

Bioassays of

Vero Beach Wastewater Treatment Facility

Vero Beach, Indian River County, Florida

NPDES #FL0021661

Sampled 1/13/03

April 2003

Biology Section

Division of Resource Assessment & Management

Comprehensive Quality Assurance Plan #870346G

Bioassays of

Vero Beach Wastewater Treatment Facility

Vero Beach, Indian River County, Florida

NPDES #FL0021661

Biology Section
Bureau of Laboratories
April 2003

Vero Beach Wastewater Treatment Facility, 17-17th Street, Vero Beach, Indian River County, Florida, NPDES #FL0021661, tests performed on 14 to 18 January 2003.

Introduction

This complete-mix activated-sludge wastewater treatment facility has a design flow of 4.5 MGD and an average daily flow of 3.496 MGD of which 3.031 MGD was routed to the reuse system (October 2002). Wastewater treatment consists of influent screening, grit removal, aeration, clarification, chemical feed, filtration (4.95 MGD upflow sand filters), disinfection by gas chlorination, and dechlorination by sulfur dioxide prior to discharge to the Class III marine waters of the Indian River Lagoon. Reclaimed water is used for public access irrigation and as cooling water in the Vero Beach Power Plant. Residuals are thickened and aerobically digested prior to land application (facility information provided by Phil Kane, FDEP, Orlando).

Methods

Samples were collected by Phil Kane and Steve Kent 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.

Per the NPDES permit for this facility, four separate grab samples were collected at evenly spaced (6-hour) intervals over a 24-hour period.

Toxicity Test Results

Ceriodaphnia dubia 96-hr acute screen – Sample #1 - Not Toxic
Ceriodaphnia dubia 96-hr acute screen – Sample #2 - Not Toxic
Ceriodaphnia dubia 96-hr acute screen – Sample #3 - Not Toxic
Ceriodaphnia dubia 96-hr acute screen – Sample #4 - Not Toxic

See Table 1 for *C. dubia* bioassay bench sheets.

Cyprinella leedsi 96-hr acute screen – Sample #1 -Not Toxic
Cyprinella leedsi 96-hr acute screen – Sample #2 -Not Toxic
Cyprinella leedsi 96-hr acute screen – Sample #3 -Not Toxic
Cyprinella leedsi 96-hr acute screen – Sample #4 -Not Toxic

See Table 2 for *C. leedsi* bioassay bench sheets.

Chemistry Results

Total residual chlorine was not detected in the bioassay samples in the laboratory. Total ammonia was detected in bioassay samples 1 through 4 in the laboratory at concentrations of 15.0, 15.5, 13.8, and 13.0 mg/L, respectively. Corresponding unionized ammonia concentrations were 0.621, 1.030, 0.722, and 0.559 mg/L, respectively.

The concentration of copper (4.3 µg/L) in the sample submitted for chemical analysis exceeded the Class III marine water quality standard for copper (≤ 2.9 ug/L) (FAC 62-302.530).

See Table 3 for chemicals detected in the analytical chemistry samples.
See Table 4 for a complete list of chemical analyses performed.

Conclusion

The samples of effluent collected from this facility on January 13, 2003, did not show acute toxicity to either test species during the 96-hour bioassay tests.

Table 1. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Vero Beach Wastewater Treatment Facility (Sample #1), 17-17th Street, Vero Beach, Indian River County, Florida, NPDES# FL0021661, performed from 14 to 18 January 2003.

Facility:	**Vero Beach WTF(#1)**		**NPDES #:**	**FL0021661**	Facility Type:	**Wastewater Treatment**	**Analysts:** Jacquelyn Brynda
Location:	17-17th Street, Vero Beach		Contact/District:	Kane/Central		**Facility**	Joshua Ayres
County:	Indian River		Test type:	acute screen renewal			James Daniels
Sample Collection Date:	1/13/2003	Time: 0945	# tests:	2	Receiving Water:	Indian River Lagoon	Marshall Faircloth
Test Beginning Date:	1/14/2003	Time: 1600	Chlorination Type:	dechlorinated		Class III Marine	Christa Pierini
Test Ending Date:	1/18/2003	Time: 1100	FDEP SOP#:	TA07_01		**Page 1 of 4**	**Reviewer:** David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [B]Feeding: YCT/Algae

0-48 hours (before renewal) Chamber size: 30mL

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen[C]			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	8.0	-	7.9	24.6	-	23.8	8.9	-	6.8	175	225
Control B	0/20	5	5	5	-	-	7.9	-	-	24.2	-	-	6.8	-	190
Control C	0/20	5	5	5	-	-	7.9	-	-	24.2	-	-	6.8	-	190
Control D	0/20	5	5	5	-	-	7.9	-	-	24.0	-	-	6.9	-	190
100% A	20/0	5	5	5	7.8	-	7.9	24.8	-	24.2	8.7	-	6.5	1040	1080
100% B	20/0	5	5	5	-	-	7.9	-	-	24.3	-	-	6.5	-	1100
100% C	20/0	5	5	5	-	-	8.0	-	-	24.2	-	-	6.5	-	1120
100% D	20/0	5	5	5	-	-	8.0	-	-	24.0	-	-	6.6	-	1160

Organism: ***Ceriodaphnia dubia*** Conductivity Uncorrected µmhos/cm

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen				
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	0/20	5	5	5	8.1	-	8.1	24.6	-	23.9	7.4	-	7.6	180	200
Control B	0/20	5	5	5	-	-	8.1	-	-	23.9	-	-	7.6	-	215
Control C	0/20	5	5	5	-	-	8.1	-	-	23.9	-	-	7.6	-	215
Control D	0/20	5	5	5	-	-	8.1	-	-	24.1	-	-	7.6	-	215
100% A	20/0	5	5	5	7.9	-	8.2	25.2	-	24.4	7.4	-	7.5	1085	1070
100% B	20/0	5	5	5	-	-	8.1	-	-	24.1	-	-	7.4	-	1200
100 % C	20/0	5	5	5	-	-	8.1	-	-	24.1	-	-	7.6	-	1230
100% D	20/0	5	5	5	-	-	8.1	-	-	24.2	-	-	7.6	-	1260

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.0-25.5°C.
Incubator #3 temperature range for the test period was 23.0-25.0°C.

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

[C] Sample was aerated for 15 minutes to decrease the dissolved oxygen to <9.0 mg/L.

Continued

LIMS	
Job number:	TLH-2003-01-14-10-01
sample number:	647247

Data Transcription Verification	
date:	2/6/2003
by:	Cathy Oaks
	Brad Richardson

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

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (water flea):	<0.017	<0.017
100% Sample:	15.00	0.621

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	80
100% Sample:	114	185

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

Table 1. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Vero Beach Wastewater Treatment Facility (Sample #2), 17-17th Street, Vero Beach, Indian River County, Florida, NPDES# FL0021661, performed from 14 to 18 January 2003.

Facility:	**Vero Beach WTF(#2)**	**NPDES #:**	**FL0021661**	Facility Type:	**Wastewater Treatment**	**Analysts:**	Jacquelyn Brynda
Location:	17-17th Street, Vero Beach	Contact/District:	Kane/Central		**Facility**		Joshua Ayres
County:	Indian River	Test type:	acute screen renewal				James Daniels
Sample Collection Date:	1/13/2003 Time: 0945	# tests:	2	Receiving Water:	Indian River Lagoon		Marshall Faircloth
Test Beginning Date:	1/14/2003 Time: 1600	Chlorination Type:	dechlorinated		Class III Marine		Christa Pierini
Test Ending Date:	1/18/2003 Time: 1100	FDEP SOP#:	TA07_01		**Page 2 of 4**	**Reviewer:**	David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [B]Feeding: YCT/Algae
0-48 hours (before renewal) Chamber size: 30mL

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen[C]			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	8.1	-	7.9	25.5	-	24.2	8.8	-	6.7	210	230
Control B	0/20	5	5	5	-	-	7.9	-	-	24.2	-	-	6.8	-	200
Control C	0/20	5	5	5	-	-	7.9	-	-	24.0	-	-	6.8	-	195
Control D	0/20	5	5	5	-	-	7.9	-	-	24.0	-	-	6.8	-	195
100% A	20/0	5	5	5	8.0	-	7.9	25.3	-	24.2	8.5	-	6.8	1070	1105
100% B	20/0	5	5	5	-	-	7.9	-	-	24.2	-	-	6.8	-	1180
100% C	20/0	5	5	5	-	-	7.9	-	-	24.1	-	-	6.8	-	1190
100% D	20/0	5	5	5	-	-	7.9	-	-	24.0	-	-	6.8	-	1190

LIMS	
Job number:	TLH-2003-01-14-10-02
sample number:	647434

Data Transcription Verification	
date:	2/6/2003
by:	Cathy Oaks
	Brad Richardson

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

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (water flea):	<0.017	<0.017
100% Sample:	15.50	1.030

Organism: ***Ceriodaphnia dubia*** Conductivity Uncorrected µmhos/cm
48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen				
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	0/20	5	5	5	8.2	-	8.2	24.0	-	24.4	7.6	-	7.5	215	205
Control B	0/20	5	5	5	-	-	8.2	-	-	24.3	-	-	7.5	-	200
Control C	0/20	5	5	5	-	-	8.2	-	-	24.2	-	-	7.5	-	195
Control D	0/20	5	5	5	-	-	8.2	-	-	24.2	-	-	7.5	-	250
100% A	20/0	5	5	5	8.0	-	8.1	24.8	-	24.2	7.5	-	7.6	1130	1180
100% B	20/0	5	5	5	-	-	8.1	-	-	24.0	-	-	7.6	-	1180
100 % C	20/0	5	5	5	-	-	8.1	-	-	24.0	-	-	7.6	-	1190
100% D	20/0	5	5	5	-	-	8.1	-	-	24.1	-	-	7.6	-	1260

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	80
100% Sample:	110	190

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

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.0-25.5°C.
Incubator #3 temperature range for the test period was 23.0-25.0°C.

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

[C] Sample was aerated for 15 minutes to decrease the dissolved oxygen to <9.0 mg/L.

Continued

Table 1. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Vero Beach Wastewater Treatment Facility (Sample #3), 17-17th Street, Vero Beach, Indian River County, Florida, NPDES# FL0021661, performed from 14 to 18 January 2003.

Facility:	**Vero Beach WTF(#3)**	**NPDES #:**	**FL0021661**	Facility Type:	**Wastewater Treatment**	**Analysts:**	Jacquelyn Brynda
Location:	17-17th Street, Vero Beach	Contact/District:	Kane/Central		**Facility**		Joshua Ayres
County:	Indian River	Test type:	acute screen renewal				James Daniels
Sample Collection Date:	1/13/2003 Time: 0945	# tests:	2	Receiving Water:	Indian River Lagoon		Marshall Faircloth
Test Beginning Date:	1/14/2003 Time: 1600	Chlorination Type:	dechlorinated		Class III Marine		Christa Pierini
Test Ending Date:	1/18/2003 Time: 1100	FDEP SOP#:	TA07_01		**Page 3 of 4**	**Reviewer:**	David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [B]Feeding: YCT/Algae

0-48 hours (before renewal) Chamber size: 30mL

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen[C]			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	8.1	-	8.0	25.0	-	24.1	8.9	-	6.5	195	240
Control B	0/20	5	5	5	-	-	8.0	-	-	24.0	-	-	6.5	-	195
Control C	0/20	5	5	5	-	-	8.0	-	-	24.0	-	-	6.6	-	200
Control D	0/20	5	5	5	-	-	7.9	-	-	24.0	-	-	6.7	-	200
100% A	20/0	5	5	5	7.9	-	7.8	25.0	-	24.1	8.8	-	6.7	990	1050
100% B	20/0	5	5	5	-	-	7.9	-	-	24.0	-	-	6.7	-	1040
100% C	20/0	5	5	5	-	-	7.9	-	-	24.0	-	-	6.6	-	1060
100% D	20/0	5	5	5	-	-	7.9	-	-	24.0	-	-	6.5	-	1080

LIMS	
Job number:	TLH-2003-01-14-10-03
sample number:	647435

Data Transcription Verification	
date:	2/6/2003
by:	Cathy Oaks
	Brad Richardson

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

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (water flea):	<0.017	<0.017
100% Sample:	13.80	0.722

Organism: ***Ceriodaphnia dubia*** Conductivity Uncorrected µmhos/cm

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen				
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	0/20	5	5	5	8.2	-	8.3	24.4	-	24.3	7.5	-	7.7	195	210
Control B	0/20	5	5	5	-	-	8.3	-	-	24.6	-	-	7.7	-	205
Control C	0/20	5	5	5	-	-	8.3	-	-	24.5	-	-	7.7	-	215
Control D	0/20	5	5	5	-	-	8.3	-	-	24.3	-	-	7.7	-	210
100% A	20/0	5	5	5	7.8	-	8.1	25.0	-	24.2	7.4	-	7.7	1060	1165
100% B	20/0	5	5	5	-	-	8.1	-	-	24.4	-	-	7.6	-	1155
100 % C	20/0	5	5	5	-	-	8.1	-	-	24.4	-	-	7.6	-	1145
100% D	20/0	5	5	5	-	-	8.1	-	-	24.6	-	-	7.6	-	1090

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	80
100% Sample:	109	186

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

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.0-25.5°C.
Incubator #3 temperature range for the test period was 23.0-25.0°C.

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

[C] Sample was aerated for 15 minutes to decrease the dissolved oxygen to <9.0 mg/L.

Continued

Table 1. Concluded

Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Vero Beach Wastewater Treatment Facility (Sample #4), 17-17th Street, Vero Beach, Indian River County, Florida, NPDES# FL0021661, performed from 14 to 18 January 2003.

Facility:	**Vero Beach WTF(#4)**		**NPDES #:**	**FL0021661**	Facility Type:	**Wastewater Treatment**	**Analysts:** Jacquelyn Brynda
Location:	17-17th Street, Vero Beach		Contact/District:	Kane/Central		**Facility**	Joshua Ayres
County:	Indian River		Test type:	acute screen renewal			James Daniels
Sample Collection Date:	1/13/2003	Time: 0945	# tests:	2	Receiving Water:	Indian River Lagoon	Marshall Faircloth
Test Beginning Date:	1/14/2003	Time: 1600	Chlorination Type:	dechlorinated		Class III Marine	Christa Pierini
Test Ending Date:	1/18/2003	Time: 1100	FDEP SOP#:	TA07_01		**Page 4 of 4**	**Reviewer:** David Whiting

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [B]Feeding: YCT/Algae

0-48 hours (before renewal) Chamber size: 30mL

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen[C]			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	-	8.0	24.9	-	24.0	8.9	-	6.7	185	280
Control B	0/20	5	5	5	-	-	8.0	-	-	24.1	-	-	6.8	-	220
Control C	0/20	5	5	5	-	-	8.0	-	-	24.1	-	-	6.8	-	200
Control D	0/20	5	5	5	-	-	8.0	-	-	24.1	-	-	6.8	-	200
100% A	20/0	5	5	5	7.8	-	7.7	24.8	-	24.0	8.9	-	6.8	1040	1130
100% B	20/0	5	5	5	-	-	7.7	-	-	24.0	-	-	6.8	-	1180
100% C	20/0	5	5	5	-	-	7.7	-	-	24.0	-	-	6.7	-	1240
100% D	20/0	5	5	5	-	-	7.7	-	-	24.0	-	-	6.7	-	1180

Organism: ***Ceriodaphnia dubia*** Conductivity Uncorrected µmhos/cm

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen				
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	0/20	5	5	5	8.2	-	8.2	24.4	-	24.2	7.6	-	7.5	195	220
Control B	0/20	5	5	5	-	-	8.2	-	-	24.1	-	-	7.5	-	215
Control C	0/20	5	5	5	-	-	8.2	-	-	24.1	-	-	7.6	-	210
Control D	0/20	5	5	5	-	-	8.2	-	-	24.4	-	-	7.7	-	215
100% A	20/0	5	5	5	7.8	-	7.9	24.8	-	24.1	7.6	-	7.6	1110	1240
100% B	20/0	5	5	5	-	-	7.9	-	-	24.0	-	-	7.6	-	1320
100 % C	20/0	5	5	5	-	-	7.9	-	-	24.0	-	-	7.6	-	1290
100% D	20/0	5	5	5	-	-	7.9	-	-	24.0	-	-	7.6	-	1305

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.0-25.5°C.
Incubator #3 temperature range for the test period was 23.0-25.0°C.

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

[C] Sample was aerated for 15 minutes to decrease the dissolved oxygen to <9.0 mg/L.

LIMS	
Job number:	TLH-2003-01-14-10-04
sample number:	647436

Data Transcription Verification	
date:	2/6/2003
by:	Cathy Oaks
	Brad Richardson

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

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (water flea):	<0.017	<0.017
100% Sample:	13.00	0.559

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	80
100% Sample:	80	191

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

Table 2. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Vero Beach Wastewater Treatment Facility (Samples #1-4), 17-17th Street, Vero Beach, Indian River County, Florida, NPDES# FL0021661, performed from 14 to 18 January 2003.

Facility:	**Vero Beach WTF(#1-4)**	**NPDES #:**	**FL0021661**	Facility Type:	**Wastewater Treatment**	**Analysts:**	Jacquelyn Brynda
Location:	17-17th Street, Vero Beach	Contact/District:	Kane/Central		**Facility**		Joshua Ayres
County:	Indian River	Test type:	acute screen renewal				James Daniels
Sample Collection Date:	1/13/2003 Time: 0945	# tests:	2	Receiving Water:	Indian River Lagoon		Marshall Faircloth
Test Beginning Date:	1/14/2003 Time: 1615	Chlorination Type:	dechlorinated		Class III Marine		Christa Pierini
Test Ending Date:	1/18/2003 Time: 1115	FDEP SOP#:	TA07_02		**Page 1 of 2**	**Reviewer:**	David Whiting

Organism: ***Cyprinella leedsi*** Life stage: 11 days [B]Feeding: artemia

0-48 hours (before renewal) Chamber size: 1 L

Concentrations[D]	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[C] 0 hour	24 hour	48 hour	Conductivity Uncorrected µmhos/cm 0 hour	48 hour
Control A	0/500	5	4	4	8.0	8.3	8.3	24.4	23.7	25.3	8.4	7.1	6.8	230	290
Control B	0/500	5	5	5	8.0	8.3	8.3	25.1	23.9	25.0	8.2	7.2	6.7	260	285
Control C	0/500	5	5	5	7.9	8.3	8.3	25.4	24.0	24.7	8.2	7.2	6.8	260	280
Control D	0/500	5	4	4	7.9	8.3	8.3	25.4	24.0	24.5	8.2	7.2	6.9	260	285
100% #1 A	500/0	5	4	4	7.8	8.0	8.0	24.0	24.1	24.8	8.2	7.1	6.6	970	1125
100% #1 B	500/0	5	5	5	7.8	8.0	8.0	24.0	24.0	24.7	8.4	7.0	6.7	1075	1155
100% #1 C	500/0	5	5	5	7.9	8.0	8.0	24.0	23.8	24.9	8.7	7.0	6.5	1110	1180
100% #1 D	500/0	5	5	5	7.9	8.0	8.0	24.0	23.9	24.5	8.4	7.0	6.4	1100	1160
100% #2 A	500/0	5	4	4	7.9	8.0	8.0	24.8	23.1	24.2	8.2	7.1	6.8	1040	1140
100% #2 B	500/0	5	5	5	8.0	8.0	8.0	24.6	23.0	24.3	8.2	7.1	6.8	1130	1170
100% #2 C	500/0	5	4	4	8.0	8.0	8.0	24.6	23.2	24.4	8.3	7.0	6.6	1130	1175
100% #2 D	500/0	5	5	5	8.0	8.0	8.0	24.8	23.5	24.4	8.3	7.0	6.7	1130	1160
100% #3 A	500/0	5	4	4	7.8	7.9	8.0	24.7	23.8	24.9	8.3	6.7	6.6	970	1050
100% #3 B	500/0	5	3	3	7.8	7.9	8.0	24.7	24.1	24.5	8.3	6.7	6.4	1045	1080
100% #3 C	500/0	5	5	5	7.8	7.9	8.0	24.6	23.8	25.2	8.5	6.8	6.4	1040	1090
100% #3 D	500/0	5	5	5	7.8	7.9	8.0	24.4	23.6	24.3	8.5	6.8	6.3	1050	1090
100% #4 A	500/0	5	5	5	7.8	7.9	7.8	25.4	23.8	24.1	8.6	6.9	7.0	1020	1125
100% #4 B	500/0	5	3	3	7.8	7.8	7.8	25.3	24.3	24.0	8.6	6.8	7.0	1110	1135
100% #4 C	500/0	5	4	4	7.8	7.8	7.7	25.3	23.8	25.4	8.8	6.8	6.4	1110	1155
100% #4 D	500/0	5	5	5	7.8	7.8	7.8	25.2	23.7	25.0	8.8	6.7	6.2	1105	1150

LIMS		
Job number:	TLH-2003-01-14-10-01	
Sample #1:	647247	
Job number:	TLH-2003-01-14-10-02	
Sample #2:	647434	
Job number:	TLH-2003-01-14-10-03	
Sample #3:	647435	
Job number:	TLH-2003-01-14-10-04	
Sample #4:	647436	
Total Residual CL2	mg/L	Method
Field:	-	-
Lab:	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (fish):	<0.017	<0.017
100% Sample #1:	15.00	0.621
100% Sample #2:	15.50	1.030
100% Sample #3:	13.80	0.722
100% Sample #4:	13.00	0.559

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	141	132
100% Sample #1:	114	185
100% Sample #2:	110	190
100% Sample #3:	109	186
100% Sample #4:	80	191

Data Transcription Verification
date: 2/6/2003
by: Cathy Oaks
Brad Richardson

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.0-25.5°C.
Incubator #3 temperature range for the test period was 23.0-25.0°C.

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

[C] Samples were aerated for 15 minutes to decrease the dissolved oxygen to <9.0 mg/L.

[D] Due to an insufficent amount of healthy *C. leedsi* organisms for testing, the same controls were used for all four bioassay samples.

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

Continued

Table 2. Concluded

Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Vero Beach Wastewater Treatment Facility (Samples #1-4), 17-17th Street, Vero Beach, Indian River County, Florida, NPDES# FL0021661, performed from 14 to 18 January 2003.

Facility:	**Vero Beach WTF(#1-4)**	**NPDES #:**	**FL0021661**	Facility Type:	**Wastewater Treatment**	**Analysts:**	Jacquelyn Brynda
Location:	17-17th Street, Vero Beach	Contact/District:	Kane/Central		**Facility**		Joshua Ayres
County:	Indian River	Test type:	acute screen renewal				James Daniels
Sample Collection Date:	1/13/2003 Time: 0945	# tests:	2	Receiving Water:	Indian River Lagoon		Marshall Faircloth
Test Beginning Date:	1/14/2003 Time: 1615	Chlorination Type:	dechlorinated		Class III Marine		Christa Pierini
Test Ending Date:	1/18/2003 Time: 1115	FDEP SOP#:	TA07_02		**Page 2 of 2**	**Reviewer:**	David Whiting

Organism: ***Cyprinella leedsi*** Life stage: 11 days [B]Feeding: artemia

48-96 hours (after renewal) Chamber size: 1 L

	Sample/Diluent	**SURVIVAL # Alive**			pH			Temperature[A]			Dissolved Oxygen[C]			Conductivity Uncorrected µmhos/cm	
Concentrations[D]	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	4	4	4	8.1	8.1	8.2	25.0	25.2	26.4	7.1	6.3	6.5	265	310
Control B	0/500	5	5	5	8.1	8.1	8.3	24.9	24.8	26.1	7.1	6.5	6.4	270	290
Control C	0/500	5	5	5	8.1	8.1	8.3	24.9	23.8	24.8	7.2	7.2	6.6	265	290
Control D	0/500	4	4	4	8.1	8.1	8.2	24.9	24.0	24.7	7.2	7.2	6.7	270	290
100% #1 A	500/0	4	4	4	7.9	7.9	7.7	26.0	24.8	25.2	7.2	7.2	6.7	1130	1200
100% #1 B	500/0	5	5	5	7.9	7.9	7.7	26.0	24.5	25.4	7.2	7.1	5.0	1155	1210
100% #1 C	500/0	5	5	5	7.9	7.9	7.7	26.0	24.0	25.1	7.2	6.9	4.7	1165	1200
100% #1 D	500/0	5	5	5	7.9	7.9	7.7	26.1	24.0	24.8	7.2	6.8	5.1	1155	1210
100% #2 A	500/0	4	4	4	7.9	7.8	7.7	26.2	24.6	25.1	7.1	7.1	5.3	1190	1205
100% #2 B	500/0	5	4	4	7.9	7.8	7.7	26.3	24.0	24.8	7.1	7.0	5.4	1170	1265
100% #2 C	500/0	4	4	3	7.9	7.8	7.7	26.2	24.0	25.6	7.1	7.2	5.4	1180	1260
100% #2 D	500/0	5	5	5	7.9	7.8	7.7	26.1	24.0	25.1	7.1	7.3	5.5	1190	1250
100% #3 A	500/0	4	4	4	7.9	7.8	7.7	25.7	24.2	25.1	7.3	7.4	5.9	1075	1125
100% #3 B	500/0	3	3	3	7.8	7.8	7.7	25.6	24.3	24.1	7.3	7.4	6.0	1080	1100
100% #3 C	500/0	5	5	5	7.8	7.8	7.7	25.6	24.3	26.2	7.3	7.1	5.9	1070	1140
100% #3 D	500/0	5	5	5	7.8	7.8	7.7	25.5	24.2	24.3	7.3	6.9	6.0	1080	1155
100% #4 A	500/0	5	5	5	7.8	7.7	7.5	25.4	24.0	25.6	7.3	7.4	6.1	1140	1220
100% #4 B	500/0	3	3	3	7.8	7.7	7.5	25.5	24.5	24.7	7.4	7.5	6.1	1150	1170
100% #4 C	500/0	4	4	4	7.8	7.7	7.5	25.6	24.5	24.9	7.3	7.2	6.0	1140	1180
100% #4 D	500/0	5	5	5	7.8	7.7	7.5	25.6	24.3	25.5	7.3	7.0	5.8	1140	1215

LIMS

Job number:	TLH-2003-01-14-10-01	
Sample #1:	647247	
Job number:	TLH-2003-01-14-10-02	
Sample #2:	647434	
Job number:	TLH-2003-01-14-10-03	
Sample #3:	647435	
Job number:	TLH-2003-01-14-10-04	
Sample #4:	647436	
Total Residual CL2	mg/L	Method
Field:	-	-
Lab:	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water (fish):	<0.017	<0.017
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100% Sample #4:	13.00	0.559

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	141	132
100% Sample #1:	114	185
100% Sample #2:	110	190
100% Sample #3:	109	186
100% Sample #4:	80	191

Data Transcription Verification

date: 2/6/2003

by: Cathy Oaks

Brad Richardson

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.0-25.5°C.
Incubator #3 temperature range for the test period was 23.0-25.0°C.

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

[C] Samples were aerated for 15 minutes to decrease the dissolved oxygen to <9.0 mg/L.

[D] Due to an insufficent amount of healthy *C. leedsi* organisms for testing, the same controls were used for all four bioassay samples.

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

Table 3. Results of chemical analyses on the effluent from Vero Beach Wastewater Treatment Facility sampled on January 13, 2003.

Metals

Aluminum	31	ug/L	I
Calcium	52.5	mg/L	
Copper	4.3	ug/L	
Iron	98	ug/L	
Lead	0.42	ug/L	
Magnesium	12.4	mg/L	
Silver	0.18	ug/L	
Zinc	19	ug/L	

Pesticides and Herbicides

None detected

Nutrients

Ammonia-N	9.965	mg N/L	A
Nitrates and Nitrites	1.888	mg N/L	
Total Kjeldahl Nitrogen	12	mg N/L	A
Ortho-Phosphate	0.875	mg P/L	
Total Phosphorous	1.1	mg P/L	A

Base, Neutral, & Acid Extractable Organics

None detected

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

Table 4. Chemical Analysis performed on the effluent from Vero Beach Wastewater Treatment Facility, sampled on January 13, 2003.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	76
1/13/2003 9:50	VSEW BLANK	BNA-Water	1-Naphthylamine	9.5	ug/L	U	9.5	38
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,4,5-Trichlorophenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,6-Dichlorophenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Acetylaminofluorene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Methylnaphthalene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Naphthylamine	9.5	ug/L	U	9.5	38
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Nitroaniline	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	2-Picoline	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
1/13/2003 9:50	VSEW BLANK	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	76
1/13/2003 9:50	VSEW BLANK	BNA-Water	3-Methylcholanthrene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	3-Nitroaniline	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7

1/13/2003 9:50	VSEW BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	4-Chloroaniline	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	4-Nitroaniline	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
1/13/2003 9:50	VSEW BLANK	BNA-Water	5-Nitro-o-toluidine	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Acetophenone	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	Aniline	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Benzidine	95	ug/L	U	95	380
1/13/2003 9:50	VSEW BLANK	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Benzyl alcohol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	UJ	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
1/13/2003 9:50	VSEW BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
1/13/2003 9:50	VSEW BLANK	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
1/13/2003 9:50	VSEW BLANK	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Dibenzofuran	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190

1/13/2003 9:50	VSEW BLANK	BNA-Water	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	Ethyl methanesulfonate	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Isophorone	0.95	ug/L	UJ	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Isosafrole	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	Methyl methanesulfonate	0.95	ug/L	UJ	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	76
1/13/2003 9:50	VSEW BLANK	BNA-Water	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Pentachloroethane	48	ug/L	U	48	190

1/13/2003 9:50	VSEW BLANK	BNA-Water	Pentachloronitrobenzene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
1/13/2003 9:50	VSEW BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
1/13/2003 9:50	VSEW BLANK	BNA-Water	Safrole	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:50	VSEW BLANK	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.6
1/13/2003 9:50	VSEW BLANK	BNA-Water	o-Toluidine	0.95	ug/L	U	0.95	3.8
1/13/2003 9:50	VSEW BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
1/13/2003 9:50	VSEW BLANK	GC-Water	Ametryn	0.047	ug/L	U	0.047	0.188
1/13/2003 9:50	VSEW BLANK	GC-Water	Atrazine	0.047	ug/L	U	0.047	0.188
1/13/2003 9:50	VSEW BLANK	GC-Water	Azinphos Methyl	0.047	ug/L	UJ	0.047	0.188
1/13/2003 9:50	VSEW BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
1/13/2003 9:50	VSEW BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
1/13/2003 9:50	VSEW BLANK	GC-Water	Chlorpyrifos Ethyl	0.047	ug/L	U	0.047	0.188
1/13/2003 9:50	VSEW BLANK	GC-Water	Chlorpyrifos Methyl	0.094	ug/L	U	0.094	0.376
1/13/2003 9:50	VSEW BLANK	GC-Water	Diazinon	0.047	ug/L	U	0.047	0.188
1/13/2003 9:50	VSEW BLANK	GC-Water	Ethion	0.047	ug/L	U	0.047	0.188
1/13/2003 9:50	VSEW BLANK	GC-Water	Ethoprop	0.094	ug/L	U	0.094	0.376
1/13/2003 9:50	VSEW BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
1/13/2003 9:50	VSEW BLANK	GC-Water	Fonofos	0.094	ug/L	U	0.094	0.376
1/13/2003 9:50	VSEW BLANK	GC-Water	Hexazinone	0.094	ug/L	U	0.094	0.376
1/13/2003 9:50	VSEW BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
1/13/2003 9:50	VSEW BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
1/13/2003 9:50	VSEW BLANK	GC-Water	Metolachlor	0.47	ug/L	UJ	0.47	1.88
1/13/2003 9:50	VSEW BLANK	GC-Water	Metribuzin	0.094	ug/L	U	0.094	0.376
1/13/2003 9:50	VSEW BLANK	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
1/13/2003 9:50	VSEW BLANK	GC-Water	Naled	0.75	ug/L	U	0.75	3
1/13/2003 9:50	VSEW BLANK	GC-Water	Norflurazon	0.094	ug/L	U	0.094	0.376
1/13/2003 9:50	VSEW BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56

1/13/2003 9:50	VSEW BLANK	GC-Water	Parathion Methyl	0.094	ug/L	U	0.094	0.376
1/13/2003 9:50	VSEW BLANK	GC-Water	Phorate	0.047	ug/L	U	0.047	0.188
1/13/2003 9:50	VSEW BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
1/13/2003 9:50	VSEW BLANK	GC-Water	Simazine	0.047	ug/L	U	0.047	0.188
1/13/2003 9:50	VSEW BLANK	Metals-Water	Aluminum	10	ug/L	U	10	40
1/13/2003 9:50	VSEW BLANK	Metals-Water	Arsenic	3	ug/L	U	3	12
1/13/2003 9:50	VSEW BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
1/13/2003 9:50	VSEW BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
1/13/2003 9:50	VSEW BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
1/13/2003 9:50	VSEW BLANK	Metals-Water	Copper	0.75	ug/L	U	0.75	3
1/13/2003 9:50	VSEW BLANK	Metals-Water	Iron	7	ug/L	U	7	28
1/13/2003 9:50	VSEW BLANK	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4
1/13/2003 9:50	VSEW BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
1/13/2003 9:50	VSEW BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
1/13/2003 9:50	VSEW BLANK	Metals-Water	Selenium	1	ug/L	U	1	4
1/13/2003 9:50	VSEW BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
1/13/2003 9:50	VSEW BLANK	Metals-Water	Zinc	4	ug/L	U	4	16
1/13/2003 9:50	VSEW BLANK	Nutrients-Liquid	Ammonia-N	0.035	mg N/L		0.01	0.02
1/13/2003 9:50	VSEW BLANK	Nutrients-Liquid	NO2NO3-N	0.012	mg N/L		0.004	0.01
1/13/2003 9:50	VSEW BLANK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
1/13/2003 9:50	VSEW BLANK	Nutrients-Liquid	O-Phosphate-P	0.005	mg P/L	I	0.004	0.01
1/13/2003 9:50	VSEW BLANK	Nutrients-Liquid	TSS	4	mg/L	U	4	16
1/13/2003 9:50	VSEW BLANK	Nutrients-Liquid	Total-P	0.015	mg P/L	U	0.015	0.04
1/13/2003 9:45	VSEW-1	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	1,2,4-Trichlorobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	1,2-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	1,3-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	1,4-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	75
1/13/2003 9:45	VSEW-1	BNA-Water	1-Naphthylamine	9.4	ug/L	U	9.4	38
1/13/2003 9:45	VSEW-1	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	2,4,5-Trichlorophenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2,4,6-Trichlorophenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2,4-Dichlorophenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2,4-Dimethylphenol	47	ug/L	U	47	190

1/13/2003 9:45	VSEW-1	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
1/13/2003 9:45	VSEW-1	BNA-Water	2,4-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2,6-Dichlorophenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2,6-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2-Acetylaminofluorene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2-Chloronaphthalene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2-Chlorophenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2-Methyl-4,6-dinitrophenol	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	2-Methylnaphthalene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2-Naphthylamine	9.4	ug/L	U	9.4	38
1/13/2003 9:45	VSEW-1	BNA-Water	2-Nitroaniline	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2-Nitrophenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	2-Picoline	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
1/13/2003 9:45	VSEW-1	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	75
1/13/2003 9:45	VSEW-1	BNA-Water	3-Methylcholanthrene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	3-Nitroaniline	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	4-Bromophenyl phenyl ether	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	4-Chloro-3-methylphenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	4-Chloroaniline	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	4-Nitroaniline	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
1/13/2003 9:45	VSEW-1	BNA-Water	5-Nitro-o-toluidine	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Acenaphthene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Acenaphthylene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Acetophenone	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	Aniline	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Anthracene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Benzidine	94	ug/L	U	94	380

1/13/2003 9:45	VSEW-1	BNA-Water	Benzo(a)anthracene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Benzo(a)pyrene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Benzo(b)fluoranthene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Benzo(g,h,i)perylene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Benzo(k)fluoranthene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Benzyl alcohol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Bis(2-chloroethoxy)methane	0.94	ug/L	UJ	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Bis(2-chloroethyl)ether	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Bis(2-chloroisopropyl)ether	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
1/13/2003 9:45	VSEW-1	BNA-Water	Butyl benzyl phthalate	4.7	ug/L	U	4.7	19
1/13/2003 9:45	VSEW-1	BNA-Water	Chrysene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Di-n-butyl phthalate	4.7	ug/L	U	4.7	19
1/13/2003 9:45	VSEW-1	BNA-Water	Di-n-octyl phthalate	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Dibenzo(a,h)anthracene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Dibenzofuran	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	Diethyl phthalate	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Dimethyl phthalate	47	ug/L	U	47	190
1/13/2003 9:45	VSEW-1	BNA-Water	Dimethylaminoazobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	Diphenylamine	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	Ethyl methanesulfonate	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Fluoranthene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Fluorene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	Hexachlorobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Hexachlorobutadiene	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	Hexachlorocyclopentadiene	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	Hexachloroethane	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.5

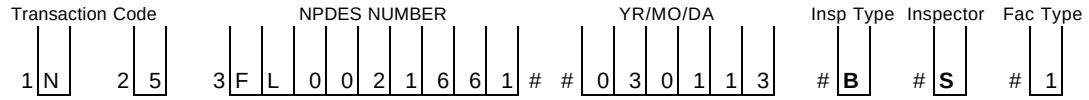
1/13/2003 9:45	VSEW-1	BNA-Water	Indeno(1,2,3-cd)pyrene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Isophorone	0.94	ug/L	UJ	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Isosafrole	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	Methyl methanesulfonate	0.94	ug/L	UJ	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosodi-n-butylamine	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosodiethylamine	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosodiphenylamine	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosomorpholine	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosopiperidine	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	Naphthalene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	75
1/13/2003 9:45	VSEW-1	BNA-Water	Pentachlorobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Pentachloroethane	47	ug/L	U	47	190
1/13/2003 9:45	VSEW-1	BNA-Water	Pentachloronitrobenzene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Pentachlorophenol	2.8	ug/L	U	2.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
1/13/2003 9:45	VSEW-1	BNA-Water	Phenanthrene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Phenol	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Pyrene	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
1/13/2003 9:45	VSEW-1	BNA-Water	Safrole	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
1/13/2003 9:45	VSEW-1	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.5
1/13/2003 9:45	VSEW-1	BNA-Water	o-Toluidine	0.94	ug/L	U	0.94	3.8
1/13/2003 9:45	VSEW-1	Bio-AGP/LimNut	Algal Growth Potential	299	mg DryWt/L		0.1	0.3
1/13/2003 9:45	VSEW-1	Bio-Chl-a	Chlorophyll-A, Monochromatic, Wat	0.85	ug/L	U	0.85	2.6
1/13/2003 9:45	VSEW-1	Bio-Chl-a	Phaeophytin-A, Monochromatic, Wat	0.85	ug/L	U	0.85	2.6

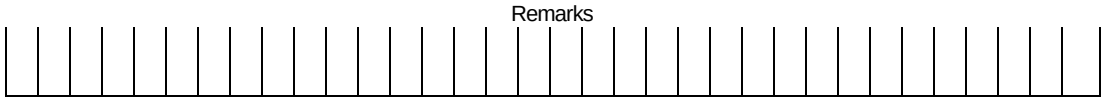
1/13/2003 9:45	VSEW-1	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia,	100	LC50	L	
1/13/2003 9:45	VSEW-1	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC	100	LC50	L	
1/13/2003 9:45	VSEW-1	GC-Water	Alachlor	0.57	ug/L	U	0.57 2.28
1/13/2003 9:45	VSEW-1	GC-Water	Ametryn	0.048	ug/L	U	0.048 0.192
1/13/2003 9:45	VSEW-1	GC-Water	Atrazine	0.067	ug/L	U	0.048 0.192
1/13/2003 9:45	VSEW-1	GC-Water	Azinphos Methyl	0.048	ug/L	UJ	0.048 0.192
1/13/2003 9:45	VSEW-1	GC-Water	Bromacil	0.19	ug/L	U	0.19 0.76
1/13/2003 9:45	VSEW-1	GC-Water	Butylate	0.19	ug/L	U	0.19 0.76
1/13/2003 9:45	VSEW-1	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048 0.192
1/13/2003 9:45	VSEW-1	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095 0.38
1/13/2003 9:45	VSEW-1	GC-Water	Diazinon	0.048	ug/L	U	0.048 0.192
1/13/2003 9:45	VSEW-1	GC-Water	Ethion	0.048	ug/L	U	0.048 0.192
1/13/2003 9:45	VSEW-1	GC-Water	Ethoprop	0.095	ug/L	U	0.095 0.38
1/13/2003 9:45	VSEW-1	GC-Water	Fenamiphos	0.19	ug/L	U	0.19 0.76
1/13/2003 9:45	VSEW-1	GC-Water	Fonofos	0.095	ug/L	U	0.095 0.38
1/13/2003 9:45	VSEW-1	GC-Water	Hexazinone	0.095	ug/L	U	0.095 0.38
1/13/2003 9:45	VSEW-1	GC-Water	Malathion	0.14	ug/L	U	0.14 0.56
1/13/2003 9:45	VSEW-1	GC-Water	Metalaxyl	0.24	ug/L	U	0.24 0.96
1/13/2003 9:45	VSEW-1	GC-Water	Metolachlor	0.48	ug/L	UJ	0.48 1.92
1/13/2003 9:45	VSEW-1	GC-Water	Metribuzin	0.095	ug/L	U	0.095 0.38
1/13/2003 9:45	VSEW-1	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19 0.76
1/13/2003 9:45	VSEW-1	GC-Water	Naled	0.76	ug/L	U	0.76 3.04
1/13/2003 9:45	VSEW-1	GC-Water	Norflurazon	0.095	ug/L	U	0.095 0.38
1/13/2003 9:45	VSEW-1	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14 0.56
1/13/2003 9:45	VSEW-1	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095 0.38
1/13/2003 9:45	VSEW-1	GC-Water	Phorate	0.048	ug/L	U	0.048 0.192
1/13/2003 9:45	VSEW-1	GC-Water	Prometryn	0.14	ug/L	U	0.14 0.56
1/13/2003 9:45	VSEW-1	GC-Water	Simazine	0.048	ug/L	U	0.048 0.192
1/13/2003 9:45	VSEW-1	Metals-Water	Aluminum	31	ug/L	I	10 40
1/13/2003 9:45	VSEW-1	Metals-Water	Arsenic	3	ug/L	U	3 12
1/13/2003 9:45	VSEW-1	Metals-Water	Cadmium	0.025	ug/L	U	0.025 0.1
1/13/2003 9:45	VSEW-1	Metals-Water	Calcium	52.5	mg/L		0.05 0.2
1/13/2003 9:45	VSEW-1	Metals-Water	Chromium	2	ug/L	U	2 8
1/13/2003 9:45	VSEW-1	Metals-Water	Copper	4.3	ug/L		0.75 3
1/13/2003 9:45	VSEW-1	Metals-Water	Iron	98	ug/L		7 28
1/13/2003 9:45	VSEW-1	Metals-Water	Lead	0.42	ug/L		0.1 0.4
1/13/2003 9:45	VSEW-1	Metals-Water	Magnesium	12.4	mg/L		0.01 0.04

1/13/2003 9:45	VSEW-1	Metals-Water	Nickel	2	ug/L	U	2	8
1/13/2003 9:45	VSEW-1	Metals-Water	Selenium	1	ug/L	U	1	4
1/13/2003 9:45	VSEW-1	Metals-Water	Silver	0.18	ug/L		0.02	0.08
1/13/2003 9:45	VSEW-1	Metals-Water	Zinc	19	ug/L		4	16
1/13/2003 9:45	VSEW-1	Nutrients-Liquid	Ammonia-N	10	mg N/L	A	0.5	1
1/13/2003 9:45	VSEW-1	Nutrients-Liquid	NO2NO3-N	1.9	mg N/L		0.08	0.2
1/13/2003 9:45	VSEW-1	Nutrients-Liquid	N_KJEL_TOT	12	mg N/L	A	0.3	1
1/13/2003 9:45	VSEW-1	Nutrients-Liquid	O-Phosphate-P	0.88	mg P/L		0.016	0.04
1/13/2003 9:45	VSEW-1	Nutrients-Liquid	TSS	4	mg/L	U	4	16
1/13/2003 9:45	VSEW-1	Nutrients-Liquid	Total-P	1.1	mg P/L	A	0.075	0.2
1/13/2003 9:45	VSEW-2	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia,	100	LC50	L		
1/13/2003 9:45	VSEW-2	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC	100	LC50	L		
1/13/2003 9:45	VSEW-3	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia,	100	LC50	L		
1/13/2003 9:45	VSEW-3	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC	100	LC50	L		
1/13/2003 9:45	VSEW-4	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia,	100	LC50	L		
1/13/2003 9:45	VSEW-4	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC	100	LC50	L		

The Bioassay of Vero Beach Wastewater Treatment Facility effluent sampled on January 13, 2003, NPDES #FL0021661.

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

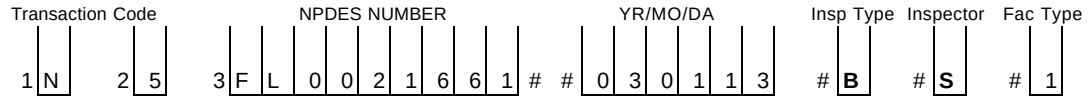


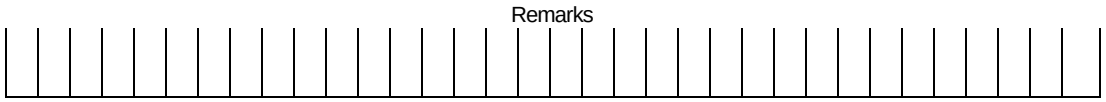


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The Priority Pollutants Analysis for Bioassay of Vero Beach Wastewater Treatment Facility effluent sampled on January 13, 2003, NPDES #FL0021661.

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





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