

Bioassays of

Miami-Dade WASD North District WWTP

Miami-Dade County

NPDES #FL0032182

Sampled October 5-6, 2003

September 2004

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Miami-Dade Water and Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES #FL0032182. Effluent samples for this facility were collected on October 5-6, 2003.

Introduction

This wastewater treatment plant has a design flow of 120 million gallons per day (MGD) and an average daily flow of 112.5 MGD (flow data from October 2002-September 2003). This wastewater treatment plant uses pure oxygen activated-sludge for its treatment process. Treatment includes grit removal through 2 cyclones, 6 primary settling tanks, 6 oxygenation tanks, 10 secondary clarifiers, 8 return activated-sludge pumps, 3 variable-speed WAS pumps, 6 constant-speed WAS pumps and 6 secondary clarifiers, 5 sludge pumping stations, one effluent pump station where chlorine is added prior to discharge using 9 chlorinators and 9 evaporators, and one hypochlorite disinfection system as a secondary method for disinfection. The effluent disposal is via ocean outfall D001, a 90-inch diameter pipe that discharges approximately 11,000 feet offshore at 108 ft depth to the Atlantic Ocean (facility information provided by Todd Brown and Mike Bechtold, FDEP, Southeast District, West Palm Beach).

Methods

One sample was collected every 6 hours for 24 hours from the D001 NPDES sampling point by Terry Davis (FDEP, Southeast District, Port St. Lucie) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All FDEP SOP's are available on the web at: http://www.floridadep.org/labs/qa/sops.htm.

The toxicity and algal growth potential tests discussed in this report were performed following internal DEP SOP's TA07_03, TA07_04, and TA08_01 through TA08_06. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp.

The bioassay samples were salinity adjusted per the NPDES permit requirements which are: for mysids, "effluent salinity adjusted to 5ppt - 7ppt for the 100% test concentration using crystalline salt; all other concentrations adjusted to 20ppt - 25ppt"; for the fish, "the 100% sample test concentration shall not be salinity adjusted; all other concentrations shall be adjusted to 20ppt - 25ppt. The adjustment to 20ppt - 25ppt salinity for both species shall not be performed with crystalline salt". Forty Fathoms ® artificial sea salts was used to adjust the salinity of the 100% test concentration samples in the mysid tests. Hyper-saline brine was used to adjust the salinity in all other salinity-adjusted concentrations. A low-salinity control test was performed in the fish test for sample #1 to ensure that "low salinity" was not a factor in any fish mortality. There was 5% mortality in this test at 96-hours.

The NPDES permit for this facility requires that 96-hour static renewal definitive bioassays that include a 100% concentration and a 30% concentration be performed on the chlorinated effluent. Additional tests were conducted on dechlorinated sample water, due to high total residual chlorine concentrations measured in the bioassay sample water, and high initial mortality in tests of 100% sample water.

Dechlorinated tests were performed as follows: the dead organisms were removed from the 100% sample concentrations; the 100% sample replicates were dechlorinated, by the addition of sodium thiosulfate (0.025 N) at a concentration of 0.6 mL per liter of sample, then, test organisms were added to the dechlorinated replicates. There was insufficient sample for each of the four samples to perform standard protocol dechlorinated tests. Due to the absence of mortality in the 100% sample test concentrations for Samples #3 and #4 by the end of test day zero (0), dechlorinated tests were not performed on these samples.

Toxicity Test Results

Tests were performed October 7-11, 2003.

Sample 1 Results:
Americamysis bahia 96-hr acute definitive bioassay – LC_{50}=74.99%, 100% mortality in 100% sample within 1 hour, 5% mortality in 30% sample in 96 hours

Menidia beryllina 96-hr acute definitive bioassay – LC_{50}=57.23%, 100% mortality in 100% sample within 30 minutes, 5% mortality in 30% sample in 96 hours

Sample 1 Results:
Americamysis bahia 96-hr acute screen bioassay, **dechlorinated** – LC_{50} >100%, 35% mortality in 100% sample at 96 hours

Menidia beryllina 96-hr acute screen bioassay, **dechlorinated** – LC_{50} >100%, 0% mortality in 100% sample at 96 hours

Sample 2 Results:
Americamysis bahia 96-hr acute definitive bioassay – LC_{50}=75.16%, 100% mortality in 100% sample within 1 hour, 0% mortality in 30% sample in 96 hours

Menidia beryllina 96-hr acute definitive bioassay – LC_{50}=56.81%, 100% mortality in 100% sample within 30 minutes, 5% mortality in 30% sample in 96 hours

Sample 2 Results:
Americamysis bahia 96-hr acute definitive bioassay, **dechlorinated** – LC_{50} >100%, 40% mortality in 100% sample at 96 hours

Menidia beryllina 96-hr acute definitive bioassay, **dechlorinated** – LC_{50} >100%, 0% mortality in 100% sample at 96 hours

Sample 3 Results:
Americamysis bahia 96-hr acute definitive bioassay – LC_{50} 79.17%, 90% mortality in 100% sample at 96 hours, 5% mortality in 30% sample in 96 hours

Menidia beryllina 96-hr acute definitive bioassay – LC_{50} >100%, 20% mortality in 100% sample at 96 hours, 0% mortality in 30% sample in 96 hours

Sample 4 Results:
Americamysis bahia 96-hr acute definitive bioassay – LC_{50} 77.46%, 100% mortality in 100% sample at 96 hours, 0% mortality in 30% sample in 96 hours

Menidia beryllina 96-hr acute definitive bioassay – LC_{50} >100%, 35% mortality in 100% sample at 96 hours, 10% mortality in 30% sample in 96 hours

Total residual chlorine (TRC) was detected in Samples 1-4 at concentrations of 0.56 mg/L, 0.53 mg/L, 0.56 mg/L and 0.61 mg/L, respectively. TRC values as low as 0.037 mg/L and 0.22 mg/L have produced LC50s in species similar to the fish and mysid test organisms, respectively, used for these bioassays (Bellanca and Bailey, 1977). Because of the rapid (within one hour of test initiation) and high percentage of mortality in both test species in the 100% test concentrations of Sample #1 and Sample #2, additional tests were performed on dechlorinated aliquots of these samples.

For Samples #1 and #2, the dechlorinated mysid tests showed 35% and 40% mortality within 96 hours. The dechlorinated fish tests for sample #1 and sample #2 produced no mortality within 96 hours. These results suggest both that total residual chlorine is in part responsible for the observed mortality in the tests for samples #1 and #2 and that an additional toxic component(s) existed within the samples to which the mysids appeared to be more sensitive than the fish.

The total residual chlorine concentrations in Samples #3 and #4 were equal to or greater than those measured in Samples #1 and #2. The absence of rapid mortality in the tests for Samples #3 and #4 appears to contradict the evidence that chlorine played a role in the observed mortality in the tests for Sample #1 and Sample #2.

Total ammonia was detected in bioassay samples #1 through #4 in the laboratory at concentrations of 11.60 mg/L, 10.39 mg/L, 13.40 mg/L, and 13.90 mg/L, respectively. Based on laboratory measurements of temperature, salinity, and pH for the 100% effluent sample aliquots used for the mysid tests, calculated unionized ammonia concentrations were: Sample #1, 0.112 mg/L; Sample #2, 0.100 mg/L; Sample #3, 0.980 mg/L; and Sample #4, 1.49 mg/L. Unionized ammonia concentrations were slightly higher in the sample aliquots used for the fish tests due to the lower salinity in these tests. The unionized ammonia concentrations in Sample #3 and Sample #4 exceeded the concentrations reported to have produced toxicity in *Americamysis bahia* (~1.0 mg/L) and *Menidia beryllina* (~0.9 mg/L) (Miller et al., 1990).

Unionized ammonia concentrations for Samples #3 and #4 are almost 10 times higher than those for Samples #1 and #2. The higher values are due in part to the differences in the total ammonia concentrations of the samples, but are primarily due to differences in the initial pH values of the two sets of samples. Samples #1 and #2 both had an initial pH of 7.2 SU (Standard Units) and Samples #3 and #4 had initial pH values above 8.0 S.U. During the test period, the pH of both Samples #1 and #2 increased by approximately 1 S.U. This increase in pH was enough to have raised the unionized ammonia concentrations in Samples #1 and #2 to toxic levels.

Concentrations of TRC and unionized ammonia exceeding concentrations known to be lethal to the test species and the initial absence of mortality in Samples #3 and #4, strongly suggests that there was, at least initially, an antagonistic reaction between the TRC and unionized ammonia components of these samples.

The patterns of mortality in the tests suggest: 1) Total residual chlorine played a role in the observed mortality, 2) unionized ammonia played a role in the observed mortality, 3) the mysids showed a greater sensitivity to the toxic components than did the fish, 4) there is an antagonist reaction between chlorine and unionized ammonia, or some unknown toxicant, at the concentrations present in Sample #3 and Sample #4.

See Tables 1-4 for bioassay bench sheets.

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 166 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Shultz (1987) found that AGP values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The “problem” threshold for marine receiving waters is 10 mg dry wt/L (personal communication- Raschke, USEPA, 1987). Although an AGP test with a saltwater species was not performed (laboratory protocol requires AGP test species to be based on effluent salinity which was less than 1ppt in the AGP sample), the presumption is that the result would have also been more than the “problem” threshold of 10 mg dry weight/L in marine waters. The effluent AGP value was less than the predicted AGP values based on the inorganic nitrogen and ortho-phosphate content of the sample (Table 5). Differences between actual and predicted AGP values greater than an order of magnitude are considered sufficient evidence to warrant follow up testing with the algal growth inhibition bioassay.

See Table 5 for AGP results.

Chemistry Results

Total residual chlorine measured in the field in Samples #1 and #2 exceeded the Class III Marine Water Quality Criterion of ≤ 0.01 mg/L at concentrations of 2.15 mg/L and 1.90 mg/L, respectively (62-302.530(19) F.A.C.). Total residual chlorine was not measured in Samples #3 and #4 in the field. Laboratory measurements of total residual chlorine concentrations for Samples #1, #2, #3, and #4 exceeded the Class III Marine Water Quality Criterion. It cannot be determined if the TRC exceeded the end-of-pipe limit of 0.01 mg/L during this sampling event since samples were not collected at the ocean outfall.

Total ammonia was detected in the preserved effluent sample submitted for chemical analyses at a concentration of 13.0 mg/L. The calculated unionized ammonia concentration in the effluent based on field measurements for temperature, pH and salinity was 0.03 mg/L.

The effluent concentration of silver (0.19 µg/L) exceeded the Class III Marine Water Quality Criterion (62-302.530(45) F.A.C., Table 6).

Aluminum, iron, lead and zinc were detected in the effluent samples at levels that complied with Class III Marine Water Quality Criteria.

Cadmium, copper and selenium were also detected in the effluent samples at levels above the method detection limits, but below the practical quantitation limits.

See Table 6 for results of analytes detected in the effluent.

See Appendix 1 for a complete list of chemical analyses performed.

Conclusion

The four effluent samples collected from this facility on October 5-6, 2003, showed acute toxicity to both test species during the 96-hour bioassay tests. However, each sample was in compliance with the permit requirement of < 50% mortality in the 30% effluent concentrations. Toxicity is partially attributed to the concentrations of total residual chlorine and unionized ammonia in the samples. Unidentified constituents in the sample cannot be ruled out as contributing to the observed mortality. The effluent AGP result exceeded the “problem” threshold for fresh receiving waters and would likely have exceeded the “problem” threshold of 10 mg dry wt./L for marine receiving waters had the marine algal species been used. The effluent concentration of silver (0.19 µg/L) exceeded the Class III Marine Quality Criterion.

Literature Cited

Bellanca, M. A, and D. S. Bailey, 1977. Effects of chlorinated effluents on aquatic ecosystem in the lower James River, J. Wat. Poll. Cont. Fed. April 1977 - 639-645.

Miller, D.C., S. Poucher, J.A. Cardin, and D. Hansen. 1990. The Acute and Chronic Toxicity of Ammonia to Marine Fish and Invertebrates. *Archives of Environmental Contamination and Toxicology* 19: 40-48

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

Table 1. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.
continued

Sample 1 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1530	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1100	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Julie Espy

All organisms in 100% sample were dead within 1 hour of loading
Test aerated at 72 hours to increase dissolved oxygen.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: *Artemia*
0 - 48 hours Chamber size: 400 ml Food Batch #: 0194025G

		SURVIVAL # Alive			pH (standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Sample/Diluent 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	0/250	5	5	5	8.2	8.2	-	24.0	24.3	24.0	7.2	6.7	4.5	31.7	-
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Control C	0/250	5	5	5	-	-	7.8	-	-	-	-	-	-	-	32.5
Control D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl A	0/250	5	4	4	8.1	8.2	-	24.0	24.6	24.0	7.7	6.6	5.1	11.8	-
Salt Ctrl B	0/250	5	4	4	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	-	-	8.0	-	-	-	-	-	-	-	13.3
Salt Ctrl D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% A	18.75/231.25	5	5	5	8.0	8.1	-	24.0	24.4	24.0	6.8	6.6	4.9	32.8	-
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	-	-	7.9	-	-	-	-	-	-	-	33.2
7.5% D	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% A	37.5/212.50	5	5	5	8.0	8.1	-	24.0	24.4	24.0	7.0	6.5	5.0	33.3	-
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	-	-	7.9	-	-	-	-	-	-	-	33.0
15% D	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% A	75/175	5	5	5	7.8	8.1	-	24.0	24.4	24.0	7.1	6.5	5.1	33.3	-
30% B	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	5	5	-	-	8.0	-	-	-	-	-	-	-	34.3
30% D	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% A	150/100	5	5	5	7.4	8.0	-	24.0	24.3	24.0	7.0	6.5	5.1	32.7	-
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	-	-	7.9	-	-	-	-	-	-	-	33.8
60% D	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
100% A	250/0	5	0	-	7.2	-	-	24.0	-	-	7.7	-	-	13.1	-
100% B	250/0	5	0	-	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	5	0	-	-	-	-	-	-	-	-	-	-	-	-
100% D	250/0	5	0	-	-	-	-	-	-	-	-	-	-	-	-
dechlorinated 100% A	250/0	5	3	3	7.2	8.1	-	24.0	24.4	24.0	7.7	6.5	5.4	13.1	-
100% B	250/0	5	4	4	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	5	5	5	-	-	8.2	-	-	-	-	-	-	-	15.2
100% D	250/0	5	5	5	-	-	-	-	-	-	-	-	-	-	-

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.

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

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 1/30/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	2.15	field meter
Lab: 100% sample:	0.56	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	11.60	0.112

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	200	292

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1.1
[D]Salt adjusted 100% sample:	6.5
[E]Salt adjusted 7.5% - 60% sample	22

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted with 40 fathoms artificial sea salts.
[E]Sample salt adjusted with hypersaline brine.

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continued

Sample 1 of 4

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All organisms in 100% sample were dead within 1 hour of loading
Test aerated at 72 hours to increase dissolved oxygen.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: *Artemia*
48 - 96 hours Chamber size: 400 ml Food Batch #: 0194025G

	Sample/Diluent	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	0/250	5	5	5	-	-	7.7	-	-	24.5	-	-	4.5		33.2
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-		-
Control C	0/250	5	5	5	8.0	-	-	24.0		-	6.0		-	30.9	-
Control D	0/250	5	5	5	-	7.8	-	-	25.2	-	-	4.3	-	-	-
Salt Ctrl A	0/250	4	4	4	-	-	8.1	-	-	24.2	-	-	6.1	-	13.0
Salt Ctrl B	0/250	4	4	4	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	8.1	-	-	24.0	-	-	6.0	-	-	13.2	-
Salt Ctrl D	0/250	5	5	5	-	8.0	-	-	25.4	-	-	4.4	-	-	-
7.5% A	18.75/231.25	5	5	5	-	-	8.0	-	-	24.5	-	-	6.1	-	36.3
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	8.0	-	-	24.0	-	-	6.1	-	-	34.8	-
7.5% D	18.75/231.25	5	5	5	-	7.7	-	-	25.4	-	-	4.2	-	-	-
15% A	37.5/212.50	5	5	5	-	-	8.0	-	-	24.3	-	-	6.3	-	35.6
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	7.9	-	-	24.0	-	-	6.0	-	-	35.6	-
15% D	37.5/212.50	5	5	5	-	7.8	-	-	25.5	-	-	4.1	-	-	-
30% A	75/175	5	5	5	-	-	8.1	-	-	24.6	-	-	6.3	-	38.5
30% B	75/175	5	4	4	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	5	5	7.8	-	-	24.0	-	-	6.1	-	-	36.1	-
30% D	75/175	5	5	5	-	7.9	-	-	25.4	-	-	4.3	-	-	-
60% A	150/100	5	5	5	-	-	7.9	-	-	24.4	-	-	5.6	-	34.4
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	7.4	-	-	24.0	-	-	6.1	-	-	33.8	-
60% D	150/100	5	5	5	-	7.8	-	-	25.3	-	-	4.4	-	-	-
100% A	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% B	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% D	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dechlorinated 100% A	250/0	3	3	3	-	-	8.2	-	-	24.3	-	-	5.9	-	15.2
100% B	250/0	4	2	2	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	5	5	5	8.2	-	-	24.0	-	-	6.6	-	-	15.1	-
100% D	250/0	5	4	3	-	8.1	-	-	25.2	-	-	4.4	-	-	-

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 1/30/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	2.15	field meter
Lab: 100% sample:	0.56	Hach
Control water (NSW)	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	11.60	0.112

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	200	292

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1.1
[D]Salt adjusted 100% sample:	6.5
[E]Salt adjusted 7.5% - 60% sample	22

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted with 40 fathoms artificial sea salts.
[E]Sample salt adjusted with hypersaline brine.

Adult Mortality	Percent
Control	0%
Salt Control	10%
100% effluent, chlorinated	100%
100% effluent, dechlorinated	35%
60% effluent	0%
30% effluent	5%
15% effluent	0%
7.5% effluent	0%

Test Statistic	Method	Result
LC50	TSK	74.99

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continued

Sample 1 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1100	FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Julie Espy

All organisms in 100% sample were dead within 30 minutes of loading.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
0 - 48 hours Chamber size: 500 ml Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			[D]DO (mg/L)			[C]Conductivity	
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	0/250	10	10	9	8.2	8.0	-	24.0	24.3	-	7.2	6.2	-	32.7	-
Control B	0/250	10	10	10	-	-	8.0	-	-	24.0	-	-	6.4	-	38.3
7.5% A	18.75/231.25	10	10	10	8.0	7.9	-	24.0	24.2	-	7.2	6.0	-	33.1	-
7.5% B	18.75/231.25	10	10	10	-	-	8.0	-	-	24.0	-	-	6.5	-	35.8
15% A	37.5/212.50	10	9	9	8.0	8.0	-	24.0	24.6		7.2	6.0	-	33.0	-
15% B	37.5/212.50	10	10	10	-	-	8.0	-	-	24.0	-	-	6.3	-	37.9
30% A	75/175	10	10	9	7.8	8.0	-	-	24.7		7.1	5.9	-	33.1	-
30% B	75/175	10	10	10	-	-	8.0	-	-	24.0	-	-	6.1	-	34.7
60% A	150/100	10	7	7	7.4	7.9	-	24.0	24.5		6.8	5.9	-	32.9	
60% B	150/100	10	5	5	-	-	8.0	-	-	24.0	-	-	5.7	-	34.8
100% A	250/0	10	0	-	7.2	-	-	24.0	-	-	7.9	-	-	4.12	-
100% B	250/0	10	0	-	-	-	-	-	-	-	-	-	-	-	-
Dechl 100% A	250/0	10	10	10	7.2	-	-	24.0	-	-	7.9	-	-	4.12	-
Dechl 100% B	250/0	10	10	10		8.1	8.2		24.0	24.0		6.6	6.0		7.11
low salinity 100% A	250/0	10	10	10	8.1	-	-	24.3	-	-	7.2	-	-	4.20	-
low salinity 100% B	250/0	10	10	10	-	8.2	8.2	-	24.0	24.0	-	6.8	6.3	-	5.06

Dechl - dechlorinated 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 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
[C]Conductivity is in uncorrected mmhos/cm.
[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 1/30/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	2.15	field meter
Lab: 100% sample:	0.56	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	11.60	0.116

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	200	292

Salinity[E]	ppt
M. beryllina control:	22
100% sample:	1.1
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.
[F]Sample salt adjusted with 40 fathoms artificial sea salts.

Table 1. concluded. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 1 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1100	FDEP SOP#:	TA07_04		**Page 4 of 4**	**Reviewer:**	Julie Espy

All organisms in 100% sample were dead within 30 minutes of loading.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
48 - 96 hours Chamber size: 500 ml Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			[D]DO (mg/L)			[C]Conductivity	
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	0/250	9	9	9	-	8.0	8.0	-	24.0	24.0	-	7.7	6.5	-	34.7
Control B	0/250	10	10	10	8.1	-	-	24.0	-	-	6.2	-	-	30.5	-
7.5% A	18.75/231.25	10	10	10	-	8.0	7.9	-	24.0	24.0	-	7.4	6.4	-	38.5
7.5% B	18.75/231.25	10	10	10	8.1	-	-	24.0	-	-	6.1	-	-	35.0	-
15% A	37.5/212.50	9	8	8	-	8.0	8.0	-	24.0	24.1	-	6.5	6.4	-	38.9
15% B	37.5/212.50	10	10	10	7.9	-	-	24.0	-	-	6.1	-	-	35.1	-
30% A	75/175	9	9	9	-	8.0	8.0	-	24.0	24.0	-	6.5	6.3	-	38.9
30% B	75/175	10	10	10	7.8	-	-	24.1	-	-	6.2	-	-	35.1	-
60% A	150/100	7	7	7	-	8.0	8.0	-	24.0	24.1	-	6.5	6.3	-	36.9
60% B	150/100	5	5	5	7.5	-	-	24.2	-	-	6.4	-	-	33.7	-
100% A	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% B	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dechl 100% A	250/0	10	10	10	-	8.3	8.4	-	24.0	24.1	-	6.3	7.1	-	6.90
Dechl 100% B	250/0	10	10	10	8.2	-	-	24.0	-	-	6.3	-	-	6.55	-
low salinity 100% A	250/0	10	9	9	-	8.2	-	-	24.2	-	-	6.0	-	-	-
low salinity 100% B	250/0	10	10	10	8.3	-	-	24.0	-	-	6.3	-	-	6.35	-

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 1/30/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	2.15	field meter
Lab: 100% sample:	0.56	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	11.60	0.116

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	200	292

Adult Mortality	Percent
Control	5%
low salinity control	5%
100% effluent, chlorinated	100%
100% effluent, dechlorinated	0%
60% effluent	40%
30% effluent	5%
15% effluent	10%
7.5% effluent	0%

Test Statistic	Method	Result
LC50	TSK	57.23

Dechl - dechlorinated 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 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
[C]Conductivity is in uncorrected mmhos/cm.
[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

Salinity[E]	ppt
M. beryllina control:	22
100% sample:	1.1
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.
[F]Sample salt adjusted with 40 fathoms artificial sea salts.

Table 2. continued

Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 2 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1530	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1130	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Julie Espy

All organisms in 100% sample were dead within 1 hour of loading
Test aerated at 72 hours to increase dissolved oxygen.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: *Artemia*
0 - 48 hours Chamber size: 400 ml Food Batch #: 0194025G

		SURVIVAL # Alive			pH (standard units)			Temperature °C[B]			Diss. Oxygen mg/L			Conductivity Uncorrected mmhos/cm	
Concentrations	Sample/Diluent 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	0/250	5	5	5	8.2	8.1	-	24.0	24.0	-	7.0	6.2	-	32.4	-
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Control C	0/250	5	5	5	-	-	8.0	-	-	24.0	-	-	5.6	-	31.8
Control D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl A	0/250	5	4	4	8.1	8.2	-	24.0	24.6	24.0	7.7	6.6	5.1	11.8	-
Salt Ctrl B	0/250	5	4	4	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	-	-	8.0	-	-	-	-	-	-	-	13.3
Salt Ctrl D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% A	18.75/231.25	5	5	5	8.0	8.1	-	24.0	24.0	-	7.1	6.3	-	31.2	-
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	-	-	7.9	-	-	24.0	-	-	5.5	-	30.7
7.5% D	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% A	37.5/212.50	5	5	5	7.9	8.1	-	24.0	24.1	-	7.1	6.4	-	28.8	-
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	-	-	7.9	-	-	24.0	-	-	5.3	-	26.9
15% D	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% A	75/175	5	5	5	7.7	8.1	-	24.0	24.2	-	7.1	6.3	-	24.6	-
30% B	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	5	5	-	-	8.0	-	-	24.0	-	-	5.1	-	24.6
30% D	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% A	150/100	5	5	5	7.4	8.0	-	24.0	24.2	-	7.2	6.3	-	32.6	-
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	-	-	7.9	-	-	24.0	-	-	5.0	-	32.8
60% D	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
100% A	250/0	5	0	-	7.2	-	-	24.0	-	-	7.4	-	-	13.6	-
100% B	250/0	5	0	-	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	5	0	-	-	-	-	-	-	-	-	-	-	-	-
100% D	250/0	5	0	-	-	-	-	-	-	-	-	-	-	-	-
dechlorinated 100% A	250/0	5	4	3	7.2	-	-	24.0	-	-	7.4	-	-	13.6	-
100% B	250/0	5	3	3	-	8.1	-	-	24.4	-	-	6.2	-	-	-
100% C	250/0	5	4	4	-	-	8.2	-	-	24.1	-	-	5.4	-	14.3
100% D	250/0	5	5	2	-	-	-	-	-	-	-	-	-	-	-

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.

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

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	1.90	field meter
Lab: 100% sample:	0.53	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	10.39	0.100

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	200	315

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1.2
[D]Salt adjusted 100% sample:	6.5
[E]Salt adjusted 7.5% - 60% sample	22

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted using 40 fathoms artificial sea salts.
[E]Sample salt adjusted using hypersaline brine.

Table 2. continued — Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 2 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1530	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1130	FDEP SOP#:	TA07_03		**Page 2 of 4**	**Reviewer:**	Julie Espy

All organisms in 100% sample were dead within 1 hour of loading
Test aerated at 72 hours to increase dissolved oxygen.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: *Artemia* Conductivity
48 - 96 hours Chamber size: 400 ml 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	0/250	5	5	5	-	-	8.1	-	-	24.0	-	-	6.6	-	33.4
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Control C	0/250	5	5	5	8.0	-	-	24.0		-	5.8		-	32.1	-
Control D	0/250	5	5	5	-	8.0	-	-	25.4	-	-	4.6	-	-	-
Salt Ctrl A	0/250	4	4	4	-	-	8.1	-	-	24.2	-	-	6.1	-	13.0
Salt Ctrl B	0/250	4	4	4	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	8.1	-	-	24.0	-	-	6.0	-	-	13.2	-
Salt Ctrl D	0/250	5	5	5	-	8.0	-	-	25.4	-	-	4.4	-	-	-
7.5% A	18.75/231.25	5	5	5	-	-	7.7	-	-	24.0	-	-	4.2	-	34.0
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	8.0	-	-	24.0	-	-	5.8	-	-	33.1	-
7.5% D	18.75/231.25	5	5	5	-	7.9	-	-	25.5	-	-	4.9	-	-	-
15% A	37.5/212.50	5	5	5	-	-	8.0	-	-	24.1	-	-	5.6	-	36.7
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	8.0	-	-	24.1	-	-	5.8	-	-	35.6	-
15% D	37.5/212.50	5	5	5	-	7.9	-	-	25.6	-	-	4.8	-	-	-
30% A	75/175	5	5	5	-	-	8.2	-	-	24.0	-	-	6.2	-	36.2
30% B	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	5	5	7.8	-	-	24.1	-	-	6.0	-	-	34.8	-
30% D	75/175	5	5	5	-	7.8	-	-	25.6	-	-	4.5	-	-	-
60% A	150/100	5	5	4	-	-	7.7	-	-	24.2	-	-	4.0	-	34.4
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	7.4	-	-	24.0	-	-	6.1	-	-	33.9	-
60% D	150/100	5	5	5	-	7.8	-	-	25.5	-	-	4.3	-	-	-
100% A	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% B	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% D	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dechlorinated 100% A	250/0	3	3	3	-	-	8.2	-	-	23.8	-	-	5.9	-	15.7
dechlorinated 100% B	250/0	3	3	3	-	-	-	-	-	-	-	-	-	-	-
dechlorinated 100% C	250/0	4	4	4	8.2	-	-	24.0	-	-	6.7	-	-	15.5	-
dechlorinated 100% D	250/0	2	2	2	-	8.2	-	-	25.3	-	-	4.6	-	-	-

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	1.90	field meter
Lab: 100% sample:	0.53	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	10.39	0.100

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	200	315

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1.2
[D]Salt adjusted 100% sample:	6.5
[E]Salt adjusted 7.5% - 60% sample	22

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted using 40 fathoms artificial sea salts.
[E]Sample salt adjusted using hypersaline brine.

Adult Mortality	Percent
Control	0%
Salt Control	10%
100% effluent, chlorinated	100%
100% effluent, dechlorinated	40%
60% effluent	5%
30% effluent	0%
15% effluent	0%
7.5% effluent	0%

Test Statistic	Method	Result
LC50	TSK	75.16

Table 2. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.
continued

Sample 2 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1130	FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Julie Espy

All organisms in 100% sample were dead within 30 minutes of loading.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
0 - 48 hours Chamber size: 500 ml Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			[D]DO (mg/L)			[C]Conductivity	
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	0/250	10	10	10	8.2	8.0	-	24.0	24.0	-	6.9	6.7	-	32.4	-
Control B	0/250	10	10	10	-	-	8.0	-	-	24.0	-	-	6.5	-	34.2
7.5% A	18.75/231.25	10	10	10	8.0	8.0	-	24.0	24.1	-	6.8	6.4	-	31.2	-
7.5% B	18.75/231.25	10	10	10	-	-	8.0	-	-	24.0	-	-	6.0	-	32.8
15% A	37.5/212.50	10	10	10	7.9	8.0	-	24.0	24.0		6.9	6.2	-	28.8	-
15% B	37.5/212.50	10	10	10	-	-	7.9	-	-	24.0	-	-	5.6	-	32.5
30% A	75/175	10	10	10	7.7	8.0	-	24.0	24.0		6.8	6.0	-	24.6	-
30% B	75/175	10	10	10	-	-	8.0	-	-	24.0	-	-	5.4	-	26.9
60% A	150/100	10	8	8	7.4	8.0	-	24.0	24.0		6.9	5.9	-	32.4	
60% B	150/100	10	4	4	-	-	8.0	-	-	24.0	-	-	5.7	-	34.7
100% A	250/0	10	0	-	7.3	-	-	24.0	-	-	6.6	-	-	2.89	-
100% B	250/0	10	0	-	-	-	-	-	-	-	-	-	-	-	-
Dechl 100% A	250/0	10	10	10	7.3	-	-	24.0	-	-	6.6	-	-	2.89	-
Dechl 100% B	250/0	10	10	10	-	8.1	8.2	-	24.0	24.6	-	6.7	5.8	-	7.51

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

Dechl = dechlorinated sample.

[B]Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

[C]Conductivity is in uncorrected mmhos/cm.

[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	1.90	field meter
Lab: 100% sample:	0.53	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	10.39	0.131

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	200	315

Salinity[E]	ppt
M. beryllina control:	22
100% sample:	1.2
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.

[F]Sample salt adjusted using hypersaline brine.

Table 2. concluded. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 2 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1130	FDEP SOP#:	TA07_04		**Page 4 of 4**	**Reviewer:**	Julie Espy

All organisms in 100% sample were dead within 30 minutes of loading.
Dechlorinated test not part of permit, ran for information only.

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
48 - 96 hours Chamber size: 500 ml Food Batch #: 0194025G

			SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			[D]DO (mg/L)			[C]Conductivity	
	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	0/250	10	10	10	-	8.1	8.0	-	24.0	24.8	-	6.5	6.0	-	35.6
	Control B	0/250	10	10	10	8.1	-	-	24.0	-	-	5.6	-	-	30.7	-
	7.5% A	18.75/231.25	10	10	10	-	8.0	8.0	-	24.0	25.5	-	6.5	5.9	-	35.5
	7.5% B	18.75/231.25	10	10	10	8.1	-	-	24.1	-	-	5.8	-	-	32.2	-
	15% A	37.5/212.50	10	9	9	-	8.0	8.0	-	24.2	25.7	-	6.1	5.9	-	38.6
	15% B	37.5/212.50	10	10	10	8.0	-	-	24.1	-	-	6.2	-	-	34.9	-
	30% A	75/175	10	10	10	-	8.0	8.0	-	24.2	25.8	-	6.1	6.1	-	35.4
	30% B	75/175	10	10	9	7.9	-	-	24.0	-	-	6.5	-	-	32.9	-
	60% A	150/100	8	8	8	-	8.0	8.0	-	25.3	25.2	-	5.8	6.0	-	35.3
	60% B	150/100	4	4	4	7.4	-	-	24.0	-	-	6.4	-	-	32.6	-
	100% A	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100% B	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dechl	100% A	250/0	10	10	10	-	8.3	8.3	-	24.9	25.8	-	5.8	6.0	-	7.60
Dechl	100% B	250/0	10	10	10	8.1	-	-	24.1	-	-	6.7	-	-	8.12	-

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: Josh Ayres/James Daniels

Total Residual CL2	**mg/L**	**Method**
Field:100% sample:	1.90	field meter
Lab: 100% sample:	0.53	Hach
Control water (NSW):	<0.03	Hach

Ammonia	**Total (mg/L)**	**Unionized (mg/L)**
Control water (NSW):	<0.054	<0.054
100% Sample:	10.39	0.131

Alk & Hardness	**Alkalinity (mg/L)**	**Hardness (mg/L)**
Control water (NSW):	136	-
100% Sample:	200	315

Salinity[E]	**ppt**
M. beryllina control:	22
100% sample:	1.2
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.
[F]Sample salt adjusted using hypersaline brine.

Adult Mortality	**Percent**
Control	0%
100% effluent, chlorinated	100%
100% effluent, dechlorinated	0%
60% effluent	40%
30% effluent	5%
15% effluent	5%
7.5% effluent	0%

Test Statistic	**Method**	**Result**
LC50	TSK	56.81

Dechl = dechlorinated 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 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
[C]Conductivity is in uncorrected mmhos/cm.
[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

Table 3. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.
continued

Sample 3 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1230	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Julie Espy

Test aerated at 72 hours to increase dissolved oxygen.

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: *Artemia*
0 - 48 hours Chamber size: 400 ml 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	0/250	5	5	5	8.2	8.1	-	24.0	24.1	-	7.2	6.3	-	32.5	-
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Control C	0/250	5	5	5	-	-	7.8	-	-	24.0	-	-	4.0	-	32.4
Control D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl A	0/250	5	5	5	8.1	8.2	-	24.0	24.6	24.0	7.7	6.6	5.1	11.8	-
Salt Ctrl B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	-	-	8.0	-	-	-	-	-	-	-	13.3
Salt Ctrl D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% A	18.75/231.25	5	5	5	8.1	8.1	-	24.0	24.1	-	7.2	6.3	-	30.5	-
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	-	-	7.9	-	-	24.0	-	-	4.6	-	30.8
7.5% D	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% A	37.5/212.50	5	5	5	8.1	8.1	-	24.0	24.1	-	7.2	6.1	-	28.1	-
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	-	-	7.8	-	-	24.0	-	-	4.4	-	29.0
15% D	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% A	75/175	5	5	5	8.2	8.2	-	24.0	24.2	-	7.1	6.1	-	24.3	-
30% B	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	5	5	-	-	8.0	-	-	24.0	-	-	4.4	-	25.3
30% D	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% A	150/100	5	5	5	8.1	8.0	-	24.0	24.1	-	7.2	6.2	-	33.8	-
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	-	-	7.9	-	-	24.0	-	-	4.8	-	33.5
60% D	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
100% A	250/0	5	4	3	8.3	8.3	-	24.0	24.3	-	7.2	6.2	-	13.5	-
100% B	250/0	5	5	3	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	5	4	2	-	-	8.2	-	-	24.0	-	-	5.0	-	14.7
100% D	250/0	5	4	0	-	-	-	-	-	-	-	-	-	-	-

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.56	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.40	1.49

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	280

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1
Salt adjusted 100% sample:	6.5
[E]Salt adj. 7.5- 60% sample	22

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.

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

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted using 40 fathoms artificial sea salts.
[E]Sample salt adjusted using hypersaline brine.

Table 3. continued Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 3 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1230	FDEP SOP#:	TA07_03		**Page 2 of 4**	**Reviewer:**	Julie Espy

Test aerated at 72 hours to increase dissolved oxygen.

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: *Artemia* Conductivity
48 - 96 hours Chamber size: 400 ml 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	0/250	5	5	5	-	-	8.1	-	-	24.0	-	-	6.8	-	34.2
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Control C	0/250	5	5	5	8.0	-	-	24.0	-	-	6.2	-	-	32.7	-
Control D	0/250	5	5	5	-	7.8	-	-	25.3	-	-	4.4	-	-	-
Salt Ctrl A	0/250	5	5	5	-	-	8.1	-	-	24.2	-	-	6.1	-	13.0
Salt Ctrl B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	8.1	-	-	24.0	-	-	6.0	-	-	13.2	-
Salt Ctrl D	0/250	5	5	5	-	8.0	-	-	25.4	-	-	4.4	-	-	-
7.5% A	18.75/231.25	5	5	5	-	-	8.2	-	-	24.0	-	-	6.5	-	36.1
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	8.0	-	-	24.0	-	-	6.2	-	-	33.4	-
7.5% D	18.75/231.25	5	5	5	-	8.0	-	-	25.3	-	-	4.1	-	-	-
15% A	37.5/212.50	5	5	5	-	-	8.2	-	-	24.1	-	-	6.4	-	34.5
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	8.0	-	-	24.0	-	-	6.0	-	-	33.4	-
15% D	37.5/212.50	5	5	5	-	7.9	-	-	25.4	-	-	4.2	-	-	-
30% A	75/175	5	5	5	-	-	8.2	-	-	23.9	-	-	6.0	-	34.3
30% B	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	4	4	8.1	-	-	24.0	-	-	6.0	-	-	34.0	-
30% D	75/175	5	5	5	-	7.9	-	-	25.3	-	-	4.5	-	-	-
60% A	150/100	5	5	5	-	-	8.0	-	-	23.9	-	-	6.2	-	34.2
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	7.5	-	-	24.0	-	-	6.2	-	-	33.2	-
60% D	150/100	5	5	5	-	7.8	-	-	25.4	-	-	4.5	-	-	-
100% A	250/0	3	2	1	-	-	8.5	-	-	24.0	-	-	5.8	-	14.4
100% B	250/0	2	1	0	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	2	1	1	8.0	-	-	24.0	-	-	6.7	-	-	14.5	-
100% D	250/0	0	0	-	-	8.1	-	-	25.3	-	-	4.5	-	-	-

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: Josh Ayres/James Daniels

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.56	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.40	1.49

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	280

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1
[D]Salt adjusted 100% sample:	6.5
[E]Salt adj. 7.5- 60% sample	22

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted using 40 fathoms artificial sea salts.
[E]Sample salt adjusted using hypersaline brine.

Adult Mortality	Percent
Control	0%
Salt Control	0%
100% effluent, chlorinated	90%
60% effluent	0%
30% effluent	5%
15% effluent	0%
7.5% effluent	0%

Test Statistic	Method	Result
LC50	TSK	79.17

Table 3. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.
continued

Sample 3 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1230	FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Julie Espy

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
0 - 48 hours Chamber size: 500 ml Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			[D]DO (mg/L)			[C]Conductivity	
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	0/250	10	10	10	8.2	8.0	-	24.0	24.0	-	6.4	6.0	-	32.9	-
Control B	0/250	10	10	10	-	-	7.9	-	-	24.0	-	-	5.4	-	34.6
7.5% A	18.75/231.25	10	10	10	8.1	8.0	-	24.0	24.0	-	6.7	6.1	-	30.6	-
7.5% B	18.75/231.25	10	10	10	-	-	7.9	-	-	24.0	-	-	5.3	-	32.2
15% A	37.5/212.50	10	10	10	8.1	8.0	-	24.0	24.0		6.8	6.1	-	28.8	-
15% B	37.5/212.50	10	10	10	-	-	7.9	-	-	24.0	-	-	5.4	-	31.0
30% A	75/175	10	10	10	8.2	8.0	-	24.0	24.0		6.9	6.1	-	24.3	-
30% B	75/175	10	10	10	-	-	8.0	-	-	24.0	-	-	5.6	-	28.4
60% A	150/100	10	10	10	8.1	8.0	-	24.0	24.0		6.9	6.3	-	33.9	
60% B	150/100	10	10	10	-	-	7.9	-	-	24.0	-	-	5.4	-	35.7
100% A	250/0	10	10	10	8.3	8.2	-	24.0	24.0	-	7.9	7.1	-	2.96	-
100% B	250/0	10	8	8	-	-	8.2	-	-	24.0	-	-	5.4	-	4.75

[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 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
[C]Conductivity is in uncorrected mmhos/cm.
[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: James Daniels/Josh Ayres

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.56	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.40	1.54

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	280

Salinity[E]	ppt
M. beryllina control:	22
100% sample:	1
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.
[F]Sample salt adjusted using hypersaline brine.

Table 3. concluded. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 3 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1230	FDEP SOP#:	TA07_04		**Page 4 of 4**	**Reviewer:**	Julie Espy

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
48 - 96 hours Chamber size: 500 ml Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			[D]DO (mg/L)			[C]Conductivity	
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	0/250	10	10	10	-	8.0	8.0	-	24.0	24.7	-	5.9	6.5	-	35.8
Control B	0/250	10	9	9	8.0	-	-	24.0	-	-	6.2	-	-	31.8	-
7.5% A	18.75/231.25	10	10	10	-	8.0	8.0	-	24.0	24.1	-	5.9	6.3	-	35.3
7.5% B	18.75/231.25	10	9	9	8.1	-	-	24.1	-	-	6.3	-	-	32.5	-
15% A	37.5/212.50	10	9	9	-	8.0	8.0	-	24.0	24.3	-	5.9	6.3	-	35.4
15% B	37.5/212.50	10	10	10	8.2	-	-	24.2	-	-	6.8	-	-	33.5	-
30% A	75/175	10	10	10	-	7.9	8.0	-	24.4	25.3	-	5.9	6.2	-	36.4
30% B	75/175	10	10	10	8.2	-	-	24.3	-	-	6.5	-	-	33.6	-
60% A	150/100	10	10	10	-	7.9	8.0	-	24.0	25.0	-	5.6	6.1	-	37.0
60% B	150/100	10	9	9	7.6	-	-	24.1	-	-	6.4	-	-	33.6	-
100% A	250/0	10	10	8	-	8.2	8.3	-	24.0	25.0	-	6.9	6.6		5.10
100% B	250/0	8	8	8	8.2	-	-	24.1	-	-	6.8	-	-	4.10	-

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: James Daniels/Josh Ayres

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.56	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.40	1.54

Adult Mortality	Percent
Control	5%
100% effluent, chlorinated	20%
60% effluent	5%
30% effluent	0%
15% effluent	5%
7.5% effluent	5%

Test Statistic	Method	Result
LC50	TSK	>100%

[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 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
[C]Conductivity is in uncorrected mmhos/cm.
[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	280

Salinity[E]	ppt
M. beryllina control:	22
100% sample:	1
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.
[F]Sample salt adjusted using hypersaline brine.

Table 4. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.
continued

Sample 4 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1230	FDEP SOP#:	TA07_03		**Page 1 of 4**	**Reviewer:**	Julie Espy

Test aerated at 72 hours to increase dissolved oxygen.

Organism: ***Americamysis bahia*** Life stage: 5 days [A]Feeding: *Artemia* Conductivity
0 - 48 hours Chamber size: 400 ml 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	0/250	5	5	5	8.2	8.2	-	24.0	24.0	-	7.3	6.4	-	32.7	-
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Control C	0/250	5	5	5	-	-	7.8	-	-	24.0	-	-	4.9	-	32.2
Control D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl A	0/250	5	4	4	8.1	8.2	-	24.0	24.6	24.0	7.7	6.6	5.1	11.8	-
Salt Ctrl B	0/250	5	4	4	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	-	-	8.0	-	-	-	-	-	-	-	13.3
Salt Ctrl D	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% A	18.75/231.25	5	5	5	8.1	8.1	-	24.0	24.1	-	7.2	6.4	-	31.2	-
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	-	-	7.9	-	-	24.0	-	-	4.7	-	31.6
7.5% D	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% A	37.5/212.50	5	5	5	8.1	8.0	-	24.1	24.0	-	7.2	6.1	-	29.4	-
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	-	-	7.9	-	-	24.0	-	-	4.8	-	29.0
15% D	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% A	75/175	5	5	5	8.1	8.1	-	24.0	24.1	-	7.1	6.0	-	24.7	-
30% B	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	5	5	-	-	7.9	-	-	24.0	-	-	4.5	-	24.8
30% D	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% A	150/100	5	5	5	8.0	8.1	-	24.0	24.0	-	7.1	6.1	-	33.7	-
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	-	-	8.0	-	-	24.0	-	-	4.4	-	32.9
60% D	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
100% A	250/0	5	0	-	8.1	8.3	-	24.1	24.3	-	7.5	6.6	-	13.1	-
100% B	250/0	5	3	0	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	5	2	0	-	-	8.3	-	-	24.0	-	-	5.1	-	14.2
100% D	250/0	5	3	1	-	-	-	-	-	-	-	-	-	-	-

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: James Daniels/Josh Ayres

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.61	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.90	0.980

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	275

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1
[D]Salt adjusted 100% sample:	6.5
[E]Salt adjusted 7.5% - 60% sample	22

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted using 40 fathoms artificial sea salts.
[E]Sample salt adjusted using hypersaline brine.

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 4. continued

Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 4 of 4

Facility:	**Miami-Dade WASD North District WWTP**		**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami		Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade		Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300		# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600		Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1230		FDEP SOP#:	TA07_03		**Page 2 of 4**	**Reviewer:**	Julie Espy

Test aerated at 72 hours to increase dissolved oxygen.

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

48 - 96 hours Chamber size: 400 ml 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	0/250	5	5	5	-	-	7.9	-	-	24.0	-	-	6.3	-	34.9
Control B	0/250	5	5	5	-	-	-	-	-	-	-	-	-	-	-
Control C	0/250	5	5	5	8.0	-	-	24.0	-	-	6.2	-	-	32.5	-
Control D	0/250	5	5	5	-	7.9	-	-	25.3	-	-	5.1	-	-	-
Salt Ctrl A	0/250	4	4	4	-	-	8.1	-	-	24.2	-	-	6.1	-	13.0
Salt Ctrl B	0/250	4	4	4	-	-	-	-	-	-	-	-	-	-	-
Salt Ctrl C	0/250	5	5	5	8.1	-	-	24.0	-	-	6.0	-	-	13.2	-
Salt Ctrl D	0/250	5	5	5	-	8.0	-	-	25.4	-	-	4.4	-	-	-
7.5% A	18.75/231.25	5	5	5	-	-	7.9	-	-	24.0	-	-	6.4	-	34.1
7.5% B	18.75/231.25	5	5	5	-	-	-	-	-	-	-	-	-	-	-
7.5% C	18.75/231.25	5	5	5	8.0	-	-	24.0	-	-	6.1	-	-	33.2	-
7.5% D	18.75/231.25	5	5	5	-	7.8	-	-	25.3	-	-	4.5	-	-	-
15% A	37.5/212.50	5	5	5	-	-	8.0	-	-	24.0	-	-	6.7	-	34.9
15% B	37.5/212.50	5	5	5	-	-	-	-	-	-	-	-	-	-	-
15% C	37.5/212.50	5	5	5	8.0	-	-	24.0	-	-	6.1	-	-	34.1	-
15% D	37.5/212.50	5	5	5	-	7.8	-	-	25.0	-	-	4.2	-	-	-
30% A	75/175	5	5	5	-	-	8.0	-	-	24.1	-	-	6.7	-	34.9
30% B	75/175	5	5	5	-	-	-	-	-	-	-	-	-	-	-
30% C	75/175	5	5	5	7.9	-	-	24.0	-	-	6.0	-	-	35.4	-
30% D	75/175	5	5	5	-	7.8	-	-	25.2	-	-	4.1	-	-	-
60% A	150/100	5	5	5	-	-	8.1	-	-	24.0	-	-	6.8	-	34.1
60% B	150/100	5	5	5	-	-	-	-	-	-	-	-	-	-	-
60% C	150/100	5	5	5	7.4	-	-	24.0	-	-	6.4	-	-	34.1	-
60% D	150/100	5	5	5	-	7.9	-	-	25.2	-	-	4.0	-	-	-
100% A	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% B	250/0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100% C	250/0	-	-	-	7.4	-	-	24.0	-	-	6.8	-	-	14.6	-
100% D	250/0	1	1	0	-	8.2	8.4	-	25.4	24.0	-	4.9	6.8	-	13.9

[A]Organisms were 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 23.0 - 24.5°C.
The waterbath temperature range for the test period was 24.5 - 25.3°C.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: James Daniels/Josh Ayres

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.61	Hach
Control water (NSW)	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.90	0.980

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	275

Salinity[C]	ppt
A. bahia control:	22
100% sample:	1
[D]Salt adjusted 100% sample:	6.5
[E]Salt adjusted 7.5% - 60% sample	22

[C]Salinity based on conductivity and temperature.
[D]Sample salt adjusted using 40 fathoms artificial sea salts.
[E]Sample salt adjusted using hypersaline brine.

Adult Mortality	Percent
Control	0%
Salt Control	10%
100% effluent, chlorinated	100%
60% effluent	0%
30% effluent	0%
15% effluent	0%
7.5% effluent	0%

Test Statistic	Method	Result
LC50	TSK	77.46

Table 4. continued Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 4 of 4

Facility:	**Miami-Dade WASD North District WWTP**	**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami	Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade	Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003 Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003 Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003 Time: 1200	FDEP SOP#:	TA07_04		**Page 3 of 4**	**Reviewer:**	Julie Espy

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
0 - 48 hours Chamber size: 500 ml Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature °C[B]			[D]DO (mg/L)			[C]Conductivity	
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	0/250	10	10	10	8.2	8.0	-	24.0	24.0	-	6.4	6.0	-	32.5	-
Control B	0/250	10	10	9	-	-	7.9	-	-	24.3	-	-	5.3	-	34.8
7.5% A	18.75/231.25	10	10	10	8.1	8.0	-	24.0	24.0	-	6.8	6.1	-	31.3	-
7.5% B	18.75/231.25	10	10	10	-	-	7.9	-	-	24.0	-	-	5.3	-	33.4
15% A	37.5/212.50	10	10	10	8.1	8.0	-	24.1	24.0		6.8	6.2	-	28.8	-
15% B	37.5/212.50	10	10	10	-	-	7.9	-	-	24.2	-	-	5.0	-	31.3
30% A	75/175	10	10	10	8.1	8.0	-	24.0	24.0		6.8	6.2	-	24.5	-
30% B	75/175	10	10	9	-	-	8.0	-	-	25.0	-	-	4.9	-	28.9
60% A	150/100	10	10	10	8.0	8.0	-	24.0	24.0		6.9	6.3	-	33.4	
60% B	150/100	10	10	10	-	-	7.9	-	-	24.7	-	-	4.5	-	37.0
100% A	250/0	10	6	5	8.1	8.3	-	24.0	24.0	-	7.7	7.1	-	3.03	-
100% B	250/0	10	8	8	-	-	8.3	-	-	24.2	-	-	5.0	-	4.80

[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 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
[C]Conductivity is in uncorrected mmhos/cm.
[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: James Daniels/Josh Ayres

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.61	Hach
Control water (NSW)	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.90	1.05

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	275

Salinity[E]	ppt
M. beryllina control:	22
100% sample:	1
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.
[F]Sample salt adjusted using hypersaline brine.

Table 4. concluded. Data recorded during the 96-hour acute definitive bioassays of a sample of effluent from Miami-Dade Water & Sewer Department North District Wastewater Treatment Plant, 2575 N.E. 151 Street, North Miami, Miami-Dade County, Florida, NPDES# FL0032182, performed from 7 to 11 October, 2003.

Sample 4 of 4

Facility:	**Miami-Dade WASD North District WWTP**		**NPDES#:**	**FL0032182**	Facility Type:	**WWTP**	**Analysts:**	Marshall Faircloth
Location:	2575 N.E. 151 Street, North Miami		Contact/District:	T. Davis/SE				Joshua Ayres
County:	Miami-Dade		Test type:	acute definitive renewal				James Daniels
Sample Collection Date:	10/6/2003	Time: 0300	# tests:	4	Receiving Water:	Class III marine		Christa A. Pierni
Test Beginning Date:	10/7/2003	Time: 1600	Chlorination Type:	chlorinated		Atlantic Ocean		
Test Ending Date:	10/11/2003	Time: 1200	FDEP SOP#:	TA07_04		**Page 4 of 4**	**Reviewer:**	Julie Espy

Organism: ***Menidia beryllina*** Life stage: 13 days [A]Feeding: *Artemia*
48 - 96 hours Chamber size: 500 ml Food Batch #: 0194025G

	Sample/Diluent	SURVIVAL # Alive			pH (Standard units)			Temperature C[B]			[D]DO (mg/L)			[C]Conductivity	
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	0/250	10	9	9	-	8.0	8.0	-	24.3	24.0	-	6.2	6.0	-	34.2
Control B	0/250	9	9	9	8.1	-	-	24.1	-	-	5.7	-	-	32.5	-
7.5% A	18.75/231.25	10	10	10	-	8.0	8.0	-	24.0	23.9	-	6.1	6.1	-	34.3
7.5% B	18.75/231.25	10	10	10	8.1	-	-	24.0	-	-	5.8	-	-	33.3	-
15% A	37.5/212.50	10	10	10	-	8.0	8.0	-	24.1	24.2	-	6.0	6.1	-	35.0
15% B	37.5/212.50	10	10	10	8.1	-	-	24.0	-	-	6.0	-	-	33.5	-
30% A	75/175	10	9	9	-	8.0	8.0	-	24.0	24.1	-	6.1	6.1	-	36.4
30% B	75/175	9	9	9	8.0	-	-	24.1	-	-	6.1	-	-	34.4	-
60% A	150/100	10	10	10	-	8.0	8.0	-	24.0	23.9	-	6.1	6.1	-	37.5
60% B	150/100	10	10	10	7.6	-	-	24.2	-	-	6.1	-	-	33.8	-
100% A	250/0	5	5	5	-	8.2	8.4	-	24.0	23.8	-	6.3	6.1	-	3.80
100% B	250/0	8	8	8	7.6	-	-	24.0	-	-	6.8	-	-	3.86	-

LIMS
Job number: TLH-2003-10-07-07
sample number: 707143

Data Transcription Verification
date: 2/2/04
by: James Daniels/Josh Ayres

Total Residual CL2	mg/L	Method
Field:100% sample:	not measured	-
Lab: 100% sample:	0.61	Hach
Control water (NSW):	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (NSW):	<0.054	<0.054
100% Sample:	13.90	1.05

Adult Mortality	Percent
Control	10%
100% effluent, chlorinated	35%
60% effluent	0%
30% effluent	10%
15% effluent	0%
7.5% effluent	0%

Test Statistic	Method	Result
LC50	TSK	>100%

[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 23.0 - 24.5°C.
Incubator #3 temperature range for the test period was 24.0 - 25.0°C.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
[C]Conductivity is in uncorrected mmhos/cm.
[D]DO = dissolved oxygen.
Light Intensity during the test was 50-100 foot candles.

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (NSW):	136	-
100% Sample:	215	275

Salinity[E]	ppt
M. beryllina control:	22
100% sample:	1
[F]Salt adjusted 7.5% - 60% sample	22

[E]Salinity based on conductivity and temperature.
[F]Sample salt adjusted using hypersaline brine.

Table 5. *Measured algal growth potential (AGP) and ratios of inorganic nitrogen to ortho-phosphate and total nitrogen to total phosphorus for the Miami-Dade WASD North District WWTP effluent sample collected on October 6, 2003.*

Location	AGP (mg/dry wt/L)	Predicted AGP (TSIN) ± 20%	Predicted AGP (OP) ± 20%	Inorganic N:P ratio
Effluent	166	514.52 ± 102.904	344 ± 68.8	16.92

Table 6. *Effluent limits, Class III Criteria and chemical data from samples collected from the Miami-Dade WASD North District WWTP on 6 October, 2003.*

Miami-Dade WASD North District WWTP	Class III Marine Stds	Effluent limits	Effluent Sample 51-MD-2	Effluent Sample 51-MD-1a	Effluent Sample 51-MD-1b	Effluent Sample 51-MD-1c	Effluent Sample 51-MD-1d
Organic constituents							
None detected			-	-	-	-	-
Metals (µg/L unless otherwise noted)							
Aluminum	≤ 1500	-	75	-	-	-	-
Arsenic	< 36	-	6 U	-	-	-	-
Cadmium	≤ 9.3	-	0.026 I	-	-	-	-
Calcium (mg/L)	-	-	64.6	-	-	-	-
Chromium-III	-	-	3 U	-	-	-	-
Copper	≤ 3.7	-	3.9 I	-	-	-	-
Iron	≤ 0.3	-	166	-	-	-	-
Lead	≤ 8.5	-	0.64	-	-	-	-
Magnesium (mg/L)	-	-	33.8	-	-	-	-
Nickel	≤ 8.3	-	3 U	-	-	-	-
Selenium	≤ 71	-	2 I	-	-	-	-
Silver	≤ 0.07	-	0.19	-	-	-	-
Zinc	≤ 86	-	20	-	-	-	-
Nutrients (mg/L)							
Ortho-phosphate	-	-	0.8	-	-	-	-
Total Phosphorus	-	-	1	-	-	-	-
Ammonia	-	-	13	-	-	-	-
Unionized Ammonia	-	-	0.03 c	-	-	-	-
Nitrate+Nitrite	-	-	0.54	-	-	-	-
Total Kjeldahl Nitrogen	-	-	15	-	-	-	-
Organic Nitrogen	-	-	2 c	-	-	-	-
Total Nitrogen	-	-	15.54 c	-	-	-	-
General Physical and Chemical Parameters							
pH (S.U.)	6.5 - 8.5	6.0 - 8.5[d]	6.4	-	-	-	-
Conductivity (umhos/cm)	-	-	2041	-	-	-	-
Temperature (C)	-	-	29.5	-	-	-	-
Hardness (mg/L)	-	-	300.5 c	-	-	-	-
AGP (mg DryWt/L)	-	-	166	-	-	-	-
Total Residual Chlorine (mg/L) 51-MD-2 (field)	≤ 0.01	≤ 0.01	1.90 *	2.15 *	1.90 *	-	-
Total Residual Chlorine (mg/L) 51-MD-2 (lab)	≤ 0.01	-	-	0.56	0.53	0.56	0.61

Value exceeds the Class III Marine Water Quality Criteria

c - calculated value.

d - Permit "pH shall not deviate outside the range more than 1% of the time in a calendar month".

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

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

* Field personnel derived the TRC's by subtracting the chlorine of the lab blanks from the chlorine of the sample found in the field. Values recorded here however, are the actual chlorine's recorded for each sample on the field sheet. The TRC limit leaving the plant is 2.25 mg/L. End-of-pipe limit is ≤ 0.01 mg/L.

Appendix 1. Chemical Analyses performed on the effluent from the Miami-Dade WASD North District Wastewater Treatment Plant sampled on October 6, 2003.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/6/2003 3:00	51-MD-1A	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50	57.2	LC50	Q		
10/6/2003 3:00	51-MD-1A	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid, LC50	75	LC50	Q		
10/6/2003 3:00	51-MD-1B	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50	56.8	LC50	Q		
10/6/2003 3:00	51-MD-1B	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid, LC50	75.2	LC50	Q		
10/6/2003 3:00	51-MD-1C	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50	100	LC50	LQ		
10/6/2003 3:00	51-MD-1C	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid, LC50	79.2	LC50	Q		
10/6/2003 3:00	51-MD-1D	Bio-Toxicology	Bioassay-Acute-Def-SW-Fish, LC50	100	LC50	LQ		
10/6/2003 3:00	51-MD-1D	Bio-Toxicology	Bioassay-Acute-Def-SW-Mysid, LC50	77.5	LC50	Q		
10/6/2003 8:00	51-MD-2	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	1,3,5-Trinitrobenzene	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	78
10/6/2003 8:00	51-MD-2	BNA-Water	1-Naphthylamine	9.7	ug/L	U	9.7	39
10/6/2003 8:00	51-MD-2	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	2,4,5-Trichlorophenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
10/6/2003 8:00	51-MD-2	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
10/6/2003 8:00	51-MD-2	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2,6-Dichlorophenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2-Acetylaminofluorene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	2-Methylnaphthalene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2-Naphthylamine	9.7	ug/L	U	9.7	39
10/6/2003 8:00	51-MD-2	BNA-Water	2-Nitroaniline	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	2-Picoline	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	UJ	39	160
10/6/2003 8:00	51-MD-2	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	78
10/6/2003 8:00	51-MD-2	BNA-Water	3-Methylcholanthrene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	3-Nitroaniline	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	4-Aminobiphenyl	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	4-Chloroaniline	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	4-Nitroaniline	0.97	ug/L	UJ	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
10/6/2003 8:00	51-MD-2	BNA-Water	5-Nitro-o-toluidine	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Acetophenone	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	Aniline	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Benzidine	97	ug/L	U	97	390
10/6/2003 8:00	51-MD-2	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9

10/6/2003 8:00	51-MD-2	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Benzyl alcohol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
10/6/2003 8:00	51-MD-2	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
10/6/2003 8:00	51-MD-2	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
10/6/2003 8:00	51-MD-2	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Dibenzofuran	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	Diethyl phthalate	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190
10/6/2003 8:00	51-MD-2	BNA-Water	Dimethylaminoazobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Dinoseb	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	Ethyl methanesulfonate	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	Hexachlorobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Isophorone	0.97	ug/L	UJ	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Isosafrole	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Methapyrilene	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	Methyl methanesulfonate	0.97	ug/L	UJ	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosodi-n-butylamine	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosodiethylamine	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosomorpholine	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosopiperidine	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	78
10/6/2003 8:00	51-MD-2	BNA-Water	Pentachlorobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Pentachloroethane	49	ug/L	U	49	190
10/6/2003 8:00	51-MD-2	BNA-Water	Pentachloronitrobenzene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	Phenacetin	3.9	ug/L	U	3.9	12
10/6/2003 8:00	51-MD-2	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	Pyridine	3.9	ug/L	U	3.9	16
10/6/2003 8:00	51-MD-2	BNA-Water	Safrole	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
10/6/2003 8:00	51-MD-2	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.8

10/6/2003 8:00	51-MD-2	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.8
10/6/2003 8:00	51-MD-2	BNA-Water	o-Toluidine	0.97	ug/L	U	0.97	3.9
10/6/2003 8:00	51-MD-2	Bio-AGP/LimNut	Algal Growth Potential	166	mg DryWt/L		0.1	0.3
10/6/2003 8:00	51-MD-2	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/6/2003 8:00	51-MD-2	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/6/2003 8:00	51-MD-2	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.32
10/6/2003 8:00	51-MD-2	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
10/6/2003 8:00	51-MD-2	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
10/6/2003 8:00	51-MD-2	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
10/6/2003 8:00	51-MD-2	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/6/2003 8:00	51-MD-2	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/6/2003 8:00	51-MD-2	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
10/6/2003 8:00	51-MD-2	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.384
10/6/2003 8:00	51-MD-2	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
10/6/2003 8:00	51-MD-2	GC-Water	Ethion	0.048	ug/L	UJ	0.048	0.192
10/6/2003 8:00	51-MD-2	GC-Water	Ethoprop	0.096	ug/L	U	0.096	0.384
10/6/2003 8:00	51-MD-2	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/6/2003 8:00	51-MD-2	GC-Water	Fonofos	0.096	ug/L	UJ	0.096	0.384
10/6/2003 8:00	51-MD-2	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.384
10/6/2003 8:00	51-MD-2	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
10/6/2003 8:00	51-MD-2	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
10/6/2003 8:00	51-MD-2	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
10/6/2003 8:00	51-MD-2	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.384
10/6/2003 8:00	51-MD-2	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/6/2003 8:00	51-MD-2	GC-Water	Naled	0.77	ug/L	U	0.77	3.08
10/6/2003 8:00	51-MD-2	GC-Water	Norflurazon	0.096	ug/L	U	0.096	0.384
10/6/2003 8:00	51-MD-2	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
10/6/2003 8:00	51-MD-2	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.384
10/6/2003 8:00	51-MD-2	GC-Water	Phorate	0.048	ug/L	UJ	0.048	0.192
10/6/2003 8:00	51-MD-2	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/6/2003 8:00	51-MD-2	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
10/6/2003 8:00	51-MD-2	Metals-Water	Aluminum	75	ug/L		7	28
10/6/2003 8:00	51-MD-2	Metals-Water	Arsenic	6	ug/L	U	6	24
10/6/2003 8:00	51-MD-2	Metals-Water	Cadmium	0.026	ug/L	I	0.025	0.1
10/6/2003 8:00	51-MD-2	Metals-Water	Calcium	64.6	mg/L		0.05	0.2
10/6/2003 8:00	51-MD-2	Metals-Water	Chromium	3	ug/L	U	3	12
10/6/2003 8:00	51-MD-2	Metals-Water	Copper	3.9	ug/L	I	1	4
10/6/2003 8:00	51-MD-2	Metals-Water	Iron	166	ug/L		15	60
10/6/2003 8:00	51-MD-2	Metals-Water	Lead	0.64	ug/L		0.05	0.2
10/6/2003 8:00	51-MD-2	Metals-Water	Magnesium	33.8	mg/L		0.02	0.08
10/6/2003 8:00	51-MD-2	Metals-Water	Nickel	3	ug/L	U	3	12
10/6/2003 8:00	51-MD-2	Metals-Water	Selenium	2	ug/L	I	1	4
10/6/2003 8:00	51-MD-2	Metals-Water	Silver	0.19	ug/L		0.02	0.08
10/6/2003 8:00	51-MD-2	Metals-Water	Zinc	20	ug/L		4	16
10/6/2003 8:00	51-MD-2	Nutrients-Liquid	Ammonia-N	13	mg N/L		0.4	0.8
10/6/2003 8:00	51-MD-2	Nutrients-Liquid	NO2NO3-N	0.54	mg N/L		0.004	0.01
10/6/2003 8:00	51-MD-2	Nutrients-Liquid	N_KJEL_TOT	15	mg N/L		0.24	0.8
10/6/2003 8:00	51-MD-2	Nutrients-Liquid	O-Phosphate-P	0.8	mg P/L		0.032	0.08
10/6/2003 8:00	51-MD-2	Nutrients-Liquid	Total-P	1	mg P/L		0.02	0.06
10/6/2003 9:30	51-MD-3	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	77
10/6/2003 9:30	51-MD-3	BNA-Water	1-Naphthylamine	9.6	ug/L	U	9.6	38
10/6/2003 9:30	51-MD-3	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	2,4,5-Trichlorophenol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/6/2003 9:30	51-MD-3	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
10/6/2003 9:30	51-MD-3	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2,6-Dichlorophenol	0.96	ug/L	U	0.96	3.8

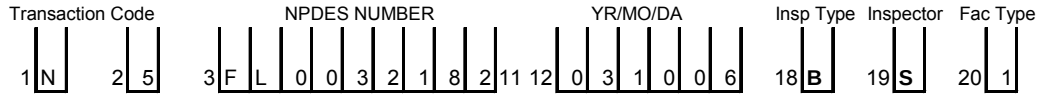
10/6/2003 9:30	51-MD-3	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2-Acetylaminofluorene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	2-Methylnaphthalene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2-Naphthylamine	9.6	ug/L	U	9.6	38
10/6/2003 9:30	51-MD-3	BNA-Water	2-Nitroaniline	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	2-Picoline	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	UJ	38	150
10/6/2003 9:30	51-MD-3	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	77
10/6/2003 9:30	51-MD-3	BNA-Water	3-Methylcholanthrene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	3-Nitroaniline	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	4-Chloroaniline	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	4-Nitroaniline	0.96	ug/L	UJ	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
10/6/2003 9:30	51-MD-3	BNA-Water	5-Nitro-o-toluidine	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Acetophenone	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	Aniline	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Benzidine	96	ug/L	U	96	380
10/6/2003 9:30	51-MD-3	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Benzyl alcohol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	Bis(2-ethylhexyl)phthalate	60	ug/L		14	58
10/6/2003 9:30	51-MD-3	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/6/2003 9:30	51-MD-3	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/6/2003 9:30	51-MD-3	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Dibenzofuran	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/6/2003 9:30	51-MD-3	BNA-Water	Dimethylaminoazobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	Ethyl methanesulfonate	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8

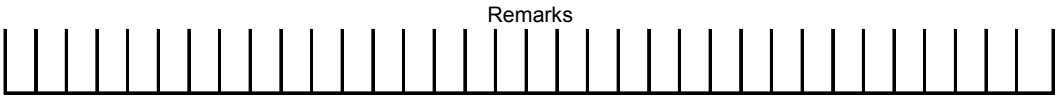
10/6/2003 9:30	51-MD-3	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Isophorone	0.96	ug/L	UJ	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Isosafrole	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	Methyl methanesulfonate	0.96	ug/L	UJ	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosodi-n-butylamine	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosodiethylamine	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosomorpholine	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosopiperidine	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	77
10/6/2003 9:30	51-MD-3	BNA-Water	Pentachlorobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
10/6/2003 9:30	51-MD-3	BNA-Water	Pentachloronitrobenzene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
10/6/2003 9:30	51-MD-3	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	12
10/6/2003 9:30	51-MD-3	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
10/6/2003 9:30	51-MD-3	BNA-Water	Safrole	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
10/6/2003 9:30	51-MD-3	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.7
10/6/2003 9:30	51-MD-3	BNA-Water	o-Toluidine	0.96	ug/L	U	0.96	3.8
10/6/2003 9:30	51-MD-3	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.32
10/6/2003 9:30	51-MD-3	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
10/6/2003 9:30	51-MD-3	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
10/6/2003 9:30	51-MD-3	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
10/6/2003 9:30	51-MD-3	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/6/2003 9:30	51-MD-3	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/6/2003 9:30	51-MD-3	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
10/6/2003 9:30	51-MD-3	GC-Water	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.388
10/6/2003 9:30	51-MD-3	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
10/6/2003 9:30	51-MD-3	GC-Water	Ethion	0.048	ug/L	UJ	0.048	0.192
10/6/2003 9:30	51-MD-3	GC-Water	Ethoprop	0.097	ug/L	U	0.097	0.388
10/6/2003 9:30	51-MD-3	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/6/2003 9:30	51-MD-3	GC-Water	Fonofos	0.097	ug/L	UJ	0.097	0.388
10/6/2003 9:30	51-MD-3	GC-Water	Hexazinone	0.097	ug/L	U	0.097	0.388
10/6/2003 9:30	51-MD-3	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
10/6/2003 9:30	51-MD-3	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
10/6/2003 9:30	51-MD-3	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
10/6/2003 9:30	51-MD-3	GC-Water	Metribuzin	0.097	ug/L	U	0.097	0.388
10/6/2003 9:30	51-MD-3	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/6/2003 9:30	51-MD-3	GC-Water	Naled	0.78	ug/L	U	0.78	3.12
10/6/2003 9:30	51-MD-3	GC-Water	Norflurazon	0.097	ug/L	U	0.097	0.388
10/6/2003 9:30	51-MD-3	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
10/6/2003 9:30	51-MD-3	GC-Water	Parathion Methyl	0.097	ug/L	U	0.097	0.388
10/6/2003 9:30	51-MD-3	GC-Water	Phorate	0.048	ug/L	UJ	0.048	0.192
10/6/2003 9:30	51-MD-3	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/6/2003 9:30	51-MD-3	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
10/6/2003 9:30	51-MD-3	Metals-Water	Aluminum	7	ug/L	U	7	28

10/6/2003 9:30	51-MD-3	Metals-Water	Arsenic	6	ug/L	U	6	24
10/6/2003 9:30	51-MD-3	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
10/6/2003 9:30	51-MD-3	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
10/6/2003 9:30	51-MD-3	Metals-Water	Chromium	3	ug/L	U	3	12
10/6/2003 9:30	51-MD-3	Metals-Water	Copper	1	ug/L	U	1	4
10/6/2003 9:30	51-MD-3	Metals-Water	Iron	15	ug/L	U	15	60
10/6/2003 9:30	51-MD-3	Metals-Water	Lead	0.05	ug/L	U	0.05	0.2
10/6/2003 9:30	51-MD-3	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
10/6/2003 9:30	51-MD-3	Metals-Water	Nickel	3	ug/L	U	3	12
10/6/2003 9:30	51-MD-3	Metals-Water	Selenium	1	ug/L	U	1	4
10/6/2003 9:30	51-MD-3	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
10/6/2003 9:30	51-MD-3	Metals-Water	Zinc	4	ug/L	U	4	16
10/6/2003 9:30	51-MD-3	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
10/6/2003 9:30	51-MD-3	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
10/6/2003 9:30	51-MD-3	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
10/6/2003 9:30	51-MD-3	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
10/6/2003 9:30	51-MD-3	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06

The Bioassay of Miami-Dade Water and Sewer Department North District WWTP effluent sampled on October 6, 2003, NPDES #FL0032182.

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





The Priority Pollutants Analysis for Bioassay of Miami-Dade Water and Sewer Department North District WWTP effluent sampled on October 6, 2003, NPDES #FL0032182.

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

