

Bioassays of

Beverly Beach WWTF (Ocean City Utilities)

Flagler County

NPDES #FL0039756

Sampled September 14 and 15, 2003

February 2004

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Beverly Beach Wastewater Treatment Facility (Ocean City Utilities), 240 Starboard Drive, Highway A1A, Beverly Beach, Flagler County, Florida, NPDES #FL0039756 – Effluent samples were collected on September 14 through 15, 2003.

Introduction

This wastewater treatment plant (WWTP) has a permitted capacity of 0.215 MGD annual average daily flow (AADF) and a current annual average flow of 0.036 MGD (September-November, 2002) 0.041 MGD (July 2003). The facility consists of three plants. Plant Number One having a 0.030 MGD (AADF) design capacity, and Plant Number Two, having a 0.035 MGD (AADF) design capacity, both utilize the extended-aeration activated-sludge treatment process, which includes influent screening, aeration, and secondary clarification. Plant Number Three is a 0.150 MGD (AADF) design capacity contact stabilization plant. The final treated effluent from all three plants is combined at Plant No. 2 then filtered, chlorinated, and dechlorinated, prior to discharge into the Intracoastal Waterway (Class III marine waters) approximately one mile north of the intersection of SR100 and A1A. New chlorine and dechlorination units have been installed to ensure that adequate disinfection and dechlorination levels are being attained prior to discharge of effluent to the Intracoastal Waterway. The Beverly Beach outfall line is approximately 15 feet in length, and discharges at a depth of approximately 2.5 feet.

The Wastewater Permit that was issued: June 11, 1996 and expired June 11, 2001 was followed by a Permit Renewal received in NED DEP offices on December 28, 2000, which was not within the 180 day submittal period for an Administrative Extension. A Denial was issued on October 31, 2001 for that permit application. The Denial was petitioned, a Consent Order was entered in on March 25, 2002, a new permit renewal application was received on November 27, 2002 and a Denial was sent out September 5, 2003. Currently the facility is operating without a valid permit (facility information provided by Jessica Weatherby, FDEP, Jacksonville).

Methods

Samples were collected by Jessica Weatherby and James Wright following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOP's are available on the web at: http://www.floridadep.org/labs/qa/sops.htm

The toxicity tests discussed in this report were performed following internal DEP SOP's TA07-03 and TA07-04. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp.

Effluent samples were collected at 6-hour intervals over a 24-hr period. The 36-hour maximum holding time for these samples began at 1215 on September 15, 2003. The analyses were started within the allocated time. Samples were aerated at 72-hours because the sample replicate dissolved oxygen (DO) concentration dropped below 4.0 mg/L.

The samples were adjusted to salinities of 6 ppt and 1 ppt, respectively, using 40 Fathoms® artificial sea salts, for the *A. bahia* and *M. beryllina* bioassays.

Due to the detection of chlorine in samples C3 (0.70mg/L) and C4 (0.92 mg/L) at the time of analysis, aliquots of these samples were dechlorinated for testing. Sodium thiosulfate (0.025 N) was added, at concentrations of 0.8 mL per liter of sample for Sample C3 and 1.3 mL per liter of sample for Sample C4, to neutralize the chlorine.

Toxicity Test Results

Tests performed on September 16 through 20, 2003.

Test periods < 96 hours means the time with 100% mortality is noted and the test was terminated.

Percent mortality is in the 100% sample concentration or the 100% dechlorinated sample concentration if applicable.

Sample 1 - Field ID C1

Americamysis bahia 96-hr acute definitive – 35% mortality in 100% sample, LC_{50} >100%

Menidia beryllina 96-hr acute definitive – Not toxic - 5% mortality, LC_{50} >100%

Sample 2 - Field ID C2

Americamysis bahia 96-hr acute definitive – Not Toxic - 10% mortality, LC_{50} >100%

Menidia beryllina 96-hr acute definitive – Not Toxic - 5% mortality, LC_{50} >100%

Sample 3 - Field ID C3

Americamysis bahia 24-hr acute screening bioassay – 100% mortality in 100% sample, LC_{50} <100%

Americamysis bahia 96-hr acute definitive dechlorinated – 25% mortality in 100% sample, LC_{50} >100%

Menidia beryllina 96-hr acute screening bioassay – 45% mortality in 100% sample, LC_{50} >100%

Menidia beryllina 96-hr acute definitive dechlorinated – Not Toxic, 0% mortality in 100% sample, LC_{50} >100%

Sample 4 - Field ID C4

Americamysis bahia 24-hr acute screening bioassay – 100% mortality in 100% sample, LC_{50} <100%

Americamysis bahia 96-hr acute definitive dechlorinated – 20% mortality in 100% sample, LC_{50} >100%

Menidia beryllina 24-hr acute screening bioassay – 100% mortality in 100% sample, LC_{50} <100%

Menidia beryllina 96-hr acute definitive dechlorinated – Not Toxic - 5% mortality in 100% sample, LC_{50} >100%

See Tables 1a through 4d for bioassay bench sheets.

Algal Growth Potential

Raschke and Shultz found that Algal Growth Potential (AGP) values above 10.0 mg dry weight/L represent a “problem” threshold for marine receiving waters, implying nutrient enrichment (personal communication with Ron Raschke USEPA Region 4 1987). The effluent AGP was 166 mg dry wt/L of the saltwater unicellular green alga, *Dunaliella tertiolecta.* This is approximately sixteen times greater than the suggested "problem" threshold.

Chemistry Results

Total Residual Chlorine (TRC) was <0.03 mg/L in Sample C1, 0.07 mg/L in Sample C2, 0.70 mg/L in Sample C3, 0.92 mg/L in Sample C4 in the laboratory. Total ammonia was 0.047 mg/L in sample C3 and 0.149 mg/L in sample C4. The calculated unionized ammonia concentrations were 0.004 mg/L and 0.014 mg/L, respectively in samples C3 and C4. Total ammonia was not detected in samples C1 and C2.

The concentrations of copper (7 µg/L) and zinc (94.1 µg/L) in the samples submitted for chemical analyses exceeded the Class III marine water quality standards for copper (≤ 3.7 ug/L) and zinc (≤ 86 µg/L, FAC 62-302.530).

See Table 5 for chemicals detected in the analytical chemistry samples.
See Table 6 for a complete list of chemical analyses performed.

Conclusion

Four samples of effluent identified as C1, C2, C3, and C4 were collected from this facility on September 14 and 15, 2003. Sample C2 did not show toxicity to the *A. bahia* or *M. beryllina* test organisms. Samples C1 showed toxicity to *A. bahia,* but did not show toxicity to *M. beryllina*. Samples C3 and C4 showed toxicity to both *A. bahia* and the *M. beryllina* in the 100% effluent samples. The cause of the observed toxicity was primarily attributed to the Total Residual Chlorine (TRC) concentrations in samples C3 and C4. However these samples showed toxicity for *A. bahia* under dechlorinated conditions as well. The cause of toxicity cannot be totally attributed to TRC concentrations since the dechlorinated aliquots of these two samples showed 20% and 25% mortality, respectively, to the mysids between 72 and 96 hours of the test period. The toxicity may be due to the decrease in dissolved oxygen (DO) noted at 72 hours. In addition, copper and zinc were detected at concentrations exceeding the Class III Marine Surface Water Quality Criteria in the effluent. The effluent AGP result was approximately 16 times greater the “problem” threshold, indicating the presence of nutrients at levels that could impact marine receiving waters.

Literature Cited

Raschke, R. L. and D. A. Schultz. 1987. The use of the algal growth potential test for data assessment. J. Wat. Poll. Cont. Fed. 59(4): 222-227.

Table 1a. Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample # 1

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/15/2003*	Time: 1215*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1600	Chlorination Type:	dechlorinated		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1530	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: artemia Chamber size: 1L Food Batch #: 0194025G

	Sample/Diluen	SURVIVAL # Alive			pH (standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.2			24.0			7.4			11.5	
Control B	0/500	5	5	5		8.2			24.2			5.4			
Control C	0/500	5	5	5			8.3			24.1			6.4		11.3
Control D	0/500	5	5	5											
Salt Cont. A	0/500	5	5	5	8.2			24.1			7.7			10.8	
Salt Cont. B	0/500	5	5	5		8.2			24.2			5.7			
Salt Cont. C	0/500	5	5	5			8.3			24.4			6.5		11.1
Salt Cont. D	0/500	5	5	5											
6.25% A	31.25/468.75	5	5	5	8.2			24.0			7.3			11.7	
6.25% B	31.25/468.75	5	5	4		8.2			24.4			5.3			
6.25% C	31.25/468.75	5	5	5			8.3			24.3			6.4		11.8
6.25% D	31.25/468.75	5	4	4											
12.5% A	62.5/437.5	5	5	4	8.2			24.0			7.5			11.7	
12.5% B	62.5/437.5	5	5	5		8.2			24.4			5.4			
12.5% C	62.5/437.5	5	5	5			8.3			24.4			5.9		11.9
12.5%D	62.5/437.5	5	5	5											
25% A	125/375	5	4	4	8.2			24.1			7.5			11.7	
25% B	125/375	5	5	5		8.1			24.3			5.4			
25% C	125/375	5	5	5			8.3			24.4			6.1		12.3
25% D	125/375	5	5	5											
50% A	250/250	5	5	5	8.2			24.1			7.5			11.7	
50% B	250/250	5	5	5		8.1			24.3			5.0			
50% C	250/250	5	5	5			8.3			24.5			6.2		12.1
50% D	250/250	5	5	5											
100% A	500/0	5	5	5	8.2			24.2			7.4			11.5	
100% B	500/0	5	5	5		8.0			24.3			5.2			
100% C	500/0	5	5	5			8.3			24.4			6.0		11.8
100% D	500/0	5	5	5											

A Organisms fed daily.

B Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature for the test period was 25°C.

continued

LIMS
Job number: TLH-2003-09-16-14-01
sample number: 702793

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:	not measured	-
Lab: 100% sample:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	161	-
100% Sample:	79	169

Salinity [C]	ppt
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

C Salinity based on conductivity and temperature.

Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Samples were aerated at 72 hours.

Table 1b. Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.
continued

Sample 1

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater Treatment Plant**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast				James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/15/2003	Time: 1215	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1600	Chlorination Type:	dechlorinated		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1530	FDEP SOP#:	TA07_03		**Page 2 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: artemia Conductivity

Chamber size: 1L Food Batch #: 0194025G Uncorrected

	Sample/Diluent	SURVIVAL # Alive			pH (standard units)			Temperature °C[A]			Diss. Oxygen mg/L			Conductivity mmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5			8.1			25.8			4.8		12.4
Control B	0/500	5	5	5											
Control C	0/500	5	5	5	8.2			24.0			6.4			10.4	
Control D	0/500	5	5	5		8.0			24.3			5.3			
Salt Cont. A	0/500	5	5	5			8.1			25.3			4.0		11.6
Salt Cont. B	0/500	5	5	5											
Salt Cont. C	0/500	5	4	4	8.2			24.0			7.4			10.6	
Salt Cont. D	0/500	5	5	5		8.0			24.2			4.9			
6.25% A	31.25/468.75	5	5	5			7.9			25.8			4.0		12.1
6.25% B	31.25/468.75	4	4	4											
6.25% C	31.25/468.75	5	4	3	8.2			24.0			6.3			10.7	
6.25% D	31.25/468.75	4	4	4		8.0			24.3			5.3			
12.5% A	62.5/437.5	4	4	4			7.8			25.0			4.0		12.1
12.5% B	62.5/437.5	5	5	5											
12.5% C	62.5/437.5	5	5	5	8.2			24.0			6.9			11.1	
12.5%D	62.5/437.5	5	5	5		8.0			24.3			4.8			
25% A	125/375	4	4	4			7.7			24.6			4.0		12.3
25% B	125/375	5	5	5											
25% C	125/375	5	5	5	8.2			24.0			6.8			11.3	
25% D	125/375	5	5	5		8.0			24.3			4.9			
50% A	250/250	5	5	5			7.6			25.0			4.0		12.5
50% B	250/250	5	5	4											
50% C	250/250	5	5	5	8.2			24.0			7.0			11.4	
50% D	250/250	5	5	5		7.9			24.3			3.4			
100% A	500/0	5	5	0			7.4			26.0			4.0		13.2
100% B	500/0	5	5	5											
100% C	500/0	5	5	3	8.1			24.0			7.2			11.5	
100% D	500/0	5	5	5		7.8			24.2			3.9			

[A] Organisms fed daily.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature for the test period was 25°C.

continued

LIMS
Job number: TLH-2003-09-16-14-01
sample number: 702793

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:	-	-
Lab: 100% sample:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	161	-
100% Sample:	79	169

Salinity [C]	ppt
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

[C] Salinity based on conductivity and temperature.

Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Samples were aerated at 72 hours.

Table 1c. continued Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 1

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/15/2003* Time: 1215*		# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003 Time: 1630		Chlorination Type:	dechlorinated		Class III Marine		
Test Ending Date:	9/20/2003 Time: 1500		FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Menidia Beryllina*** Life stage: 13 days [A]Feeding: artemia
Chamber size: 1L Food Batch #: 0194025G

	Sample/Diluen	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	10	10	10	7.9	8.1	8.1	24.2	24.0	24.2	7.0	6.8	5.3	1.97	2.05
Control B	0/500	10	10	9	7.9			24.1			7.1			1.99	
Salt Cont A	0/500	10	10	10	7.9	8.2	7.9	24.4	24.2	24.3	7.4	6.7	5.5	2.27	2.51
Salt Cont B	0/500	10	10	10	7.9			24.4			7.3			2.28	
6.25% A	31.25/468.75	10	10	10	8.0	8.1	8.1	24.3	24.0	24.4	7.2	6.8	5.2	2.04	2.19
6.25% B	31.25/468.75	10	10	9	8.0			24.2			7.1			2.05	
12.5% A	31.25/468.75	10	10	10	8.0	8.1	8.0	24.4	24.0	24.3	7.1	6.1	5.2	2.09	2.36
12.5% B	31.25/468.75	10	10	10	8.0			24.3			7.1			2.14	
25% A	62.5/437.5	10	10	10	7.9	8.1	8.0	24.4	24.0	24.2	7.2	6.4	5.1	2.23	2.39
25% B	62.5/437.5	10	10	10	7.9			24.4			7.1			2.24	
50% A	62.5/437.5	10	10	10	7.9	8.0	7.9	24.4	24.0	24.3	7.0	6.7	5.2	2.45	2.63
50%B	62.5/437.5	10	10	10	7.9			24.4			7.0			2.45	
100% A	500/0	10	9	9	7.7	7.8	7.7	24.5	24.0	24.4	7.2	6.5	5.0	2.82	2.99
100% B	500/0	10	10	10	7.7			24.5			7.1			2.85	

[A] Organisms fed prior to testing and before renewal.
[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature for the test period was 25.0 °C.
Samples were aerated at 72 hours.

Continued

LIMS	
Job number:	TLH-2003-09-16-14-01
sample number:	702793

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:100% sample:	-	-
Lab: 100% sample:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	79	169

Salinity [C]	ppt
Menidia control:	1 ppt
100% sample:	<1 ppt
Salt adjusted sample:	1 ppt

[C] Salinity based on conductivity and temperature.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 1d. concluded Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 1

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type: **Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast	**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal			Marshall Faircloth
Sample Collection Date:	9/15/2003*	Time: 1215*	# tests:	2	Receiving Water: Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1630	Chlorination Type:	dechlorinated	Class III Marine		
Test Ending Date:	9/20/2003	Time: 1500	FDEP SOP#:	TA07_04	**Page 4 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Menidia Beryllina*** Life stage: 13 days [A]Feeding: artemia Conductivity

After Renewal Chamber size: 1L Food Batch #: 0194025G Uncorrected

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			Diss. Oxygen mg/L			mmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	10	10	10	7.8	7.9	8.5	24.0	24.6	25.2	6.8	5.2	7.4	1.97	2.40
Control B	0/500	9	9	9											
Salt Control A	0/500	10	10	10	8.0	7.9	8.5	24.0	26.0	25.3	6.4	3.6	7.5	2.35	2.52
Salt Control B	0/500	10	10	10											
6.25% A	31.25/468.75	10	10	10	7.8	7.8	8.5	23.8	24.9	25.3	6.7	5.2	7.5	2.11	2.45
6.25% B	31.25/468.75	9	9	8											
12.5% A	62.5/437.5	10	10	10	8.0	7.8	8.5	24.0	25.9	25.3	6.4	4.2	7.5	2.26	2.49
12.5% B	62.5/437.5	10	10	10											
25% A	125/375	10	10	10	8.0	7.7	8.4	23.8	25.2	25.3	6.4	3.5	7.5	2.37	2.56
25% B	125/375	10	9	8											
50% A	250/250	10	10	10	7.9	7.6	8.3	24.0	25.6	25.3	6.5	3.0	7.5	2.56	2.80
50% B	250/250	10	10	10											
100% A	500/0	9	9	9	7.8	7.4	8.2	24.0	25.6	25.3	6.3	3.0	7.4	2.94	3.27
100% B	500/0	10	10	10											

[A] Organisms fed prior to testing and before renewal.
[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature for the test period was 25.0 °C.
Samples were aerated at 72 hours.

LIMS	
Job number:	TLH-2003-09-16-14-01
sample number:	702793

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field: 100% sample:	-	-
Lab: 100% sample:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	79	169

Salinity [C]	ppt
Menidia control:	1
100% sample:	<1
Salt adjusted sample:	1

[C] Salinity based on conductivity and temperature.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 2a. Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample # 2

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater Treatment**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast				James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/15/2003*	Time: 0620*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1600	Chlorination Type:	dechlorinated		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1530	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: artemia Conductivity

Chamber size: 1L Food Batch #: 0194025G Uncorrected

	Sample/Diluent	SURVIVAL # Alive			pH (standard units)			Temperature °C[B]			Diss. Oxygen mg/L			mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.2			24.0			6.8			11.6	
Control B	0/500	5	5	5		8.2			24.2			5.6			
Control C	0/500	5	5	5			8.3			24.3			6.4		11.2
Control D	0/500	5	5	5											
Salt Cont. A	0/500	5	5	5	8.2			24.1			7.7			10.8	
Salt Cont. B	0/500	5	5	5		8.2			24.2			5.7			
Salt Cont. C	0/500	5	5	5			8.3			24.4			6.5		11.1
Salt Cont. D	0/500	5	5	5											
6.25% A	31.25/468.75	5	5	5	8.2			24.1			6.9			11.5	
6.25% B	31.25/468.75	5	5	5		8.2			24.3			5.8			
6.25% C	31.25/468.75	5	5	5			8.3			24.5			6.2		12.0
6.25% D	31.25/468.75	5	5	5											
12.5% A	62.5/437.5	5	5	5	8.2			24.1			6.9			11.5	
12.5% B	62.5/437.5	5	5	5		8.2			24.5			5.8			
12.5% C	62.5/437.5	5	5	5			8.3			24.6			6.2		12.1
12.5%D	62.5/437.5	5	5	5											
25% A	125/375	5	5	5	8.2			24.1			6.9			11.6	
25% B	125/375	5	5	5		8.2			24.6			6.0			
25% C	125/375	5	5	5			8.3			24.5			6.0		12.3
25% D	125/375	5	5	5											
50% A	250/250	5	5	5	8.2			24.2			7.1			11.6	
50% B	250/250	5	5	5		8.1			24.6			5.9			
50% C	250/250	5	5	5			8.3			24.4			6.0		12.2
50% D	250/250	5	5	5											
100% A	500/0	5	4	4	8.2			24.4			7.1			11.5	
100% B	500/0	5	5	5		7.9			24.6			5.8			
100% C	500/0	5	5	5			8.3			24.3			6.1		11.6
100% D	500/0	5	5	5											

[A] Organisms fed daily.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Incubator #3 temperature for the test period was 24.0-25.0°C.

continued

LIMS	
Job number:	TLH-2003-09-16-14-02
sample number:	702794

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	**mg/L**	**Method**
Field:	not measured	-
Lab: 100% sample:	0.07	Hach

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

Alk & Hardness	**Alkalinity (mg/L)**	**Hardness (mg/L)**
Control water:	161	-
100% Sample:	66	172

Salinity [C]	**ppt**
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

[C] Salinity based on conductivity and temperature.

Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 2b. Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.
continued

Sa

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/15/2003*	Time: 0620*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1600	Chlorination Type:	dechlorinated		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1530	FDEP SOP#:	TA07_03		**Page 2 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: artemia
Chamber size: 1L Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (standard units)			Temperature °C[A]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5			8.0			24.7			4.6		11.7
Control B	0/500	5	5	5											
Control C	0/500	5	5	5	8.2			24.0			7.1			9.8	
Control D	0/500	5	5	5		8.1			24.1			6.7			
Salt Cont. A	0/500	5	5	5			8.1			25.3			4.0		11.6
Salt Cont. B	0/500	5	5	5											
Salt Cont. C	0/500	5	5	5	8.2			24.0			7.4			10.6	
Salt Cont. D	0/500	5	5	5		8.0			24.2			4.9			
6.25% A	31.25/468.75	5	5	5			8.0			24.0			4.7		11.6
6.25% B	31.25/468.75	5	5	5											
6.25% C	31.25/468.75	5	5	5	8.2			24.0			7.0			10.4	
6.25% D	31.25/468.75	5	5	5		8.1			24.2			5.4			
12.5% A	62.5/437.5	5	5	5			7.8			24.3			4.5		11.8
12.5% B	62.5/437.5	5	5	5											
12.5% C	62.5/437.5	5	5	5	8.2			24.0			6.9			10.8	
12.5%D	62.5/437.5	5	5	5		8.1			24.4			5.4			
25% A	125/375	5	5	5			7.8			25.8			4.5		12.3
25% B	125/375	5	5	5											
25% C	125/375	5	5	5	8.2			24.0			6.5			10.9	
25% D	125/375	5	5	5		8.1			24.2			5.1			
50% A	250/250	5	5	5			7.7			24.0			4.1		12.0
50% B	250/250	5	5	4											
50% C	250/250	5	5	5	8.2			24.0			6.7			11.1	
50% D	250/250	5	4	4		7.9			24.2			5.2			
100% A	500/0	4	4	4			7.4			25.4			4.0		12.5
100% B	500/0	5	5	5											
100% C	500/0	5	5	5	8.1			24.0			6.4			11.3	
100% D	500/0	5	5	4		7.8			24.0			5.0			

A Organisms fed daily.

B Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Incubator #3 temperature for the test period was 24.0-25.0°C.

LIMS	
Job number:	TLH-2003-09-16-14-02
sample number:	702794

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:	-	-
Lab: 100% sample:	0.07	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	161	-
100% Sample:	66	172

Salinity [C]	ppt
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

[B] Salinity based on conductivity and temperature.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

continued

Table 2c. continued Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 2

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/15/2003*	Time: 620*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1630	Chlorination Type:	dechlorinated		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1500	FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Menidia Beryllina*** Life stage: 13 days [A]Feeding: artemia

Chamber size: 1L Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	10	10	10	8.0	8.1	8.2	24.1	24.1	24.0	7.1	6.6	6.9	1.97	2.13
Control B	0/500	10	10	10	8.0			24.1			7.1			2.00	
Salt Cont A	0/500	10	10	10	7.9	8.2	7.9	24.4	24.2	24.3	7.4	6.7	5.5	2.27	2.51
Salt Cont B	0/500	10	10	10	7.9			24.4			7.3			2.28	
6.25% A	31.25/468.75	10	10	10	8.0	8.1	8.2	24.2	24.0	24.0	7.1	6.5	6.0	2.06	2.21
6.25% B	31.25/468.75	10	10	10	8.0			24.2			7.1			2.07	
12.5% A	31.25/468.75	10	10	10	8.0	8.2	8.2	24.2	24.0	24.3	7.1	6.6	5.9	2.11	2.28
12.5% B	31.25/468.75	10	10	9	8.0			24.3			7.1			2.11	
25% A	62.5/437.5	10	10	10	8.0	8.1	8.1	24.3	24.0	24.4	7.1	6.7	5.8	2.20	2.39
25% B	62.5/437.5	10	10	9	8.0			24.3			7.1			2.21	
50% A	62.5/437.5	10	10	10	7.9	8.0	8.0	24.4	24.0	24.4	7.1	6.6	5.4	2.40	2.64
50%B	62.5/437.5	10	10	10	7.9			24.4			7.0			2.37	
100% A	500/0	10	10	10	7.6	7.7	7.9	24.6	24.0	24.5	7.1	6.5	5.7	2.81	3.08
100% B	500/0	10	10	10	7.6			24.6			7.1			2.80	

[A] Organisms fed prior to testing and before renewal.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature for the test period was 25.0 °C.

Continued

LIMS	
Job number:	TLH-2003-09-16-14-02
sample number:	702794

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:100% sample:	-	-
Lab: 100% sample:	0.07	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	66	172

Salinity [C]	ppt
Menidia control:	1 ppt
100% sample:	<1 ppt
Salt adjusted sample:	1 ppt

[C] Salinity based on conductivity and temperature.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 2d. concluded Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 2

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater Treatment Plant**	**Analysts:**	Joshua Ayres, James Daniels, Marshall Faircloth, Christa Pierini
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast				
County:	Flagler		Test type:	acute definitive renewal				
Sample Collection Date:	9/15/2003*	Time: 620*	# tests:	2	Receiving Water:	Intracoastal Waterway		
Test Beginning Date:	9/16/2003	Time: 1630	Chlorination Type:	dechlorinated		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1500	FDEP SOP#:	TA07_04		**Page 4 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

Organism: ***Menidia Beryllina*** Life stage: 13 days A Feedi artemia Conductivity

After Renewal (1L Food E 0194025G Uncorrected

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			Diss. Oxygen mg/L			mmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	10	10	10	8.0	8.0	8.5	24.0	24.9	25.2	7.2	5.4	7.4	1.93	2.36
Control B	0/500	10	10	10											
Salt Control A	0/500	10	10	10	8.0	7.9	8.5	24.0	26.0	25.3	6.4	3.6	7.5	2.35	2.52
Salt Control B	0/500	10	10	10											
6.25% A	31.25/468.75	10	9	9	8.0	7.8	8.5	24.0	24.9	25.3	6.6	3.6	7.4	2.13	2.43
6.25% B	31.25/468.75	10	10	10											
12.5% A	62.5/437.5	10	10	10	8.1	7.8	8.5	24.0	25.4	25.3	6.4	3.5	7.5	2.24	2.52
12.5% B	62.5/437.5	9	9	9											
25% A	125/375	10	9	9	8.0	7.7	8.3	24.0	25.3	25.3	6.6	3.3	7.5	2.34	2.55
25% B	125/375	9	9	9											
50% A	250/250	10	9	9	7.9	7.6	8.3	24.0	25.6	25.3	6.5	3.3	7.4	2.53	2.78
50% B	250/250	10	10	10											
100% A	500/0	10	10	10	7.6	7.3	8.0	24.0	25.8	25.2	6.3	3.2	7.4	2.89	3.16
100% B	500/0	10	9	9											

[A] Organisms fed prior to testing and before renewal.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature for the test period was 25.0 °C.

LIMS

Job number: TLH-2003-09-16-14-02

sample number: 702794

Data Transcription Verification

date: 11/20/03

by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field: 100% sample:	-	-
Lab: 100% sample:	0.07	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	66	172

Salinity [C]	ppt
Menidia control:	1
100% sample:	<1
Salt adjusted sample:	1

[C] Salinity based on conductivity and temperature.

Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 3a. Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 3

Facility:	**Beverly Beach WWTP**	**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater Treatment Plant**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach	Contact/District:	P. Oconner/Northeast				James Daniels
County:	Flagler	Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/14/2003* Time: 2359*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003 Time: 1600	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003 Time: 1530	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215 **sample dechlorinated in Lab due to TRC in the sample

Organism: ***Americamysis bahia*** Life stag 5 days Chambe 1L AFeed artemia Food 4025G

	Sample/Diluen	SURVIVAL # Alive			pH (standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.2			24.0			6.4			11.3	
Control B	0/500	5	5	5		8.2			24.0			5.8			
Control C	0/500	5	5	5			7.9			24.6			5.1		11.0
Control D	0/500	5	5	5											
Salt Cont. A	0/500	5	5	5	8.2			24.1			7.7			10.8	
Salt Cont. B	0/500	5	5	5		8.2			24.2			5.7			
Salt Cont. C	0/500	5	5	5			8.3			24.4			6.5		11.1
Salt Cont. D	0/500	5	5	5											
6.25% A	31.25/468.75	5	5	5	8.2			24.2			6.5			11.3	
6.25% B	31.25/468.75	5	5	5		8.2			24.1			5.9			
6.25% C	31.25/468.75	5	5	5			7.9			24.5			4.8		11.6
6.25% D	31.25/468.75	5	5	5											
12.5% A	62.5/437.5	5	5	5	8.2			24.2			6.9			11.3	
12.5% B	62.5/437.5	5	5	5		8.2			24.0			6.1			
12.5% C	62.5/437.5	5	5	5			7.9			24.2			4.1		11.4
12.5%D	62.5/437.5	5	5	5											
25% A	125/375	5	5	5	8.2			24.3			6.8			11.3	
25% B	125/375	5	5	5		8.2			24.3			6.1			
25% C	125/375	5	5	5			7.8			23.8			4.0		11.7
25% D	125/375	5	5	5											
50% A	250/250	5	5	5	8.2			24.2			7.5			11.3	
50% B	250/250	5	5	5		8.2			24.0			6.0			
50% C	250/250	5	5	5			7.7			23.7			4.1		11.3
50% D	250/250	5	5	5											
Dechlorinated 100% A	500/0	5	5	5	8.2			24.2			7.7			11.4	
100% B	500/0	5	5	5		8.1			24.0			6.5			
100% C	500/0	5	5	5			7.7			24.0			3.9		12.0
100% D	500/0	5	5	5											
Chlorinated 100% A	500/0	5	0	0	8.2			24.2			7.7			11.40	
100% B	500/0	5	0	0		8.1			24.0			6.2			11.5[D]
100% C	500/0	5	0	0											
100% D	500/0	5	0	0											

[A] Organisms fed daily.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Incubator #3 temperature range for the test period was 24.0-25.0°C.

LIMS
Job number: TLH-2003-09-16-14-03
sample number: 702795

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:	-	-
Lab: 100% sample:	0.70	Hach
Lab decl. sample:	<0.03	Hach

decl = dechlorinated

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.047	0.004

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	161	-
100% Sample:	68	173

Salinity [C]	ppt
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

[C] Salinity based on conductivity and temperature.

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

[D] 24 hour measurement

Samples were aerated at 72 hours.

Table 3b. Continued — Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 3

Facility:	**Beverly Beach WWTP**	**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach	Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler	Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/14/2003* Time: 2359*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003 Time: 1600	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003 Time: 1530	FDEP SOP#:	TA07_03		**Page 2 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215 **sample dechlorinated in Lab due to TRC in the sample

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: artemia
After renewal Chamber size: 1L Food Batch #: 0194025G

	Sample/Diluen	SURVIVAL # Alive			pH (standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5			7.7			25.6			4.0		12.0
Control B	0/500	5	5	5											
Control C	0/500	5	5	5	8.1			24.0			6.5			10.0	
Control D	0/500	5	5	5		7.8			24.5			4.4			
Salt Cont. A	0/500	5	5	5			8.1			25.3			4.0		11.6
Salt Cont. B	0/500	5	5	5											
Salt Cont. C	0/500	5	5	5	8.2			24.0			7.4			10.6	
Salt Cont. D	0/500	5	5	5		8.0			24.2			4.9			
6.25% A	31.25/468.75	5	5	5			7.8			25.7			4.0		11.9
6.25% B	31.25/468.75	5	5	5											
6.25% C	31.25/468.75	5	5	5	8.1			24.0			6.4			10.6	
6.25% D	31.25/468.75	5	5	5		7.8			25.1			3.6			
12.5% A	62.5/437.5	5	5	5			7.7			24.0			4.1		12.0
12.5% B	62.5/437.5	5	5	5											
12.5% C	62.5/437.5	5	5	5	8.1			24.0			5.8			10.7	
12.5%D	62.5/437.5	5	5	5		7.8			24.9			3.5			
25% A	125/375	5	3	3			7.7			24.3			4.0		11.7
25% B	125/375	5	5	5											
25% C	125/375	5	4	4	8.0			24.0			6.0			10.9	
25% D	125/375	5	5	5		7.8			24.3			3.3			
50% A	250/250	5	5	5			7.5			24.3			4.0		12.0
50% B	250/250	5	5	5											
50% C	250/250	5	5	5	8.0			24.0			5.8			10.9	
50% D	250/250	5	4	4		7.7			24.5			3.3			
Dechlorinated 100% A	500/0	5	5	4			7.4			24.8			4.0		12.6
100% B	500/0	5	5	4											
100% C	500/0	5	5	3	8.0			23.7			5.9			11.3	
100% D	500/0	5	5	4		7.6			24.7			3.6			
Chlorinated 100% A	500/0	0	0	0											
100% B	500/0	0	0	0											
100% C	500/0	0	0	0	-			-			-			-	
100% D	500/0	0	0	0											

[A] Organisms fed daily.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Incubator #3 temperature range for the test period was 24.0-25.0°C.

LIMS	
Job number:	TLH-2003-09-16-14-03
sample number:	702795

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:	-	-
Lab: 100% sample:***	0.20	Hach
Lab decl. sample:	<0.03	Hach

decl = dechlorinated
***100% sample at renewal

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.047	0.004

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	161	-
100% Sample:	68	173

Salinity [C]	ppt
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

[C] Salinity based on conductivity and temperature.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Samples were aerated at 72 hours.

Continued

Table 3c. continued

Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 3

Facility:	**Beverly Beach WWTP**	**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach	Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler	Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/14/2003* Time: 2359*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003 Time: 1630	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003 Time: 1500	FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215 ** Facility dechlorination unit failed, sample dechlorinated in lab

Organism: ***Menidia Beryllina*** Life stage: 13 days [A]Feeding: artemia

Chamber size: 500 ml Food Batch #: 0194025G

																Conductivity Uncorrected
		Sample/Diluent	**SURVIVAL # Alive**			pH (Standard units)			Temperature °C[B]			Diss. Oxygen mg/L				mmhos/cm
	Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
	Control A	0/500	10	10	10	8.0	8.1	8.1	24.3	24.0	24.2	7.6	6.8	7.2	1.97	1.87
	Control B	0/500	10	10	10	8.0			24.0			7.4			2.01	
	Salt Cont A	0/500	10	10	10	7.9	8.2	7.9	24.4	24.2	24.3	7.4	6.7	5.5	2.27	2.51
	Salt Cont B	0/500	10	10	10	7.9			24.4			7.3			2.28	
	6.25% A	31.25/468.75	10	10	10	8.0	8.2	8.1	24.4	24.0	24.2	7.3	6.7	5.8	2.07	2.21
	6.25% B	31.25/468.75	10	10	10	8.0			24.4			7.3			2.07	
	12.5% A	31.25/468.75	10	10	10	8.0	8.2	8.1	24.4	24.0	24.1	7.3	6.5	6.0	2.11	2.24
	12.5% B	31.25/468.75	10	10	10	8.0			24.4			7.2			2.13	
	25% A	62.5/437.5	10	10	10	7.9	8.1	8.0	24.4	24.9	24.1	7.2	6.5	6.0	2.22	2.33
	25% B	62.5/437.5	10	10	10	7.9			24.4			7.2			2.24	
	50% A	62.5/437.5	10	10	9	7.9	8.0	7.9	24.3	24.0	24.3	7.3	6.4	5.4	2.44	2.60
	50%B	62.5/437.5	10	10	10	7.9			24.2			7.2			2.44	
	100% A	500/0	10	10	10	7.6	7.8	7.8	24.2	24.8	24.1	7.3	6.1	5.5	2.88	3.05
	100% B	500/0	10	10	10	7.6			24.2			7.3			2.88	
Cl	100% A	500/0	10	4	4	7.6	7.6	7.8	24.2	24.0	24.0	7.3	6.4	6.3	2.89	3.17
Cl	100% B	500/0	10	9	9	7.6			24.2			7.3			2.88	

Dechlorinatec

Cl = chlorinated sample.

[A] Organisms fed prior to testing and before renewal.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature range for the test period was 25.0°C.

[C] Salinity based on conductivity and temperature.

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

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

Samples were aerated at 72 hours.

LIMS

Job number: TLH-2003-09-16-14-03

sample number: 702795

Data Transcription Verification

date: 11/20/30

by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:100% sample:	-	-
Lab: 100% sample***:	0.70	Hach
Lab: Decl. sample:	<0.03	Hach

Decl = Dechlorinated

*** 100% sample at 0 hours

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.047	0.004

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	68	173

Salinity [B]	ppt
Menidia control:	1
100% sample:	<1
Salt adjusted sample:	1

Table 3d. Concluded

Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 3

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/14/2003*	Time: 2359*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1630	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1500	FDEP SOP#:	TA07_04		**Page 4 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215 ** Facility dechlorination unit failed, sample dechlorinated in lab

Organism: ***Menidia Beryllina***

After Renewal

		Sample/Diluen	SURVIVAL # Alive			pH (Standard units)			Temperature °C[A]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
	Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
	Control A	0/500	10	10	10	7.8	8.1	8.3	24.0	25.5	25.1	6.3	5.7	7.0	2.09	2.35
	Control B	0/500	10	9	9											
	Salt Control A	0/500	10	10	10	8.0	7.9	8.5	24.0	26.0	25.3	6.4	3.6	7.5	2.35	2.52
	Salt Control B	0/500	10	10	10											
	6.25% A	31.25/468.75	10	10	10	7.9	7.8	8.5	24.0	24.5	25.1	6.4	4.0	7.1	2.18	2.42
	6.25% B	31.25/468.75	10	10	10											
	12.5% A	62.5/437.5	10	10	10	8.0	7.7	8.4	24.0	24.2	25.2	6.4	4.0	7.5	2.27	2.51
	12.5% B	62.5/437.5	10	10	10											
	25% A	125/375	10	10	10	7.9	7.6	8.3	24.0	23.9	25.1	6.4	2.1	7.5	2.33	2.58
	25% B	125/375	10	10	10											
	50% A	250/250	9	9	9	7.9	7.5	8.3	24.0	24.0	25.1	6.3	2.5	7.5	2.50	2.78
	50% B	250/250	10	10	10											
	100% A	500/0	10	10	10	7.7	7.3	8.0	24.0	24.6	25.0	6.4	3.6	7.3	2.87	3.21
	100% B	500/0	10	10	10											
Cl	100% A	500/0	4	2	2	7.5	7.6	7.9	24.0	24.3	25.0	7.8	5.6	7.3	2.78	3.16
Cl	100% B	500/0	9	9	9											

Dechlorinatec

Cl = chlorinated sample.

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Water Bath temperature range for the test period was 25.0 °C.
Samples were aerated at 72 hours.

LIMS

Job number: TLH-2003-09-16-14-03
sample number: 702795

Data Transcription Verification

date: 11/20/30
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field: 100% sample:	-	-
Lab: 100% sample***:	0.20	Hach
Lab: Decl. sample:	<0.03	Hach

Decl. = Dechlorinated
***100% sample at 48 hours

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.047	0.004

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	68	173

Salinity [B]	ppt
Menidia control:	1
100% sample:	<1
Salt adjusted sample:	1

[B] Salinity based on conductivity and temperature.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 4a. Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 4

Facility:	**Beverly Beach WWTP**	**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater Treatment Plant**	**Analysts:**	Joshua Ayres, James Daniels, Marshall Faircloth, Christa Pierini
Location:	240 Starboard Drive, Beverly Beach	Contact/District:	P. Oconner/Northeast				
County:	Flagler	Test type:	acute definitive renewal				
Sample Collection Date:	9/14/2003* Time: 1825*	# tests:	2	Receiving Water:	Intracoastal Waterway		
Test Beginning Date:	9/16/2003 Time: 1600	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003 Time: 1530	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215

**sample dechlorinated in Lab due to TRC in the sample

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: artemia

Chamber size: 1L Food Batch #: 0194025G

		Sample/Diluen	SURVIVAL # Alive			pH (standard units)			Temperature C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
	Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
	Control A	0/500	5	5	5	8.3			24.0			6.8			11.5	
	Control B	0/500	5	5	5		8.0			24.8			5.2			
	Control C	0/500	5	5	5			7.9			24.0			5.0		11.4
	Control D	0/500	5	5	5											
	Salt Cont. A	0/500	5	5	5	8.2			24.1			7.7			10.8	
	Salt Cont. B	0/500	5	5	5		8.2			24.2			5.7			
	Salt Cont. C	0/500	5	5	5			8.3			24.4			6.5		11.1
	Salt Cont. D	0/500	5	5	5											
	6.25% A	31.25/468.75	5	5	5	8.2			24.3			7.2			11.4	
	6.25% B	31.25/468.75	5	5	5		8.1			25.3			5.2			
	6.25% C	31.25/468.75	5	5	5			7.9			24.2			4.6		11.4
	6.25% D	31.25/468.75	5	5	5											
	12.5% A	62.5/437.5	5	5	5	8.2			24.4			7.1			11.4	
	12.5% B	62.5/437.5	5	5	5		8.1			25.4			5.3			
	12.5% C	62.5/437.5	5	5	5			7.9			24.5			3.7		11.7
	12.5%D	62.5/437.5	5	5	5											
	25% A	125/375	5	5	5	8.2			24.3			6.9			11.4	
	25% B	125/375	5	5	5		8.1			24.8			5.4			
	25% C	125/375	5	5	5			7.8			24.1			3.6		11.7
	25% D	125/375	5	5	5											
	50% A	250/250	5	5	5	8.2			24.4			6.9			11.3	
	50% B	250/250	5	5	5		8.1			24.2			5.7			
	50% C	250/250	5	5	5			7.8			24.5			3.7		11.6
	50% D	250/250	5	5	5											
Dechlorinated	100% A	500/0	5	5	5	8.1			24.4			6.8			11.3	
Dechlorinated	100% B	500/0	5	5	5		7.9			24.3			5.9			
Dechlorinated	100% C	500/0	5	5	5			7.8			24.0			3.9		11.8
Dechlorinated	100% D	500/0	5	5	5											
Chlorinated	100% A	500/0	5	0	0	8.1			24.4			6.8			11.3	
Chlorinated	100% B	500/0	5	0	0		8.0			24.1			6.0			12.0[D]
Chlorinated	100% C	500/0	5	0	0											
Chlorinated	100% D	500/0	5	0	0											

[A] Organisms fed daily.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Incubator #3 temperature range for the test period was 24.0-25.0°C.

LIMS

Job number: TLH-2003-09-16-14-03

sample number: 702795

Data Transcription Verification

date: 11/20/03

by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:	-	-
Lab: 100% sample:	0.92	Hach
Lab decl. sample:	<0.03	Hach

decl = dechlorinated

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.149	0.014

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	161	-
100% Sample:	66	179

Salinity [C]	ppt
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

[C] Salinity based on conductivity and temperature.

Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

[D] 24 hour measurement

Samples were aerated at 72 hours.

Table 4b. Continued — Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 4

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/14/2003*	Time: 1825*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1600	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1530	FDEP SOP#:	TA07_03		**Page 2 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215 **sample dechlorinated in Lab due to TRC in the sample

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: artemia

After renewal Chamber size: 1L Food Batch #: 0194025G

	Sample/Diluen	SURVIVAL # Alive			pH (standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5			7.7			24.5			4.1		11.4
Control B	0/500	5	5	5											
Control C	0/500	5	4	4	8.1			24.0			6.4			10.5	
Control D	0/500	5	5	5		7.9			24.3			4.1			
Salt Cont. A	0/500	5	5	5			8.1			25.3			4.0		11.6
Salt Cont. B	0/500	5	5	5											
Salt Cont. C	0/500	5	5	5	8.2			24			7.4			10.6	
Salt Cont. D	0/500	5	5	5		8.0			24.2			4.9			
6.25% A	31.25/468.75	5	5	5			7.8			24.5			4.0		11.7
6.25% B	31.25/468.75	5	5	5											
6.25% C	31.25/468.75	5	5	5	8.1			24.0			6.3			10.6	
6.25% D	31.25/468.75	5	5	5		7.8			24.5			4.0			
12.5% A	62.5/437.5	5	4	4			7.8			24.8			4.0		11.9
12.5% B	62.5/437.5	5	4	4											
12.5% C	62.5/437.5	5	5	5	8.1			24.0			6.0			10.8	
12.5%D	62.5/437.5	5	5	5		7.8			24.9			3.1			
25% A	125/375	5	5	5			7.7			24.6			4.4		11.9
25% B	125/375	5	5	5											
25% C	125/375	5	5	5	8.1			24.0			5.9			11.1	
25% D	125/375	5	5	5		7.7			24.4			3.2			
50% A	250/250	5	5	4			7.5			24.0			4.0		11.9
50% B	250/250	5	5	5											
50% C	250/250	5	5	5	8.1			24.0			6.2			11.2	
50% D	250/250	5	5	5		7.7			24.2			3.2			
Dechlorinated 100% A	500/0	5	4	4			7.3			24.0			4.0		12.4
100% B	500/0	5	5	3											
100% C	500/0	5	5	5	8.0			24.0			6.2			11.4	
100% D	500/0	5	5	4		7.6			24.5			3.2			
Chlorinated 100% A	500/0	0	0	0											
100% B	500/0	0	0	0											
100% C	500/0	0	0	0	-			-			-			-	
100% D	500/0	0	0	0											

[A] Organisms fed daily.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Incubator #3 temperature range for the test period was 24.0-25.0°C.

LIMS

Job number: TLH-2003-09-16-14-03

sample number: 702795

Data Transcription Verification

date: 11/20/03

by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field:	-	-
Lab: 100% sample:***'	0.42	Hach
Lab decl. sample:	<0.03	Hach

decl = dechlorinated

***100% sample at renewal

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.149	0.014

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	161	-
100% Sample:	66	179

Salinity [C]	ppt
Mysid control:	6
100% sample:	<1
Salt adjusted sample:	6

[C] Salinity based on conductivity and temperature.

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

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

Samples were aerated at 72 hours.

Continued

Table 4c. continued

Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 4

Facility:	**Beverly Beach WWTP**		**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach		Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler		Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/14/2003*	Time: 1825*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003	Time: 1630	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003	Time: 1500	FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215 ** Facility dechlorination unit failed, sample dechlorinated in lab

Organism: ***Menidia Beryllina*** Life stage: 13 days [A]Feeding: artemia

Chamber size: 1L Food Batch #: 0194025G

	Concentrations	Sample/Diluen Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH (Standard units) 0 hour	24 hour	48 hour	Temperature °C[B] 0 hour	24 hour	48 hour	Diss. Oxygen mg/L 0 hour	24 hour	48 hour	Conductivity Uncorrected mmhos/cm 0 hour	48 hour
Dechlorinatec	Control A	0/500	10	10	10	8.0	8.1	8.0	24.0	24.2	24.1	7.2	6.2	5.4	1.96	2.12
	Control B	0/500	10	10	10	8.0			24.0			7.4			1.99	
	Salt Cont A	0/500	10	10	10	7.9	8.2	7.9	24.4	24.2	24.3	7.4	6.7	5.5	2.27	2.51
	Salt Cont B	0/500	10	10	10	7.9			24.4			7.3			2.28	
	6.25% A	31.25/468.75	10	10	10	8.1	8.1	8.0	24.0	24.1	24.0	7.3	6.4	5.3	2.05	2.25
	6.25% B	31.25/468.75	10	10	10	8.1			24.0			7.3			2.05	
	12.5% A	31.25/468.75	10	10	10	8.0	8.1	8.0	24.2	24.0	24.0	7.5	6.4	5.6	2.09	2.27
	12.5% B	31.25/468.75	10	10	10	8.0			24.2			7.3			2.08	
	25% A	62.5/437.5	10	10	10	8.0	8.1	8.0	24.2	24.5	24.1	7.2	6.5	5.5	2.18	2.34
	25% B	62.5/437.5	10	10	10	8.0			24.1			7.2			2.19	
	50% A	62.5/437.5	10	10	10	7.9	8.0	7.9	24.2	24.1	24.1	7.5	6.3	5.3	2.38	2.73
	50%B	62.5/437.5	10	10	9	7.9			24.1			7.3			2.39	
	100% A	500/0	10	10	10	7.6	7.8	7.9	24.3	24.4	24.0	7.2	6.4	5.6	2.77	3.23
	100% B	500/0	10	10	10	7.6			24.2			7.2			2.77	
Cl	100% A	500/0	10	0	0	7.6			24.4			7.2			2.78	
	100% B	500/0	10	0	0	7.6			24.4			7.2			2.78	

Cl = chlorinated sample.

[A] Organisms fed prior to testing and before renewal.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.5-24.5°C.
Waterbath temperature for the test period was 25.0°C.
Samples were aerated at 72 hours.

continued

LIMS	
Job number:	TLH-2003-09-16-14-04
sample number:	702796

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field: 100% sample:	-	-
Lab: 100% sample***	0.92	Hach
Lab: Decl. sample:	<0.03	Hach

Decl. = Dechlorinated
***100% sample at 48 hours

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.149	0.014

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	66	179

Salinity [C]	ppt
Menidia control:	1
100% sample:	<1
Salt adjusted sample:	1

[C] Salinity based on conductivity and temperature.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 4d. Concluded

Data recorded during the 96-hour acute bioassays of a sample of effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), 240 Starboard Drive, Beverly Beach, Flagler County, Florida, NPDES# FL0039756, performed from 16 to 20 September 2003.

Sample 4

Facility:	**Beverly Beach WWTP**	**NPDES#:**	**FL0039756**	Facility Type:	**Wastewater**	**Analysts:**	Joshua Ayres
Location:	240 Starboard Drive, Beverly Beach	Contact/District:	P. Oconner/Northeast		**Treatment Plant**		James Daniels
County:	Flagler	Test type:	acute definitive renewal				Marshall Faircloth
Sample Collection Date:	9/14/2003* Time: 1825*	# tests:	2	Receiving Water:	Intracoastal Waterway		Christa Pierini
Test Beginning Date:	9/16/2003 Time: 1630	Chlorination Type:	dechlorinated**		Class III Marine		
Test Ending Date:	9/20/2003 Time: 1500	FDEP SOP#:	TA07_04		**Page 4 of 4**	**Reviewer:**	Rob Buda

*36 hour Sample hold time started 9/15/03 @ 1215 ** Facility dechlorination unit failed, sample dechlorinated in lab

Organism: ***Menidia Beryllina*** Life stage: 13 days [A]Feeding: artemia

After Renewal Chamber size: 1 L Food Batch #: 0194025G

		Sample/Diluen	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
	Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
	Control A	0/500	10	10	10	7.9	7.8	8.5	24.0	25.0	25.1	7.3	4.6	7.4	2.03	2.40
	Control B	0/500	10	10	10											
	Salt Control A	0/500	10	10	10	8.0	7.9	8.5	24.0	26.0	25.3	6.4	3.6	7.5	2.35	2.52
	Salt Control B	0/500	10	10	10											
	6.25% A	31.25/468.75	10	10	10	8.0	7.8	8.5	24.0	24.2	25.1	6.6	4.4	7.4	2.22	2.43
	6.25% B	31.25/468.75	10	10	10											
	12.5% A	62.5/437.5	10	10	10	8.0	7.7	8.5	24.0	24.0	25.1	6.6	4.0	7.5	2.26	2.49
	12.5% B	62.5/437.5	10	10	10											
	25% A	125/375	10	9	9	7.9	7.7	8.4	24.0	24.7	25.1	6.5	4.0	7.5	2.37	2.57
	25% B	125/375	10	9	9											
	50% A	250/250	10	10	10	7.9	7.6	8.3	24.0	24.1	25.1	6.5	3.4	7.4	2.53	2.78
	50% B	250/250	9	9	9											
Dechlorinatec	100% A	500/0	10	9	9	7.8	7.3	8.0	24.0	24.3	25.1	6.5	3.5	7.4	2.88	3.24
	100% B	500/0	10	10	10											
Cl	100% A	500/0	0	0	0											
	100% B	500/0	0	0	0											

Cl = chlorinated sample.

[A] Organisms fed prior to testing and before renewal.

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

Room Temperature range for the test period was 23.5-24.5°C.

Waterbath temperature for the test period was 25.0°C.

Samples were aerated at 72 hours.

LIMS	
Job number:	TLH-2003-09-16-14-04
sample number:	702796

Data Transcription Verification
date: 11/20/03
by: Cathy Oaks / Brad Richardson

Total Residual CL2	mg/L	Method
Field: 100% sample:	-	-
Lab: 100% sample***	0.42	Hach
Lab: Decl. sample:	<0.03	Hach

Decl. = Dechlorinated

***100% sample at 48 hours

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water:	<0.017	<0.017
100% Sample:	0.149	0.014

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	146	319
100% Sample:	66	179

Salinity [C]	ppt
Menidia control:	1
100% sample:	<1
Salt adjusted sample:	1

[C] Salinity based on conductivity and temperature.

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

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

Table 5. Results of chemical analyses on the effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities) sampled on September 15, 2003.

Metals

Aluminum	76 µg/L	A
Cadmium	0.2 µg/L	A
Calcium	53.7 mg/L	A
Copper	7 µg/L	A
Iron	28 µg/L	I
Lead	0.18 µg/L	I
Magnesium	9.5 mg/L	A
Nickel	2.6 µg/L	I
Zinc	94.1 µg/L	A

Pesticides and Herbicides

None detected

Nutrients

Ammonia	0.28 mg N/L	A
Nitrates and Nitrites	24 mg N/L	A
Total Kjeldahl Nitrogen	2.1 mg N/L	
Ortho-Phosphates	5.8 mg P/L	
Total-Phosphorous	5.9 mg P/L	

Base, Neutral, & Acid Extractable Organics

None Detected

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

Table 6. Chemical Analyses performed on the effluent from the Beverly Beach Wastewater Treatment Plant (Ocean City Utilities), sampled on September 15, 2003.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/15/2003 12:15	C1	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50	100	LC50	L		
9/15/2003 12:15	C1	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid, LC50	100	LC50	L		
9/15/2003 12:15	C2	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50	100	LC50	L		
9/15/2003 12:15	C2	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid, LC50	100	LC50	L		
9/15/2003 12:15	C3	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50-dechlor	100	LC50	L		
9/15/2003 12:15	C3	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid,LC50-dechlor	100	LC50	L		
9/15/2003 12:15	C3	Bio-Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	LC50	L		
9/15/2003 12:15	C3	Bio-Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	LC50	K		
9/15/2003 12:15	C4	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50-dechlor	100	LC50	L		
9/15/2003 12:15	C4	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid,LC50-dechlor	100	LC50	L		
9/15/2003 12:15	C4	Bio-Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	LC50	K		
9/15/2003 12:15	C4	Bio-Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	LC50	K		
9/15/2003 12:15	EFFLUENT	Bio-AGP/LimNut	Algal Growth Potential	166	mg DryWt/L		0.1	0.3
9/15/2003 12:15	EFFLUENT	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
9/15/2003 12:15	EFFLUENT	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
9/15/2003 12:15	EFFLUENT	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	77
9/15/2003 12:15	EFFLUENT	BNA-Water	1-Naphthylamine	9.6	ug/L	U	9.6	38
9/15/2003 12:15	EFFLUENT	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	2,4,5-Trichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
9/15/2003 12:15	EFFLUENT	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
9/15/2003 12:15	EFFLUENT	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2,6-Dichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Acetylaminofluorene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Methylnaphthalene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Naphthylamine	9.6	ug/L	U	9.6	38
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Nitroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	2-Picoline	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/15/2003 12:15	EFFLUENT	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	U	19	77
9/15/2003 12:15	EFFLUENT	BNA-Water	3-Methylcholanthrene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	3-Nitroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4-Chloroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	4-Nitroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
9/15/2003 12:15	EFFLUENT	BNA-Water	5-Nitro-o-toluidine	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Acetophenone	0.96	ug/L	U	0.96	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/15/2003 12:15	EFFLUENT	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Aniline	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Benzidine	96	ug/L	U	96	380
9/15/2003 12:15	EFFLUENT	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Benzyl alcohol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
9/15/2003 12:15	EFFLUENT	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
9/15/2003 12:15	EFFLUENT	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
9/15/2003 12:15	EFFLUENT	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Dibenzofuran	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
9/15/2003 12:15	EFFLUENT	BNA-Water	Dimethylaminoazobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	Ethyl methanesulfonate	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Isosafrole	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	Methyl methanesulfonate	0.96	ug/L	UJ	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosodi-n-butylamine	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosodiethylamine	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosomorpholine	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosopiperidine	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	77
9/15/2003 12:15	EFFLUENT	BNA-Water	Pentachlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
9/15/2003 12:15	EFFLUENT	BNA-Water	Pentachloronitrobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
9/15/2003 12:15	EFFLUENT	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	12

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/15/2003 12:15	EFFLUENT	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
9/15/2003 12:15	EFFLUENT	BNA-Water	Safrole	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 12:15	EFFLUENT	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.7
9/15/2003 12:15	EFFLUENT	BNA-Water	o-Toluidine	0.96	ug/L	U	0.96	3.8
9/15/2003 12:15	EFFLUENT	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
9/15/2003 12:15	EFFLUENT	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.8
9/15/2003 12:15	EFFLUENT	GC-Water	Butylate	0.19	ug/L	U	0.19	0.8
9/15/2003 12:15	EFFLUENT	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.4
9/15/2003 12:15	EFFLUENT	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	GC-Water	Ethion	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	GC-Water	Ethoprop	0.096	ug/L	U	0.096	0.4
9/15/2003 12:15	EFFLUENT	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.8
9/15/2003 12:15	EFFLUENT	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.4
9/15/2003 12:15	EFFLUENT	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.4
9/15/2003 12:15	EFFLUENT	GC-Water	Malathion	0.14	ug/L	U	0.14	0.6
9/15/2003 12:15	EFFLUENT	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	1
9/15/2003 12:15	EFFLUENT	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
9/15/2003 12:15	EFFLUENT	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.4
9/15/2003 12:15	EFFLUENT	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.8
9/15/2003 12:15	EFFLUENT	GC-Water	Naled	0.77	ug/L	U	0.77	3.1
9/15/2003 12:15	EFFLUENT	GC-Water	Norflurazon	0.096	ug/L	U	0.096	0.4
9/15/2003 12:15	EFFLUENT	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.6
9/15/2003 12:15	EFFLUENT	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.4
9/15/2003 12:15	EFFLUENT	GC-Water	Phorate	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.6
9/15/2003 12:15	EFFLUENT	GC-Water	Simazine	0.048	ug/L	U	0.048	0.2
9/15/2003 12:15	EFFLUENT	Metals-Water	Aluminum	76	ug/L	A	10	40
9/15/2003 12:15	EFFLUENT	Metals-Water	Arsenic	8	ug/L	U	8	32
9/15/2003 12:15	EFFLUENT	Metals-Water	Cadmium	0.2	ug/L	A	0.025	0.1
9/15/2003 12:15	EFFLUENT	Metals-Water	Calcium	53.7	mg/L	A	0.05	0.3
9/15/2003 12:15	EFFLUENT	Metals-Water	Chromium	2	ug/L	U	2	8
9/15/2003 12:15	EFFLUENT	Metals-Water	Copper	7	ug/L	A	1.2	4.8
9/15/2003 12:15	EFFLUENT	Metals-Water	Iron	28	ug/L	I	10	40
9/15/2003 12:15	EFFLUENT	Metals-Water	Lead	0.18	ug/L	I	0.05	0.2
9/15/2003 12:15	EFFLUENT	Metals-Water	Magnesium	9.5	mg/L	A	0.01	0
9/15/2003 12:15	EFFLUENT	Metals-Water	Nickel	2.6	ug/L	I	2	8
9/15/2003 12:15	EFFLUENT	Metals-Water	Selenium	1	ug/L	U	1	4
9/15/2003 12:15	EFFLUENT	Metals-Water	Silver	0.02	ug/L	U	0.02	0.1
9/15/2003 12:15	EFFLUENT	Metals-Water	Zinc	94.1	ug/L	A	2	8
9/15/2003 12:15	EFFLUENT	Nutrients-Liquid	Ammonia-N	0.28	mg N/L	A	0.02	0
9/15/2003 12:15	EFFLUENT	Nutrients-Liquid	NO2NO3-N	24	mg N/L	A	0.4	1
9/15/2003 12:15	EFFLUENT	Nutrients-Liquid	N_KJEL_TOT	2.1	mg N/L		0.6	2
9/15/2003 12:15	EFFLUENT	Nutrients-Liquid	O-Phosphate-P	5.8	mg P/L		0.4	1
9/15/2003 12:15	EFFLUENT	Nutrients-Liquid	Total-P	5.9	mg P/L		0.4	1.2
9/15/2003 9:09	TRIP BLK	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
9/15/2003 9:09	TRIP BLK	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	77

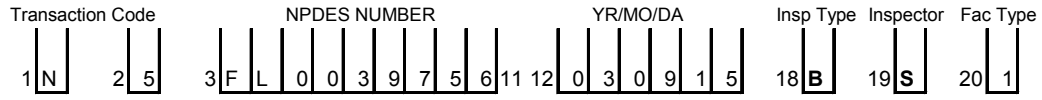
Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/15/2003 9:09	TRIP BLK	BNA-Water	1-Naphthylamine	9.6	ug/L	U	9.6	38
9/15/2003 9:09	TRIP BLK	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	2,4,5-Trichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
9/15/2003 9:09	TRIP BLK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
9/15/2003 9:09	TRIP BLK	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2,6-Dichlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Acetylaminofluorene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Methylnaphthalene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Naphthylamine	9.6	ug/L	U	9.6	38
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Nitroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	2-Picoline	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/15/2003 9:09	TRIP BLK	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	U	19	77
9/15/2003 9:09	TRIP BLK	BNA-Water	3-Methylcholanthrene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	3-Nitroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
9/15/2003 9:09	TRIP BLK	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4-Chloroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	4-Nitroaniline	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
9/15/2003 9:09	TRIP BLK	BNA-Water	5-Nitro-o-toluidine	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Acetophenone	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Aniline	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Benzidine	96	ug/L	U	96	380
9/15/2003 9:09	TRIP BLK	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Benzyl alcohol	1.8	ug/L	I	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
9/15/2003 9:09	TRIP BLK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
9/15/2003 9:09	TRIP BLK	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
9/15/2003 9:09	TRIP BLK	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Dibenzofuran	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
9/15/2003 9:09	TRIP BLK	BNA-Water	Dimethylaminoazobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15

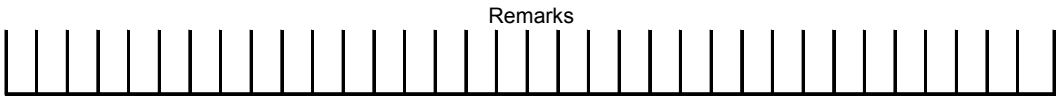
Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/15/2003 9:09	TRIP BLK	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/15/2003 9:09	TRIP BLK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/15/2003 9:09	TRIP BLK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/15/2003 9:09	TRIP BLK	BNA-Water	Ethyl methanesulfonate	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Isosafrole	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
9/15/2003 9:09	TRIP BLK	BNA-Water	Methyl methanesulfonate	0.96	ug/L	UJ	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosodi-n-butylamine	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosodiethylamine	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosomorpholine	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosopiperidine	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	77
9/15/2003 9:09	TRIP BLK	BNA-Water	Pentachlorobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
9/15/2003 9:09	TRIP BLK	BNA-Water	Pentachloronitrobenzene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
9/15/2003 9:09	TRIP BLK	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	12
9/15/2003 9:09	TRIP BLK	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
9/15/2003 9:09	TRIP BLK	BNA-Water	Safrole	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
9/15/2003 9:09	TRIP BLK	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.7
9/15/2003 9:09	TRIP BLK	BNA-Water	o-Toluidine	0.96	ug/L	U	0.96	3.8
9/15/2003 9:09	TRIP BLK	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
9/15/2003 9:09	TRIP BLK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.8
9/15/2003 9:09	TRIP BLK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.8
9/15/2003 9:09	TRIP BLK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	GC-Water	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.4
9/15/2003 9:09	TRIP BLK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	GC-Water	Ethoprop	0.097	ug/L	U	0.097	0.4
9/15/2003 9:09	TRIP BLK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.8
9/15/2003 9:09	TRIP BLK	GC-Water	Fonofos	0.097	ug/L	U	0.097	0.4
9/15/2003 9:09	TRIP BLK	GC-Water	Hexazinone	0.097	ug/L	U	0.097	0.4

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/15/2003 9:09	TRIP BLK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.6
9/15/2003 9:09	TRIP BLK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	1
9/15/2003 9:09	TRIP BLK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
9/15/2003 9:09	TRIP BLK	GC-Water	Metribuzin	0.097	ug/L	U	0.097	0.4
9/15/2003 9:09	TRIP BLK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.8
9/15/2003 9:09	TRIP BLK	GC-Water	Naled	0.78	ug/L	U	0.78	3.1
9/15/2003 9:09	TRIP BLK	GC-Water	Norflurazon	0.097	ug/L	U	0.097	0.4
9/15/2003 9:09	TRIP BLK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.6
9/15/2003 9:09	TRIP BLK	GC-Water	Parathion Methyl	0.097	ug/L	U	0.097	0.4
9/15/2003 9:09	TRIP BLK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.6
9/15/2003 9:09	TRIP BLK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.2
9/15/2003 9:09	TRIP BLK	Metals-Water	Aluminum	10	ug/L	U	10	40
9/15/2003 9:09	TRIP BLK	Metals-Water	Arsenic	8	ug/L	U	8	32
9/15/2003 9:09	TRIP BLK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
9/15/2003 9:09	TRIP BLK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.3
9/15/2003 9:09	TRIP BLK	Metals-Water	Chromium	2	ug/L	U	2	8
9/15/2003 9:09	TRIP BLK	Metals-Water	Copper	1.2	ug/L	U	1.2	4.8
9/15/2003 9:09	TRIP BLK	Metals-Water	Iron	10	ug/L	U	10	40
9/15/2003 9:09	TRIP BLK	Metals-Water	Lead	0.05	ug/L	U	0.05	0.2
9/15/2003 9:09	TRIP BLK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0
9/15/2003 9:09	TRIP BLK	Metals-Water	Nickel	2	ug/L	U	2	8
9/15/2003 9:09	TRIP BLK	Metals-Water	Selenium	1	ug/L	U	1	4
9/15/2003 9:09	TRIP BLK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.1
9/15/2003 9:09	TRIP BLK	Metals-Water	Zinc	2	ug/L	U	2	8
9/15/2003 9:09	TRIP BLK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0
9/15/2003 9:09	TRIP BLK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0
9/15/2003 9:09	TRIP BLK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
9/15/2003 9:09	TRIP BLK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0
9/15/2003 9:09	TRIP BLK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.1

The Bioassay of the Beverly Beach (Ocean City Utilities) WWTP effluent sampled on September 15, 2003, NPDES #FL0039756.

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





The Priority Pollutants Analysis for Bioassay of the Beverly Beach (Ocean City Utilities) WWTP effluent sampled on September 15, 2003, NPDES #FL0039756.

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

