

Bioassays of

Sanford/North Wastewater Treatment Facility

Seminole County

NPDES #FL0020141

Sampled October 10, 2005

February 2006

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Sanford/North Wastewater Treatment Facility, 1201 West Seminole Boulevard, Sanford, Seminole County, Florida, NPDES #FL0020141. Effluent samples for this facility were collected on October 10, 2005.

Introduction

The Sanford/North Wastewater Treatment Facility is a complete-mix activated-sludge domestic wastewater treatment plant. The facility has a permitted capacity of 7.3 million gallons per day (MGD) annual average daily flow (AADF). The facility has design flows of 1.0 MGD AADF surface water discharge through Outfall D-001 and 7.14 MGD AADF through the Reuse System (R-001) which includes a permitted capacity of 2.84 MGD AADF to Site 10 (an agricultural site). The AADF from November 2004 through October 2005 was 2.57 MGD through Outfall D-001, 1.65 MGD through R-001 to Site 10, and 4.33 MGD to the Public Access Reuse system.

The wastewater treatment process consists of flow equalization, influent screening, grit removal, aeration, secondary clarification, chemical feed, filtration, chlorination with sodium hypochlorite, followed by dechlorination with sodium bisulfite. Residuals are aerobically digested and dewatered prior to transport to a land application site or to a residuals management facility. Treated effluent can be discharged to the Class III freshwaters of the St. Johns River (Outfall D-001- approximate length, 30.48m (100ft), discharging at an approximate depth of 1.52m (5ft) located at latitude 28º50'30" N, longitude 81º19'00" W) or to the Reuse System.

The Reuse System (R-001) is a slow-rate public access reuse system consisting of 1,800 irrigated acres at Site 10 (located around latitude 28º45'05" N, longitude 81º08'57" W) and irrigation within the Reuse Service Area. The Reuse System also includes two (2) 1.5 million gallon (MG) on-site storage tanks and two (2) 2.8 MG lined reject ponds (with provisions for pumping to the head of the plant for re-treatment), with an additional 37 MG of reclaimed water storage at Site 10. The facility is also permitted to use surface water from Lake Monroe to supplement the Reuse System.

There are no Administrative Orders or Consent Orders for this facility. The facility has no mixing zones. Since October 2004, the facility has had exceedances of permitted limits for flow, fecal coliforms, carbonaceous biological oxygen demand, ammonia, total phosphorus, and phenolic compounds (facility information provided by David Smicherko of FDEP Central District).

Methods

Samples were collected from the EFD-1 NPDES sampling point for Outfall D-001 by Phil Kane and Steve Kent (FDEP Central District) 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 48-hours acute screen toxicity tests and algal growth potential test were performed following internal DEP SOP's TA07_01, TA07_02, and TA08_01 through TA08_09. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp. While the 48-hour acute screening toxicity test does not reflect the permit required conditions, the Department uses it to provide reasonable assurance that the facility does not adversely affect waters of the state.

Toxicity Test Results

Tests were performed October 11 - 13, 2005.

Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours
Cyprinella leedsi 48-hour acute screening bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours

The bioassay sample was not acutely toxic to the test organisms.

See Appendix 1 for bioassay bench sheets.

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of <20% provides reasonable assurance that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Rule 62-302.500 (1) (a) 4, F.A.C.). Mortality between 20-50% mortality indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% provides reasonable assurance that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3) (a), F.A.C.).

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 141 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Shultz (1987) found that AGP values above 5.0 mg dry weight/L represent a "problem" threshold for fresh receiving waters, implying nutrient enrichment. The analytical chemistry suggests that the effluent is nitrogen-limited. The predicted AGP based on inorganic nitrogen concentrations was 159.6 (±20%) mg dry wt/L (Table 1; Miller et al. 1978).

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine was not detected in the effluent bioassay sample in the field nor in the laboratory. Total ammonia was detected in the bioassay sample in the laboratory at a concentration of 0.211 mg/L. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.3 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.

Aluminum, iron, lead, and zinc were detected in the effluent at levels that comply with Class III fresh water quality criteria. Copper and selenium were detected between the laboratory method detection limits (MDLs) and practical quantitation limits (PQLs).

See Table 2 for results of analytes detected in the effluent, and corresponding limits.

See Appendix 2 for a complete list of chemical analyses performed.

Conclusion

The effluent sample collected from Outfall D-001 for this facility on October 10, 2005, was not acutely toxic to either test species during the acute screen 48-hour bioassays. The effluent AGP result exceeded the "problem" threshold for fresh receiving waters. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

Literature Cited

Miller, W. E., T. E. Maloney, and J. C. Greene. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA-600/9-78-018. U. S. EPA, Cincinnati, Ohio. 126 p.

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 1. Measured and predicted algal growth potential (AGP) of Pseudokirchneriella subcapitata *for total soluble nitrogen (TSIN) and total nitrogen (TN) limitation and ratios of nitrogen to phosphorus for samples collected from Sanford/North Wastewater Treatment Facility on October 10, 2005.*

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	141 A	159.6 ± 31.92	250.8 ± 50.16	7.78	8.8

A - Value reported is the mean of two or more determinations

Table 2. Effluent limits, Class III Freshwater Criteria, and chemical and microbiological data for samples collected from Sanford/North Wastewater Treatment Facility on October 10, 2005.

Sanford/ North WWTF NPDES# FL0020141	Class III Freshwater Stds	Effluent Limits	Effluent Samples EFD-1
Organic Constituents (µg/L)			
Cyanide	≤ 5.2	≤ 5.2	-
PAHs	≤ 0.031 a	≤ 0.031 a	0.95 U
Phenolic compounds	≤ 1.0	≤ 1.0	g
Metals (µg/L unless otherwise noted)			
Aluminum	-	-	63
Arsenic	≤ 50	-	4 U
Beryllium	-	0.13 a	-
Cadmium	≤ 1.5 b	≤ 1.5 b	0.05 U
Calcium (mg/L)	-	-	46.1 f
Chromium-III	≤ 115.9 b	-	2 U
Copper	≤ 12.7 b	≤ 12.7 b	1.8 I
Iron	≤ 1,000	-	155
Lead	≤ 5 b	≤ 5 b	0.34
Magnesium (mg/L)	-	-	6.9
Nickel	≤ 70.8 b	-	2 U
Selenium	≤ 5	≤ 5	0.91 I
Silver	≤ 0.07	≤ 0.07	0.025 U
Zinc	≤ 162.7 b	-	14
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.54
Total Phosphorus	-	8.0 s	0.75 A
Ammonia	-	7.0 s	0.3
Unionized Ammonia	≤ 0.02	-	< 0.02 c
Nitrate+Nitrite	-	-	3.9 A
Total Kjeldahl Nitrogen	-	-	2.7 A
Organic Nitrogen	-	-	2.4 c
Total Nitrogen	-	24.0 s	6.6 c
General Physical and Chemical Parameters			
Dissolved Oxygen (mg/L)	≥ 5	≥ 5	7.9
pH (S.U.)	6.0-8.5	6.0-8.5	7.3
Conductivity (umhos/cm)	≤ 1,275	-	609
Temperature (C)	-	-	28.7
Total Residual Chlorine	≤ 0.01	≤ 0.01	≤ 0.01
TSS (mg/L)	-	60.0 s	4 I
CBOD (mg/L)	-	40.0 s	4.5 A
Flow (MGD)	-	1.0 a	3.42 a
Hardness (mg/L)	-	Report	143.5 c
Microbiology (# counts/100ml)			
Fecal Coliforms-Membrane Filter	< 800 s	< 800 s	41 p*

Value exceeds the Class III Fresh Water Quality Criteria (62-302, F.A.C.) and/or Effluent Limits

a - Annual average

b - Value is calculated based on hardness

c - Calculated value

f - Calcium was detected in the field blank at a concentration of 0.11 mg/L

g- reported values for phenolic compounds analyzed are their respective MDLs with U qualifiers

p - permited sampling point for this limit is EFA-1

s - Single sample

A - Value reported is the mean of two or more determinations

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation lim

U - Material analyzed for but not detected; value reported is the minimum detection limit

FDEP Biology Section - Acute Screen Bioassay Bench Sheets

Facility: Sanford/North WWTF

Address: 1201 West Seminole Boulevard

City: Sanford County: Seminole

Contact/District: Phil Kane /Central District

NPDES Permit #: FL 0020141

LIMS Job #: TLH-2005-10-11-29 LIMS Sample #: 1870127

Sample Collection: Date: 10-10-05 Time: 0920

Hold Time Start: Date: 10-10-05 Time: 0920

Comments:

Lims Data Entry: 10-14-05 SP Data Entry Verification: 10-17-05 MF

Instructions (for below): Circle appropriate wording. If yes is circled complete blanks.

Test Type: (Screen)

(Static) Static Renewal / Flow-through

Test Duration: (48) 96 Hours.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Test 1 validation: Test 1: SOP TA 07-01

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation: Test 2: SOP TA 07-02

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Initial sample handling:

PH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____

Aeration : yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____bubbles/min

Salinity adjusted (Test 1): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Salinity adjusted (Test 2): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample Final TRC: ____

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C - collected °C) Yes No

Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Temperature Range °C

Incubator # 3 Range 24.1 - 25.6

Room B246: 24.2 - 25.5

Waterbath: N/A

Investigators' Signatures

Sarah Pritchard

James Daniels

Marshall Faircloth

Gene Mast

Nigel Wellendorf

REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	N/A	N/A	N/A	N/A		0.00	Hach kit	Kane/Kent	SP
Lab Total Residual Cl2 (mg/L):	<0.03	<0.03				<0.03	HACH	SP	MF
Alkalinity (mg/L as $CaCO_3$):	91	137				122	HACH	GM/SP	MF
Hardness (mg/L as $CaCO_3$):	95	142				133	HACH	GM/SP	MF
Total Ammonia (mg/L as N):	<0.017	<0.017				0.211	DENVER	MF	SP
Salinity (ppth)	<1	<1				<1	YSI / Mettler	SP	MF

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Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 870129 Test #: 1

Test Started: Date 10-11-05 Time: ~~1300~~ 1330 SP

Organism: C. dubia

Test Ended: Date 10-13-05 Time: 1240

Organism Batch: 38-05 Diluent/ Batch: DMW / 31-05

Organism Age: <24 hrs Food: (YCT) (P. subcapitata) Artemia SOP: TA_ 01

Chamber Size: 30 mL Batch: 04-05 05-05 -

Test Volume: 20 mL Feeding: (Prior to test) Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
100%	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Organisms loaded by: SP		Checked by: [redacted]		SF	MF			

Loading Verified by: MF

Comments:

m = missing d = dead BR = before renewal AR = after renewal

Test Results:

% mortality in 100% sample 0

LC_{50}: >100 If Calculated: 95% CI________ Method:________

Screening Tests: Report LC50 as >100%, =100%, or <100%.

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 870129 Test #: 2 Test Started: Date 10-11-05 Time: 1300

Organism: C.leeds: Test Ended: Date 10-13-05 Time: 1300

Organism Batch: 29-05 Diluent/ Batch: Well H_2O 10-10-05

Organism Age: 8days Food: YCT P. subcapitata Artemia SOP: TA_ 02

Chamber Size: 1000 mL Batch: – – 35138425GR

Test Volume: 500 mL Feeding: Prior to test - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	C1	5	5	5			
	B	C2	5	5	5			
	C	C3	5	5	5			
	D	C4	5	5	5			
100%	A	C5	5	5	5			
	B	C6	5	5	5			
	C	C7	5	5	5			
	D	C8	5	5	5			
Organisms loaded by: JD		Checked by:	[redacted]	SP	JD			

Loading Verified by: SP

Comments:

m = missing d = dead BR = before renewal AR = after renewal

Test Results:

% mortality in 100% sample 0

LC_{50}: >100 If Calculated: 95% CI_____ Method:_____

Screening Tests: Report LC50 as >100%, =100%, or <100%.

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix 1. Bench Sheets (continued)

Biomass Parameters

LIMS Sample #: 87139 Test #: 1 of 2

TEST SOP: TA07_01 Test Species: (*Ceriodaphnia dubia*) *Cyprinella leedsi Pimephales promelas*

Americamysis bahia Menidia beryllina Other:

~~V1 02/4/04~~

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	B			
pH (S.U.)	8.0		7.9			
Temperature °C	25.0		24.2			
Dissolved Oxygen mg/L	7.6		7.2			
Conductivity (µmhos mmhos	164		149			
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	B			
pH (S.U.)	7.5		8.3			
Temperature °C	25.1		24.1			
Dissolved Oxygen mg/L	7.5		7.3			
Conductivity (µmhos mmhos	599		695			
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration ,	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

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Bioassay Parameters

LIMS Sample # : 870129 **Test # :** 2 **of** 2

TEST SOP: TA07_ 02 **Test Species:** *Ceriodaphnia dubia* (*Cyprinella leedsi*) *Pimephales promelas*
Americamysis bahia *Menidia beryllina* Other:_____

~~V.1 2/24/04~~

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.9	8.1	8.2			
Temperature °C	25.3	24.1	24.5			
Dissolved Oxygen mg/L	7.8	7.9	6.9			
Conductivity (µmhos) mmhos	258	276	275			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.3	7.8	8.0			
Temperature °C	25.6	24.3	24.2			
Dissolved Oxygen mg/L	7.4	8.0	6.6			
Conductivity (µmhos) mmhos	607	604	629			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

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Appendix 2. Chemical Analyses performed on the effluent from Sanford/ North Wastewater Treatment Facility Outfall D-001, sampled on October 10, 2005.

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
10/10/2005 9:20	SANF	Bio-AGP/LimNut	Algal Growth Potential	141	mg DryWt/L	A	0.3	0.9
10/10/2005 9:20	SANF	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	4.5	mg/L	A	0.2	2
10/10/2005 9:20	SANF	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	1.5	ug/L	I	0.85	2.6
10/10/2005 9:20	SANF	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0	ug/L	J	0.85	2.6
10/10/2005 9:20	SANF	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
10/10/2005 9:20	SANF	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
10/10/2005 9:20	SANF	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/10/2005 9:20	SANF	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/10/2005 9:20	SANF	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/10/2005 9:20	SANF	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/10/2005 9:20	SANF	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/10/2005 9:20	SANF	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/10/2005 9:20	SANF	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Benzidine	95	ug/L	U	95	380
10/10/2005 9:20	SANF	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
10/10/2005 9:20	SANF	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/10/2005 9:20	SANF	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/10/2005 9:20	SANF	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/10/2005 9:20	SANF	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/10/2005 9:20	SANF	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/10/2005 9:20	SANF	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/10/2005 9:20	SANF	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/10/2005 9:20	SANF	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/10/2005 9:20	SANF	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/10/2005 9:20	SANF	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	11
10/10/2005 9:20	SANF	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
10/10/2005 9:20	SANF	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/10/2005 9:20	SANF	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/10/2005 9:20	SANF	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	UJ	1.9	7.6
10/10/2005 9:20	SANF	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/10/2005 9:20	SANF	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	11
10/10/2005 9:20	SANF	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
10/10/2005 9:20	SANF	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/10/2005 9:40	SANF BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/10/2005 9:40	SANF BLANK	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/10/2005 9:40	SANF BLANK	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/10/2005 9:40	SANF BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/10/2005 9:40	SANF BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/10/2005 9:40	SANF BLANK	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Benzidine	95	ug/L	U	95	380
10/10/2005 9:40	SANF BLANK	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
10/10/2005 9:40	SANF BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/10/2005 9:40	SANF BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/10/2005 9:40	SANF BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/10/2005 9:40	SANF BLANK	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/10/2005 9:40	SANF BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/10/2005 9:40	SANF BLANK	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/10/2005 9:40	SANF BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/10/2005 9:40	SANF BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/10/2005 9:40	SANF BLANK	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/10/2005 9:40	SANF BLANK	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	11
10/10/2005 9:40	SANF BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
10/10/2005 9:40	SANF BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/10/2005 9:40	SANF BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/10/2005 9:40	SANF BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	UJ	1.9	7.6
10/10/2005 9:40	SANF BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/10/2005 9:40	SANF BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	11
10/10/2005 9:40	SANF BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
10/10/2005 9:40	SANF BLANK	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/10/2005 9:40	SANF BLANK	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
10/10/2005 9:20	SANF	GC-Water	Alachlor	0.6	ug/L	U	0.6	2.4

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
10/10/2005 9:20	SANF	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
10/10/2005 9:20	SANF	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
10/10/2005 9:20	SANF	GC-Water	Azinphos Methyl	0.2	ug/L	U	0.2	0.8
10/10/2005 9:20	SANF	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
10/10/2005 9:20	SANF	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
10/10/2005 9:20	SANF	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
10/10/2005 9:20	SANF	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
10/10/2005 9:20	SANF	GC-Water	Diazinon	0.05	ug/L	U	0.05	0.2
10/10/2005 9:20	SANF	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
10/10/2005 9:20	SANF	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
10/10/2005 9:20	SANF	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
10/10/2005 9:20	SANF	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
10/10/2005 9:20	SANF	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
10/10/2005 9:20	SANF	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
10/10/2005 9:20	SANF	GC-Water	Metalaxyl	0.25	ug/L	UJ	0.25	1
10/10/2005 9:20	SANF	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
10/10/2005 9:20	SANF	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
10/10/2005 9:20	SANF	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
10/10/2005 9:20	SANF	GC-Water	Naled	0.8	ug/L	UJ	0.8	3.2
10/10/2005 9:20	SANF	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
10/10/2005 9:20	SANF	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
10/10/2005 9:20	SANF	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
10/10/2005 9:20	SANF	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
10/10/2005 9:20	SANF	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
10/10/2005 9:20	SANF	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
10/10/2005 9:40	SANF BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
10/10/2005 9:40	SANF BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
10/10/2005 9:40	SANF BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
10/10/2005 9:40	SANF BLANK	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
10/10/2005 9:40	SANF BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/10/2005 9:40	SANF BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/10/2005 9:40	SANF BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
10/10/2005 9:40	SANF BLANK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
10/10/2005 9:40	SANF BLANK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
10/10/2005 9:40	SANF BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
10/10/2005 9:40	SANF BLANK	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
10/10/2005 9:40	SANF BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/10/2005 9:40	SANF BLANK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38

Appendix 2. Chemical Analyses (continued)

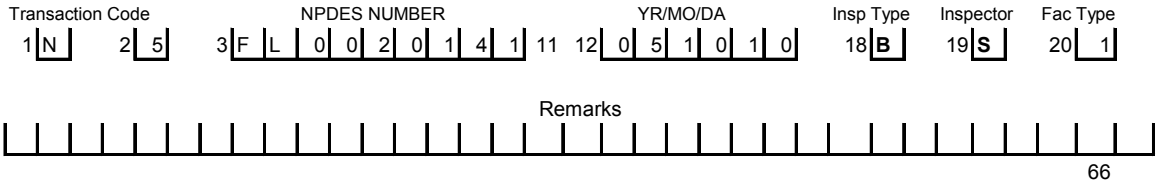
Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
10/10/2005 9:40	SANF BLANK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
10/10/2005 9:40	SANF BLANK	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
10/10/2005 9:40	SANF BLANK	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
10/10/2005 9:40	SANF BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
10/10/2005 9:40	SANF BLANK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
10/10/2005 9:40	SANF BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/10/2005 9:40	SANF BLANK	GC-Water	Naled	0.76	ug/L	UJ	0.76	3
10/10/2005 9:40	SANF BLANK	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
10/10/2005 9:40	SANF BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
10/10/2005 9:40	SANF BLANK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
10/10/2005 9:40	SANF BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
10/10/2005 9:40	SANF BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/10/2005 9:40	SANF BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
10/10/2005 9:20	SANF	Metals-Water	Aluminum	63	ug/L		5	20
10/10/2005 9:20	SANF	Metals-Water	Arsenic	4	ug/L	U	4	16
10/10/2005 9:20	SANF	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
10/10/2005 9:20	SANF	Metals-Water	Calcium	46.1	mg/L		0.05	0.2
10/10/2005 9:20	SANF	Metals-Water	Chromium	2	ug/L	U	2	8
10/10/2005 9:20	SANF	Metals-Water	Copper	1.8	ug/L	I	0.5	2
10/10/2005 9:20	SANF	Metals-Water	Iron	155	ug/L		10	40
10/10/2005 9:20	SANF	Metals-Water	Lead	0.34	ug/L		0.075	0.3
10/10/2005 9:20	SANF	Metals-Water	Magnesium	6.9	mg/L		0.01	0.04
10/10/2005 9:20	SANF	Metals-Water	Nickel	2	ug/L	U	2	8
10/10/2005 9:20	SANF	Metals-Water	Selenium	0.91	ug/L	I	0.5	2
10/10/2005 9:20	SANF	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
10/10/2005 9:20	SANF	Metals-Water	Zinc	14	ug/L		3	12
10/10/2005 9:40	SANF BLANK	Metals-Water	Aluminum	5	ug/L	U	5	20
10/10/2005 9:40	SANF BLANK	Metals-Water	Arsenic	4	ug/L	U	4	16
10/10/2005 9:40	SANF BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
10/10/2005 9:40	SANF BLANK	Metals-Water	Calcium	0.11	mg/L	I	0.05	0.2
10/10/2005 9:40	SANF BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
10/10/2005 9:40	SANF BLANK	Metals-Water	Copper	0.5	ug/L	U	0.5	2
10/10/2005 9:40	SANF BLANK	Metals-Water	Iron	10	ug/L	U	10	40
10/10/2005 9:40	SANF BLANK	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
10/10/2005 9:40	SANF BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
10/10/2005 9:40	SANF BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
10/10/2005 9:40	SANF BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/10/2005 9:40	SANF BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
10/10/2005 9:40	SANF BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
10/10/2005 9:20	SANF	Nutrients-Liquid	Ammonia-N	0.3	mg N/L		0.01	0.02
10/10/2005 9:20	SANF	Nutrients-Liquid	Kjeldahl Nitrogen	2.7	mg N/L	A	0.06	0.2
10/10/2005 9:20	SANF	Nutrients-Liquid	NO2NO3-N	3.9	mg N/L	A	0.08	0.2
10/10/2005 9:20	SANF	Nutrients-Liquid	O-Phosphate-P	0.54	mg P/L		0.04	0.1
10/10/2005 9:20	SANF	Nutrients-Liquid	Total-P	0.75	mg P/L	A	0.02	0.06
10/10/2005 9:20	SANF	Nutrients-Liquid	TSS	4	mg/L	I	4	16
10/10/2005 9:40	SANF BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
10/10/2005 9:40	SANF BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	mg N/L	U	0.06	0.2
10/10/2005 9:40	SANF BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
10/10/2005 9:40	SANF BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
10/10/2005 9:40	SANF BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06

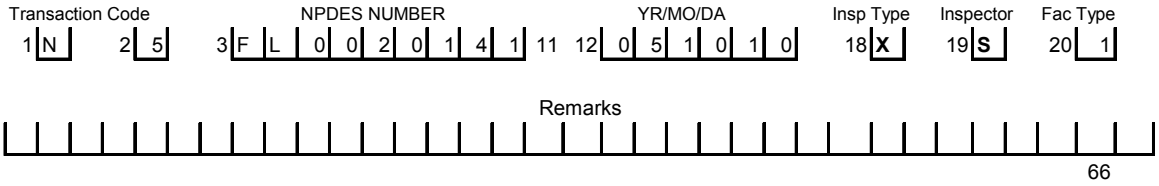
The Bioassay of Sanford/ North Wastewater Treatment Facility effluent sampled on October 10, 2005. NPDES #FL0020141.

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



The Priority Pollutants Analysis of Sanford/ North Wastewater Treatment Facility effluent sampled on October 10, 2005. NPDES #FL0020141.

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



Biological Analyses of Sanford/ North Wastewater Treatment Facility effluent sampled on October 10, 2005. NPDES #FL0020141.

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

