Bioassays of

Camelot Lakes (Camelot Communities)

Sarasota County

NPDES #FL0188999

Sampled December 5, 2005

April 2006

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Camelot Lakes (Camelot Communities), 5580 Axminster Drive, Sarasota, Sarasota County, Florida, NPDES #FL0188999. Effluent samples for this facility were collected on December 5, 2005.

Introduction

Camelot Lakes (Camelot Communities) is a water treatment plant which utilizes the Reverse Osmosis (RO) process to provide potable water to the residents of Camelot Communities. The facility has a design flow of 0.041 million gallons per day (MGD). The average annual daily flow (AADF) from December 2004 through November 2005 was 0.034 MGD. Effluent is not treated prior to being discharged to an on-site stormwater pond through a 0.102 m (4-inch) PVC pipe. Overflow from the pond is discharged into the Class III freshwaters of an unnamed ditch thence into Phillippe Creek. Discharge from the pond is intermittent and rainfall dependent.

The facility is not under any Administrative Orders or Consent Orders. The facility has no mixing zones. During the past year, in March and June 2005, the facility was in violation of the permitted limit for dissolved oxygen (DO) (permit limit ≥ 5.0 mg/L) (facility information provided by Lori Pillsbury of FDEP Southwest District).

Methods

Samples were collected by Lori Pillsbury and Chris Person (FDEP Southwest 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-hour acute screening toxicity tests and Algal Growth Potential (AGP) 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.

This facility's permitted sampling point for toxicity tests is EFF-1, the discharge from the stormwater pond. The flow at this specific sampling point also consists of waters from sources other than the RO discharge. This sampling event was designed to determine the chemical components and potential toxicity of water in the stormwater pond before it mixes with other waters at EFF-1. The toxicity and algal growth potential test samples were collected from the on-site stormwater pond just prior to where the pond overflows and combines with other waters at the permitted sampling point. The EPA suite of chemical analyses was performed on both the stormwater pond samples and RO concentrate samples collected from FLW-1, the point of RO discharge into the pond.

Toxicity Test Results

Tests were performed December 6 - 8, 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 AGP (collected from the stormwater pond) was 48.7 mg dry wt/L of the unicellular freshwater 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 35.3 (±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 bioassay sample (collected from the stormwater pond) in the laboratory. Total ammonia was detected in the bioassay sample in the laboratory at a concentration of 1.275 mg/L. The total ammonia concentrations in the samples collected from the stormwater pond and the RO concentrate that were preserved for chemical analysis were 0.78 mg/L and 0.9 mg/L, respectively. Based on the pH, salinity, and temperature of the samples as collected, the calculated unionized ammonia concentration of each sample was < 0.02 mg/L.

Iron was detected in the stormwater pond sample at levels that comply with Class III freshwater quality criteria. Lead and nickel were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL). Aluminum was also detected in the stormwater pond sample. The pesticide atrazine was detected in the stormwater pond below levels known to cause toxicity in aquatic invertebrates and vertebrates, and the pesticide ametryn was detected in the stormwater pond between the MDL and the PQL.

Iron and silver were detected in the RO concentrate at levels between the MDLs and PQLs. Concentrations of total alpha (34.6 pCi/L) and combined radium 226+228 (16.6 pCi/L) in the RO concentrate exceeded Class III freshwater quality criteria of ≤15 pCi/L (62-302.530(58)(b), F.A.C.) and ≤5 pCi/L (62-302.530(58)(a), F.A.C.), respectively. The specific conductance (1,873 µmhos/cm) also exceeded the Class III freshwater criterion of 1,275 µmhos/cm (62-302.530(58), F.A.C.).

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 the stormwater pond for this facility on December 5, 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 from the stormwater pond 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; dry wt mg/L) of Pseudokirchneriella subcapitata *for total soluble nitrogen (TSIN) and total nitrogen (TN) limitation and ratios of nitrogen to phosphorus for samples collected from Camelot Lakes (Camelot Communities) on December 5, 2005.*

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Camelot Pond	48.7	35.34 ± 7.068	74.1 ± 14.82	4.43	7.5

Table 2. Effluent limits, Class III Freshwater Criteria, and chemical data for samples collected from Camelot Lakes (Camelot Communities) on December 5, 2005.

Camelot Lakes (Camelot Communities) NPDES# FL0188999	Class III Freshwater Stds	Effluent Limits (EFF-1)	Effluent Limits (FLW-1)	Effluent Samples (FLW-1)	Camelot Pond
Organic Constituents (µg/L)					
Ametryn	-	-	-	-	0.057 I
Atrazine	-	-	-	-	0.8
Metals (µg/L unless otherwise noted)					
Aluminum	-	-	-	5 U	114 A
Arsenic	≤ 50	-	-	9.4 U	4 U
Cadmium	≤ 3.4 b	-	-	0.05 U	0.05 U
Calcium (mg/L)	-	-	-	262	77 A
Chromium-III	≤ 268.2 b	-	-	1 U	1 U
Copper	≤ 30.5 b	-	-	3.7 U	3.7 U
Iron	≤ 1,000	-	-	11 I	235 A
Lead	≤ 18.6 b	-	-	0.34	0.16 I
Magnesium (mg/L)	-	-	-	108	28.4 A
Nickel	≤ 168.5 b	-	-	1 U	1.6 I
Selenium	≤ 5	-	-	0.5 U	0.5 U
Silver	≤ 0.07	-	-	0.041 I	0.025 U
Zinc	≤ 387.8 b	-	-	3 U	3 U
Nutrients (mg/L)					
Ortho-phosphate	-	-	-	0.016	0.21
Total Phosphorus	-	-	-	0.02 U	0.26 A
Ammonia	-	-	-	0.9	0.78
Unionized Ammonia	≤ 0.02	-	-	< 0.02	0.01 c
Nitrate+Nitrite	-	-	-	0.004 U	0.15
Total Kjeldahl Nitrogen	-	-	-	1.9	1.8 A
Organic Nitrogen	-	-	-	1 c	1.02 c
Total Nitrogen	-	-	-	1.9 c	1.95 c
General Physical and Chemical Parameters					
Alpha, Total (pCi/L)	≤ 15	≤ 15	-	34.6	4.1
Alpha-Counting Error (pCi/L)	-	-	-	6.4	1.7
Radium 226 (pCi/L)	-	-	-	16.6	3.1
Radium 226-Counting Error (pCi/L)	-	-	-	0.6	0.3
Radium 228 (pCi/L)	-	-	-	0.9 U	0.8 U
Radium 228-Counting Error (pCi/L)	-	-	-	0.6	0.5
Radium 226+228 (pCi/L)	≤ 5	≤ 5	-	16.6 c	3.1 c
Dissolved Oxygen (mg/L)	≥ 5	≥ 5	-	4	8.4
CBOD (mg/L)	-	-	-	1 I	-
pH (S.U.)	6-8.5	6-8.5	-	6.7	7.4
Conductivity (umhos/cm)	≤ 1,275	≤ 1,275	-	1,873	682
Conductivity (Backgound) (umhos/cm)	-	Report p	-	-	-
Temperature (C)	-	-	-	25	20.6
Turbidity (NTU)	≤ 29 t	-	-	0.4	-
TSS (mg/L)		-	-	4 U	-
Chlorophyll *a* (µg/L)	-	-	-	-	0.85 U
Phaeophytin *a* (µg/L)	-	-	-	-	1.5 U
Flow (MGD)	-	-	0.041 d	0.034	-
Hardness (mg/L)	-	-	-	1,099 c	309.2 c

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
d - Daily maximum
p - permited sampling point for this limit is SWB-1
t - Shall not exceed 29 NTUs above background
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 limit.
U - Material analyzed for but not detected; value reported is the minimum detection limit

Appendix 1. Bench Sheets

FDEP Biology Section - Acute Screen Bioassay Bench Sheets

Facility: Camelot Lakes

Address: 5580 Axminster Drive

City: Sarasota County: Sarasota

Contact/District: Lori Pillsbury / Southwest Dist.

NPDES Permit #: FL 0188999

LIMS Job #: TLH-2005-12-06-35 LIMS Sample #: 884306

Lims Data Entry: 12-08-05 MK Data Entry Verification: 12-8-05 SP

Sample Collection: Date: 12-5-05 Time: 1045

Hold Time Start: Date: 12-5-05 Time: 1045

Comments:

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: ____

Temperature Range °C
Incubator # 5 Range 25.1-26.0°C
Room B240: 23.3-24.4°C
Waterbath: N/A

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)

Investigators' Signatures: [signatures]

REVIEWER: [signature]

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		not measured		-	SP
Lab Total Residual Cl2 (mg/L)	<0.03	<0.03				<0.03	HACH	SP	MF
Alkalinity (mg/L as $CaCO_3$)	86	149				111	HACH	GU	SP
Hardness (mg/L as $CaCO_3$)	90	138				311	HACH	GU	SP
Total Ammonia (mg/L as N)	<0.017	<0.017				1.275	DENVER	MF	SP
Salinity (ppth)	<1	<1				<1	YSI / Mettler	SP	MF

V 1.4 9/12/05

Page 000041

Appendix 1. Bench Sheets (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 884368
Test #: 1
Test Started: Date 12-6-05 Time: 1325
Organism: C. dubia
SOP #: TA 07_01
Test Ended: Date 12-8-05 Time: 1300
Organism Batch: 45-05
Diluent/ Batch: DMW , 36-05
Organism Age: <24hrs
Food: YCT *P. subcapitata* *Artemia*
Chamber Size: 30 mL
Batch: 04-05 06-05 —
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: SS		Checked by:	[redacted]	JD	SS			

Loading Verified by: JD

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

Comments:

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).

V 2.1 11/01/2005

Page 000042

Appendix 1. Bench Sheets (continued)

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FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 884368 — Test #: 2 — Test Started: Date 12-6-05 Time: 1305

Organism: C. leedsi — SOP #: TA 07_02 — Test Ended: Date 12-8-05 Time: 1300

Organism Batch: 36-05 — Diluent/ Batch: Well H_2O, 12-5-05

Organism Age: 9 days — Food: YCT — P. subcapitata — Artemia

Chamber Size: 1000 mL — Batch: - — - — GSL-536-90

Test Volume: 500 mL — Feeding: (Prior to test circled) - 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	G17	5	5	5			
	B	G18	5	5	5			
	C	G19	5	5	5			
	D	G20	5	5	5			
100%	A	G21	5	5	5			
	B	G22	5	5	5			
	C	G23	5	5	5			
	D	G24	5	5	5			
Organisms loaded by: JO		Checked by:	[redacted]	JO	JO			

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).

V 2.1 11/01/2005

Page 000043

FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 884368 Test #: 1 of 2

TEST SOP #: TA07_ 01 Test Species: (*Ceriodaphnia dubia*) *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	|	B			
pH (S.U.)	7.8	|	8.2			
Temperature °C	24.1	|	24.0			
Dissolved Oxygen mg/L	7.8	|	7.6			
Conductivity µmhos mmhos	175	|	179			..
(initials) Measured by:	[illegible]		[illegible]			
(initials) Recorded by:	[illegible]		[illegible]			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	|	B			
pH (S.U.)	7.6	|	8.3			
Temperature °C	24.3	|	24.0			
Dissolved Oxygen mg/L	7.4	|	7.7			
Conductivity µmhos mmhos	690	|	707			
(initials) Measured by:	[illegible]		[illegible]			
(initials) Recorded by:	[illegible]		[illegible]			

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:

V 2.0 2/24/04

FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 8843/08 **Test #:** 2 of 2

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

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	8.3			
Temperature °C	24.8	24.1	24.3			
Dissolved Oxygen mg/L	7.4	7.1	7.4			
Conductivity µmhos mmhos	270	297	281			
(initials) Measured by:	JH	CSR	JH			
(initials) Recorded by:	JH	CSR	JH			

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.)	7.6	7.9	8.0			
Temperature °C	24.7	24.0	24.1			
Dissolved Oxygen mg/L	7.3	7.0	7.3			
Conductivity µmhos mmhos	690	725	705			
(initials) Measured by:	JH	CSR	JH			
(initials) Recorded by:	JH	CSR	JH			

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:

V 2.0 2/24/04

Appendix 2. Chemical Analyses performed on the effluent from the Camelot Lakes (Camelot Communities) stormwater pond and RO concentrate (FLW-1), sampled on December 5, 2005.

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 10:45	CAMELOT POND	Bio-AGP/LimNut	Algal Growth Potential	48.7	mg DryWt/L		0.3	0.9
12/5/2005 10:30	RO CONCENTRATE	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1	mg/L	I	0.2	2
12/5/2005 10:45	CAMELOT POND	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
12/5/2005 10:45	CAMELOT POND	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.5	ug/L	U	1.5	4.5
12/5/2005 10:45	CAMELOT POND	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
12/5/2005 10:45	CAMELOT POND	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	UJ	39	160
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Benzidine	97	ug/L	U	97	390

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Diethyl phthalate	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Hexachlorobenzene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	12
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Isophorone	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	12
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
12/5/2005 10:30	RO CONCENTRATE	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
12/5/2005 10:45	CAMELOT POND	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
12/5/2005 10:45	CAMELOT POND	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
12/5/2005 10:45	CAMELOT POND	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
12/5/2005 10:45	CAMELOT POND	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	UJ	38	150
12/5/2005 10:45	CAMELOT POND	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
12/5/2005 10:45	CAMELOT POND	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
12/5/2005 10:45	CAMELOT POND	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Benzidine	95	ug/L	U	95	380
12/5/2005 10:45	CAMELOT POND	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Benzo(a)pyrene	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
12/5/2005 10:45	CAMELOT POND	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
12/5/2005 10:45	CAMELOT POND	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
12/5/2005 10:45	CAMELOT POND	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
12/5/2005 10:45	CAMELOT POND	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
12/5/2005 10:45	CAMELOT POND	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
12/5/2005 10:45	CAMELOT POND	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
12/5/2005 10:45	CAMELOT POND	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
12/5/2005 10:45	CAMELOT POND	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
12/5/2005 10:45	CAMELOT POND	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
12/5/2005 10:45	CAMELOT POND	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
12/5/2005 10:45	CAMELOT POND	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
12/5/2005 10:45	CAMELOT POND	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
12/5/2005 10:45	CAMELOT POND	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
12/5/2005 10:45	CAMELOT POND	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
12/5/2005 10:45	CAMELOT POND	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 10:45	CAMELOT POND	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	11
12/5/2005 10:45	CAMELOT POND	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
12/5/2005 10:45	CAMELOT POND	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
12/5/2005 10:45	CAMELOT POND	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
12/5/2005 12:20	BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
12/5/2005 12:20	BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
12/5/2005 12:20	BLANK	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
12/5/2005 12:20	BLANK	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	UJ	38	150
12/5/2005 12:20	BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
12/5/2005 12:20	BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
12/5/2005 12:20	BLANK	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Benzidine	96	ug/L	U	96	380
12/5/2005 12:20	BLANK	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 12:20	BLANK	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
12/5/2005 12:20	BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
12/5/2005 12:20	BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
12/5/2005 12:20	BLANK	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
12/5/2005 12:20	BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
12/5/2005 12:20	BLANK	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
12/5/2005 12:20	BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
12/5/2005 12:20	BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
12/5/2005 12:20	BLANK	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
12/5/2005 12:20	BLANK	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
12/5/2005 12:20	BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	12
12/5/2005 12:20	BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
12/5/2005 12:20	BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
12/5/2005 12:20	BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
12/5/2005 12:20	BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
12/5/2005 12:20	BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	12
12/5/2005 12:20	BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 12:20	BLANK	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
12/5/2005 12:20	BLANK	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Ametryn	0.049	ug/L	U	0.049	0.2
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Atrazine	0.049	ug/L	U	0.049	0.2
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Chlorpyrifos Ethyl	0.049	ug/L	U	0.049	0.2
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.39
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Diazinon	0.049	ug/L	U	0.049	0.2
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Ethion	0.049	ug/L	U	0.049	0.2
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Ethoprop	0.097	ug/L	U	0.097	0.39
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Fenamiphos	0.19	ug/L	UJ	0.19	0.76
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Fonofos	0.097	ug/L	U	0.097	0.39
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Hexazinone	0.097	ug/L	U	0.097	0.39
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Metolachlor	0.49	ug/L	U	0.49	2
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Metribuzin	0.097	ug/L	U	0.097	0.39
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Naled	0.78	ug/L	U	0.78	3.1
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Parathion Methyl	0.097	ug/L	U	0.097	0.39
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Phorate	0.049	ug/L	U	0.049	0.2
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
12/5/2005 10:30	RO CONCENTRATE	GC-Water	Simazine	0.049	ug/L	U	0.049	0.2
12/5/2005 10:45	CAMELOT POND	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
12/5/2005 10:45	CAMELOT POND	GC-Water	Ametryn	0.057	ug/L	I	0.048	0.19
12/5/2005 10:45	CAMELOT POND	GC-Water	Atrazine	0.8	ug/L		0.048	0.19
12/5/2005 10:45	CAMELOT POND	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
12/5/2005 10:45	CAMELOT POND	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
12/5/2005 10:45	CAMELOT POND	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
12/5/2005 10:45	CAMELOT POND	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
12/5/2005 10:45	CAMELOT POND	GC-Water	Chlorpyrifos Methyl	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
12/5/2005 10:45	CAMELOT POND	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
12/5/2005 10:45	CAMELOT POND	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
12/5/2005 10:45	CAMELOT POND	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
12/5/2005 10:45	CAMELOT POND	GC-Water	Fenamiphos	0.19	ug/L	UJ	0.19	0.76
12/5/2005 10:45	CAMELOT POND	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
12/5/2005 10:45	CAMELOT POND	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
12/5/2005 10:45	CAMELOT POND	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
12/5/2005 10:45	CAMELOT POND	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
12/5/2005 10:45	CAMELOT POND	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
12/5/2005 10:45	CAMELOT POND	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
12/5/2005 10:45	CAMELOT POND	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
12/5/2005 10:45	CAMELOT POND	GC-Water	Naled	0.76	ug/L	U	0.76	3
12/5/2005 10:45	CAMELOT POND	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
12/5/2005 10:45	CAMELOT POND	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
12/5/2005 10:45	CAMELOT POND	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
12/5/2005 10:45	CAMELOT POND	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
12/5/2005 10:45	CAMELOT POND	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
12/5/2005 10:45	CAMELOT POND	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
12/5/2005 12:20	BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
12/5/2005 12:20	BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
12/5/2005 12:20	BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
12/5/2005 12:20	BLANK	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
12/5/2005 12:20	BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
12/5/2005 12:20	BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
12/5/2005 12:20	BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
12/5/2005 12:20	BLANK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
12/5/2005 12:20	BLANK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
12/5/2005 12:20	BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
12/5/2005 12:20	BLANK	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
12/5/2005 12:20	BLANK	GC-Water	Fenamiphos	0.19	ug/L	UJ	0.19	0.76
12/5/2005 12:20	BLANK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
12/5/2005 12:20	BLANK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
12/5/2005 12:20	BLANK	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
12/5/2005 12:20	BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
12/5/2005 12:20	BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
12/5/2005 12:20	BLANK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
12/5/2005 12:20	BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 12:20	BLANK	GC-Water	Naled	0.76	ug/L	U	0.76	3
12/5/2005 12:20	BLANK	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
12/5/2005 12:20	BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
12/5/2005 12:20	BLANK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
12/5/2005 12:20	BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
12/5/2005 12:20	BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
12/5/2005 12:20	BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Aluminum	5	ug/L	U	5	20
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Arsenic	9.4	ug/L	U	9.4	38
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Calcium	262	mg/L		0.25	1
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Chromium	1	ug/L	U	1	4
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Copper	3.7	ug/L	U	3.7	15
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Iron	11	ug/L	I	10	40
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Lead	0.34	ug/L		0.075	0.3
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Magnesium	108	mg/L		0.05	0.2
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Nickel	1	ug/L	U	1	4
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Silver	0.041	ug/L	I	0.025	0.1
12/5/2005 10:30	RO CONCENTRATE	Metals-Water	Zinc	3	ug/L	U	3	12
12/5/2005 10:45	CAMELOT POND	Metals-Water	Aluminum	114	ug/L	A	5	20
12/5/2005 10:45	CAMELOT POND	Metals-Water	Arsenic	4	ug/L	U	4	16
12/5/2005 10:45	CAMELOT POND	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
12/5/2005 10:45	CAMELOT POND	Metals-Water	Calcium	77	mg/L	A	0.05	0.2
12/5/2005 10:45	CAMELOT POND	Metals-Water	Chromium	1	ug/L	U	1	4
12/5/2005 10:45	CAMELOT POND	Metals-Water	Copper	3.7	ug/L	U	3.7	15
12/5/2005 10:45	CAMELOT POND	Metals-Water	Iron	235	ug/L	A	10	40
12/5/2005 10:45	CAMELOT POND	Metals-Water	Lead	0.16	ug/L	I	0.075	0.3
12/5/2005 10:45	CAMELOT POND	Metals-Water	Magnesium	28.4	mg/L	A	0.01	0.04
12/5/2005 10:45	CAMELOT POND	Metals-Water	Nickel	1.6	ug/L	I	1	4
12/5/2005 10:45	CAMELOT POND	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
12/5/2005 10:45	CAMELOT POND	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
12/5/2005 10:45	CAMELOT POND	Metals-Water	Zinc	3	ug/L	U	3	12
12/5/2005 12:20	BLANK	Metals-Water	Aluminum	5	ug/L	U	5	20
12/5/2005 12:20	BLANK	Metals-Water	Arsenic	4	ug/L	U	4	16
12/5/2005 12:20	BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
12/5/2005 12:20	BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2

Appendix 2. Chemical Analyses (continued)

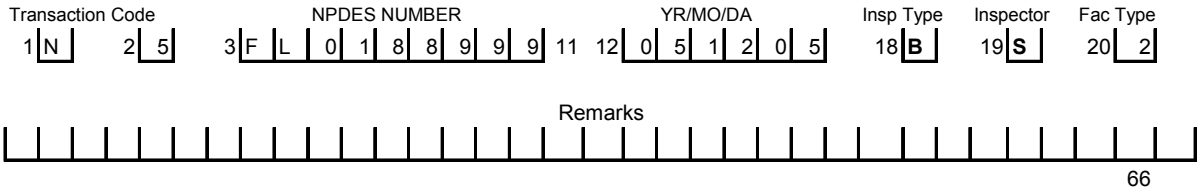
Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 12:20	BLANK	Metals-Water	Chromium	1	ug/L	U	1	4
12/5/2005 12:20	BLANK	Metals-Water	Copper	0.25	ug/L	U	0.25	1
12/5/2005 12:20	BLANK	Metals-Water	Iron	10	ug/L	U	10	40
12/5/2005 12:20	BLANK	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
12/5/2005 12:20	BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
12/5/2005 12:20	BLANK	Metals-Water	Nickel	1	ug/L	U	1	4
12/5/2005 12:20	BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
12/5/2005 12:20	BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
12/5/2005 12:20	BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
12/5/2005 10:30	RO CONCENTRATE	Nutrients-Liquid	Ammonia-N	0.9	mg N/L		0.05	0.1
12/5/2005 10:30	RO CONCENTRATE	Nutrients-Liquid	Kjeldahl Nitrogen	1.9	mg N/L		0.08	0.2
12/5/2005 10:30	RO CONCENTRATE	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
12/5/2005 10:30	RO CONCENTRATE	Nutrients-Liquid	O-Phosphate-P	0.016	mg P/L		0.004	0.01
12/5/2005 10:30	RO CONCENTRATE	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
12/5/2005 10:30	RO CONCENTRATE	Nutrients-Liquid	TSS	4	mg/L	U	4	16
12/5/2005 10:30	RO CONCENTRATE	Nutrients-Liquid	Turbidity	0.4	NTU		0.05	0.05
12/5/2005 10:45	CAMELOT POND	Nutrients-Liquid	Ammonia-N	0.78	mg N/L		0.05	0.1
12/5/2005 10:45	CAMELOT POND	Nutrients-Liquid	Kjeldahl Nitrogen	1.8	mg N/L	A	0.08	0.2
12/5/2005 10:45	CAMELOT POND	Nutrients-Liquid	NO2NO3-N	0.15	mg N/L		0.004	0.01
12/5/2005 10:45	CAMELOT POND	Nutrients-Liquid	O-Phosphate-P	0.21	mg P/L		0.012	0.03
12/5/2005 10:45	CAMELOT POND	Nutrients-Liquid	Total-P	0.26	mg P/L	A	0.02	0.06
12/5/2005 12:20	BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
12/5/2005 12:20	BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
12/5/2005 12:20	BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
12/5/2005 12:20	BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
12/5/2005 12:20	BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
12/5/2005 10:30	RO CONCENTRATE	Overflow	Alpha, Total	34.6	pCi/L			
12/5/2005 10:30	RO CONCENTRATE	Overflow	Alpha-Counting Error	6.4	pCi/L			
12/5/2005 10:30	RO CONCENTRATE	Overflow	Radium 226	16.6	pCi/L			
12/5/2005 10:30	RO CONCENTRATE	Overflow	Radium 226-Counting Error	0.6	pCi/L			
12/5/2005 10:30	RO CONCENTRATE	Overflow	Radium 228	0.9	pCi/L	U		
12/5/2005 10:30	RO CONCENTRATE	Overflow	Radium 228-Counting Error	0.6	pCi/L			
12/5/2005 10:45	CAMELOT POND	Overflow	Alpha, Total	4.1	pCi/L			
12/5/2005 10:45	CAMELOT POND	Overflow	Alpha-Counting Error	1.7	pCi/L			
12/5/2005 10:45	CAMELOT POND	Overflow	Radium 226	3.1	pCi/L			
12/5/2005 10:45	CAMELOT POND	Overflow	Radium 226-Counting Error	0.3	pCi/L			
12/5/2005 10:45	CAMELOT POND	Overflow	Radium 228	0.8	pCi/L	U		

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
12/5/2005 10:45	CAMELOT POND	Overflow	Radium 228-Counting Error	0.5	pCi/L			
12/5/2005 12:20	BLANK	Overflow	Alpha, Total	1	pCi/L	U		
12/5/2005 12:20	BLANK	Overflow	Alpha-Counting Error	0.5	pCi/L			
12/5/2005 12:20	BLANK	Overflow	Radium 226	0.2	pCi/L	U		
12/5/2005 12:20	BLANK	Overflow	Radium 226-Counting Error	0.1	pCi/L			
12/5/2005 12:20	BLANK	Overflow	Radium 228	0.9	pCi/L	U		
12/5/2005 12:20	BLANK	Overflow	Radium 228-Counting Error	0.5	pCi/L			

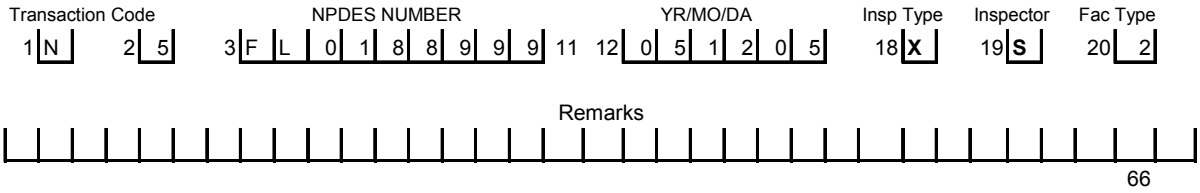
The Bioassay of Camelot Lakes (Camelot Communities) effluent sampled on December 5, 2005. NPDES #FL0188999.

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



The Priority Pollutants Analysis of Camelot Lakes (Camelot Communities) effluent sampled on December 5, 2005. NPDES #FL0188999.

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



Biological Analyses of Camelot Lakes (Camelot Communities) effluent sampled on December 5, 2005. NPDES #FL0188999.

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