboratory - Acute Definitive Bioassay Bench Sheets

Facility: Ormond Beach Wastewater Treatment Facility (WWTF)
Address: 550 North Orchard Street
City: Ormond Beach County: Volusia
Contact/District: Phil Kane / Central
NPDES Permit #: FL 0020532
LIMS Job #: TLH-2008-12-09-55 LIMS Sample #: 1152076
Lims Data Entry: 12.29.08 Data Entry Verification: 12.29.08 JD

Sample Collection: Date: 12-8-08 Time: 1235
Hold Time Start: Date: 12-8-08 Time: 1235

Comments: digest of sample dechlorinated by addition of 0.6 mL/L sodium thiosulfate 100% mortality to C. dubia 100% sample at 24 hours MF 12-11-08 (and C. leeli)
Tests not renewed at 48 hours due to lack of renewal sample (containers damaged in shipping) MF 12-11-2008
(A) Transcription error BA 1-27-09

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

Test Type: (Definitive) (Static) Static Renewal / Flow-through
Test Duration: (48) 96 Hours.
Light Intensity : 50 - 100 ft. candles.
Photoperiod : 16 hours light 8 hours dark.

Test 1 validation: Test 1: SOP TA 07_01
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Test 2 validation: Test 2: SOP TA 07_02
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Initial sample handling:

PH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____
Aeration : yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____bubbles/min
Salinity adjusted (Test 1): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Salinity adjusted (Test 2): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Dechlorination: (yes) no 0.6 mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: <0.03

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) Yes No
Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Light Intensity : 50 - 100 ft. candles
Photoperiod : 16 light 8 dark
Temperature Range °C:
Incubator # 2 min. 25.5 max. 26.2 mean 25.9
Incubator # ____ min. ____ max. ____ mean ____
Room B246 min. 24.9 max. 26.1 mean 25.5
Tests incubated in Incubator #2.

Investigators' Signatures
Marshall Faircloth
Jason Dowd
Bruce Alexander (A)
Bruce Alexander
Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW Batch 11-25-08	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other: Dechlorinated Sample	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	—	2.5	—	Kane/Kent	BA by MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03	—	—	<0.03	0.53	HACH	MF/JD	JD/MF
Alkalinity (mg/L as $CaCO_3$):	88	150	—	—	—	319	HACH	BA	MF
Hardness (mg/L as $CaCO_3$):	111	160	—	—	—	320	HACH	BA	MF
Total Ammonia (mg/L as N):	<0.017	<0.017	—	—	—	0.225	DENVER	MF	MF
Salinity (ppth):	<1	<1	—	—	0.64	0.64	YSI (Mettler)	MF	BA

V 1.4 9/12/05

Page 000029

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1152076 Test #: 1 Test Started: Date 12-9-08 Time: 1440
Organism: C. dubia SOP #: TA 07_ 01 Test Ended: Date 12-11-08 Time: 1310
Organism Batch: 44.08 Diluent/ Batch: 20% DMW / 11-25-08
Organism Age: <24hrs Food: (YCT) (P. subcapitata) Artemia
Chamber Size: 30 mL Batch: 6-18-08 7-18-08
Test Volume: 20 mL Feeding: (Prior to test) Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Control	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
6.25% decl	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
12.5% decl	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
25% decl	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
50% decl	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
100% decl	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Decl Control -	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Organisms loaded by: MF		Checked by:	MF	BA	MF			
Loading Verified by: BA								

m = missing d = dead BR = before renewal AR = after renewal
Dechlorinated LC50 = >100% mortality MF 12/11/08

Comments: DECL = dechlorinated
100% sample = dilution

Rep	0 h	24h	48h
A	5	0	0
B	5	0	0
C	5	0	0
D	5	0	0

Test Results:
% mortality in 100% sample: 100%
LC_{50}: >100% If Calculated: 95% CI _____ Method: _____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Page 000030

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1152076 Test #: 2 Test Started: Date 12-9-08 Time: 15:45
Organism: C. leedsi SOP #: TA 07_02 Test Ended: Date 12-11-08 Time: 1400
Organism Batch: 12-9-08 Diluent/ Batch: well H2O / 12-8-08
Organism Age: 11 days Food: YCT P. subcapitata Artemia 38438 Lot H Batch - 179
Chamber Size: 1000 mL Batch: _____ _____
Test Volume: 500 mL Feeding: (Prior to test) - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	F1	10	10	10			
	B	F2	10	10	10			
6.25% decl	A	F5	10	10	10			
	B	F6	10	10	10			
12.5% decl	A	F7	10	9 10	9			
	B	F8	10	10	10			
25% decl	A	F9	10	10	10			
	B	F10	10	10	10			
			+ BA					
50% decl	A	F11	10	10	10			
	B	F12	10	10	10			
100% decl	A	F13	10	10	10			
	B	F14	10	10	10			
Dcl ctrl	F3 A	F3	10	10	10			
	F4 B	F4	10	10	10			
Chlorinated Dcl 100% MG 12-9-08	A	F16	10	0 10D	–			
	B	F17	10	0 10D	–			
Organisms loaded by: BA		Checked by: MF		BA	BA			
Loading Verified by: MA								

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

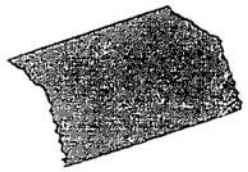
Comments: decl = declorinated

Dechlorinated LC50 >100% Ø mortality MG - 12-11-08

Test Results:
% mortality in 100% sample: 100%
LC_{50}: <100% If Calculated: 95% CI _____ Methcd: _____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet



LIMS Sample #: 1152076 **Test #:** 2nd rerun # 11-1108 2nd of 2

TEST SOP #: TA07_02 **Test Species:** ~~*Ceriodaphnia dubia*~~ *Cyprinella leedsi* ~~*Pimephales promelas*~~ *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration ~~Ctrl~~ GA Ctr 1	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B	A			
pH (S.U.)	7.9	8.0	8.0			
Temperature °C	24.3	25.3	24.7			
Dissolved Oxygen mg/L	7.5	6.6	6.1			
Conductivity ~~µmhos~~ mmhos	279	286	296			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	BA	BA			

Comments: CTrL = control
DCl = dechlorinated

Concentration 6.25% DCL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B	A			
pH (S.U.)	8.0	8.1	8.2			
Temperature °C	24.2	24.9	24.6			
Dissolved Oxygen mg/L	7.6	6.5	6.3			
Conductivity ~~µmhos~~ mmhos	342	350	358			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	BA	BA			

Comments:

Concentration DCl 12.5%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B	A			
pH (S.U.)	8.0	8.1	8.2			
Temperature °C	24.1	25.2 BA ~~25.2~~	25.2			
Dissolved Oxygen ~~mg/L~~	7.6	6.5	6.3			
Conductivity ~~µmhos~~ mmhos	410	413	435			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	BA	BA			

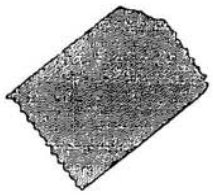
Comments:

Concentration 25% DCL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B	A			
pH (S.U.)	8.0	8.1	8.3			
Temperature °C	24.1	25.2	25.4			
Dissolved Oxygen mg/L	7.6	6.6	6.2			
Conductivity ~~µmhos~~ mmhos	546	542	517			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	BA	BA			

Comments:

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet



LIMS Sample # : 1152076 **Test #:** 1 of 2 (2nd 12-1-08 wrong sp. 1st 12-1-08)

TEST SOP #: TA07_02 **Test Species:** ~~*Ceriodaphnia dubia*~~ *Cyprinella leedsi* ~~*Pimephales promelas*~~ (wrong species 1st 12-1-08) *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration DCl 50%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B	A			
pH (S.U.)	7.9	8.1	8.4			
Temperature °C	24.0	25.0	25.3			
Dissolved Oxygen mg/L	7.6	6.5	6.3			
Conductivity (µmhos) mmhos	820	803	827			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	BA	BA			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B				
pH (S.U.)	7.8	8.1				
Temperature °C	24.0	24.8				
Dissolved Oxygen mg/L	7.5	6.3				
Conductivity (µmhos) mmhos	1349	DB				
(initials) Measured by:	BA	BA				
(initials) Recorded by:	BA	BA				

Comments:

DCl = dechlorinated

CTrL = control

Concentration DCl Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B	A			
pH (S.U.)	8.0	8.2	8.2			
Temperature °C	24.0	24.8	24.9			
Dissolved Oxygen mg/L	7.8	6.7	6.5			
Conductivity (µmhos) mmhos	281	292	292			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	BA	BA			

Comments:

Concentration DCl 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	B	A			
pH (S.U.)	7.8	8.1	8.4			
Temperature °C	24.0	24.9	25.3			
Dissolved Oxygen mg/L	7.2	SH	6.2			
Conductivity (µmhos) mmhos	1379	1307	1353			
(initials) Measured by:	BA	BA	BA			
(initials) Recorded by:	BA	BA	BA			

Comments:

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1152076 Test #: 1 of 2

TEST SOP #: TA07_ 0701 MF 4/20/08 Test Species: (Ceriodaphnia dubia) Cyprinella leedsi Pimephales promelas Americamysis bahia Menidia beryllina Other:_____

Concentration ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A			
pH (S.U.)	8.1		8.3			
Temperature °C	24.1	(B) 24.9	24.6			
Dissolved Oxygen mg/L	7.5	–	7.3			
Conductivity (µmhos) mmhos	179		195			
(initials) Measured by:	BA	BA	MF			
(initials) Recorded by:	BA	BA	MF			

Comments: CTRL = Control
DCL = dechlorinated

Concentration 6.25%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A			
pH (S.U.)	8.1		8.3			
Temperature °C	24.0	(B) 24.6	24.5			
Dissolved Oxygen mg/L	7.5		7.5			
Conductivity (µmhos) mmhos	~~45.4~~ 258	BA	272			
(initials) Measured by:	BA	BA	MF			
(initials) Recorded by:	BA	BA	MF			

Comments:

Concentration 12.5%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A			
pH (S.U.)	8.1		8.2			
Temperature °C	24.0	(B) 24.5	~~24.5~~ 24.4 MF Started DO in STP 12.11.08			
Dissolved Oxygen mg/L	7.5		7.5			
Conductivity (µmhos) mmhos	335		359			
(initials) Measured by:	BA	BA	MF			
(initials) Recorded by:	BA	BA	MF			

Comments:

Concentration 25%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A			
pH (S.U.)	8.1		8.2			
Temperature °C	24.0	(B) 24.4	24.5			
Dissolved Oxygen mg/L	7.6		7.4			
Conductivity (µmhos) mmhos	485		513			
(initials) Measured by:	BA	BA	MF			
(initials) Recorded by:	BA	BA	MF			

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1152076 **Test #:** 1 of 2

TEST SOP #: TA07_ QA wrong# mf wrong# 12-4-06 **Test Species:** (Ceriodaphnia dubia) *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration 50%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A			
pH (S.U.)	8.0		8.3			
Temperature °C	24.0	24.4 (A)	24.4			
Dissolved Oxygen mg/L	7.6		7.4			
Conductivity (µmhos) mmhos	764		823			
(initials) Measured by:	BA	BA	MF			
(initials) Recorded by:	BA	BA	MF			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A				
pH (S.U.)	7.9	8.5				
Temperature °C	24.0	24.3				
Dissolved Oxygen mg/L	7.6	6.8				
Conductivity (µmhos) mmhos	1346	1329				
(initials) Measured by:	BA	BA				
(initials) Recorded by:	BA	BA				

Comments:

DCL = dechlorinated

CTRL = control

Concentration DCL CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A			
pH (S.U.)	7.5		8.3			
Temperature °C	24.0	24.9 (A)	24.3			
Dissolved Oxygen mg/L	7.7		7.4			
Conductivity (µmhos) mmhos	205		215			
(initials) Measured by:	BA	BA	MF			
(initials) Recorded by:	BA	BA	MF			

Comments:

Concentration 100% DCL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A			
pH (S.U.)	7.7		8.5			
Temperature °C	24.0	(A) 25.0	24.4			
Dissolved Oxygen mg/L	7.7		7.3			
Conductivity (µmhos) mmhos	1341		1374			
(initials) Measured by:	BA	BA	MF			
(initials) Recorded by:	BA	BA	MF			

Comments: (A) Temperatures measured @ 24 hrs not needed

V 2.0 2/24/04

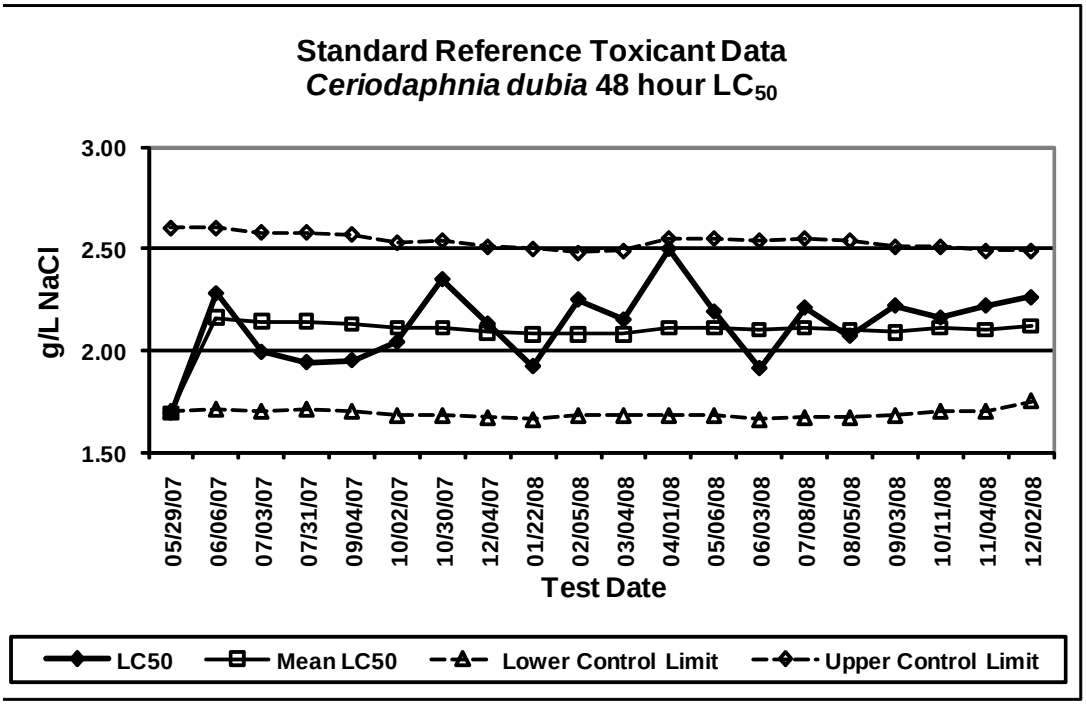
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Ceriodaphnia dubia (water flea) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
05/29/07	1.69	1.69	0.23	1.70	2.60
06/06/07	2.28	2.16	0.22	1.71	2.60
07/03/07	1.99	2.14	0.22	1.70	2.58
07/31/07	1.94	2.14	0.22	1.71	2.58
09/04/07	1.95	2.13	0.22	1.70	2.57
10/02/07	2.04	2.11	0.21	1.68	2.53
10/30/07	2.35	2.11	0.21	1.68	2.54
12/04/07	2.13	2.09	0.20	1.67	2.51
01/22/08	1.92	2.08	0.20	1.66	2.50
02/05/08	2.25	2.08	0.20	1.68	2.48
03/04/08	2.15	2.08	0.20	1.68	2.49
04/01/08	2.50	2.11	0.22	1.68	2.55
05/06/08	2.19	2.11	0.22	1.68	2.55
06/03/08	1.91	2.10	0.22	1.66	2.54
07/08/08	2.21	2.11	0.22	1.67	2.55
08/05/08	2.07	2.10	0.22	1.67	2.54
09/03/08	2.22	2.09	0.21	1.68	2.51
10/11/08	2.16	2.11	0.20	1.70	2.51
11/04/08	2.22	2.10	0.20	1.70	2.49
12/02/08	2.26	2.12	0.19	1.75	2.49

Means are of the last 20 SRT tests.
Lower Control Limit = mean - 2 * Std Dev
Upper Control Limit = mean + 2 * Std Dev

CV = 8.73
EPA reference 75th quartile CV = 29%



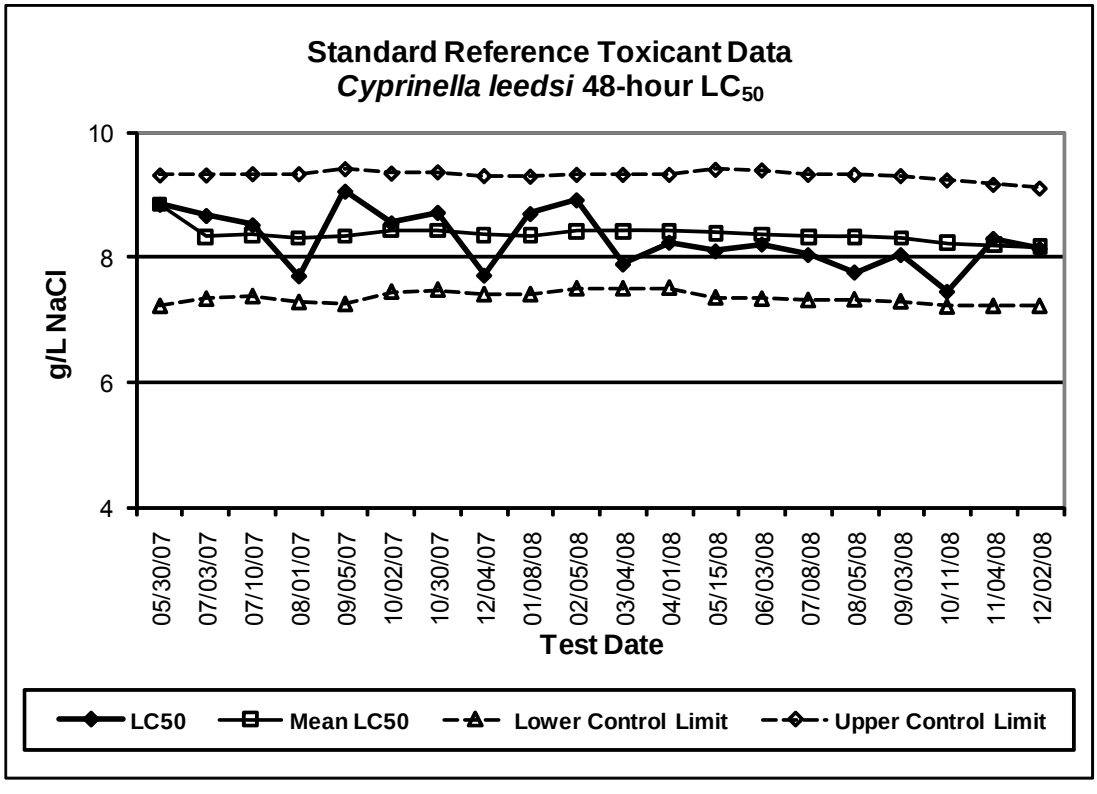
Florida Department of Environmental Protection
Bureau of Laboratories

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

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
05/30/07	8.85	8.85	0.52	7.23	9.32
07/03/07	8.67	8.33	0.50	7.34	9.32
07/10/07	8.52	8.36	0.49	7.38	9.34
08/01/07	7.7	8.31	0.51	7.29	9.34
09/05/07	9.06	8.34	0.54	7.26	9.42
10/02/07	8.55	8.43	0.47	7.45	9.35
10/30/07	8.72	8.43	0.47	7.48	9.37
12/04/07	7.71	8.36	0.47	7.41	9.31
01/08/08	8.7	8.35	0.47	7.41	9.30
02/05/08	8.92	8.42	0.46	7.50	9.33
03/04/08	7.89	8.42	0.46	7.50	9.33
04/01/08	8.24	8.42	0.45	7.51	9.33
05/15/08	8.1	8.39	0.51	7.36	9.41
06/03/08	8.21	8.37	0.51	7.34	9.40
07/08/08	8.04	8.33	0.50	7.32	9.33
08/05/08	7.76	8.33	0.50	7.33	9.33
09/03/08	8.04	8.31	0.50	7.30	9.31
10/11/08	7.45	8.23	0.51	7.22	9.24
11/04/08	8.3	8.20	0.48	7.23	9.17
12/02/08	8.14	8.17	0.47	7.23	9.11

Means are of the last 20 SRT tests.
Lower Confidence Limit = mean - 2 * Std Dev
Upper Confidence Limit = mean + 2 * Std Dev

CV = 5.76
EPA reference 75th quartile CV = 19%



Appendix G

Habitat Assessment Field Sheets

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (Version 5)

SUBMITTING AGENCY CODE: FDEP / SUBMITTING AGENCY NAME: FDEP CENTRAL	STORET STATION NUMBER:	DATE (M/D/Y): 12/8/08	TIME	RECEIVING BODY OF WATER: HALIFAX TO ATLANTIC

REMARKS:	LOCATION: NORTH OF DIFFUSER ORMOND BEACH WWTP	FIELD ID/NAME: OB NORTH

RIPARIAN ZONE/INSTREAM FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
1				95	2	2	

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

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

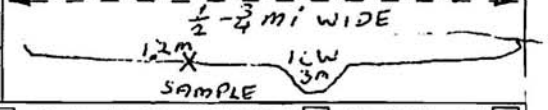
Width of riparian vegetation (m) on least buffered side: < 2m

List & map dominant vegetation on back

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

High Water Mark (m above bed): ~2.5

Typical Width (m)/Depth (m) /Velocity (m/sec) Transect (draw cross-section & provide at least 3 velocity & depth values)



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	5	5	PETITE PONAR
Leaf Packs or Mats				Mud/Muck/Silt	80	5	"
Aquatic Vegetation				Other: SHELL HASH	15		"
Rock or Shell Rubble				Other:			
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):			Secchi (m):
Top								>1.2
Mid-depth								
Bottom								

ON SURFACE SHEEN

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: SUNNY 10% OVERCAST

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

SAMPLING TEAM:	SIGNATURE:	DATE:
KENT / RANE / DAVID SCHARR	Steven J. Kent	12/8/08

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

SUBMITTING AGENCY CODE: FDEP SUBMITTING AGENCY NAME: Bureau of Laboratories	STORET STATION NUMBER:	DATE (M/D/Y): 12/8/08	RECEIVING BODY OF WATER: HALIFAX TO ATLATIC

REMARKS:	LOCATION: HALIFAX RIVER	FIELD ID/NAME:
OB WWTP NORTH	ORMOND BEACH NORTH	

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 26	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 2	>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 6	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 57

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
12/8/08	S. KENT	Steven T. Kent / Phil Kent

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (Version 5)

SUBMITTING AGENCY CODE: FDEP SUBMITTING AGENCY NAME: FDEP CENTRAL	STORET STATION NUMBER:	DATE (M/D/Y): 12/8/08	TIME	RECEIVING BODY OF WATER: HALIFAX TO ATLANTIC

REMARKS:	LOCATION: HALIFAX 250FT → ORMOND BEACH SOUTH	FIELD ID/NAME: O.B. SOUTH

RIPARIAN ZONE/INSTREAM FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
1				95	2	2	

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

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

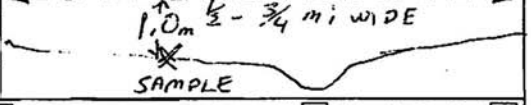
Width of riparian vegetation (m) on least buffered side: 0

List & map dominant vegetation on back

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

High Water Mark (m above bed): .25 m

Typical Width (m)/Depth (m) /Velocity (m/sec) Transect (draw cross-section & provide at least 3 velocity & depth values)



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	5		
Leaf Packs or Mats				Mud/Muck/Silt	75	5	1 DIVER
Aquatic Vegetation				Other: SHELL HASH	20		
Rock or Shell Rubble				Other:			
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):			Secchi (m):
Top								1.6
Mid-depth								
Bottom								

ON SUBMITTED SHEET

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:

CLEAR WARM

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

SAMPLING TEAM: KENT / KANE / DAVID SCHARR	SIGNATURE: Steven J. Kent	DATE: 12/8/08

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

SUBMITTING AGENCY CODE: FDEP SUBMITTING AGENCY NAME: FDEP Cocoa	STORET STATION NUMBER:	DATE (M/D/Y): 12/8/08	RECEIVING BODY OF WATER: HALIFAX TO ATLANTIC

REMARKS:	LOCATION: HALIFAX RIVER 230 FT SOUTH O.B. WWTP	FIELD ID/NAME: O.B. SOUTH

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 26	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 2	>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 4	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 6	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

Sheryl Swanson

TOTAL SCORE 51

COMMENTS: LOTS OF MUSSEL SHELLS

ANALYSIS DATE:	ANALYST:	SIGNATURE:
12/8/08	S. KENT	Susan L. Kent

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (Version 5)

SUBMITTING AGENCY CODE: FDEP / SUBMITTING AGENCY NAME: FDEP CENTRAL	STORET STATION NUMBER:	DATE (M/D/Y): 12/8/08	TIME: ON SUB-SHEET	RECEIVING BODY OF WATER: HALIFAX TO ATLANTIC

REMARKS:	LOCATION:	FIELD ID/NAME:
OPPOSITE SIDE OF RIVER	HALIFAX REFERENCE ORMOND BEACH WWTP	OB REFF.

RIPARIAN ZONE/INSTREAM FEATURES

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

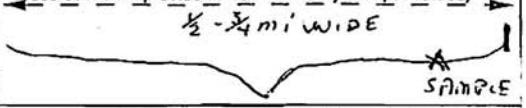
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
				98	1	1	

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

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

Width of riparian vegetation (m) on least buffered side: 0 — *List & map dominant vegetation on back*

Typical Width (m)/Depth (m) /Velocity (m/sec) Transect (draw cross-section & provide at least 3 velocity & depth values)



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

Artificially Impounded ☐ yes

High Water Mark (m above bed): .25

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			
Leaf Packs or Mats				Mud/Muck/Silt	100	5	POND
Aquatic Vegetation				Other:			
Rock or Shell Rubble				Other:			
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):			Secchi (m):
Top								1.3
Mid-depth								
Bottom								

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:

CLEAR

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

SAMPLING TEAM:	SIGNATURE:	DATE:
KENT / KANE / DAVID SCHARR	Steven S Kent	12/8/08

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

SUBMITTING AGENCY CODE: FDEP SUBMITTING AGENCY NAME: FDEP CENTRAL	STORET STATION NUMBER:	DATE (M/D/Y): 12/8/08	RECEIVING BODY OF WATER: HALIFAX TO ATLANTIC

REMARKS:	LOCATION: HALIFAX RIVER QB. REFFERENCE	FIELD ID/NAME: QB. REF

Habitat Parameter score	Excellent	Good	Fair	Poor
Littoral Alterations 3	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 18	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 2	>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 3	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 39

COMMENTS: POSSIBLE PROPWASH EFFECTS FROM LARGE BOATS DOCKED NEARBY

ANALYSIS DATE:	ANALYST:	SIGNATURE:
12/8/08	STEVE KENT	Steve L. Kent / P. Kane / DAVE SCHNEIDER

Appendix H-1

Benthic macroinvertebrates collected from ponar samples at North and South Sites bracketing the Ormond Beach facility's effluent discharge pipe and from an across-river Control Site (12/8/08). 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.

	North	South	Control
Annelida			
Oligochaeta			
Tubificidae	-	33	-
Polychaeta			
Ampharetidae	-	8	-
Aricidea fragilis	17	8	-
Capitella sp.	-	17	-
Eteone heteropoda	-	8	-
Glycinde sp.	8	8	-
Hesionidae	50	34	50
Heteromastus sp.	-	-	8
Heteromastus filiformis	-	183	-
Leitoscoloplos robustus	-	-	92
Marphysa sp.	-	25	-
Mediomastus sp.	3,808	-	125
Mediomastus californiensis	-	1,933	-
Onuphidae	8	25	-
Paraprionospio pinnata	34	8	58
Streblospio sp.	200	42	83
Arthropoda			
Crustacea			
Amphipoda			
Ampelisca abdita	-	-	8
Cerapus sp.	-	17	-
Cumacea			
Cyclaspis sp. B	-	25	-
Cyclaspis sp. C	25	-	-
Cyclaspis varians	58	83	-
Decapoda			
Ogyrides alphaerostris	25	-	-
Isopoda			
Edotea triloba	-	8	-
Mysidacea			
Bowmaniella floridana	-	8	-
Cnidaria			
Unidentified Hydrozoa	-	8	-

Appendix H-1 (continued)

	North	South	Control
Mollusca			
Bivalvia			
Amygdalum papyrium	9	59	-
Mactridae	569	414	113
Mysella planulata	-	17	-
Tellinidae	54	59	28
Veneridae	9	9	-
Gastropoda			
Acteocina canaliculata	17	33	-
Acteocinidae	-	-	8
Astyris lunata	-	17	-
Crepidula sp.	-	67	-
Nassarius sp.	8	-	-
Nassarius vibex	-	17	-
Rictaxis punctostriatus	67	8	-
Sayella fusca	-	8	-
Vitrinellidae	-	8	-
Nemertea			
Unidentified Nemertea	117	250	-

Appendix H-2

Benthic macroinvertebrates collected in ponar samples at North and South Sites bracketing the Ormond Beach facility's effluent discharge pipe and from an across-river Control Site (12/8/08). Taxa collected and total number of individuals counted (n = 5 samples/site).

	North	South	Control
Annelida			
Oligochaeta			
Tubificidae	-	4	-
Polychaeta			
Ampharetidae	-	1	-
Aricidea fragilis	2	1	-
Capitella sp.	-	2	-
Capitellidae	2	-	-
Eteone heteropoda	-	1	-
Glycinde sp.	1	1	-
Hesionidae	6	4	6
Heteromastus sp.	-	9	1
Heteromastus filiformis	-	13	-
Leitoscoloplos sp.	-	-	1
Leitoscoloplos robustus	-	-	10
Marphysa sp.	-	3	-
Mediomastus sp.	455	133	15
Mediomastus californiensis	-	99	-
Onuphidae	1	3	-
Paraprionospio pinnata	4	1	7
Streblospio sp.	24	5	10
Arthropoda			
Crustacea			
Amphipoda			
Ampelisca abdita	-	-	1
Cerapus sp.	-	1	-
Corophiidae	-	1	-
Cumacea			
Cyclaspis sp. B	-	3	-
Cyclaspis sp. C	3	-	-
Cyclaspis varians	7	10	-
Decapoda			
Ogyrides alphaerostris	3	-	-
Isopoda			
Edotea triloba	-	1	-
Mysidacea			
Bowmaniella floridana	-	1	-
Cnidaria			
Hydrozoa			
Undetermined Hydrozoa	-	1	-

Appendix H-2 (continued)

	North	South	Control
Mollusca			
Bivalvia			
Amygdalum papyrium	1	7	-
Mactridae	63	49	12
Mysella planulata	-	2	-
Tellinidae	6	7	3
Undetermined Bivalvia	6	1	2
Veneridae	1	1	-
Gastropoda			
Acteocina canaliculata	2	4	-
Acteocinidae	-	-	1
Astyris lunata	-	2	-
Crepidula sp.	-	8	-
Nassarius sp.	1	-	-
Nassarius vibex	-	2	-
Rictaxis punctostriatus	8	1	-
Sayella fusca	-	1	-
Vitrinellidae	-	1	-
Nemertea			
Undetermined Nemertea	14	30	-

EPA Endsheet

The Bioassay of the Ormond Beach Wastewater Treatment Plant effluent sampled on December 8, 2008, NPDES #FL0020532

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 FL00205321	11 12	081208		# B	# S	# 2

Remarks

#

The Priority Pollutants Analysis for Bioassay of the Ormond Beach Wastewater Treatment Plant effluent sampled on December 8, 2008, NPDES #FL0020532

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 FL00205321	11 12	081208		# X	# S	# 2

Remarks

#

Biological Analyses of the Ormond Beach Wastewater Treatment Plant effluent sampled on December 8, 2008, NPDES #FL0020532

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 FL00205321	11 12	081208		# S	# S	# 2

Remarks

#