

Bioassays of the City of

Ormond Beach Wastewater Treatment Facility

Ormond Beach, Volusia County, Florida

NPDES #FL0020532-01

Sampled 9/30/02

February 2003

Biology Section

Division of Resource Assessment & Management

Comprehensive Quality Assurance Plan #870346G

Bioassays of the City of

Ormond Beach Wastewater Treatment Facility

Ormond Beach, Volusia County, Florida

NPDES #FL0020532-01

Biology Section
Bureau of Laboratories
February 2003

City of Ormond Beach Wastewater Treatment Facility, 550 North Orchard Street, Ormond Beach, Volusia County, Florida, NPDES #FL0020532-01, tests performed on 1 to 3 October 2002.

Introduction

This advanced domestic wastewater treatment facility has a design flow of 6.0 MGD and an annual average total flow of 3.86 MGD (September, 2001-August, 2002). The facility has an annual average discharge-flow of 2.37 MGD to surface water and an annual average discharge of 1.42 MGD to the public access reuse system. Wastewater treatment processes include odor control, influent screening, grit removal, biological nutrient removal (carousel-type 5-stage Bardenpho™ Process), chemical feed facilities, secondary clarification, tertiary filtration, high level chlorination for disinfection, dechlorination with sulfur dioxide, post-aeration, and thickening and dewatering of residuals. Residuals are transferred to a residuals management facility for further treatment and land spreading. After treatment, reclaimed water is directed to a public access reuse system, and excess effluent is discharged into the Class III marine waters of the Halifax River. The public access land application system consists of a reclaimed water transmission/distribution system for public access irrigation of residential lawns, golf courses, cemeteries, parks, playgrounds, landscaped areas, and highway medians and rights-of-way (facility information provided by Chris Ferraro, Phil Kane, and Kalina Warren, FDEP, Orlando).

Methods

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

The toxicity tests discussed in this report were performed following internal DEP SOP's TA07-01 and TA07-02. All internal DEP SOP's are available on the web at:
http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp.

Toxicity Test Results

Sample 1
Ceriodaphnia dubia 48-hr acute screen – Not Toxic
Cyprinella leedsi 48-hr acute screen – Not Toxic
Sample 2
Ceriodaphnia dubia 48-hr acute screen – Not Toxic
Cyprinella leedsi 48-hr acute screen – Not Toxic
Sample 3
Ceriodaphnia dubia 48-hr acute screen – Not Toxic
Cyprinella leedsi 48-hr acute screen – Not Toxic
Sample 4
Ceriodaphnia dubia 48-hr acute screen – Not Toxic
Cyprinella leedsi 48-hr acute screen – Not Toxic

See Table 1 for bioassay bench sheets.

Chemistry Results

Total residual chlorine and total ammonia were not detected in the bioassay samples in the laboratory. Total residual chlorine was detected in the field during sampling at a concentration of 2.2 mg/L in each of the four samples. Total ammonia was detected in the single sample collected and preserved for chemical analysis at a concentration of 0.062 mg/L.

See Table 2 for chemicals detected in the analytical chemistry samples.
See Table 3 for a complete list of chemical analyses performed.

Conclusion

The samples of effluent collected from this facility on September 30, 2002, did not show acute toxicity to either test species during the 48-hour bioassay tests.

Table 1. Data recorded during the 48-hour acute screening bioassays of samples of effluent from the City of Ormond Beach WWTF, 550 North Orchard Street, Ormond Beach, Volusia County, Florida, NPDES# FL0020532-01, performed from 1 to 3 October 2002.

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Sample # 1

Facility:	**City of Ormond Beach WWTF**	**NPDES #**	**FL0020532-01**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	550 North Orchard Street, Ormond Beach	Contact/District:	Kane/Cental				Joshua Ayres
County:	Volusia	Test type:	static acute screen				James Daniels
Sample Collection Date:	9/30/2002 Time: 0900	# tests:	2	Receiving Water:	Halifax River		Marshall Faircloth
Test Beginning Date:	10/1/2002 Time: 1430	Chlorination Type:	Chlorinated		Class III Marine		
Test Ending Date:	10/3/2002 Time: 1430		sample collected after dechlorination		**Page 1 of 4**	**Reviewer:**	David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature[A] 0 hour	24 hour	48 hour	Dissolved Oxygen 0 hour	24 hour	48 hour	Conductivity Uncorrected µmhos/cm 0 hour	48 hour
Control A	0/20	5	5	5	8.0	-	8.3	23.5	-	23.9	8.0	-	6.5	155	200
Control B	0/20	5	5	5	-	-	8.3	-	-	23.8	-	-	6.4	-	215
Control C	0/20	5	5	5	-	-	8.3	-	-	23.6	-	-	6.4	-	240
Control D	0/20	5	5	5	-	-	8.3	-	-	23.6	-	-	6.5	-	240
100% A	20/0	5	5	5	7.4	-	8.2	24.0	-	23.7	8.2	-	6.4	860	1020
100% B	20/0	5	5	5	-	-	8.2	-	-	23.7	-	-	6.4	-	1090
100% C	20/0	5	5	5	-	-	8.2	-	-	23.5	-	-	6.4	-	1250
100% D	20/0	5	5	5	-	-	8.2	-	-	23.6	-	-	6.4	-	1250

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

Organism: ***Cyprinella leedsi*** Life stage: 10 days

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature[B] 0 hour	24 hour	48 hour	Dissolved Oxygen 0 hour	24 hour	48 hour	Conductivity Uncorrected µmhos/cm 0 hour	48 hour
Control A	0/500	5	5	5	7.9	8.2	8.4	24.4	25.1	25.4	7.6	7.8	6.4	250	270
Control B	0/500	5	5	5	7.9	8.2	8.4	24.2	24.9	25.2	7.7	7.8	6.4	250	280
Control C	0/500	5	5	5	7.9	8.2	8.4	24.1	24.6	24.5	7.9	7.9	6.5	250	270
Control D	0/500	5	5	5	7.9	8.2	8.4	23.7	24.6	24.5	7.9	7.9	6.5	250	270
100% A	500/0	5	5	5	7.5	8.0	8.0	23.8	24.7	25.1	8.1	8.0	6.5	880	920
100% B	500/0	5	5	5	7.5	8.0	8.0	24.0	24.6	26.0	8.3	7.9	6.1	890	970
100 % C	500/0	5	5	5	7.5	8.0	8.0	24.1	24.6	25.1	8.4	7.8	6.2	890	970
100% D	500/0	5	5	5	7.5	8.0	8.0	24.3	24.8	25.8	8.4	7.8	6.1	885	970

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

LIMS	
Job number:	TLH-2002-10-01-01
sample number:	625085

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	Christa Pierini

Total Residual CL2	mg/L	Method
Field:	2.20	-
Lab:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	136
Control water (water flea):	80	83
100% Sample:	90	175

Table 1. Data recorded during the 48-hour acute screening bioassays of samples of effluent from the City of Ormond Beach WWTF, 550 North Orchard Street, Ormond Beach, Volusia County, Florida, NPDES# FL0020532-01, performed from 1 to 3 October 2002.

Sample # 2

Facility:	**City of Ormond Beach WWTF**	**NPDES #**	**FL0020532-01**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	550 North Orchard Street, Ormond Beach	Contact/District:	Kane/Cental				Joshua Ayres
County:	Volusia	Test type:	static acute screen				James Daniels
Sample Collection Date:	9/30/2002 Time: 0900	# tests:	2	Receiving Water:	Halifax River		Marshall Faircloth
Test Beginning Date:	10/1/2002 Time: 1430	Chlorination Type:	Chlorinated		Class III Marine		
Test Ending Date:	10/3/2002 Time: 1430		sample collected after dechlorination		**Page 2 of 4**	**Reviewer:**	David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			Conductivity Uncorrected µmhos/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	0/20	5	5	5	8.2	-	8.3	23.5	-	23.8	8.3	-	6.4	160	380
Control B	0/20	5	5	5	-	-	8.3	-	-	23.8	-	-	6.4	-	280
Control C	0/20	5	5	5	-	-	8.3	-	-	23.6	-	-	6.4	-	280
Control D	0/20	5	5	5	-	-	8.3	-	-	23.6	-	-	6.4	-	250
100% A	20/0	5	5	5	7.5	-	8.2	23.8	-	23.8	8.2	-	6.4	840	900
100% B	20/0	5	5	5	-	-	8.2	-	-	23.8	-	-	6.4	-	1010
100% C	20/0	5	5	5	-	-	8.2	-	-	23.7	-	-	6.4	-	1080
100% D	20/0	5	5	5	-	-	8.2	-	-	23.7	-	-	6.4	-	1120

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

Organism: ***Cyprinella leedsi*** Life stage: 10 days

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.0	8.3	8.5	24.2	24.7	24.8	8.2	7.9	6.5	295	350
Control B	0/500	5	5	5	8.0	8.3	8.5	24.0	24.8	24.8	8.1	7.9	6.5	270	300
Control C	0/500	5	5	5	8.0	8.3	8.5	23.8	24.6	24.7	8.1	8.0	6.5	260	280
Control D	0/500	5	5	5	8.0	8.3	8.5	23.9	24.7	24.6	8.1	8.0	6.5	260	280
100% A	500/0	5	5	5	7.6	8.1	8.2	24.5	24.4	24.2	8.3	8.0	6.6	865	880
100% B	500/0	5	5	5	7.6	8.1	8.2	24.5	24.6	25.7	8.4	7.9	6.2	880	960
100 % C	500/0	5	5	5	7.6	8.1	8.2	24.4	25.3	25.0	8.6	7.7	6.3	885	940
100% D	500/0	5	5	5	7.6	8.1	8.2	24.1	25.1	24.9	8.5	7.6	6.4	870	950

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

LIMS	
Job number:	TLH-2002-10-01-01
sample number:	625170

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	Christa Pierini

Total Residual CL2	mg/L	Method
Field:	2.20	-
Lab:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	136
Control water (water flea):	80	83
100% Sample:	105	175

Table 1. Data recorded during the 48-hour acute screening bioassays of samples of effluent from the City of Ormond Beach WWTF, 550 North Orchard Street, Ormond Beach, Volusia County, Florida, NPDES# FL0020532-01, performed from 1 to 3 October 2002.

Sample #3

Facility:	**City of Ormond Beach WWTF**	**NPDES #**	**FL0020532-01**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	550 North Orchard Street, Ormond Beach	Contact/District:	Kane/Cental				Joshua Ayres
County:	Volusia	Test type:	static acute screen				James Daniels
Sample Collection Date:	9/30/2002 Time: 0900	# tests:	2	Receiving Water:	Halifax River		Marshall Faircloth
Test Beginning Date:	10/1/2002 Time: 1430	Chlorination Type:	Chlorinated		Class III Marine		
Test Ending Date:	10/3/2002 Time: 1430		sample collected after dechlorination		**Page 3 of 4**	**Reviewer:**	David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			Conductivity Uncorrected µmhos/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	0/20	5	5	5	8.2	-	8.3	23.5	-	23.8	8.2	-	6.4	160	240
Control B	0/20	5	5	5	-	-	8.3	-	-	23.7	-	-	6.4	-	220
Control C	0/20	5	5	5	-	-	8.3	-	-	23.5	-	-	6.4	-	220
Control D	0/20	5	5	5	-	-	8.3	-	-	23.6	-	-	6.4	-	215
100% A	20/0	5	5	5	7.6	-	8.3	23.9	-	23.7	8.2	-	6.4	865	960
100% B	20/0	5	5	5	-	-	8.3	-	-	23.7	-	-	6.4	-	990
100% C	20/0	5	5	5	-	-	8.3	-	-	23.5	-	-	6.4	-	1050
100% D	20/0	5	5	5	-	-	8.3	-	-	23.5	-	-	6.4	-	1190

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

Organism: ***Cyprinella leedsi*** Life stage: 10 days

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.0	8.4	8.5	24.2	24.5	25.5	8.2	7.8	6.4	270	350
Control B	0/500	5	5	5	8.0	8.4	8.5	24.0	24.8	24.6	8.1	7.8	6.6	260	300
Control C	0/500	5	5	5	8.0	8.4	8.5	23.9	24.9	26.6	8.1	7.8	6.2	260	290
Control D	0/500	5	5	5	8.0	8.4	8.5	23.7	25.1	25.3	8.1	7.8	6.5	255	290
100% A	500/0	5	5	5	7.6	8.2	8.2	24.3	24.9	24.6	8.2	7.8	6.5	860	880
100% B	500/0	5	5	5	7.6	8.2	8.2	24.3	24.7	24.6	8.2	7.8	6.4	880	935
100 % C	500/0	5	5	5	7.6	8.2	8.2	24.2	25.3	25.6	8.4	7.6	6.3	885	960
100% D	500/0	5	5	5	7.6	8.2	8.2	23.9	24.9	26.2	8.4	7.5	6.0	870	970

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

LIMS	
Job number:	TLH-2002-10-01-01
sample number:	625171

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	Christa Pierini

Total Residual CL2	mg/L	Method
Field:	2.20	-
Lab:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	136
Control water (water flea):	80	83
100% Sample:	110	175

Table 1. **concluded.** Data recorded during the 48-hour acute screening bioassays of samples of effluent from the City of Ormond Beach WWTF, 550 North Orchard Street, Ormond Beach, Volusia County, Florida, NPDES# FL0020532-01, performed from 1 to 3 October 2002.

Sample #4

Facility:	**City of Ormond Beach WWTF**	**NPDES #**	**FL0020532-01**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	550 North Orchard Street, Ormond Beach	Contact/District:	Kane/Cental				Joshua Ayres
County:	Volusia	Test type:	static acute screen				James Daniels
Sample Collection Date:	9/30/2002 Time: 0900	# tests:	2	Receiving Water:	Halifax River		Marshall Faircloth
Test Beginning Date:	10/1/2002 Time: 1430	Chlorination Type:	Chlorinated		Class III Marine		
Test Ending Date:	10/3/2002 Time: 1430		sample collected after dechlorination		**Page 4 of 4**	**Reviewer:**	David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			Conductivity Uncorrected µmhos/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	0/20	5	5	5	8.3	-	8.3	23.6	-	23.6	8.2	-	6.4	160	250
Control B	0/20	5	5	5	-	-	8.3	-	-	23.6	-	-	6.4	-	200
Control C	0/20	5	5	5	-	-	8.3	-	-	23.5	-	-	6.4	-	210
Control D	0/20	5	5	5	-	-	8.3	-	-	23.5	-	-	6.4	-	200
100% A	20/0	5	5	5	7.6	-	8.2	23.9	-	23.8	8.1	-	6.4	850	880
100% B	20/0	5	5	5	-	-	8.2	-	-	23.8	-	-	6.4	-	1040
100% C	20/0	5	5	5	-	-	8.2	-	-	23.7	-	-	6.4	-	1150
100% D	20/0	5	5	5	-	-	8.2	-	-	23.7	-	-	6.4	-	1160

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

Organism: ***Cyprinella leedsi*** Life stage: 10 days

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.0	8.4	8.5	24.3	25.7	24.3	8.1	7.5	6.5	260	280
Control B	0/500	5	5	5	8.0	8.4	8.5	24.2	25.2	24.8	8.0	7.6	6.4	260	280
Control C	0/500	5	5	5	8.0	8.4	8.5	24.1	24.9	25.7	8.0	7.8	6.4	260	285
Control D	0/500	5	5	5	8.0	8.4	8.5	23.8	25.2	25.7	8.0	7.9	6.2	255	280
100% A	500/0	5	5	5	7.6	8.1	8.2	24.2	25.3	25.2	8.1	7.7	6.3	820	930
100% B	500/0	5	5	5	7.6	8.1	8.2	24.2	25.2	25.1	8.2	7.6	6.4	890	960
100 % C	500/0	5	5	5	7.6	8.1	8.2	24.1	25.1	27.2	8.3	7.6	6.0	895	1000
100% D	500/0	5	5	5	7.6	8.1	8.2	23.9	24.7	24.8	8.3	7.6	6.4	890	985

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.5-26.0 °C.
Incubator #3 temperature range for the test period was 24.5-25.0°C.

LIMS	
Job number:	TLH-2002-10-01-01
sample number:	625172

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	Christa Pierini

Total Residual CL2	mg/L	Method
Field:	2.20	-
Lab:	<0.03	Hach

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

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	136
Control water (water flea):	80	83
100% Sample:	105	180

Table 2. Results of chemical analyses on effluent from the City of Ormond Beach WWTF sampled on September 30, 2002.

Metals

Aluminum	54	ug/L	
Cadmium	0.036	ug/L	[I]
Calcium	48.5	mg/L	
Iron	28	ug/L	[I]
Magnesium	12.4	mg/L	
Zinc	38	ug/L	

Pesticides and Herbicides

Atrazine	0.10	ug/L	[I]

Nutrients

Ammonia	0.062	mg N/L
Total Kjeldahl Nitrogen	1.0	mg N/L
Nitrates and Nitrites	0.76	mg N/L
Ortho-phosphate	0.36	mg P/L
Total Phosphorus	0.36	mg P/L

Base, Neutral, & Acid Extractable Organics

None detected

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

Table 3. Chemical Analyses performed on the effluent from the City of Ormond Beach WWTF, sampled on September 30, 2002.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
9/30/2002 9:00	ORMO	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	1,2,4-Trichlorobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	1,2-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	1,3-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	1,4-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	75
9/30/2002 9:00	ORMO	BNA-Water	1-Naphthylamine	9.4	ug/L	U	9.4	38
9/30/2002 9:00	ORMO	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	2,4,5-Trichlorophenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2,4,6-Trichlorophenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2,4-Dichlorophenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2,4-Dimethylphenol	47	ug/L	U	47	190
9/30/2002 9:00	ORMO	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
9/30/2002 9:00	ORMO	BNA-Water	2,4-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2,6-Dichlorophenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2,6-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2-Acetylaminofluorene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2-Chloronaphthalene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2-Chlorophenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2-Methyl-4,6-dinitrophenol	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	2-Methylnaphthalene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2-Naphthylamine	9.4	ug/L	U	9.4	38
9/30/2002 9:00	ORMO	BNA-Water	2-Nitroaniline	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2-Nitrophenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	2-Picoline	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/30/2002 9:00	ORMO	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	U	19	75
9/30/2002 9:00	ORMO	BNA-Water	3-Methylcholanthrene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	3-Nitroaniline	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7

9/30/2002 9:00	ORMO	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	4-Bromophenyl phenyl ether	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	4-Chloro-3-methylphenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	4-Chloroaniline	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	4-Nitroaniline	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
9/30/2002 9:00	ORMO	BNA-Water	5-Nitro-o-toluidine	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Acenaphthene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Acenaphthylene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Acetophenone	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	Aniline	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Anthracene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Benzidine	94	ug/L	U	94	380
9/30/2002 9:00	ORMO	BNA-Water	Benzo(a)anthracene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Benzo(a)pyrene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Benzo(b)fluoranthene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Benzo(g,h,i)perylene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Benzo(k)fluoranthene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Benzyl alcohol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Bis(2-chloroethoxy)methane	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Bis(2-chloroethyl)ether	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Bis(2-chloroisopropyl)ether	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
9/30/2002 9:00	ORMO	BNA-Water	Butyl benzyl phthalate	4.7	ug/L	U	4.7	19
9/30/2002 9:00	ORMO	BNA-Water	Chrysene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Di-n-butyl phthalate	4.7	ug/L	U	4.7	19
9/30/2002 9:00	ORMO	BNA-Water	Di-n-octyl phthalate	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Dibenzo(a,h)anthracene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Dibenzofuran	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	Diethyl phthalate	0.94	ug/L	U	0.94	3.8

9/30/2002 9:00	ORMO	BNA-Water	Dimethyl phthalate	47	ug/L	U	47	190
9/30/2002 9:00	ORMO	BNA-Water	Dimethylaminoazobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	Diphenylamine	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	Ethyl methanesulfonate	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Fluoranthene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Fluorene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	Hexachlorobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Hexachlorobutadiene	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	Hexachlorocyclopentadiene	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	Hexachloroethane	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	Indeno(1,2,3-cd)pyrene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Isophorone	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Isosafrole	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	Methyl methanesulfonate	0.94	ug/L	UJ	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosodi-n-butylamine	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosodiethylamine	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosodiphenylamine	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosomorpholine	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosopiperidine	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	Naphthalene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	75
9/30/2002 9:00	ORMO	BNA-Water	Pentachlorobenzene	0.94	ug/L	U	0.94	3.8

9/30/2002 9:00	ORMO	BNA-Water	Pentachloroethane	47	ug/L	U	47	190
9/30/2002 9:00	ORMO	BNA-Water	Pentachloronitrobenzene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Pentachlorophenol	2.8	ug/L	U	2.8	11
9/30/2002 9:00	ORMO	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
9/30/2002 9:00	ORMO	BNA-Water	Phenanthrene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Phenol	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Pyrene	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
9/30/2002 9:00	ORMO	BNA-Water	Safrole	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:00	ORMO	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.5
9/30/2002 9:00	ORMO	BNA-Water	o-Toluidine	0.94	ug/L	U	0.94	3.8
9/30/2002 9:00	ORMO	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
9/30/2002 9:00	ORMO	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
9/30/2002 9:00	ORMO	GC-Water	Atrazine	0.1	ug/L	I	0.048	0.192
9/30/2002 9:00	ORMO	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
9/30/2002 9:00	ORMO	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
9/30/2002 9:00	ORMO	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
9/30/2002 9:00	ORMO	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
9/30/2002 9:00	ORMO	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
9/30/2002 9:00	ORMO	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
9/30/2002 9:00	ORMO	GC-Water	Ethion	0.048	ug/L	UJ	0.048	0.192
9/30/2002 9:00	ORMO	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
9/30/2002 9:00	ORMO	GC-Water	Fenamiphos	0.19	ug/L	UJ	0.19	0.76
9/30/2002 9:00	ORMO	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
9/30/2002 9:00	ORMO	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
9/30/2002 9:00	ORMO	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
9/30/2002 9:00	ORMO	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
9/30/2002 9:00	ORMO	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
9/30/2002 9:00	ORMO	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
9/30/2002 9:00	ORMO	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
9/30/2002 9:00	ORMO	GC-Water	Naled	0.76	ug/L	U	0.76	3.04
9/30/2002 9:00	ORMO	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38

9/30/2002 9:00	ORMO		GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
9/30/2002 9:00	ORMO		GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
9/30/2002 9:00	ORMO		GC-Water	Phorate	0.048	ug/L	UJ	0.048	0.192
9/30/2002 9:00	ORMO		GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
9/30/2002 9:00	ORMO		GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
9/30/2002 9:00	ORMO		Metals-Water	Aluminum	54	ug/L		10	40
9/30/2002 9:00	ORMO		Metals-Water	Arsenic	7	ug/L	U	7	28
9/30/2002 9:00	ORMO		Metals-Water	Cadmium	0.036	ug/L	I	0.025	0.1
9/30/2002 9:00	ORMO		Metals-Water	Calcium	48.5	mg/L		0.05	0.3
9/30/2002 9:00	ORMO		Metals-Water	Chromium	2	ug/L	U	2	8
9/30/2002 9:00	ORMO		Metals-Water	Copper	2.2	ug/L	U	0.75	3
9/30/2002 9:00	ORMO		Metals-Water	Iron	28	ug/L	I	10	40
9/30/2002 9:00	ORMO		Metals-Water	Lead	1.4	ug/L	U	0.1	0.4
9/30/2002 9:00	ORMO		Metals-Water	Magnesium	12.4	mg/L		0.01	0.04
9/30/2002 9:00	ORMO		Metals-Water	Nickel	2	ug/L	U	2	8
9/30/2002 9:00	ORMO		Metals-Water	Selenium	3.8	ug/L	U	1	4
9/30/2002 9:00	ORMO		Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
9/30/2002 9:00	ORMO		Metals-Water	Zinc	38	ug/L		4	12
9/30/2002 9:00	ORMO		Nutrients-Liquid	Ammonia-N	0.062	mg N/L		0.01	0.02
9/30/2002 9:00	ORMO		Nutrients-Liquid	NO2NO3-N	0.76	mg N/L		0.004	0.01
9/30/2002 9:00	ORMO		Nutrients-Liquid	N_KJEL_TOT	1	mg N/L		0.06	0.2
9/30/2002 9:00	ORMO		Nutrients-Liquid	O-Phosphate-P	0.36	mg P/L		0.04	0.1
9/30/2002 9:00	ORMO		Nutrients-Liquid	Total-P	0.36	mg P/L		0.015	0.04
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	76
9/30/2002 9:17	ORMO	BLANK	BNA-Water	1-Naphthylamine	9.5	ug/L	U	9.5	38
9/30/2002 9:17	ORMO	BLANK	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO	BLANK	BNA-Water	2,4,5-Trichlorophenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO	BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190

9/30/2002 9:17	ORMO BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
9/30/2002 9:17	ORMO BLANK	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2,6-Dichlorophenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Acetylaminofluorene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Methylnaphthalene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Naphthylamine	9.5	ug/L	U	9.5	38
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Nitroaniline	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	2-Picoline	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/30/2002 9:17	ORMO BLANK	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	U	19	76
9/30/2002 9:17	ORMO BLANK	BNA-Water	3-Methylcholanthrene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	3-Nitroaniline	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	4-Chloroaniline	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	4-Nitroaniline	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
9/30/2002 9:17	ORMO BLANK	BNA-Water	5-Nitro-o-toluidine	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Acetophenone	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	Aniline	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Benzidine	95	ug/L	U	95	380

9/30/2002 9:17	ORMO BLANK	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Benzyl alcohol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
9/30/2002 9:17	ORMO BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
9/30/2002 9:17	ORMO BLANK	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
9/30/2002 9:17	ORMO BLANK	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Dibenzofuran	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
9/30/2002 9:17	ORMO BLANK	BNA-Water	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO BLANK	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO BLANK	BNA-Water	Ethyl methanesulfonate	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.6

9/30/2002 9:17	ORMO BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Isosafrole	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO BLANK	BNA-Water	Methyl methanesulfonate	0.95	ug/L	UJ	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	76
9/30/2002 9:17	ORMO BLANK	BNA-Water	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
9/30/2002 9:17	ORMO BLANK	BNA-Water	Pentachloronitrobenzene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
9/30/2002 9:17	ORMO BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
9/30/2002 9:17	ORMO BLANK	BNA-Water	Safrole	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
9/30/2002 9:17	ORMO BLANK	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.6
9/30/2002 9:17	ORMO BLANK	BNA-Water	o-Toluidine	0.95	ug/L	U	0.95	3.8
9/30/2002 9:17	ORMO BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
9/30/2002 9:17	ORMO BLANK	GC-Water	Ametryn	0.047	ug/L	U	0.047	0.188
9/30/2002 9:17	ORMO BLANK	GC-Water	Atrazine	0.047	ug/L	U	0.047	0.188

9/30/2002 9:17	ORMO BLANK	GC-Water	Azinphos Methyl	0.047	ug/L	U	0.047	0.188
9/30/2002 9:17	ORMO BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
9/30/2002 9:17	ORMO BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
9/30/2002 9:17	ORMO BLANK	GC-Water	Chlorpyrifos Ethyl	0.047	ug/L	U	0.047	0.188
9/30/2002 9:17	ORMO BLANK	GC-Water	Chlorpyrifos Methyl	0.094	ug/L	U	0.094	0.376
9/30/2002 9:17	ORMO BLANK	GC-Water	Diazinon	0.047	ug/L	U	0.047	0.188
9/30/2002 9:17	ORMO BLANK	GC-Water	Ethion	0.047	ug/L	UJ	0.047	0.188
9/30/2002 9:17	ORMO BLANK	GC-Water	Ethoprop	0.094	ug/L	U	0.094	0.376
9/30/2002 9:17	ORMO BLANK	GC-Water	Fenamiphos	0.19	ug/L	UJ	0.19	0.76
9/30/2002 9:17	ORMO BLANK	GC-Water	Fonofos	0.094	ug/L	U	0.094	0.376
9/30/2002 9:17	ORMO BLANK	GC-Water	Hexazinone	0.094	ug/L	U	0.094	0.376
9/30/2002 9:17	ORMO BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
9/30/2002 9:17	ORMO BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
9/30/2002 9:17	ORMO BLANK	GC-Water	Metolachlor	0.47	ug/L	U	0.47	1.88
9/30/2002 9:17	ORMO BLANK	GC-Water	Metribuzin	0.094	ug/L	U	0.094	0.376
9/30/2002 9:17	ORMO BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
9/30/2002 9:17	ORMO BLANK	GC-Water	Naled	0.75	ug/L	U	0.75	3
9/30/2002 9:17	ORMO BLANK	GC-Water	Norflurazon	0.094	ug/L	U	0.094	0.376
9/30/2002 9:17	ORMO BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
9/30/2002 9:17	ORMO BLANK	GC-Water	Parathion Methyl	0.094	ug/L	U	0.094	0.376
9/30/2002 9:17	ORMO BLANK	GC-Water	Phorate	0.047	ug/L	UJ	0.047	0.188
9/30/2002 9:17	ORMO BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
9/30/2002 9:17	ORMO BLANK	GC-Water	Simazine	0.047	ug/L	U	0.047	0.188
9/30/2002 9:17	ORMO BLANK	Metals-Water	Aluminum	10	ug/L	U	10	40
9/30/2002 9:17	ORMO BLANK	Metals-Water	Arsenic	7	ug/L	U	7	28
9/30/2002 9:17	ORMO BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
9/30/2002 9:17	ORMO BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.3
9/30/2002 9:17	ORMO BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
9/30/2002 9:17	ORMO BLANK	Metals-Water	Copper	2.2	ug/L	U	0.75	3
9/30/2002 9:17	ORMO BLANK	Metals-Water	Iron	10	ug/L	U	10	40
9/30/2002 9:17	ORMO BLANK	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4
9/30/2002 9:17	ORMO BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
9/30/2002 9:17	ORMO BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
9/30/2002 9:17	ORMO BLANK	Metals-Water	Selenium	3.8	ug/L	U	1	4
9/30/2002 9:17	ORMO BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
9/30/2002 9:17	ORMO BLANK	Metals-Water	Zinc	4	ug/L	U	4	12
9/30/2002 9:17	ORMO BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02

9/30/2002	9:17	ORMO BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
9/30/2002	9:17	ORMO BLANK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
9/30/2002	9:17	ORMO BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
9/30/2002	9:17	ORMO BLANK	Nutrients-Liquid	Total-P	0.015	mg P/L	U	0.015	0.04

The Bioassay of the City of Ormond Beach WWTF effluent sampled on September 30, 2002, NPDES #FL0020532-01.

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 F L 0 0 2 0 5 3 2 # #		0 2 0 9 3 0		# **B**	# **S**	# 1

Remarks

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The Priority Pollutants Analysis for the Bioassay of the City of Ormond Beach WWTF effluent sampled on September 30, 2002, NPDES #FL0020532-01.

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 F L 0 0 2 0 5 3 2 # #		0 2 0 9 3 0		# **B**	# **S**	# 1

Remarks

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