

Bioassays of

Jefferson Smurfit Corporation – Fernandina Beach Mill

Fernandina Beach, Nassau County, Florida

NPDES #FL0001104

Sampled 11/4/02

March 2003

Biology Section

Division of Resource Assessment & Management

Comprehensive Quality Assurance Plan #870346G

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Jefferson Smurfit Corporation – Fernandina Beach Mill

Fernandina Beach, Nassau County, Florida

NPDES #FL0001104

Biology Section
Bureau of Laboratories
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Jefferson Smurfit Corporation-Fernandina Beach Mill, North 8th Street, Fernandina Beach, Nassau County, Florida, NPDES #FL0001104, tests performed on 5 to 9 November 2002.

Introduction

This kraft linerboard manufacturer has a design flow of 37.5 MGD and an average daily maximum flow of 19 MGD (October 2001 – September 2002). Unbleached kraft is used in manufacturing. Wastewater treatment at this facility consists of a grit chamber with mechanical screening, primary clarification, a wastewater cooling tower, a UNOX activated-sludge system, and secondary clarification. Treated wastewater is discharged to the Class III marine waters of the Amelia River. A 2,124 m^2 mixing zone exists for dissolved oxygen, temperature, chronic toxicity, copper, nickel, and pH (facility information provided by Jeremy Richarde, FDEP, Jacksonville).

Methods

Samples were collected by 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

Ceriodaphnia dubia 96-hr acute screen – Not Toxic
Cyprinella leedsi 96-hr acute screen – Not Toxic

See Table 1 for bioassay bench sheets.

Chemistry Results

Total residual chlorine and total ammonia were not detected in the bioassay sample in the laboratory.

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

Conclusion

The sample of effluent collected from this facility on November 4, 2002, 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 Jefferson Smurfit Corporation-Fernandina Beach Mill, North 8th Street, Fernandina Beach, Nassau County, Florida, NPDES# FL0001104, performed from 5 to 9 November 2002.

Facility:	**Jefferson Smurfit Corporation**		**NPDES #**	**FL0001104**	Facility Type:	**Kraft Linerboard**	**Analysts:** Jacquelyn Brynda
Location:	North 8th Street, Fernandina Beach		Contact/District:	O'Connor/NE		**Manufacturer**	Joshua Ayres
County:	Nassau		Test type:	acute screen			Marshall Faircloth
Sample Collection Date:	11/4/2002	Time: 1020	# tests:	2	Receiving Water:	Amelia River	
Test Beginning Date:	11/5/2002	Time: 1900	Chlorination Type:	non-chlorinated		Class III Marine	
Test Ending Date:	11/9/2002	Time: 1500				**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	
Concentrations	Sample/Diluent Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/20	5	5	5	8.4	-	8.0	23.1	-	23.8	8.0	-	6.5	180	205
Control B	0/20	5	5	5	-	-	8.0	-	-	23.6	-	-	6.6	-	205
Control C	0/20	5	5	5	-	-	8.0	-	-	23.5	-	-	6.4	-	225
Control D	0/20	5	5	5	-	-	8.0	-	-	23.5	-	-	6.4	-	225
30% A	6/14	5	5	5	7.8	-	8.4	23.5	-	24.2	7.9	-	6.5	995	1145
30% B	6/14	5	5	5	-	-	8.4	-	-	23.9	-	-	6.4	-	1200
30% C	6/14	5	5	5	-	-	8.4	-	-	23.8	-	-	6.4	-	1225
30% D	6/14	5	5	5	-	-	8.4	-	-	23.6	-	-	6.4	-	1280
100% A	20/0	5	5	5	7.0	-	8.6	23.5	-	24.3	7.8	-	6.4	2630	3110
100% B	20/0	5	5	5	-	-	8.6	-	-	24.2	-	-	6.4	-	3170
100% C	20/0	5	5	5	-	-	8.6	-	-	24.1	-	-	6.4	-	3090
100% D	20/0	5	5	5	-	-	8.6	-	-	23.8	-	-	6.4	-	3110

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.0-24.5°C.
Incubator #3 temperature range for the test period was 25.5-27.0°C.

LIMS	
Job number:	TLH-2002-11-05-45-01
sample number:	634213

Data Transcription Verification	
date:	1/29/2003
by:	Joshua Ayres
	Travis Hill

Total Residual CL2	mg/L	Method
Field:	-	-
Lab:	0.08	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):	84	81
100% Sample:	269	414

Organism: ***Ceriodaphnia dubia*** Life stage:

48-96 hours (after renewal)

		SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Sample/Diluent 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	-	7.6	24.3	-	23.1	7.0	-	8.0	200	240
Control B	0/20	5	5	5	-	-	7.6	-	-	23.1	-	-	8.0	-	225
Control C	0/20	5	5	5	-	-	7.7	-	-	23.3	-	-	8.0	-	215
Control D	0/20	5	5	5	-	-	7.7	-	-	23.4	-	-	8.0	-	225
30% A	6/14	5	5	5	7.6	-	7.9	24.0	-	23.4	7.1	-	7.7	920	1200
30% B	6/14	5	5	5	-	-	8.1	-	-	23.3	-	-	7.7	-	1235
30% C	6/14	5	5	5	-	-	8.1	-	-	23.4	-	-	7.7	-	1170
30% D	6/14	5	5	5	-	-	8.1	-	-	23.4	-	-	7.8	-	1235
100% A	20/0	5	5	5	6.9	-	8.6	24.3	-	23.4	6.2	-	7.8	2610	3520
100% B	20/0	5	5	5	-	-	8.6	-	-	23.4	-	-	7.7	-	3770
100 % C	20/0	5	5	5	-	-	8.6	-	-	23.4	-	-	7.7	-	3220
100% D	20/0	5	5	5	-	-	8.6	-	-	23.5	-	-	7.7	-	3530

Continued

Table 1. Concluded

Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the Jefferson Smurfit Corporation-Fernandina Beach Mill, North 8th Street, Fernandina Beach, Nassau County, Florida, NPDES# FL0001104, performed from 5 to 9 November 2002.

Facility:	**Jefferson Smurfit Corporation**	**NPDES #**	**FL0001104**	Facility Type:	**Kraft Linerboard**	**Analysts:**	Jacquelyn Brynda
Location:	North 8th Street, Fernandina Beach	Contact/District:	O'Connor/NE		**Manufacturer**		Joshua Ayres
County:	Nassau	Test type:	acute screen				Marshall Faircloth
Sample Collection Date:	11/4/2002 Time: 1020	# tests:	2	Receiving Water:	Amelia River		
Test Beginning Date:	11/5/2002 Time: 1830	Chlorination Type:	non-chlorinated		Class III Marine		
Test Ending Date:	11/9/2002 Time: 1500				**Page 2 of 2**	**Reviewer:**	David Whiting

Organism: ***Cyprinella leedsi*** Life stage: 11 days

0-48 hours (before renewal)

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature[A] 0 hour	24 hour	48 hour	Dissolved Oxygen 0 hour	24 hour	48 hour	Conductivity Uncorrected umhos/cm 0 hour	48 hour
Control A	0/500	5	5	5	8.0	8.3	8.3	23.9	23.6	23.2	7.5	8.3	6.4	270	265
Control B	0/500	5	5	5	8.0	8.3	8.3	23.6	23.1	23.4	7.7	8.3	6.6	260	270
Control C	0/500	5	5	5	8.0	8.3	8.3	23.6	23.2	23.4	7.8	8.3	6.6	260	275
Control D	0/500	5	5	5	8.0	8.3	8.3	23.6	22.8	23.4	7.8	8.3	6.6	260	270
30% A	150/350	5	5	5	7.5	8.3	8.4	23.9	23.1	23.2	7.9	8.2	6.7	970	1050
30% B	150/350	5	5	5	7.5	8.3	8.3	24.1	22.8	23.2	7.8	8.2	6.6	1020	1060
30% C	150/350	5	5	5	7.5	8.3	8.4	24.1	22.7	23.0	7.8	8.1	6.3	1030	1055
30% D	150/350	5	5	5	7.5	8.3	8.4	23.7	22.5	22.8	7.8	8.2	6.3	1030	1055
100% A	500/0	5	5	5	6.8	7.9	8.3	24.0	23.3	23.0	7.2	8.1	6.1	2690	2530
100% B	500/0	5	5	5	6.8	7.8	8.3	24.2	22.9	22.8	7.1	8.0	6.1	2720	2630
100% C	500/0	5	5	5	6.8	7.8	8.3	24.2	22.9	22.8	7.0	8.0	6.1	2750	2680
100% D	500/0	5	5	5	6.8	7.7	8.3	24.2	22.7	22.4	7.0	7.9	6.0	2750	2650

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

Room Temperature range for the test period was 22.0-24.5°C.

Incubator #3 temperature range for the test period was 25.5-27.0°C.

LIMS	
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sample number:	634213

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Total Residual CL2	mg/L	Method
Field:	-	-
Lab:	0.08	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	135
100% Sample:	269	414

Organism: ***Cyprinella leedsi***

48-96 hours (after renewal)

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 48 hr	72 hr	96 hr	pH 48 hour	72 hour	96 hour	Temperature[A] 48 hour	72 hour	96 hour	Dissolved Oxygen 48 hour	72 hour	96 hour	Conductivity Uncorrected µmhos/cm 48 hour	96 hour
Control A	0/500	5	5	5	8.1	8.1	8.1	24.7	23.8	25.3	7.0	6.7	6.4	270	280
Control B	0/500	5	5	5	8.1	8.1	8.1	24.5	23.8	24.5	7.0	6.4	6.5	270	280
Control C	0/500	5	5	5	8.2	8.1	8.0	24.8	23.5	25.0	7.0	6.3	6.1	270	285
Control D	0/500	5	5	5	8.2	8.1	8.1	24.8	23.4	24.9	7.0	6.3	5.7	270	275
30% A	30% A	5	5	5	7.5	8.0	8.0	24.9	23.9	25.0	7.0	6.6	5.9	1035	1100
30% B	30% B	5	5	5	7.4	7.9	7.9	24.7	23.8	25.1	6.9	6.2	5.7	1045	1105
30% C	30% C	5	5	5	7.4	8.0	8.0	24.8	24.0	25.4	6.8	6.2	5.1	1050	1130
30% D	30% D	5	5	5	7.4	8.0	8.1	24.9	23.5	25.2	6.7	6.3	5.9	1060	1120
100% A	500/0	5	5	5	6.8	7.8	8.1	26.0	24.0	25.3	5.6	6.6	5.1	2740	3000
100% B	500/0	5	5	5	6.8	7.7	7.9	25.8	23.9	25.2	5.5	5.4	4.3	2780	2950
100 % C	500/0	5	5	5	6.8	7.7	8.0	26.0	23.9	25.4	5.5	5.4	5.5	2810	2950
100% D	500/0	5	5	5	6.7	7.6	8.0	26.0	23.5	24.7	5.4	5.8	5.5	2810	2910

Table 2. Results of chemical analyses on the effluent from Jefferson Smurfit Corporation-Fernandina Beach Mill sampled on November 4, 2002.

Metals			
Aluminum	411	ug/L	
Arsenic	4.8	ug/L	I
Cadmium	0.046	ug/L	I
Calcium	92.5	mg/L	
Chromium	2.7	ug/L	I
Copper	1.4	ug/L	I
Iron	71	ug/L	
Lead	0.21	ug/L	I
Magnesium	44.1	mg/L	
Nickel	6.2	ug/L	I
Zinc	13.7	ug/L	
Pesticides and Herbicides			
Metalaxyl	1.1	ug/L	J
Nutrients			
Ammonia-N	1	mg N/L	
Nitrates and Nitrites	0.012	mg N/L	
Total Kjeldahl Nitrogen	2.5	mg N/L	A
Total Phosphorous	0.19	mg P/L	A
Ortho-Phosphate	0.009	mg P/L	I
Base, Neutral, & Acid Extractable Organics			
Ethyl methanesulfonate	1.2	ug/L	I

[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 3. Chemical Analyses performed on the effluent from Jefferson Smurfit Corporation-Fernandina Beach Mill, sampled on November 4, 2002.

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

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

11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	11
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Ethyl methanesulfonate	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Isosafrole	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Methyl methanesulfonate	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	76
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8

11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Pentachloronitrobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	Safrole	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.6
11/4/2002 10:10	EQUIPMENT BLANK	BNA-Water	o-Toluidine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Naled	0.76	ug/L	U	0.76	3.04
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38

11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
11/4/2002 10:10	EQUIPMENT BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Aluminum	10	ug/L	U	10	40
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Arsenic	3	ug/L	U	3	12
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Calcium	0.04	mg/L	U	0.04	0.12
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Copper	1.2	ug/L	U	0.5	2
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Iron	7	ug/L	U	7	28
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Selenium	1	ug/L	U	1	4
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
11/4/2002 10:10	EQUIPMENT BLANK	Metals-Water	Zinc	2	ug/L	U	2	8
11/4/2002 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
11/4/2002 10:10	EQUIPMENT BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
11/4/2002 10:10	EQUIPMENT BLANK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
11/4/2002 10:10	EQUIPMENT BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
11/4/2002 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Total-P	0.015	mg P/L	U	0.015	0.04
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1,4-Naphthoquinone	19	ug/L	U	19	76
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	1-Naphthylamine	9.5	ug/L	U	9.5	38
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	2,4,5-Trichlorophenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190

11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2,6-Dichlorophenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Acetylaminofluorene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Methylnaphthalene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Naphthylamine	9.5	ug/L	U	9.5	38
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Nitroaniline	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	2-Picoline	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	U	19	76
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	3-Methylcholanthrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	3-Nitroaniline	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4-Chloroaniline	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4-Nitroaniline	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	5-Nitro-o-toluidine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	7,12-Dimethylbenz(a)anthracene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Acetophenone	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Aniline	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Benzidine	95	ug/L	U	95	380

11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Benzyl alcohol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Dibenzofuran	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Ethyl methanesulfonate	1.2	ug/L	I	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT, BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.6

11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Isosafrole	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Methapyrilene	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Methyl methanesulfonate	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	76
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Pentachloronitrobenzene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	Safrole	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.6
11/4/2002 10:20	JEFFERSON SMURFIT,	BNA-Water	o-Toluidine	0.95	ug/L	U	0.95	3.8
11/4/2002 10:20	JEFFERSON SMURFIT,	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia	100	LC50	L		
11/4/2002 10:20	JEFFERSON SMURFIT,	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, L(	100	LC50	L		
11/4/2002 10:20	JEFFERSON SMURFIT,	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28

11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Metalaxyl	1.1	ug/L	J	0.24	0.96
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Naled	0.76	ug/L	U	0.76	3.04
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
11/4/2002 10:20	JEFFERSON SMURFIT, GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Aluminum	411	ug/L		10	40
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Arsenic	4.8	ug/L	I	3	12
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Cadmium	0.046	ug/L	I	0.025	0.1
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Calcium	92.5	mg/L		0.04	0.12
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Chromium	2.7	ug/L	I	2	8
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Copper	1.4	ug/L	I	0.5	2
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Iron	71	ug/L		7	28
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Lead	0.21	ug/L	I	0.1	0.4
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Magnesium	44.1	mg/L		0.01	0.04
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Nickel	6.2	ug/L	I	2	8
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Selenium	1	ug/L	U	1	4
11/4/2002 10:20	JEFFERSON SMURFIT, Metals-Water	Silver	0.02	ug/L	U	0.02	0.08

11/4/2002 10:20	JEFFERSON SMURFIT,	Metals-Water	Zinc	13.7	ug/L		2	8
11/4/2002 10:20	JEFFERSON SMURFIT,	Nutrients-Liquid	Ammonia-N	1	mg N/L		0.1	0.2
11/4/2002 10:20	JEFFERSON SMURFIT,	Nutrients-Liquid	NO2NO3-N	0.012	mg N/L		0.004	0.01
11/4/2002 10:20	JEFFERSON SMURFIT,	Nutrients-Liquid	N_KJEL_TOT	2.5	mg N/L	A	0.06	0.2
11/4/2002 10:20	JEFFERSON SMURFIT,	Nutrients-Liquid	O-Phosphate-P	0.009	mg P/L	I	0.004	0.01
11/4/2002 10:20	JEFFERSON SMURFIT,	Nutrients-Liquid	Total-P	0.19	mg P/L	A	0.02	0.04

The Bioassay of Jefferson Smurfit Corporation-Fernandina Beach Mill effluent sampled on November 4, 2002, NPDES #FL0001104.

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

Remarks

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The Priority Pollutants Analysis for Bioassay of Jefferson Smurfit Corporation-Fernandina Beach Mill effluent sampled on November 4, 2002, NPDES #FL0001104.

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

Remarks

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