

Bioassays of

City of Palatka WWTF

Putnam County

NPDES #FL0040061

Sampled April 14, 2003

February 2004

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

City of Palatka WWTF, 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES #FL0040061, tests performed on 15 to 19 April 2003.

Introduction

This activated-sludge wastewater treatment facility has a design flow of 3.0 MGD and an average daily flow of 2.3 MGD (January-December, 2002). Wastewater treatment at this facility consists of influent screening, vortex grit removal, grit classification for grit dewatering, sedimentation, aeration, secondary clarification, chlorination, and dechlorination with sulfur dioxide gas prior to discharging into the Class III freshwaters of the St. Johns River. Waste sludge is gravity thickened, anaerobically digested and filter-belt pressed for dewatering prior to being hauled to a Class I landfill (facility information provided by Laura Leonardi, FDEP, Jacksonville).

Methods

In accordance with the NPDES permit for this facility, four separate grab samples were collected at 6-hour intervals over a 24-hour period. The sample holding time of 36 hours began when the collection of the last sample was completed. 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

Sample 1

Ceriodaphnia dubia 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

Cyprinella leedsi 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

Sample 2

Ceriodaphnia dubia 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

Cyprinella leedsi 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

Sample 3

Ceriodaphnia dubia 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 5% mortality in 100% sample at 96 hours

Cyprinella leedsi 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

Sample 4

Ceriodaphnia dubia 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

Cyprinella leedsi 96-hr acute screening bioassay – Not Toxic, LC_{50} > 100%, 10% mortality in 100% sample at 96 hours

See Tables 1a-4b for bioassay bench sheets.

Chemistry Results

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

See Table 5 for chemicals detected in the analytical chemistry samples.
See Table 6 for a complete list of chemical analyses performed.

Algal Growth Potential

Raschke and Shultz (1987) found that Algal Growth Potential (AGP) values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The effluent AGP was 52.4 mg dry wt/L of *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*, exceeding the “problem threshold” by an order of magnitude.

Conclusion

Effluent samples collected from this facility on April 14, 2003, did not show acute toxicity to either test species during the 96-hour bioassay tests, however the effluent AGP result was an order of magnitude greater than the "problem threshold" for fresh receiving waters.

Literature Cited

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

Table 1a. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #1), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.

Facility:	**City of Palatka WWTF (#1)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE				Joshua Ayres
County:	Putnam		Test type:	acute screen				James Daniels
Sample Collection Date:	4/13/2003 Time: 1815		# tests:	8	Receiving Water:	Saint Johns River		Marshall Faircloth
Test Beginning Date:	4/15/2003 Time: 1530		Chlorination Type:	declorinated		Class III Fresh		Christa Pierini
Test Ending Date:	4/19/2003 Time: 1200		FDEP SOP#:	TA07_01		**Page 1 of 2**	**Reviewer:**	Rob Buda

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

0-48 hours (before renewal) Chamber size: 30mL Food Batch #: 1 / 12

	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	24.7	-	24.9	7.7	-	7.6	175	250
Control B	0/20	5	5	5	-	-	8.0	-	-	24.8	-	-	7.7	-	220
Control C	0/20	5	5	5	-	-	8.1	-	-	24.8	-	-	7.8	-	215
Control D	0/20	5	5	5	-	-	8.1	-	-	24.9	-	-	7.8	-	230
100% A	20/0	5	5	5	7.4	-	8.0	25.0	-	24.8	7.7	-	7.8	760	790
100% B	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	7.7	-	860
100% C	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	7.8	-	945
100% D	20/0	5	5	5	-	-	8.0	-	-	24.7	-	-	7.8	-	945

LIMS	
Job number:	TLH-2003-04-15-16
sample number:	666510

Data Transcription Verification	
date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	**mg/L**	**Method**
Field:	0.02	-
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

Organism: ***Ceriodaphnia dubia***

48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			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	-	8.2	25.5	-	24.3	7.8	-	7.7	180	190
Control B	0/20	5	5	5	-	-	8.2	-	-	24.1	-	-	7.7	-	190
Control C	0/20	5	5	5	-	-	8.2	-	-	24.0	-	-	7.7	-	195
Control D	0/20	5	5	5	-	-	8.2	-	-	24.1	-	-	7.7	-	190
100% A	20/0	5	5	5	7.3	-	8.1	25.5	-	24.0	7.8	-	7.9	755	830
100% B	20/0	5	5	5	-	-	8.1	-	-	23.9	-	-	7.8	-	840
100 % C	20/0	5	5	5	-	-	8.1	-	-	23.8	-	-	7.8	-	820
100% D	20/0	5	5	5	-	-	8.1	-	-	23.9	-	-	7.8	-	830

Alk & Hardness	**Alkalinity (mg/L)**	**Hardness (mg/L)**
Control water (water flea):	79	76
100% Sample:	175	172

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

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.

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

Table 1b. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #1), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.
Concluded

Facility:	**City of Palatka WWTF (#1)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE				Joshua Ayres
County:	Putnam		Test type:	acute screen				James Daniels
Sample Collection Date:	4/13/2003	Time: 1815	# tests:	8	Receiving Water:	Saint Johns River		Marshall Faircloth
Test Beginning Date:	4/15/2003	Time: 1415	Chlorination Type:	declorinated		Class III Fresh		Christa Pierini
Test Ending Date:	4/19/2003	Time: 1200	FDEP SOP#:	TA07_02		**Page 2 of 2**	**Reviewer:**	Rob Buda

Organism: ***Cyprinella leedsi*** Life stage: 11 days [D]Feeding: artemia
0-48 hours (before renewal) Chamber size: 1L Food Batch #: 0194025G

	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	8.3	8.1	25.8	25.1	24.8	6.8	7.3	6.7	270	280
Control B	0/500	5	5	5	8.0	8.3	8.2	25.8	25.0	24.7	7.3	7.3	6.7	270	280
Control C	0/500	5	5	5	8.0	8.3	8.2	25.8	25.4	24.7	7.4	7.3	6.8	275	280
Control D	0/500	5	5	5	8.0	8.3	8.2	25.9	25.3	24.2	7.4	7.3	7.0	275	275
100% A	500/0	5	5	5	7.2	7.9	7.8	25.4	25.4	24.5	7.5	7.4	6.9	775	795
100% B	500/0	5	5	5	7.2	7.8	7.8	25.4	25.3	24.7	7.5	7.3	6.8	795	810
100% C	500/0	5	5	5	7.2	7.8	7.8	25.4	24.9	24.4	7.7	7.1	6.7	790	790
100% D	500/0	5	5	5	7.2	7.8	7.7	25.5	24.9	24.4	7.7	7.3	6.5	790	800

LIMS

Job number:	TLH-2003-04-15-16
sample number:	666510

Data Transcription Verification

date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	0.02	-
Lab:	<0.03	Hach

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

Organism: ***Cyprinella leedsi*** Conductivity Uncorrected
48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			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	8.2	8.3	25.3	24.9	24.2	7.4	7.1	7.3	270	275
Control B	0/500	5	5	5	8.0	8.2	8.4	24.9	24.5	24.0	7.4	7.2	7.4	270	275
Control C	0/500	5	5	5	8.0	8.2	8.4	24.7	25.0	24.1	7.5	7.3	7.6	270	275
Control D	0/500	5	5	5	8.0	8.2	8.4	24.5	24.7	24.0	7.5	7.3	7.6	265	270
100% A	500/0	5	5	5	7.3	7.7	8.0	24.8	25.4	24.0	7.6	7.4	7.6	765	810
100% B	500/0	5	5	5	7.3	7.7	7.9	24.7	24.7	23.9	7.6	7.2	7.5	785	800
100 % C	500/0	5	5	5	7.3	7.7	7.8	24.5	24.9	23.8	7.7	7.1	7.5	785	795
100% D	500/0	5	5	5	7.3	7.7	7.9	24.2	24.1	24.0	7.7	7.1	7.5	770	815

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water (fish):	140	132
100% Sample:	175	172

as 50-100 footcandles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.
[B] Organisms fed prior to testing and before renewal.

Table 2a. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #2), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.

Facility:	**City of Palatka WWTF (#2)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**		**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE					Joshua Ayres
County:	Putnam		Test type:	acute screen					James Daniels
Sample Collection Date:	4/14/2003	Time: 0015	# tests:	8	Receiving Water:	Saint Johns River			Marshall Faircloth
Test Beginning Date:	4/15/2003	Time: 1530	Chlorination Type:	declorinated		Class III Fresh			Christa Pierini
Test Ending Date:	4/19/2003	Time: 1200	FDEP SOP#:	TA07_01		**Page 1 of 2**		**Reviewer:**	Rob Buda

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [B]Feeding: YCT/Algae Conductivity
0-48 hours (before renewal) Chamber size: 30mL Food Batch #: 1 / 12 Uncorrected

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			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	-	8.1	25.4	-	24.7	7.8	-	7.5	180	205
Control B	0/20	5	5	5	-	-	8.1	-	-	24.5	-	-	7.5	-	210
Control C	0/20	5	5	5	-	-	8.1	-	-	24.4	-	-	8.1	-	210
Control D	0/20	5	5	5	-	-	8.1	-	-	24.6	-	-	8.0	-	210
100% A	20/0	5	5	5	7.3	-	8.0	25.1	-	24.6	7.8	-	7.7	750	860
100% B	20/0	5	5	5	-	-	8.0	-	-	24.5	-	-	7.7	-	900
100% C	20/0	5	5	5	-	-	8.0	-	-	24.4	-	-	7.8	-	920
100% D	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	7.7	-	865

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

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			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	-	8.2	25.3	-	24.2	7.8	-	7.5	185	190
Control B	0/20	5	5	5	-	-	8.2	-	-	24.0	-	-	7.5	-	195
Control C	0/20	5	5	5	-	-	8.2	-	-	23.9	-	-	7.6	-	190
Control D	0/20	5	5	5	-	-	8.2	-	-	24.0	-	-	7.6	-	185
100% A	20/0	5	5	5	7.3	-	8.0	25.5	-	24.2	7.8	-	7.5	750	825
100% B	20/0	5	5	5	-	-	8.0	-	-	24.2	-	-	7.5	-	835
100 % C	20/0	5	5	5	-	-	8.0	-	-	24.4	-	-	7.5	-	800
100% D	20/0	5	5	5	-	-	8.0	-	-	24.1	-	-	7.5	-	845

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.

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

LIMS	
Job number:	TLH-2003-04-15-16
sample number:	666511

Data Transcription Verification	
date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	**mg/L**	**Method**
Field:	0.02	-
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):	79	76
100% Sample:	170	175

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

Table 2b. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #2), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.
Concluded

Facility:	**City of Palatka WWTF (#2)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**		**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE					Joshua Ayres
County:	Putnam		Test type:	acute screen					James Daniels
Sample Collection Date:	4/14/2003	Time: 0015	# tests:	8	Receiving Water:	Saint Johns River			Marshall Faircloth
Test Beginning Date:	4/15/2003	Time: 1415	Chlorination Type:	declorinated		Class III Fresh			Christa Pierini
Test Ending Date:	4/19/2003	Time: 1200	FDEP SOP#:	TA07_02		**Page 2 of 2**		**Reviewer:**	Rob Buda

Organism: ***Cyprinella leedsi*** Life stage: 11 days [D]Feeding: artemia
0-48 hours (before renewal) Chamber size: 1L Food Batch #: 0194025G

	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	8.3	8.1	25.8	24.5	25.9	7.4	7.5	6.2	270	290
Control B	0/500	5	5	5	8.0	8.4	8.1	25.8	24.1	25.0	7.4	7.6	6.1	270	290
Control C	0/500	5	5	5	8.0	8.3	8.1	25.8	24.0	24.9	7.4	7.6	6.3	275	290
Control D	0/500	5	5	5	8.0	8.3	8.1	25.9	24.4	24.9	7.4	7.8	6.4	275	275
100% A	500/0	5	5	5	7.2	7.8	7.6	25.4	24.5	25.4	7.5	7.1	5.7	760	810
100% B	500/0	5	5	5	7.2	7.8	7.6	25.2	24.3	25.0	7.6	7.1	5.7	785	800
100% C	500/0	5	5	5	7.2	7.8	7.6	25.2	24.1	25.3	7.7	7.3	5.7	790	820
100% D	500/0	5	5	5	7.2	7.8	7.6	25.3	24.4	25.6	7.8	7.4	5.7	790	820

Organism: ***Cyprinella leedsi***
48-96 hours (after renewal)

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			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	8.2	8.3	25.2	25.1	24.4	7.6	7.3	7.6	270	280
Control B	0/500	5	5	5	8.0	8.2	8.3	25.0	24.5	24.3	7.4	7.2	7.8	270	280
Control C	0/500	5	5	5	8.0	8.2	8.3	24.6	24.7	24.1	7.4	7.2	7.8	270	280
Control D	0/500	5	5	5	8.0	8.2	8.3	24.4	24.7	24.5	7.4	7.2	8.1	270	275
100% A	500/0	5	5	5	7.2	7.6	7.7	24.6	25.2	24.4	7.5	7.2	7.1	760	815
100% B	500/0	5	5	5	7.2	7.6	7.7	24.4	25.2	23.9	7.4	6.9	7.2	770	810
100 % C	500/0	5	5	5	7.2	7.6	7.7	24.4	24.6	24.5	7.5	6.7	7.2	780	810
100% D	500/0	5	5	5	7.2	7.6	7.7	24.3	24.7	24.5	7.5	6.6	7.0	780	810

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.

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

LIMS	
Job number:	TLH-2003-04-15-16
sample number:	666511

Data Transcription Verification	
date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	0.02	-
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	132
100% Sample:	170	175

as 50-100 footcandles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

Table 3a. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #3), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.

Facility:	**City of Palatka WWTF (#3)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**		**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE					Joshua Ayres
County:	Putnam		Test type:	acute screen					James Daniels
Sample Collection Date:	4/14/2003	Time: 0600	# tests:	8	Receiving Water:	Saint Johns River			Marshall Faircloth
Test Beginning Date:	4/15/2003	Time: 1530	Chlorination Type:	declorinated		Class III Fresh			Christa Pierini
Test Ending Date:	4/19/2003	Time: 1200	FDEP SOP#:	TA07_01		**Page 1 of 2**		**Reviewer:**	Rob Buda

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [B]Feeding: YCT/Algae
0-48 hours (before renewal) Chamber size: 30mL Food Batch #: 1 / 12

	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	-	8.1	25.2	-	24.7	7.6	-	7.0	180	205
Control B	0/20	5	5	5	-	-	8.1	-	-	24.5	-	-	7.4	-	205
Control C	0/20	5	5	5	-	-	8.1	-	-	24.4	-	-	7.8	-	205
Control D	0/20	5	5	5	-	-	8.1	-	-	24.4	-	-	7.8	-	200
100% A	20/0	5	5	5	7.3	-	8.0	25.2	-	24.7	7.7	-	7.8	770	840
100% B	20/0	5	5	5	-	-	8.0	-	-	24.7	-	-	7.8	-	890
100% C	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	7.8	-	900
100% D	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	8.1	-	905

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

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			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	-	8.2	25.4	-	24.6	7.8	-	7.3	180	210
Control B	0/20	5	5	5	-	-	8.2	-	-	24.5	-	-	7.3	-	195
Control C	0/20	5	4	4	-	-	8.2	-	-	24.4	-	-	7.4	-	195
Control D	0/20	5	5	5	-	-	8.2	-	-	24.3	-	-	7.4	-	190
100% A	20/0	5	5	5	7.3	-	8.0	25.4	-	25.0	7.8	-	7.3	765	850
100% B	20/0	5	5	5	-	-	8.0	-	-	25.0	-	-	7.3	-	865
100 % C	20/0	5	5	5	-	-	8.0	-	-	24.9	-	-	7.4	-	840
100% D	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	7.5	-	860

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.

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

LIMS	
Job number:	TLH-2003-04-15-16
sample number:	666512

Data Transcription Verification	
date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	0.02	-
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):	79	76
100% Sample:	172	178

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

Table 3b. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #3), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.
Concluded

Facility:	**City of Palatka WWTF (#3)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE				Joshua Ayres
County:	Putnam		Test type:	acute screen				James Daniels
Sample Collection Date:	4/14/2003 Time: 0600		# tests:	8	Receiving Water:	Saint Johns River		Marshall Faircloth
Test Beginning Date:	4/15/2003 Time: 1415		Chlorination Type:	declorinated		Class III Fresh		Christa Pierini
Test Ending Date:	4/19/2003 Time: 1200		FDEP SOP#:	TA07_02		**Page 2 of 2**	**Reviewer:**	Rob Buda

Organism: ***Cyprinella leedsi*** Life stage: 11 days [D]Feeding: artemia Conductivity
0-48 hours (before renewal) Chamber size: 1L Food Batch #: 0194025G Uncorrected

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			µmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.0	8.3	8.2	25.5	24.1	24.4	7.4	7.5	7.2	270	280
Control B	0/500	5	5	5	8.0	8.3	8.2	25.5	23.9	24.4	7.5	7.4	7.2	270	285
Control C	0/500	5	5	5	8.0	8.4	8.2	25.5	24.0	23.8	7.5	7.7	6.7	270	285
Control D	0/500	5	5	5	8.0	8.4	8.2	25.6	23.9	23.6	7.5	7.7	6.6	275	290
100% A	500/0	5	5	5	7.2	7.8	7.7	25.5	24.0	24.2	8.3	7.9	6.8	790	780
100% B	500/0	5	5	5	7.2	7.8	7.7	25.5	24.2	23.9	8.4	7.7	6.7	785	815
100% C	500/0	5	5	5	7.2	7.9	7.7	25.5	23.9	23.9	8.5	7.7	6.5	795	830
100% D	500/0	5	5	5	7.2	7.9	7.7	25.5	24.2	24.0	8.5	7.8	6.6	800	830

Organism: ***Cyprinella leedsi*** Conductivity
48-96 hours (after renewal) Uncorrected

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			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	8.2	8.3	25.1	25.6	25.4	7.6	6.9	6.8	270	285
Control B	0/500	5	5	5	8.0	8.2	8.3	24.8	24.8	26.6	7.5	7.1	7.0	270	295
Control C	0/500	5	5	5	8.0	8.2	8.3	24.5	24.9	26.6	7.5	7.1	7.1	275	285
Control D	0/500	5	5	5	8.0	8.2	8.3	24.3	24.5	25.7	7.5	7.1	7.1	270	290
100% A	500/0	5	5	5	7.3	7.6	8.0	24.8	25.8	26.6	7.6	7.3	7.1	760	875
100% B	500/0	5	5	5	7.3	7.6	8.0	24.5	24.8	25.8	7.6	7.1	7.1	790	855
100 % C	500/0	5	5	5	7.3	7.6	7.9	24.4	24.8	26.1	7.8	7.0	7.1	790	855
100% D	500/0	5	5	5	7.3	7.6	7.9	24.2	24.7	25.1	7.9	7.1	6.9	790	835

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.
[B] Organisms fed prior to testing and before renewal.

LIMS	
Job number:	TLH-2003-04-15-16
sample number:	666512

Data Transcription Verification	
date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	0.02	-
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	132
100% Sample:	172	178

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

Table 4a. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #4), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.

Facility:	**City of Palatka WWTF (#4)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE				Joshua Ayres
County:	Putnam		Test type:	acute screen				James Daniels
Sample Collection Date:	4/14/2003	Time: 1210	# tests:	8	Receiving Water:	Saint Johns River		Marshall Faircloth
Test Beginning Date:	4/15/2003	Time: 1530	Chlorination Type:	declorinated		Class III Fresh		Christa Pierini
Test Ending Date:	4/19/2003	Time: 1200	FDEP SOP#:	TA07_01		**Page 1 of 2**	**Reviewer:**	Rob Buda

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [B]Feeding: YCT/Algae
0-48 hours (before renewal) Chamber size: 30mL Food Batch #: 1 / 12

	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	-	8.1	24.5	-	24.8	7.8	-	7.6	180	190
Control B	0/20	5	5	5	-	-	8.1	-	-	24.6	-	-	7.6	-	190
Control C	0/20	5	5	5	-	-	8.1	-	-	24.5	-	-	7.7	-	200
Control D	0/20	5	5	5	-	-	8.1	-	-	24.6	-	-	7.7	-	205
100% A	20/0	5	5	5	7.3	-	8.0	24.6	-	24.8	7.8	-	7.9	730	820
100% B	20/0	5	5	5	-	-	8.0	-	-	24.7	-	-	7.8	-	850
100% C	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	7.7	-	860
100% D	20/0	5	5	5	-	-	8.0	-	-	24.6	-	-	7.8	-	850

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

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			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	8.0	-	8.1	25.5	-	24.5	7.8	-	7.3	180	195
Control B	0/20	5	5	5	-	-	8.1	-	-	24.3	-	-	7.3	-	195
Control C	0/20	5	5	5	-	-	8.1	-	-	24.4	-	-	7.3	-	195
Control D	0/20	5	5	5	-	-	8.1	-	-	24.4	-	-	7.5	-	195
100% A	20/0	5	5	5	7.3	-	8.0	25.5	-	24.5	7.7	-	7.6	750	810
100% B	20/0	5	5	5	-	-	8.0	-	-	24.5	-	-	7.5	-	795
100 % C	20/0	5	5	5	-	-	8.0	-	-	24.4	-	-	7.5	-	835
100% D	20/0	5	5	5	-	-	8.0	-	-	24.3	-	-	7.5	-	845

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.

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

LIMS	
Job number:	TLH-2003-04-15-16
sample number:	666513

Data Transcription Verification	
date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	0.02	-
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):	79	76
100% Sample:	174	176

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

Table 4b. Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Palatka WWTF (sample #4), 3010 Browns Landing Road, Palatka, Putnam County, Florida, NPDES# FL0040061, performed from 15 to 19 April 2003.
Concluded

Facility:	**City of Palatka WWTF (#4)**		**NPDES #:**	**FL0040061**	Facility Type:	**WWTF**	**Analysts:**	Jacquelyn Brynda
Location:	3010 Browns Landing Road, Palatka		Contact/District:	O'Connor/NE				Joshua Ayres
County:	Putnam		Test type:	acute screen				James Daniels
Sample Collection Date:	4/14/2003 Time: 1210		# tests:	8	Receiving Water:	Saint Johns River		Marshall Faircloth
Test Beginning Date:	4/15/2003 Time: 1415		Chlorination Type:	declorinated		Class III Fresh		Christa Pierini
Test Ending Date:	4/19/2003 Time: 1200		FDEP SOP#:	TA07_02		**Page 2 of 2**	**Reviewer:**	Rob Buda

Organism: ***Cyprinella leedsi*** Life stage: 11 days [D]Feeding: artemia
0-48 hours (before renewal) Chamber size: 1L Food Batch #: 0194025G

	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	8.3	8.1	25.4	25.7	24.1	7.6	7.6	6.9	265	275
Control B	0/500	5	5	5	8.0	8.4	8.1	25.3	25.1	23.8	7.6	7.7	6.8	270	280
Control C	0/500	5	5	5	8.0	8.3	8.2	25.2	25.4	24.1	7.5	7.3	6.6	270	280
Control D	0/500	5	5	5	8.0	8.4	8.2	25.3	25.1	23.8	7.5	7.2	6.6	270	280
100% A	500/0	5	5	4	7.2	7.8	7.7	25.1	25.4	24.3	7.5	7.4	7.0	760	790
100% B	500/0	5	5	5	7.2	7.8	7.7	25.0	25.5	23.9	7.5	7.2	6.2	770	790
100% C	500/0	5	5	5	7.2	7.8	7.6	25.0	25.8	23.8	7.4	7.1	6.2	780	775
100% D	500/0	5	5	5	7.2	7.8	7.7	25.1	25.3	23.7	7.4	7.0	6.1	780	780

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

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen				
Concentrations	Volume(mL)	48 hr	72 hr	96 hr	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	72 hour	96 hour	48 hour	96 hour
Control A	0/500	5	5	5	8.1	8.2	8.2	24.3	24.4	24.2	7.7	7.2	7.6	275	275
Control B	0/500	5	5	5	8.1	8.2	8.2	24.3	24.6	24.1	7.7	7.2	7.5	270	275
Control C	0/500	5	5	5	8.1	8.2	8.2	24.3	24.4	24.0	7.6	7.3	7.5	270	270
Control D	0/500	5	5	5	8.1	8.2	8.3	24.3	24.1	23.8	7.6	7.6	7.6	270	290
100% A	500/0	4	3	3	7.2	7.6	7.9	24.0	24.4	24.1	7.5	7.5	7.6	745	785
100% B	500/0	5	5	5	7.2	7.6	7.8	23.7	24.2	24.0	7.4	7.4	7.6	760	790
100 % C	500/0	5	5	5	7.2	7.6	7.8	23.7	24.1	24.0	7.4	7.2	7.4	765	795
100% D	500/0	5	5	5	7.2	7.6	7.8	23.7	24.1	24.0	7.3	7.1	7.6	770	810

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.0-27.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.
[B] Organisms fed prior to testing and before renewal.

LIMS	
Job number:	TLH-2003-04-15-16
sample number:	666513

Data Transcription Verification	
date:	6/9/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	0.02	-
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	132
100% Sample:	174	176

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

Table 5. Results of chemical analyses on the effluent from City of Palatka WWTF sampled on April 14, 2003.

Metals

Aluminum	113 ug/L	
Cadmium	0.029 ug/L	I
Calcium	47.7 mg/L	
Copper	6.7 ug/L	I
Iron	230 ug/L	
Lead	0.61 ug/L	
Magnesium	14.7 mg/L	
Nickel	2.9 ug/L	I
Silver	0.32 ug/L	
Zinc	38 ug/L	

Pesticides and Herbicides

Atrazine	0.20 ug/L	

Nutrients

Ammonia-N	0.035 mg N/L	A
Nitrates and Nitrites	16 mg N/L	A
Total Kjeldahl Nitrogen	1.7 mg N/L	
Ortho-Phosphates	2.1 mg P/L	
Total Phosphorous	2.3 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.

Table 6. Chemical Analyses performed on the effluent from City of Palatka WWTF, sampled on April 14, 2003.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,2,4,5-Tetrachlorobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,2,4-Trichlorobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,2-Dichlorobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,3,5-Trinitrobenzene	4.5	ug/L	U	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,3-Dichlorobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,3-Dinitrobenzene	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,4-Dichlorobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1,4-Naphthoquinone	23	ug/L	UJ	23	91
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	1-Naphthylamine	11	ug/L	UJ	11	45
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,3,4,6-Tetrachlorophenol	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,4,5-Trichlorophenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,4,6-Trichlorophenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,4-Dichlorophenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,4-Dimethylphenol	57	ug/L	U	57	230
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,4-Dinitrophenol	17	ug/L	U	17	68
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,4-Dinitrotoluene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,6-Dichlorophenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2,6-Dinitrotoluene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Acetylaminofluorene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Chloronaphthalene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Chlorophenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Methyl-4,6-dinitrophenol	3.4	ug/L	U	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Methylnaphthalene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Naphthylamine	11	ug/L	U	11	45
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Nitroaniline	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Nitrophenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	2-Picoline	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	3,3'-Dichlorobenzidine	45	ug/L	U	45	180
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	3,3'-Dimethylbenzidine	23	ug/L	UJ	23	91
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	3-Methylcholanthrene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	3-Nitroaniline	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4,4'-DDD	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4,4'-DDE	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4,4'-DDT	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4-Aminobiphenyl	4.5	ug/L	U	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4-Bromophenyl phenyl ether	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4-Chloro-3-methylphenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4-Chloroaniline	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4-Chlorophenyl phenyl ether	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4-Nitroaniline	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	4-Nitrophenol	17	ug/L	U	17	68
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	5-Nitro-o-toluidine	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	7,12-Dimethylbenz(a)anthracene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Acenaphthene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Acenaphthylene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Acetophenone	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Aldrin	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Aniline	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Anthracene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Benzidine	110	ug/L	U	110	450
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Benzo(a)anthracene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Benzo(a)pyrene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Benzo(b)fluoranthene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Benzo(g,h,i)perylene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Benzo(k)fluoranthene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Benzyl alcohol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Bis(2-chloroethoxy)methane	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Bis(2-chloroethyl)ether	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Bis(2-chloroisopropyl)ether	3.4	ug/L	U	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Bis(2-ethylhexyl)phthalate	17	ug/L	U	17	68
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Butyl benzyl phthalate	5.7	ug/L	U	5.7	23
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Chrysene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Di-n-butyl phthalate	5.7	ug/L	U	5.7	23
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Di-n-octyl phthalate	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Dibenzo(a,h)anthracene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Dibenzofuran	1.1	ug/L	U	1.1	4.5

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Dieldrin	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Diethyl phthalate	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Dimethyl phthalate	57	ug/L	U	57	230
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Dimethylaminoazobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Dinoseb	4.5	ug/L	U	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Diphenylamine	3.4	ug/L	U	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Endosulfan I	4.5	ug/L	U	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Endosulfan II	4.5	ug/L	U	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Endosulfan sulfate	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Endrin	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Endrin aldehyde	4.5	ug/L	U	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Ethyl methanesulfonate	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Fluoranthene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Fluorene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Heptachlor	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Heptachlor epoxide	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Hexachlorobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Hexachlorobutadiene	3.4	ug/L	U	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Hexachlorocyclopentadiene	3.4	ug/L	UJ	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Hexachloroethane	3.4	ug/L	U	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Hexachloropropene	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Indeno(1,2,3-cd)pyrene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Isophorone	1.1	ug/L	UJ	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Isosafrole	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Methapyrilene	4.5	ug/L	UJ	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Methyl methanesulfonate	1.1	ug/L	UJ	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosodi-n-butylamine	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosodi-n-propylamine	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosodiethylamine	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosodimethylamine	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosodiphenylamine	3.4	ug/L	U	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosomethylethylamine	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosomorpholine	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosopiperidine	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	N-Nitrosopyrrolidine	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Naphthalene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Nitrobenzene	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Nitroquinoline-1-oxide	23	ug/L	U	23	91
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Pentachlorobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Pentachloroethane	57	ug/L	U	57	230
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Pentachloronitrobenzene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Pentachlorophenol	3.4	ug/L	U	3.4	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Phenacetin	4.5	ug/L	U	4.5	14
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Phenanthrene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Phenol	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Pyrene	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Pyridine	4.5	ug/L	U	4.5	18
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	Safrole	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	alpha-BHC	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	beta-BHC	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	delta-BHC	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	gamma-BHC	1.7	ug/L	U	1.7	6.8
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	m,p-Cresols	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	o-Cresol	2.3	ug/L	U	2.3	9.1
4/14/2003 11:00	EQUIPMENT BLK	BNA-Water	o-Toluidine	1.1	ug/L	U	1.1	4.5
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38

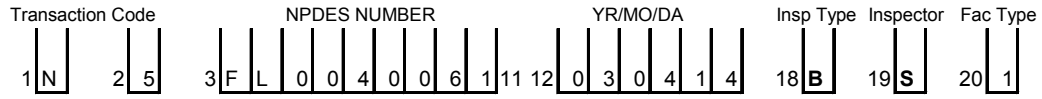
Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Naled	0.76	ug/L	UJ	0.76	3.04
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
4/14/2003 11:00	EQUIPMENT BLK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Aluminum	10	ug/L	U	10	40
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Arsenic	5	ug/L	U	5	20
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Chromium	2	ug/L	U	2	8
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Copper	1.7	ug/L	U	0.8	3.2
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Iron	15	ug/L	U	15	60
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Nickel	2.5	ug/L	U	2.5	10
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Selenium	1	ug/L	U	1	4
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
4/14/2003 11:00	EQUIPMENT BLK	Metals-Water	Zinc	4	ug/L	U	4	16
4/14/2003 11:00	EQUIPMENT BLK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,2,4-Trichlorobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,2-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,3-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,4-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	75
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	1-Naphthylamine	9.4	ug/L	UJ	9.4	38
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,4,5-Trichlorophenol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,4,6-Trichlorophenol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,4-Dichlorophenol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,4-Dimethylphenol	47	ug/L	U	47	190
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,4-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,6-Dichlorophenol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2,6-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Acetylaminofluorene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Chloronaphthalene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Chlorophenol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Methyl-4,6-dinitrophenol	2.8	ug/L	U	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Methylnaphthalene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Naphthylamine	9.4	ug/L	U	9.4	38
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Nitroaniline	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Nitrophenol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	2-Picoline	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	75
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	3-Methylcholanthrene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	3-Nitroaniline	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4-Aminobiphenyl	3.8	ug/L	U	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4-Bromophenyl phenyl ether	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4-Chloro-3-methylphenol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4-Chloroaniline	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4-Nitroaniline	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	5-Nitro-o-toluidine	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.94	ug/L	U	0.94	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Acenaphthene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Acenaphthylene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Acetophenone	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Aniline	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Anthracene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Benzidine	94	ug/L	U	94	380
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Benzo(a)anthracene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Benzo(a)pyrene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Benzo(b)fluoranthene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Benzo(g,h,i)perylene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Benzo(k)fluoranthene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Benzyl alcohol	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Bis(2-chloroethoxy)methane	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Bis(2-chloroethyl)ether	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Bis(2-chloroisopropyl)ether	2.8	ug/L	U	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Butyl benzyl phthalate	4.7	ug/L	U	4.7	19
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Chrysene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Di-n-butyl phthalate	4.7	ug/L	U	4.7	19
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Di-n-octyl phthalate	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Dibenzo(a,h)anthracene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Dibenzofuran	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Diethyl phthalate	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Dimethyl phthalate	47	ug/L	U	47	190
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Dimethylaminoazobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Diphenylamine	2.8	ug/L	U	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Ethyl methanesulfonate	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Fluoranthene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Fluorene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Hexachlorobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Hexachlorobutadiene	2.8	ug/L	U	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Hexachlorocyclopentadiene	2.8	ug/L	UJ	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Hexachloroethane	2.8	ug/L	U	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Indeno(1,2,3-cd)pyrene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Isophorone	0.94	ug/L	UJ	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Isosafrole	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Methapyrilene	3.8	ug/L	UJ	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Methyl methanesulfonate	0.94	ug/L	UJ	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosodi-n-butylamine	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosodiethylamine	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosodiphenylamine	2.8	ug/L	U	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosomorpholine	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosopiperidine	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Naphthalene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	75
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Pentachlorobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Pentachloroethane	47	ug/L	U	47	190
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Pentachloronitrobenzene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Pentachlorophenol	2.8	ug/L	U	2.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Phenanthrene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Phenol	0.94	ug/L	U	0.94	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Pyrene	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Pyridine	3.8	ug/L	U	3.8	15
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	Safrole	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.5
4/14/2003 12:10	FINAL EFFLUENT	BNA-Water	o-Toluidine	0.94	ug/L	U	0.94	3.8
4/14/2003 12:10	FINAL EFFLUENT	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
4/14/2003 12:10	FINAL EFFLUENT	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Atrazine	0.2	ug/L		0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Naled	0.76	ug/L	UJ	0.76	3.04
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
4/14/2003 12:10	FINAL EFFLUENT	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Aluminum	113	ug/L		10	40
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Arsenic	5	ug/L	U	5	20
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Cadmium	0.029	ug/L	I	0.025	0.1
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Calcium	47.7	mg/L		0.05	0.2
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Chromium	2	ug/L	U	2	8
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Copper	6.7	ug/L	I	0.8	3.2
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Iron	230	ug/L		15	60
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Lead	0.61	ug/L		0.1	0.4
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Magnesium	14.7	mg/L		0.02	0.08
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Nickel	2.9	ug/L	I	2.5	10
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Selenium	1	ug/L	U	1	4
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Silver	0.32	ug/L		0.02	0.08
4/14/2003 12:10	FINAL EFFLUENT	Metals-Water	Zinc	38	ug/L		4	16
4/14/2003 12:10	FINAL EFFLUENT	Nutrients-Liquid	Ammonia-N	0.035	mg N/L	A	0.01	0.02
4/14/2003 12:10	FINAL EFFLUENT	Nutrients-Liquid	NO2NO3-N	16	mg N/L	A	0.4	1
4/14/2003 12:10	FINAL EFFLUENT	Nutrients-Liquid	N_KJEL_TOT	1.7	mg N/L		0.06	0.2
4/14/2003 12:10	FINAL EFFLUENT	Nutrients-Liquid	O-Phosphate-P	2.1	mg P/L		0.16	0.4
4/14/2003 12:10	FINAL EFFLUENT	Nutrients-Liquid	Total-P	2.3	mg P/L		0.2	0.4

The Bioassay of City of Palatka WWTF effluent sampled on April 14, 2003, NPDES #FL0040061.

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



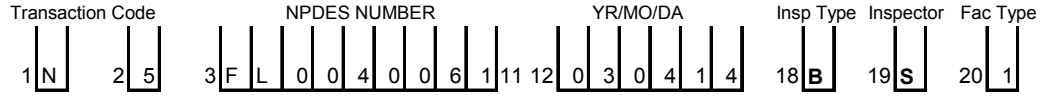
Remarks



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The Priority Pollutants Analysis for Bioassay of City of Palatka WWTF effluent sampled on April 14, 2003, NPDES #FL0040061.

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



Remarks



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