

Bioassays of

Millennium Specialty Chemicals

Jacksonville, Duval County, Florida

NPDES #FL0000884

Sampled 10/14/02

March 2003

Biology Section

Division of Resource Assessment & Management

Comprehensive Quality Assurance Plan #870346G

Bioassays of

Millennium Specialty Chemicals

Jacksonville, Duval County, Florida

NPDES #FL0000884

Biology Section
Bureau of Laboratories
March 2003

Millennium Specialty Chemicals, 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES #FL0000884, tests performed on 15 to 19 October 2002.

Introduction

This mixed-used-organic refinery has a design flow of 0.6 MGD and an average daily flow of 0.5461 MGD (January 2001 – November 2002). Wastewater at this facility consists of boiler blowdown, cooling tower blowdown, water softener blowdown, non-contact cooling water, and steam condensate wastewater. Treatment at this facility includes primary settling of suspended particulate and cooling, ultra-violet disinfection, and two Storm Filter ™ treatment units, which provide additional sedimentation, gravity separation of oil and grease, filtration, adsorption, and ion exchange for removal of soluble metals. Wastewater is discharged to the Class III fresh waters of Moncrief Creek with pH adjustment provided as needed by an in-line station (facility information provided by Katheryn Jarvis, FDEP, Jacksonville).

Methods

Per the NPDES permit for this facility, four separate grab samples were collected at evenly spaced (6-hour) intervals over a 24-hour period. Samples were collected by Tom Kallemeyn and Patrick O'Connor 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 96-hr acute screen – Not Toxic
Cyprinella leedsi 96-hr acute screen – Not Toxic
See Table 1 for bioassay bench sheets.

Sample #2
Ceriodaphnia dubia 96-hr acute screen – Not Toxic
Cyprinella leedsi 96-hr acute screen – Not Toxic
See Table 2 for bioassay bench sheets.

Sample #3
Ceriodaphnia dubia 96-hr acute screen – Not Toxic
Cyprinella leedsi 96-hr acute screen – Control Failure
See Table 3 for bioassay bench sheets.

Sample #4
Ceriodaphnia dubia 96-hr acute screen – Not Toxic
Cyprinella leedsi 96-hr acute screen – Not Toxic
See Table 4 for bioassay bench sheets.

Chemistry Results

Total residual chlorine and total ammonia were not detected in any of the four bioassay samples.

See Table 5 for chemicals detected in the analytical chemistry samples for sample #4.
See Table 6 for the results of all the chemical analyses performed for sample #4.

Conclusion

The samples of effluent collected from this facility on October 13-14, 2002, did not show acute toxicity to either test species during the 96-hour bioassay tests. The *Cyprinella leedsi* test #3 was invalidated due to control mortality, however no mortality was observed in the 100% sample by 96 hours.

Table 1. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #1), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #1**	**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:**	Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville	Contact/District:	O'Connor/NE		**Refinery**		Joshua Ayres
County:	Duval	Test type:	acute screen				James Daniels
Sample Collection Date:	10/13/2002 Time: 1810	# tests:	2	Receiving Water:	Moncrief Creek		Marshall Faircloth
Test Beginning Date:	10/15/2002 Time: 1415	Chlorination Type:	Non-chlorinated		Class III Fresh water		Christa Pierini
Test Ending Date:	10/19/2002 Time: 1115				**Page 1 of 2**	**Reviewer:**	David Whiting

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

0-48 hours (before renewal)

	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	7.5	-	7.1	24.0	-	25.2	8.5	-	7.9	150	180
Control B	0/20	5	5	5	-	-	7.1	-	-	24.9	-	-	7.8	-	185
Control C	0/20	5	5	5	-	-	7.1	-	-	24.8	-	-	7.4	-	170
Control D	0/20	5	5	5	-	-	7.3	-	-	24.5	-	-	7.4	-	180
100% A	20/0	5	5	5	7.9	-	8.2	24.0	-	24.5	8.5	-	7.3	680	750
100% B	20/0	5	5	5	-	-	8.2	-	-	24.4	-	-	7.3	-	735
100% C	20/0	5	5	5	-	-	8.2	-	-	24.3	-	-	7.3	-	750
100% D	20/0	5	5	5	-	-	8.2	-	-	24.3	-	-	7.3	-	865

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

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

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/20	5	5	5	7.2	-	7.9	24.9	-	24.0	7.8	-	7.6	160	185
Control B	0/20	5	5	5	-	-	8.1	-	-	24.0	-	-	7.6	-	180
Control C	0/20	5	5	5	-	-	8.1	-	-	24.0	-	-	7.6	-	170
Control D	0/20	5	5	5	-	-	8.2	-	-	24.2	-	-	7.6	-	170
100% A	20/0	5	5	5	7.4	-	8.5	24.7	-	24.1	7.8	-	7.6	640	740
100% B	20/0	5	5	5	-	-	8.5	-	-	24.0	-	-	7.6	-	750
100 % C	20/0	5	5	5	-	-	8.5	-	-	24.0	-	-	7.6	-	750
100% D	20/0	5	5	5	-	-	8.5	-	-	24.0	-	-	7.6	-	750

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	628639

Data Transcription Verification	
date:	11/21/2001
by:	Joshua Ayres
	James Daniels

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	77
100% Sample:	153	171

Continued

Table 1. Concluded

Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #1), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #1**		**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:** Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville		Contact/District:	O'Connor/NE		**Refinery**	Joshua Ayres
County:	Duval		Test type:	acute screen			James Daniels
Sample Collection Date:	10/13/2002	Time: 1810	# tests:	2	Receiving Water:	Moncrief Creek	Marshall Faircloth
Test Beginning Date:	10/15/2002	Time: 1520	Chlorination Type:	Non-chlorinated		Class III Fresh water	Christa Pierini
Test Ending Date:	10/19/2002	Time: 1115				**Page 2 of 2**	**Reviewer:** David Whiting

Organism: ***Cyprinella leedsi*** Life stage: 13 days

0-48 hours (before renewal)

	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	0/500	5	5	5	7.7	8.3	8.3	24.7	25.4	24.0	7.8	7.6	8.2	250	270
Control B	0/500	5	5	5	7.7	8.4	8.3	24.5	24.8	24.2	7.9	7.6	8.1	260	275
Control C	0/500	5	5	5	7.7	8.4	8.3	24.2	24.6	24.3	8.1	7.8	8.0	260	270
Control D	0/500	5	5	3	7.7	8.4	8.3	24.0	24.4	24.3	8.1	7.8	7.9	260	280
100% A	500/0	5	5	5	8.0	8.4	8.4	24.5	24.6	24.1	7.9	7.7	8.0	690	720
100% B	500/0	5	5	5	8.0	8.4	8.4	24.6	24.7	24.1	7.8	7.6	7.9	700	750
100% C	500/0	5	5	5	8.0	8.4	8.4	24.4	24.6	23.7	7.7	7.6	8.0	700	715
100% D	500/0	5	5	5	8.0	8.4	8.4	24.2	25.2	24.2	7.6	7.6	7.8	700	745

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

Organism: ***Cyprinella leedsi*** Life stage: 13 days

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5	7.7	8.1	8.5	24.1	23.5	23.9	8.0	7.8	7.7	255	280
Control B	0/500	5	5	5	7.9	8.1	8.4	24.0	24.0	23.9	8.0	7.2	7.2	255	280
Control C	0/500	5	5	5	7.9	8.1	8.4	24.0	24.1	23.9	8.0	7.1	7.5	260	275
Control D	0/500	3	3	3	7.9	8.2	8.5	23.9	25.0	24.3	7.9	6.9	7.5	255	280
100% A	500/0	5	5	5	8.0	8.2	8.2	24.3	23.9	24.3	7.7	7.4	7.5	660	755
100% B	500/0	5	5	5	8.0	8.2	8.3	24.4	23.7	24.3	7.6	7.4	7.5	690	750
100 % C	500/0	5	5	5	8.0	8.2	8.4	24.4	23.5	24.2	7.6	7.3	7.5	690	745
100% D	500/0	5	5	5	8.0	8.2	8.4	24.2	23.9	24.0	7.6	7.2	7.5	690	750

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	628639

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	James Daniels

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	133
100% Sample:	153	171

Table 2. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #2), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #2**		**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:** Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville		Contact/District:	O'Connor/NE		**Refinery**	Joshua Ayres
County:	Duval		Test type:	acute screen			James Daniels
Sample Collection Date:	10/14/2002	Time: 0010	# tests:	2	Receiving Water:	Moncrief Creek	Marshall Faircloth
Test Beginning Date:	10/15/2002	Time: 1415	Chlorination Type:	Non-chlorinated		Class III Fresh water	Christa Pierini
Test Ending Date:	10/19/2002	Time: 1115				**Page 1 of 2**	**Reviewer:** David Whiting

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

0-48 hours (before renewal)

	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	-	8.0	23.7	-	24.3	8.3	-	7.3	160	225
Control B	0/20	5	5	5	-	-	8.0	-	-	24.4	-	-	7.2	-	200
Control C	0/20	5	5	5	-	-	8.0	-	-	24.4	-	-	6.6	-	200
Control D	0/20	5	5	5	-	-	8.0	-	-	24.3	-	-	6.6	-	215
100% A	20/0	5	5	5	8.1	-	8.1	24.0	-	24.3	8.3	-	7.0	650	740
100% B	20/0	5	5	5	-	-	8.2	-	-	24.4	-	-	7.0	-	780
100% C	20/0	5	5	5	-	-	8.2	-	-	24.3	-	-	7.2	-	855
100% D	20/0	5	5	5	-	-	8.2	-	-	24.3	-	-	7.1	-	870

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

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

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/20	5	5	4	7.9	-	8.4	24.7	-	24.1	7.7	-	7.5	180	225
Control B	0/20	5	4	4	-	-	8.4	-	-	24.3	-	-	7.5	-	200
Control C	0/20	5	5	5	-	-	8.4	-	-	24.2	-	-	7.5	-	190
Control D	0/20	5	5	5	-	-	8.3	-	-	24.0	-	-	7.6	-	195
100% A	20/0	5	5	5	7.7	-	8.5	25.1	-	24.0	7.6	-	7.6	650	710
100% B	20/0	5	5	5	-	-	8.5	-	-	24.0	-	-	7.6	-	730
100 % C	20/0	5	5	5	-	-	8.6	-	-	24.0	-	-	7.6	-	730
100% D	20/0	5	5	5	-	-	8.5	-	-	23.9	-	-	7.6	-	760

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	628640

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	James Daniels

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	77
100% Sample:	153	171

Continued

Table 2. Concluded Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #2), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #2**		**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:** Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville		Contact/District:	O'Connor/NE		**Refinery**	Joshua Ayres
County:	Duval		Test type:	acute screen			James Daniels
Sample Collection Date:	10/14/2002	Time: 0010	# tests:	2	Receiving Water:	Moncrief Creek	Marshall Faircloth
Test Beginning Date:	10/15/2002	Time: 1520	Chlorination Type:	Non-chlorinated		Class III Fresh water	Christa Pierini
Test Ending Date:	10/19/2002	Time: 1115				**Page 2 of 2**	**Reviewer:** David Whiting

Organism: ***Cyprinella leedsi*** Life stage: 13 days

0-48 hours (before renewal)

	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	0/500	5	5	5	8.0	8.4	8.4	24.4	24.8	24.1	7.7	7.5	7.8	250	280
Control B	0/500	5	5	5	8.0	8.4	8.4	24.4	24.8	24.1	7.8	7.5	7.7	250	290
Control C	0/500	5	5	5	8.0	8.4	8.4	24.2	24.9	24.1	8.0	7.5	7.7	260	280
Control D	0/500	5	4	4	8.0	8.4	8.4	24.0	24.8	24.4	8.0	7.5	7.7	260	280
100% A	500/0	5	5	5	8.1	8.4	8.4	24.5	24.7	24.1	7.9	7.6	7.8	680	690
100% B	500/0	5	5	5	8.1	8.4	8.4	24.8	25.7	23.8	7.8	7.4	7.8	700	720
100% C	500/0	5	5	5	8.1	8.4	8.4	24.6	25.7	23.8	7.7	7.3	7.8	700	730
100% D	500/0	5	5	5	8.1	8.4	8.4	24.4	24.8	23.8	7.7	7.3	7.8	700	720

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

Organism: ***Cyprinella leedsi*** Life stage: 13 days

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5	7.8	8.0	7.9	24.1	23.8	26.0	7.7	7.4	7.0	270	280
Control B	0/500	5	5	5	7.9	8.2	8.3	24.0	23.8	25.3	7.7	7.2	7.0	265	280
Control C	0/500	5	5	5	7.9	8.2	8.3	24.0	23.7	25.0	7.7	7.3	7.0	260	275
Control D	0/500	4	4	4	7.9	8.2	8.4	23.9	24.0	25.5	7.7	7.2	7.4	260	280
100% A	500/0	5	5	5	8.0	8.2	8.3	24.4	24.9	25.5	7.6	6.9	7.3	665	720
100% B	500/0	5	5	5	8.0	8.2	8.4	24.5	24.8	25.3	7.5	6.8	7.3	690	740
100 % C	500/0	5	5	5	8.0	8.2	8.4	24.5	24.2	25.2	7.5	6.9	7.4	690	760
100% D	500/0	5	5	5	8.1	8.2	8.3	24.4	23.8	24.6	7.5	7.2	7.5	695	740

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	628640

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	James Daniels

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	133
100% Sample:	153	169

Table 3. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #3), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #3**	**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:**	Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville	Contact/District:	O'Connor/NE		**Refinery**		Joshua Ayres
County:	Duval	Test type:	acute screen				James Daniels
Sample Collection Date:	10/14/2002 Time: 0600	# tests:	2	Receiving Water:	Moncrief Creek		Marshall Faircloth
Test Beginning Date:	10/15/2002 Time: 1415	Chlorination Type:	Non-chlorinated		Class III Fresh water		Christa Pierini
Test Ending Date:	10/19/2002 Time: 1115				**Page 1 of 2**	**Reviewer:**	David Whiting

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

0-48 hours (before renewal)

		SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
	Sample/Diluent														
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	-	8.0	23.7	-	24.3	8.2	-	7.2	155	210
Control B	0/20	5	5	5	-	-	8.0	-	-	24.3	-	-	7.1	-	200
Control C	0/20	5	5	5	-	-	8.0	-	-	24.3	-	-	7.1	-	200
Control D	0/20	5	5	5	-	-	8.0	-	-	24.4	-	-	7.1	-	210
100% A	20/0	5	5	5	8.0	-	8.2	24.0	-	24.3	8.2	-	7.2	675	780
100% B	20/0	5	5	5	-	-	8.2	-	-	24.3	-	-	7.1	-	800
100% C	20/0	5	5	5	-	-	8.3	-	-	24.4	-	-	7.0	-	800
100% D	20/0	5	5	5	-	-	8.3	-	-	24.3	-	-	7.0	-	820

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

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

48-96 hours (after renewal)

		SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
	Sample/Diluent														
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	-	8.4	25.2	-	24.1	7.5	-	7.5	200	220
Control B	0/20	5	5	5	-	-	8.5	-	-	24.1	-	-	7.5	-	190
Control C	0/20	5	5	5	-	-	8.5	-	-	24.1	-	-	7.6	-	180
Control D	0/20	5	5	5	-	-	8.4	-	-	24.1	-	-	7.5	-	190
100% A	20/0	5	5	5	8.0	-	8.4	25.4	-	24.1	7.5	-	7.6	640	700
100% B	20/0	5	5	5	-	-	8.5	-	-	24.2	-	-	7.5	-	740
100 % C	20/0	5	5	5	-	-	8.5	-	-	24.2	-	-	7.5	-	750
100% D	20/0	5	5	5	-	-	8.5	-	-	24.2	-	-	7.5	-	780

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	628641

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	James Daniels

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	77
100% Sample:	154	172

Continued

Table 3. Concluded Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #3), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #3**	**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:**	Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville	Contact/District:	O'Connor/NE		**Refinery**		Joshua Ayres
County:	Duval	Test type:	acute screen				James Daniels
Sample Collection Date:	10/14/2002 Time: 0600	# tests:	2	Receiving Water:	Moncrief Creek		Marshall Faircloth
Test Beginning Date:	10/15/2002 Time: 1520	Chlorination Type:	Non-chlorinated		Class III Fresh water		Christa Pierini
Test Ending Date:	10/19/2002 Time: 1115				**Page 2 of 2**	**Reviewer:**	David Whiting

Organism: ***Cyprinella leedsi*** Life stage: 13 days

0-48 hours (before renewal)

	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	0/500	5	5	5	8.1	8.4	8.4	24.4	24.5	23.8	7.8	7.5	7.8	270	275
Control B	0/500	5	5	5	8.1	8.4	8.4	24.4	24.7	23.8	7.9	7.5	7.8	260	270
Control C	0/500	5	5	5	8.1	8.4	8.4	24.3	24.7	24.0	8.1	7.5	7.7	260	270
Control D[C]	0/500	5	1	1	8.1	8.3	8.4	23.9	24.7	24.3	8.1	7.5	7.6	260	280
100% A	500/0	5	5	5	8.1	8.4	8.4	24.7	24.8	24.1	7.8	7.4	7.7	695	720
100% B	500/0	5	5	5	8.1	8.4	8.4	24.7	24.9	24.0	7.7	7.4	7.7	700	750
100% C	500/0	5	5	5	8.1	8.4	8.4	24.5	24.7	24.0	7.7	7.5	7.7	705	730
100% D	500/0	5	5	5	8.1	8.4	8.4	24.3	25.2	24.3	7.6	7.4	7.7	700	730

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

Organism: ***Cyprinella leedsi*** Life stage: 13 days

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5	7.9	8.3	8.5	23.9	23.8	24.6	7.7	7.3	7.4	255	300
Control B	0/500	5	5	5	7.9	8.2	8.3	23.9	23.8	24.5	7.7	7.2	7.3	255	300
Control C	0/500	5	5	5	7.8	8.2	8.3	23.8	24.0	24.9	7.8	7.2	7.2	255	285
Control D[C]	0/500	1	1	1	7.9	8.2	8.4	23.8	24.0	24.8	7.8	7.2	7.2	255	285
100% A	500/0	5	5	5	8.1	8.3	8.3	24.5	23.7	24.6	7.5	7.3	7.4	670	735
100% B	500/0	5	5	5	8.1	8.3	8.4	24.6	23.6	24.8	7.5	7.4	7.4	695	740
100 % C	500/0	5	5	5	8.1	8.1	8.3	24.7	23.6	24.9	7.5	7.4	7.4	700	760
100% D	500/0	5	5	5	8.1	8.2	8.3	24.6	23.6	24.9	7.4	7.3	7.3	695	745

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

[C] Control failure due to death of >10% of control organisms-test invalid.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	628641

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	James Daniels

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	133
100% Sample:	154	172

Table 4. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #4), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #4**		**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:** Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville		Contact/District:	O'Connor/NE		**Refinery**	Joshua Ayres
County:	Duval		Test type:	acute screen			James Daniels
Sample Collection Date:	10/14/2002	Time: 1150	# tests:	2	Receiving Water:	Moncrief Creek	Marshall Faircloth
Test Beginning Date:	10/15/2002	Time: 1415	Chlorination Type:	Non-chlorinated		Class III Fresh water	Christa Pierini
Test Ending Date:	10/19/2002	Time: 1115				**Page 1 of 2**	**Reviewer:** David Whiting

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

0-48 hours (before renewal)

	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	-	8.0	23.7	-	24.3	8.1	-	7.2	155	220
Control B	0/20	5	5	5	-	-	8.0	-	-	24.5	-	-	7.1	-	220
Control C	0/20	5	5	5	-	-	8.0	-	-	24.5	-	-	7.2	-	205
Control D	0/20	5	5	5	-	-	7.8	-	-	24.4	-	-	7.1	-	210
100% A	20/0	5	5	5	7.7	-	8.3	23.8	-	24.5	8.1	-	7.0	670	800
100% B	20/0	5	5	5	-	-	8.3	-	-	24.5	-	-	7.0	-	810
100% C	20/0	5	5	5	-	-	8.3	-	-	24.5	-	-	7.1	-	820
100% D	20/0	5	5	5	-	-	8.3	-	-	24.5	-	-	7.0	-	840

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

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

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/20	5	5	5	8.3	-	8.5	25.2	-	24.3	7.5	-	7.5	195	240
Control B	0/20	5	5	5	-	-	8.5	-	-	24.4	-	-	7.5	-	200
Control C	0/20	5	5	5	-	-	8.4	-	-	24.4	-	-	7.5	-	190
Control D	0/20	5	5	5	-	-	8.4	-	-	24.5	-	-	7.5	-	200
100% A	20/0	5	5	5	7.7	-	8.4	25.0	-	24.4	7.5	-	7.5	660	750
100% B	20/0	5	5	5	-	-	8.5	-	-	24.6	-	-	7.5	-	730
100 % C	20/0	5	5	5	-	-	8.5	-	-	24.6	-	-	7.4	-	730
100% D	20/0	5	5	5	-	-	8.5	-	-	24.7	-	-	7.4	-	850

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	625642

Data Transcription Verification	
date:	11/21/2002
by:	Joshua Ayres
	James Daniels

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (water flea):	80	77
100% Sample:	153	173

Continued

Table 4. Concluded

Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Millennium Specialty Chemicals (sample #4), 601 Crestwood St., Jacksonville, Duval County, Florida, NPDES# FL0000884, performed from 15 to 19 October 2002.

Facility:	**Millennium Specialty Chemicals #4**		**NPDES #**	**FL0000884**	Facility Type:	**Mixed Used Organics**	**Analysts:** Jacquelyn Brynda
Location:	601 Crestwood St., Jacksonville		Contact/District:	O'Connor/NE		**Refinery**	Joshua Ayres
County:	Duval		Test type:	acute screen			James Daniels
Sample Collection Date:	10/14/2002	Time: 1150	# tests:	2	Receiving Water:	Moncrief Creek	Marshall Faircloth
Test Beginning Date:	10/15/2002	Time: 1520	Chlorination Type:	Non-chlorinated		Class III Fresh water	Christa Pierini
Test Ending Date:	10/19/2002	Time: 1115				**Page 2 of 2**	**Reviewer:** David Whiting

Organism: ***Cyprinella leedsi*** Life stage: 13 days

0-48 hours (before renewal)

	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	0/500	5	5	5	8.1	8.3	8.4	24.2	24.7	24.0	7.8	7.4	7.7	260	270
Control B	0/500	5	5	5	8.1	8.3	8.4	24.1	24.6	24.4	7.9	7.4	7.6	260	280
Control C	0/500	5	5	5	8.1	8.3	8.4	23.9	24.5	24.4	8.1	7.5	7.6	260	280
Control D	0/500	5	5	5	8.1	8.3	8.4	23.7	25.3	24.3	8.1	7.4	7.6	260	270
100% A	500/0	5	5	5	7.7	8.2	8.3	24.2	25.1	24.1	7.9	7.4	7.7	685	705
100% B	500/0	5	5	5	7.7	8.2	8.3	24.1	24.6	23.9	7.8	7.4	7.7	695	735
100% C	500/0	5	5	5	7.7	8.2	8.3	24.0	24.6	24.0	7.8	7.5	7.7	695	720
100% D	500/0	5	5	5	7.7	8.2	8.3	23.7	25.3	24.1	7.8	7.4	7.6	690	720

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

Organism: ***Cyprinella leedsi*** Life stage: 13 days

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5	8.0	8.1	8.4	24.0	24.2	24.1	7.6	7.2	7.5	265	280
Control B	0/500	5	5	5	8.0	8.2	8.4	23.9	24.1	23.8	7.7	7.1	7.5	260	280
Control C	0/500	5	5	5	8.0	8.3	8.5	23.9	24.1	23.7	7.7	7.1	7.6	260	280
Control D	0/500	5	5	5	8.0	8.2	8.4	23.8	23.7	23.9	7.7	7.3	7.6	255	275
100% A	500/0	5	5	5	7.6	8.2	8.2	24.2	23.7	24.0	7.6	7.3	7.5	665	750
100% B	500/0	5	5	5	7.7	8.2	8.4	24.2	23.9	24.2	7.5	7.2	7.5	685	750
100 % C	500/0	5	5	5	7.7	8.0	8.3	24.2	24.0	24.1	7.5	7.3	7.6	690	770
100% D	500/0	5	5	5	7.7	8.1	8.3	24.2	23.9	24.0	7.5	7.2	7.6	690	750

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

LIMS	
Job number:	TLH-2002-10-15-24
sample number:	628641

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

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:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	133
100% Sample:	145	173

Table 5. Results of chemical analyses on the effluent from Millennium Specialty Chemicals sample #4 sampled on October 14, 2002.

Metals

Calcium	43.7	mg/L	A
Copper	2.6	ug/L	I
Iron	140	ug/L	A
Magnesium	16.4	mg/L	A
Zinc	13.7	ug/L	A

Pesticides and Herbicides

None detected

Nutrients

Ammonia-N	0.09	mg N/L	A
Nitrates and Nitrites	0.48	mg N/L	J
Total Kjeldahl Nitrogen	0.48	mg N/L	
Ortho-phosphate	0.66	mg P/L	
Organic Carbon	5.2	mg C/L	
Total Phosphorous	0.77	mg P/L	

Base, Neutral, & Acid Extractable Organics

None detected

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

Table 6. **Chemical Analyses performed on the effluent from Millennium Specialty Chemicals, sampled on October 14, 2002.**

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	76
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	1-Naphthylamine	9.5	ug/L	U	9.5	38
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,4,5-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,6-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Acetylaminofluorene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Methylnaphthalene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Naphthylamine	9.5	ug/L	U	9.5	38
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Nitroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	2-Picoline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	76
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	3-Methylcholanthrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	3-Nitroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7

10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4-Chloroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4-Nitroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	5-Nitro-o-toluidine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Acetophenone	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Aniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Azobenzene/1,2-Diphenylhydrazin	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Benzidine	95	ug/L	U	95	380
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Benzyl alcohol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Dibenzofuran	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190

10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Ethyl methanesulfonate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Isosafrole	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Methyl methanesulfonate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	76
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Pentachloroethane	48	ug/L	U	48	190

10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Pentachloronitrobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	Safrole	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.6
10/14/2002 11:30	EQUIPMENT BLANK	BNA-Water	o-Toluidine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Ametryn	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Atrazine	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Azinphos Methyl	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Ethyl	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Methyl	0.094	ug/L	U	0.094	0.376
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Diazinon	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Ethion	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Ethoprop	0.094	ug/L	U	0.094	0.376
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Fonofos	0.094	ug/L	U	0.094	0.376
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Hexazinone	0.094	ug/L	U	0.094	0.376
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Metolachlor	0.47	ug/L	U	0.47	1.88
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Metribuzin	0.094	ug/L	U	0.094	0.376
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Naled	0.75	ug/L	U	0.75	3
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Norflurazon	0.094	ug/L	U	0.094	0.376
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56

10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Parathion Methyl	0.094	ug/L	U	0.094	0.376
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Phorate	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/14/2002 11:30	EQUIPMENT BLANK	GC-Water	Simazine	0.047	ug/L	U	0.047	0.188
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Aluminum	10	ug/L	U	10	40
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Arsenic	3	ug/L	U	3	12
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Calcium	0.04	mg/L	U	0.04	0.12
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Copper	0.75	ug/L	U	0.75	3
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Iron	7	ug/L	U	7	28
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Selenium	1	ug/L	U	1	4
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
10/14/2002 11:30	EQUIPMENT BLANK	Metals-Water	Zinc	2	ug/L	U	2	8
10/14/2002 11:30	EQUIPMENT BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
10/14/2002 11:30	EQUIPMENT BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	UJ	0.004	0.01
10/14/2002 11:30	EQUIPMENT BLANK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
10/14/2002 11:30	EQUIPMENT BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
10/14/2002 11:30	EQUIPMENT BLANK	Nutrients-Liquid	Organic Carbon	1	mg C/L	U	1	5
10/14/2002 11:30	EQUIPMENT BLANK	Nutrients-Liquid	Total-P	0.015	mg P/L	U	0.015	0.04
10/14/2002 11:30	EQUIPMENT BLANK	Overflow	COD	9.6	mg/l	U		
10/14/2002 11:30	EQUIPMENT BLANK	Overflow	Oil and Grease	0.55	mg/l	U		
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	76
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	1-Naphthylamine	9.5	ug/L	U	9.5	38
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4,5-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8

10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,6-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Acetylaminofluorene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Methylnaphthalene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Naphthylamine	9.5	ug/L	U	9.5	38
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Nitroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	2-Picoline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	76
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	3-Methylcholanthrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	3-Nitroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Chloroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Nitroaniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58

10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	5-Nitro-o-toluidine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Acetophenone	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Aniline	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Azobenzene/1,2-Diphenylhydrazin	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Benzidine	95	ug/L	U	95	380
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Benzyl alcohol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Dibenzofuran	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15

10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Ethyl methanesulfonate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Isosafrole	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Methyl methanesulfonate	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	76
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Pentachloronitrobenzene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8

10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	Safrole	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.6
10/14/2002 11:50	FINAL EFFLUENT #4	BNA-Water	o-Toluidine	0.95	ug/L	U	0.95	3.8
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Naled	0.76	ug/L	U	0.76	3.04
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/14/2002 11:50	FINAL EFFLUENT #4	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Aluminum	10	ug/L	U	10	40
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Arsenic	3	ug/L	U	3	12

10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Calcium	43.7	mg/L	A	0.04	0.12
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Chromium	2	ug/L	U	2	8
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Copper	2.6	ug/L	I	0.75	3
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Iron	140	ug/L	A	7	28
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Lead	0.34	ug/L	U	0.1	0.4
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Magnesium	16.4	mg/L	A	0.01	0.04
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Nickel	2	ug/L	U	2	8
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Selenium	1	ug/L	U	1	4
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
10/14/2002 11:50	FINAL EFFLUENT #4	Metals-Water	Zinc	13.7	ug/L	A	2	8
10/14/2002 11:50	FINAL EFFLUENT #4	Nutrients-Liquid	Ammonia-N	0.09	mg N/L	A	0.01	0.02
10/14/2002 11:50	FINAL EFFLUENT #4	Nutrients-Liquid	NO2NO3-N	0.48	mg N/L	J	0.04	0.1
10/14/2002 11:50	FINAL EFFLUENT #4	Nutrients-Liquid	N_KJEL_TOT	0.48	mg N/L		0.12	0.4
10/14/2002 11:50	FINAL EFFLUENT #4	Nutrients-Liquid	O-Phosphate-P	0.66	mg P/L		0.08	0.2
10/14/2002 11:50	FINAL EFFLUENT #4	Nutrients-Liquid	Organic Carbon	5.2	mg C/L		1	5
10/14/2002 11:50	FINAL EFFLUENT #4	Nutrients-Liquid	Total-P	0.77	mg P/L		0.015	0.04
10/14/2002 11:50	FINAL EFFLUENT #4	Overflow	COD	9.6	mg/l	U		
10/14/2002 11:50	FINAL EFFLUENT #4	Overflow	Oil and Grease	0.55	mg/l	U		

The Bioassay of Millennium Specialty Chemicals effluent sampled on October 14, 2002, NPDES #FL0000884.

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 0 0 8 8 4	# #	0 2 1 0 1 4		# **B**	# **S**	# 2

Remarks

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The Priority Pollutants Analysis for Bioassay of Millennium Specialty Chemicals effluent sampled on October 14, 2002, NPDES #FL0000884.

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 0 0 8 8 4	# #	0 2 1 0 1 4		# **B**	# **S**	# 2

Remarks

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