APPENDIX E

BIGGS STUDY AREA

WATER QUALITY DATA

APPENDIX E: BIGGS STUDY AREA WATER QUALITY DATA

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NOTE:

- Values reported as <##, < Reporting Limit was used.
- For *E. coli*, values reported as >2419.6 was used for evaluation.
- For summary calculations, one fourth of any < (less than) values were used.
- Reporting Limit values vary between labs depending on dilution factor, EPA method, and/or laboratory.
- Summary calculations are based on raw data values.

E 1: Butte Creek, upstream near Nelson Road (520BUT902)

	Field Data					Bacteria	General Chemistry								Inorganics		
Date	Dissolved Oxygen mg/L	pH	Water Temperature °C	Turbidity ntu	Specific Conductivity µS/cm	*E. coli* MPN	Ammonia as N mg/L	Boron µg/L	Chloride mg/L	Fluoride mg/L	Perchlorate mg/L	Sodium mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Total Calcium mg/L	Total Hardness mg/L	Total Magnesium mg/L
4/19/2012	14.9	7.74	11.9	1.9	89			< 50.				3.2					
5/9/2012	9.50	7.80	16.5	3.6	87												
5/24/2012	11.1	7.74	15.6	6.0	120			< 50.				8.4					
6/7/2012	10.0	7.73	15.5	2.1	100												
6/26/2012	8.95	7.71	17.7	3.5	140			30.				4.2					
7/12/2012	8.57	7.85	20.2	3.3	140												
7/26/2012	8.26	7.83	19.9	5.0	140			< 50.				4.3				70	
8/13/2012	7.99	7.53	20.3	3.1	150	25.9											
8/29/2012	9.18	7.64	16.3	4.2	160	42.8		< 50.				4.5			13.5	67	79.9
9/12/2012	7.72	7.61	19.1	3.2	170	43.2											
9/26/2012	9.39	7.78	16.8	3.7	120	52.0	< 1	< 50.	1.0	< 0.10	< 4.0	4.4	< 2.0	76	12	53	6
10/11/2012	9.74	7.88	15.3	3.0	110	52.1											
10/30/2012	11.1	7.81	12.9	2.6	100		< 1	30.	1.0			4.2	2.2	72	11	47	4.9
11/15/2012	11.2	7.79	11.3	3.2	110	20.1											
11/27/2012	12.2	7.37	10.1	2.2	110		< 0.1	23	1.3			4.0	2.4	62		44	
12/13/2012	13.4	8.20	7.35	4.1	100	28.5											
12/27/2012	12.6	7.95	7.03	20	92			17				3.0			8.4	40	4.6
1/10/2013	14.6	8.14	5.82	3.2	100	25.6											
1/30/2013	13.4	7.80	5.70	3.0	100		< 0.1	19	1.3	< 0.10	< 2.0	3.2	< 2.0	58	9	40	4.3
2/14/2013	13.4	8.27	6.43	2.5	110	37.3											
2/26/2013	13.7	7.80	6.15	1.7	100		0.1	23	1.3			3.5	< 2.0	120	10	46	4.9
3/14/2013	11.2	8.35	10.5	2.3	92	19.9											
3/28/2013	11.5	7.81	11.0	2.4	81		< 0.1	23	1.3	< 0.10	< 2.0	2.8	< 2.0	57	8.2	120	3.6
4/25/2013	9.02	8.04	15.7	4.2	100	150	0.1		1.1			3.4	< 2.0	67	9.5	42	4.4
5/21/2013	8.74	7.63	18.3	3.0	120	73.3	< 0.1		1.2			4.1	2.7	84	12	54	5.8
6/20/2013	9.30	7.73	19.2	4.6	140	48.0	< 0.1		1.4	< 0.10	< 2.0	4.6	3.1	94	14	63	7
7/25/2013		7.96	21.6	6.5	210	31.5	0.1		1.7			5.8	5.2	130	19	96	12
8/29/2013	8.60	7.56	19.2	5.7	150	137	< 0.1		1.5			4.9	3.6	100	14	67	7.7
9/26/2013		7.73	15.9	3.9	120	21.6	< 0.1		1.7	< 0.10	< 2.0	4.1	2.6	82	11	49	5.2
Count	26	28	28	28	28	16	12	11	12	5	5	17	12	12	13	15	13
Min	7.72	7.37	5.70	1.7	81	19.9	< 0.1	17	1.0	< 0.10	< 2.0	2.8	< 2.0	57	8	40	4
Max	14.9	8.35	21.6	20	210	150.	< 1	< 50.	1.7	< 0.10	< 4.0	8.4	5.2	130	19	120	80
Median	10.0	7.80	15.6	3.2	110	40.1	< 0.1	30	1.3	< 0.10	< 2.0	4.2	2.3	79	11	53	5
Mean	10.7	7.82	14.1	4.0	120	50.6	0.1	18.9	1.3	< 0.10	0.60	4.3	2.0	84	12	60	12

E 1: Butte Creek, upstream near Nelson Road (520BUT902) continued…

	Nutrients		Metals									
	Nitrate as N	Nitrite as N	Dissolved Aluminum	Dissolved Arsenic	Dissolved Iron	Dissolved Manganese	Total Aluminum	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium
Date	mg/L		µg/L									
4/19/2012	0.14	< 0.15					95		< 10			
5/9/2012												
5/24/2012	0.17	< 0.15					130		< 10			
6/7/2012												
6/26/2012	< 0.11	< 0.15					110		< 1			
7/12/2012												
7/26/2012	< 0.11						150		< 10			
8/13/2012							130					
8/29/2012	0.12						133		< 10			
9/12/2012												
9/26/2012	< 0.11		< 50.	< 10	28.8	< 10.	140	< 5	< 1	16	< 1	< 1
10/11/2012												
10/30/2012	< 0.20			< 10					< 1			
11/15/2012												
11/27/2012	< 0.10			0.5					0.6			
12/13/2012												
12/27/2012	0.23								0.6			
1/10/2013												
1/30/2013	< 0.22		< 5.0	0.3	< 10.0	3.4	56	< 0.5	0.4	5.6	< 0.5	< 0.3
2/14/2013												
2/26/2013	< 0.22			0.4					0.4			
3/14/2013												
3/28/2013	< 0.22		< 5.0	0.3	< 10.0	< 1.0	100	< 0.5	0.3	4.8	< 0.5	< 0.3
4/25/2013				0.4					0.5			
5/21/2013				0.5					0.5			
6/20/2013			< 5.0	0.6	< 10.0	1.1	220	< 0.5	0.7	16	< 0.5	< 0.3
7/25/2013				1					1			
8/29/2013				0.6					0.7			
9/26/2013			< 5.0	0.6	15.0	< 1.0	210	< 0.5	0.6	16	< 0.5	< 0.3
Count	11	2	5	12	5	5	9	5	17	5	5	5
Min	< 0.10	< 0.15	< 5.0	0.3	< 10.0	< 1.0	56	< 0.5	0.3	4.8	< 0.5	< 0.25
Max	0.23	< 0.15	< 50.	< 10	28.8	< 10.	220	< 5	< 10	16	< 1	< 1.0
Median	0.16	< 0.15	< 5.0	0.5	< 10.0	1.1	130	< 0.5	0.7	16	< 0.5	< 0.25
Mean	0.073	< 0.15	3.5	0.8	10.3	1.5	130	0.4	0.9	12	0.2	0.10

E 1: Butte Creek, upstream near Nelson Road (520BUT902) continued…

	Metals												
	Total Chromium	Total Copper	Total Iron	Total Lead	Total Manganese	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc
Date	µg/L												
4/19/2012			11.2		7.3								
5/9/2012													
5/24/2012			199		24								
6/7/2012													
6/26/2012			150		25								
7/12/2012													
7/26/2012			188		37								
8/13/2012													
8/29/2012			194		33								
9/12/2012													
9/26/2012	< 5	< 5	160	< 1	19	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	< 5.0
10/11/2012													
10/30/2012													
11/15/2012													
11/27/2012													
12/13/2012													
12/27/2012													
1/10/2013													
1/30/2013	< 0.5	0.5	73	< 0.1	8.8	< 0.2		< 1.0	< 1.0	< 1	< 1.0		< 5.0
2/14/2013													
2/26/2013													
3/14/2013													
3/28/2013	0.6	0.5	120	< 0.1	7.0	< 0.2		< 1.0	< 1.0	< 1	< 1.0		< 5.0
4/25/2013													
5/21/2013													
6/20/2013	0.8	1.0	230	< 0.1	32	< 0.2		1.3	< 1.0	< 1	< 1.0		< 5.0
7/25/2013													
8/29/2013													
9/26/2013	0.7	0.9	230	0.3	19	< 0.2		1.2	< 1.0	< 0.3	< 1.0		2.4
Count	5	5	9	5	9	5	1	5	5	5	5	1	5
Min	< 0.5	0.5	11.2	< 0.1	7.0	< 0.2	< 5.0	< 1.0	< 1.0	0.3	< 1.0	< 10.0	2.4
Max	< 5	< 5	230	< 1	37	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	< 5.0
Median	0.7	0.9	174	< 0.1	21	< 0.2	< 5.0	1.2	< 1.0	< 1	< 1.0	< 10.0	< 5.0
Mean	0.7	0.8	156	0.1	21	< 0.2	< 5.0	0.9	1.2	0.4	< 1.0	< 10.0	1.5

E 1: Butte Creek, upstream near Nelson Road (520BUT902) continued…

	Organics															
Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane (TCA)	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane (123TCP)	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (1,2-DCA)	1,2-Dichloropropane
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/9/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5		< 0.5

E 1: Butte Creek, upstream near Nelson Road (520BUT902) continued…

	Organics															
Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Isopropyltoluene	4-Methyl-2-pentanone	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
5/9/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5		< 0.5				< 10	< 5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	5			< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	5	5	5	4	5	4	5	2	4	4	1	1	5	5
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5

E 1: Butte Creek, upstream near Nelson Road (520BUT902) continued…

	Organics															
Date	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Di-isopropyl ether
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/9/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

E 1: Butte Creek, upstream near Nelson Road (520BUT902) continued…

	Organics															
Date	Ethanol	Ethyl tert-Butyl Ether	Ethylbenzene	Gasoline Range Hydrocarbons	Hexachlorobutadiene	Hexavalent Chromium	Iodomethane	Isopropylbenzene	m,p-Xylene	MBAs	Methylene chloride	Methyl-tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
	µg/L															
4/19/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
5/9/2012																
5/24/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012			< 0.5		< 0.5			< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	58.2	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012						8.4										
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	4	4	5	2	5	1	4	5	5	5	5	1	5	5	5	5
Min	< 20	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Max	58.2	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 20	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Mean	18.3	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5		< 0.1		< 1	< 0.5	< 0.5	< 0.5	< 0.5

E 1: Butte Creek, upstream near Nelson Road (520BUT902) continued…

	Organics															
Date	Perchlorate	p-Isopropyltoluene	sec-Butylbenzene	Styrene	TBA	Tert-Amyl Methyl Ether	tert-Butylbenzene	Tetrachlorethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Trichlorotrifluoroethane	Vinyl chloride	Xylenes, total
	µg/L															
4/19/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
5/9/2012																
5/24/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
6/7/2012																
6/26/2012		< 0.5	< 10				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	
7/12/2012																
7/26/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
8/13/2012																
8/29/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
9/12/2012																
9/26/2012	< 4															
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013	< 2															
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013	< 2															
4/25/2013																
5/21/2013																
6/20/2013	< 2															
7/25/2013																
8/29/2013																
9/26/2013	< 2															
Count	5	3	5	4	4	4	5	5	5	5	5	5	4	4	5	4
Min	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Max	< 4	< 0.5	< 10	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Median	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Mean		< 0.5		< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104)

	Field Data					Bacteria	General Chemistry								Inorganics		
	Dissolved Oxygen	pH	Water Temperature	Turbidity	Specific Conductivity	*E. coli*	Ammonia as N	Boron	Chloride	Fluoride	Perchlorate	Sodium	Sulfate	Total Dissolved Solids	Total Calcium	Total Hardness	Total Magnesium
Date	mg/L		°C	ntu	µS/cm	MPN	mg/L	µg/L	mg/L								
5/9/2012*	5.20	7.70	21.1	41	255												
5/24/2012	7.32	7.83	24.3	31	223			< 50.				29					
6/7/2012	6.96	7.58	22.4	25	246												
6/26/2012	6.83	7.86	22.2	26	236			49				12					
7/12/2012	4.64	7.57	27.9	21	271												
7/26/2012	6.83	7.73	27.6	16	274			< 50.				11				112	
8/13/2012	6.51	7.71	26.7	12	246	26.5											
8/29/2012	6.87	8.07	24.7	15	384	83.3		72				20.			23.5	120	16
9/12/2012	3.92	7.58	23.5	11	298	40.4											
9/26/2012	4.09	7.71	22.5	11	374	14.8	8	75	12	0.10	< 4.0	26	2.6	230	28	150	20
10/11/2012	8.41	7.90	20.4	13	341	38.3											
10/30/2012	6.19	7.86	17.3	18	288		1	61	9.6			18	5.9	170	24	120	16
11/15/2012	8.57	7.99	12.5	8.6	269	98.7											
11/27/2012	6.42	7.34	11.8	15	254		0.1	31	6.6			13	7.8	150		100	
12/13/2012	8.22	7.71	10.1	20	207	60.5											
12/27/2012	10.0	7.78	7.99	47	131			25				6.7			10	52	6.4
1/10/2013	11.5	8.10	7.36	36	238	37.3											
1/30/2013	10.1	7.80	10.2	25	269		< 0.1	35	5.2	0.10	< 2.0	15	5.3	160	21	110	14
2/14/2013	10.9	8.22	11.9	45	353	40.8											
2/26/2013	10.4	7.92	11.1	29	321		0.1	33	8.1			17	6.0	220	25	130	17
3/14/2013	8.12	8.20	17.5	17	322	21.3											
3/28/2013	8.47	7.79	16.6	17	279		< 0.1	33	4.5	< 0.10	< 2.0	15	4.0	160	22	120	15
4/25/2013	6.33	7.70	19.8	18	306	63.7	0.2		12			17	5.7	170	24	120	15
5/21/2013	6.11	7.50	22.9	12	261	147	< 0.1		6.6			13	9.4	160	20	100	12
6/20/2013	6.80	8.16	24.4	22	272	291	0.1		5.5	0.12	< 2.0	14	7.1	170	22	110	14
7/25/2013		8.36	29.7	14	283	47.3	0.1		4.6			11	8.7	170	23	120	14
8/29/2013	6.61	7.54	24.6	20	318	15.6	0.2		8.0			19	4.5	210	24	120	16
9/26/2013		7.70	19.9	23	332	9.6	0.2		11	< 0.10	< 2.0	17	4.5	200	24	120	15
Count	26	28	28	28	28	16	12	11	12	5	5	17	12	12	13	15	13
Min	3.92	7.34	7.36	8.6	131	9.60	< 0.1	25	4.5	< 0.10	< 2.0	6.7	2.6	150	10	52	6
Max	11.5	8.36	29.7	47	384	291	8	75	12	0.12	< 4.0	29	9.4	230	28	150	20
Median	6.85	7.79	20.8	19	273	40.6	0.1	49	7.3	0.10	< 2.0	15	5.8	170	24	120	15
Mean	7.40	7.82	19.2	22	280	64.7	0.9	40.	7.8	0.074	0.60	16	6.0	180	22	114	15

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104) continued…

	Nutrients		Metals									
	Nitrate as N	Nitrite as N	Dissolved Aluminum	Dissolved Arsenic	Dissolved Iron	Dissolved Manganese	Total Aluminum	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium
Date	mg/L		µg/L									
5/9/2012*												
5/24/2012	0.17	< 0.15					1700		< 10.			
6/7/2012												
6/26/2012	< 0.11	< 0.15					350		3.7			
7/12/2012												
7/26/2012	0.21						210		< 10.			
8/13/2012												
8/29/2012	< 0.11						530		< 10.			
9/12/2012												
9/26/2012	< 0.11		< 50.	< 10.	96.8	150	350	< 5	6.3	82	< 1	< 1.0
10/11/2012												
10/30/2012	0.24			< 10.					4.0			
11/15/2012												
11/27/2012	< 0.10			2.5					3.5			
12/13/2012												
12/27/2012	0.20								1.9			
1/10/2013												
1/30/2013	< 0.22		8.3	2.1	72.0	2.4	1200	< 0.5	3.0	59	< 0.5	< 0.25
2/14/2013												
2/26/2013	< 0.22			2.5					3.4			
3/14/2013												
3/28/2013	< 0.22		6.6	2.9	23.0	< 1.0	620	< 0.5	3.5	52	< 0.5	< 0.25
4/25/2013				5.3					5.8			
5/21/2013				3.3					3.7			
6/20/2013			9.3	4.2	19.0	< 1.0	860	< 0.5	4.8	64	< 0.5	< 0.25
7/25/2013				3.8					4.1			
8/29/2013	< 0.22			3.1					3.5			
9/26/2013			< 5.0	4.5	78.0	25	790	< 0.5	5.2	75	< 0.5	< 0.50
Count	12	2	5	12	5	5	9	5	17	5	5	5
Min	< 0.10	< 0.15	< 5.0	2.1	19.0	< 1.0	209	< 0.5	1.9	52	< 0.5	< 0.25
Max	0.24	< 0.15	< 50.0	< 10.0	96.8	148.7	1660	< 5.0	< 10.0	82	< 1	< 1.0
Median	0.21	< 0.15	8.3	3.6	72.0	2.4	620	< 0.5	4.0	64	< 0.5	< 0.25
Mean	0.09	< 0.15	7.6	4.2	57.8	35.3	730	0.4	3.8	66	0.2	0.11

*5/9/12 sample is from Butte Slough near Meridian

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104) continued…

	Metals												
	Total Chromium	Total Copper	Total Iron	Total Lead	Total Manganese	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc
Date	µg/L												
5/9/2012*													
5/24/2012			1700		100								
6/7/2012													
6/26/2012			670		69								
7/12/2012													
7/26/2012			320		59								
8/13/2012													
8/29/2012			690		81								
9/12/2012													
9/26/2012	< 5.0	< 5.0	1600	< 1	320	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	< 5.0
10/11/2012													
10/30/2012													
11/15/2012													
11/27/2012													
12/13/2012													
12/27/2012													
1/10/2013													
1/30/2013	2.9	3.3	1700	0.5	74	< 0.2		< 1.0	< 1.0	< 1	< 1.0		< 5.0
2/14/2013													
2/26/2013													
3/14/2013													
3/28/2013	1.8	2.0	860	0.4	91	< 0.2		3.1	< 1.0	< 1	< 1.0		< 5.0
4/25/2013													
5/21/2013													
6/20/2013	2.3	4.1	1100	0.4	89	< 0.2		5.2	< 1.0	< 1	< 1.0		< 5.0
7/25/2013													
8/29/2013													
9/26/2013	2.2	2.4	1500	0.5	430	< 0.2		4.9	< 2.0	< 0.5	< 2.0		3.9
Count	5	5	9	5	9	5	1	5	5	5	5	1	5
Min	1.8	2.0	321	0.4	59	< 0.2	< 5.0	< 1.0	< 1.0	< 0.5	< 1.0	< 10.0	3.9
Max	< 5.0	< 5.0	1700	< 1.0	430	< 0.2	< 5.0	5.2	< 20.	< 5	< 2.0	< 10.0	< 5.0
Median	2.3	3.3	1100	0.5	89	< 0.2	< 5.0	4.9	< 1.0	< 1	< 1.0	< 10.0	< 5.0
Mean	2.1	2.6	1125	0.4	150	< 0.2	< 5.0	2.9	1.3	0.4	0.30	< 10.0	1.8

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104) continued…

	Organics																
Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane (TCA)	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane (123TCP)	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (1,2-DCA)	1,2-Dichloropropane
	µg/L															
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
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3/28/2013																
4/25/2013																
5/21/2013																
5/22/2013																
5/23/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5		< 0.5

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104) continued…

	Organics															
Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Isopropyltoluene	4-Methyl-2-pentanone	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene
	µg/L															
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 0.5					< 0.5				< 10	< 5	< 0.5	
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
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4/25/2013																
5/21/2013																
5/22/2013																
5/23/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	4	4	4	4	3	3	3	3	4	1	3	3	1	1	4	3
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104) continued…

	Organics															
Date	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Di-isopropyl ether
	µg/L															
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
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4/25/2013																
5/21/2013																
5/22/2013																
5/23/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	4	4	4	4	4	4	4	4	4	3	4	4	4	4	3	3
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104) continued…

	Organics															
Date	Ethanol	Ethyl tert-Butyl Ether	Ethylbenzene	Gasoline Range Hydrocarbons	Hexachlorobutadiene	Hexavalent Chromium	Iodomethane	Isopropylbenzene	m,p-Xylene	MBAs	Methylene chloride	Methyl-tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
	µg/L															
5/24/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012			< 0.5		< 0.5			< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012						8.4										
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
5/22/2013																
5/23/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	3	3	4	1	4	1	3	4	4	4	4	1	4	4	4	4
Min	< 20	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 20	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 20	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 20	< 0.5	< 0.5	< 50	< 0.5	8.4	< 0.5	< 0.5		< 0.1		< 1	< 0.5	< 0.5	< 0.5	< 0.5

E 2: Butte Slough, downstream of effluent at Farmlan (520COL104) continued…

	Organics															
Date	Perchlorate	p-Isopropyltoluene	sec-Butylbenzene	Styrene	TBA	Tert-Amyl Methyl Ether	tert-Butylbenzene	Tetrachlorethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Trichlorotrifluoroethane	Vinyl chloride	Xylenes, total
	µg/L															
5/24/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
6/7/2012																
6/26/2012			< 10				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	
7/12/2012																
7/26/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
8/13/2012																
8/29/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
9/12/2012																
9/26/2012	< 4															
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013	< 2															
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013	< 2															
4/25/2013																
5/21/2013																
5/22/2013																
5/23/2013																
6/20/2013	< 2															
7/25/2013																
8/29/2013																
9/26/2013	< 2															
Count	5	2	4	3	3	3	4	4	4	4	4	4	3	3	4	3
Min	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Max	< 4	< 0.5	< 10	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Median	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Mean		< 0.5		< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1

E 3: Main Drainage Canal, downstream of effluent (520BUT001)

	Field Data					Bacteria	General Chemistry								Inorganics		
	Dissolved Oxygen	pH	Water Temperature	Turbidity	Specific Conductivity	*E. coli*	Ammonia as N	Boron	Chloride	Fluoride	Perchlorate	Sodium	Sulfate	Total Dissolved Solids	Total Calcium	Total Hardness	Total Magnesium
Date	mg/L		°C	ntu	µS/cm	MPN	mg/L	µg/L	mg/L								
4/19/2012	9.16	8.56	21	28.7	533			< 50.				22					
5/10/2012	7.48	7.82	20.	176	386												
5/24/2012	8.89	7.69	19	39.5	174			< 50.				15					
6/7/2012	7.29	7.68	21	17.8	215												
6/26/2012	7.74	7.54	21	20.5	202			32				7.2					
7/12/2012	6.62	7.41	26	16.5	218												
7/26/2012	6.71	7.33	23	17.0	241			< 50.				7.3				108	
8/13/2012	7.24	7.46	23	17.7	225	326											
8/29/2012	7.64	7.36	20.	18.3	212	127		< 50.				7.0			17.7	91	11.5
9/12/2012	8.80	7.54	19	16.5	203	110											
9/26/2012	8.41	7.64	19	17.7	199	238	< 1	< 50.	1.8	< 0.10	< 4.0	7.2	3.9	92	18	92	11
10/11/2012	10.0	7.93	17	20.4	207	326											
10/30/2012	9.02	7.96	15	22.9	273		< 1	32	3.9			11	8.4	160	26	130	16
11/15/2012	9.59	7.49	12	18.0	185	131											
11/27/2012	6.83	7.32	12	43.3	268		0.1	27	4.3			12	8.9	140		106	
12/13/2012	10.3	7.67	9.9	72.3	281	65.7											
12/27/2012	10.8	7.60	7.7	66.2	245			27				10.			20	110	15
1/10/2013	11.8	7.65	7.2	66.2	276	29.2											
1/30/2013	11.2	7.69	10.	46.1	398		0.1	29	4.5	0.14	< 2.0	14	11	260	34	190	25
2/14/2013	10.2	7.81	12	95.0	463	38.8											
2/26/2013	11.5	8.17	12	53.7	525		0.1	36	6.5			20.	19	340	49	270	35
3/14/2013	9.74	8.02	17	25.2	547	88.4											
3/28/2013	10.5	8.16	17	29.6	521		0.1	43	6.2	0.12	< 2.0	20.	16	310	47	250	33
4/25/2013	6.70	7.60	18	62.9	162	308	0.2		2.1			6.7	4.9	100	15	77	9.8
5/21/2013	7.74	7.55	21	8.8	229	326	< 0.1		2.6			8.1	6.9	140	21	110	13
6/20/2013	7.52	7.49	22	13.8	222	140	< 0.1		3.0	0.11	< 2.0	7.4	5.5	130	20	100	13
7/25/2013		7.98	26	10.1	242	96	0.1		2.6			7.5	6.8	140	21	110	14
8/29/2013	7.17	7.39	21	20.3	214	219	0.2		2.1			7.5	3.9	140	19	96	12
9/26/2013		7.96	17	11.9	205	119	< 0.1		2.7	< 0.10	< 20.	6.9	5.2	120	17	84	10
Count	27	29	29	29	29	16	12	12	12	5	5	18	12	12	13	15	13
Min	6.62	7.32	7.2	8.82	162	29.2	< 0.1	27	1.8	< 0.10	< 2.0	6.7	3.9	92	15	77	10
Max	11.8	8.56	26	176	547	326	< 1	< 50.	6.5	0.14	< 20.	22	19	340	49	270	35
Median	8.80	7.65	19	20.5	229	129	0.1	40.	2.9	0.11	< 2.0	7.8	6.9	140	20	108	13
Mean	8.76	7.71	17	37.0	285	168	0.1	24	3.5	0.08	1.5	11	8.4	170	25	128	17

E 3: Main Drainage Canal, downstream of effluent (520BUT001) continued…

	Nutrients		Metals									
	Nitrate as N	Nitrite as N	Dissolved Aluminum	Dissolved Arsenic	Dissolved Iron	Dissolved Manganese	Total Aluminum	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium
Date	mg/L		µg/L									
4/19/2012	0.29	< 0.15					1600		< 10.			
5/10/2012												
5/24/2012	0.16	< 0.15					1100		< 10.			
6/7/2012												
6/26/2012	< 0.11	< 0.15					1000		2.9			
7/12/2012												
7/26/2012	< 0.11						350		< 10.			
8/13/2012												
8/29/2012	0.12						530		< 10.			
9/12/2012												
9/26/2012	0.12		< 50.	< 10.	38	17	650	< 5	2.3	45	< 1	< 1.0
10/11/2012												
10/30/2012	0.34			< 10.					3.2			
11/15/2012												
11/27/2012	< 0.10			3.4					4.4			
12/13/2012												
12/27/2012	0.52								4.0			
1/10/2013												
1/30/2013	0.53		5.0	4.5	28	< 1.0	2700	< 0.5	5.8	120	< 0.5	< 0.25
2/14/2013												
2/26/2013	0.55			6.4					7.0			
3/14/2013												
3/28/2013	0.26		< 5.0	8.0	5.3	4.0	1200	< 0.5	8.2	110	< 0.5	< 0.25
4/25/2013				2.4					3.2			
5/21/2013				2.7					2.8			
6/20/2013			10.	2.8	23	3.9	410	< 0.5	3.3	66	< 0.5	< 0.25
7/25/2013				2.8					3.2			
8/29/2013				1.7					2.1			
9/26/2013			< 5.0	2.3	24	< 1.0	510	< 0.5	2.3	43	< 0.5	< 0.25
Count	12	3	5	12	5	5	10	5	18	5	5	5
Min	< 0.10	< 0.15	< 5.0	1.7	5.3	< 1.0	350	< 0.5	2.1	43	< 0.5	< 0.25
Max	0.55	< 0.15	< 50.	< 10.	38	17	2700	< 5	< 10.	120	< 1	< 1.0
Median	0.21	< 0.15	5.0	3.1	24	3.9	830	< 0.5	3.7	66	< 0.5	< 0.25
Mean	0.25	< 0.15	6.0	3.5	24	5.1	1000	0.4	3.6	77	0.2	0.10

E 3: Main Drainage Canal, downstream of effluent (520BUT001) continued…

	Metals												
	Total Chromium	Total Copper	Total Iron	Total Lead	Total Manganese	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc
Date	µg/L												
4/19/2012			1300		280								
5/10/2012													
5/24/2012			1100		140								
6/7/2012													
6/26/2012			1400		100								
7/12/2012													
7/26/2012			420		97								
8/13/2012													
8/29/2012			730		77								
9/12/2012													
9/26/2012	< 5.0	< 5.0	860	< 1	74	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	10.0	< 5.0
10/11/2012													
10/30/2012													
11/15/2012													
11/27/2012													
12/13/2012													
12/27/2012													
1/10/2013													
1/30/2013	6.0	5.3	2900	0.9	150	< 0.2		7.8	< 1.0	< 1	< 1.0		7.2
2/14/2013													
2/26/2013													
3/14/2013													
3/28/2013	3.8	3.4	1300	0.7	250	< 0.2		4.5	< 1.0	< 1	< 1.0		5.3
4/25/2013													
5/21/2013													
6/20/2013	2.0	3.9	800	0.3	80	< 0.2		4.3	< 1.0	< 1	< 1.0		< 5.0
7/25/2013													
8/29/2013													
9/26/2013	1.6	1.5	580	0.3	51	< 0.2		2.3	< 1.0	< 0.3	< 1.0		2.7
Count	5	5	10	5	10	5	1	5	5	5	5	1	5
Min	1.6	1.5	421	0.3	51	< 0.2	< 5.0	2.3	< 1.0	< 0.3	< 1.0	10.0	2.7
Max	6.0	5.3	2900	< 1	280	< 0.2	< 5.0	7.8	< 20.	< 5	< 1.0	10.0	7.2
Median	3.8	3.9	960	0.7	99	< 0.2	< 5.0	4.5	< 1.0	< 1	< 1.0	10.0	< 5.0
Mean	2.9	3.1	1100	0.5	130	< 0.2	< 5.0	4.0	1.2	0.4	< 1.0	10.0	3.5

E 3: Main Drainage Canal, downstream of effluent (520BUT001) continued…

	Organics															
Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane (TCA)	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane (123TCP)	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (1,2-DCA)	1,2-Dichloropropane
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/10/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5				< 0.5		< 0.5

E 3: Main Drainage Canal, downstream of effluent (520BUT001) continued…

Date	Organics															
	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Isopropyltoluene	4-Methyl-2-pentanone	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
5/10/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 0.5					< 0.5				< 10	< 5	< 0.5	
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	5	5	4	4	4	4	5	2	4	4	1	1	5	4
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5

E 3: Main Drainage Canal, downstream of effluent (520BUT001) continued…

	Organics															
Date	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Di-isopropyl ether
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/10/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
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3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	5	5	5	5	5	5	5	2	5	5	5	5	4	4
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

E 3: Main Drainage Canal, downstream of effluent (520BUT001) continued…

	Organics															
Date	Ethanol	Ethyl tert-Butyl Ether	Ethylbenzene	Gasoline Range Hydrocarbons	Hexachlorobutadiene	Hexavalent Chromium	Iodomethane	Isopropylbenzene	m,p-Xylene	MBAs	Methylene chloride	Methyl-tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
	µg/L															
4/19/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
5/10/2012																
5/24/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012			< 0.5		< 0.5			< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012						< 10										
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	4	4	5	2	5	1	4	5	5	5	5	1	5	5	5	5
Min	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5	< 0.5	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5		< 0.1		< 1	< 0.5	< 0.5	< 0.5	< 0.5

E 3: Main Drainage Canal, downstream of effluent (520BUT001) continued…

	Organics															
Date	p-Isopropyltoluene	Perchlorate	sec-Butylbenzene	Styrene	TBA	Tert-Amyl Methyl Ether	tert-Butylbenzene	Tetrachlorethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Trichlorotrifluoroethane	Vinyl chloride	Xylenes, total
	µg/L															
4/19/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
5/10/2012																
5/24/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
6/7/2012																
6/26/2012			< 10				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	
7/12/2012																
7/26/2012	< 0.5		< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
8/13/2012																
8/29/2012	< 0.5		< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
9/12/2012																
9/26/2012		< 4														
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013		< 2														
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013		< 2														
4/25/2013																
5/21/2013																
6/20/2013		< 2														
7/25/2013																
8/29/2013																
9/26/2013		< 20														
Count	2	5	5	4	4	2	5	5	5	5	5	5	4	4	5	4
Min	< 0.5	< 2	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Max	< 0.5	< 20	< 10	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Median	< 0.5	< 2	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Mean	< 0.5			< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1

E 4: Cherokee Canal, upstream of effluent (520BUT002)

	Field Data					Bacteria	General Chemistry								Inorganics		
Date	Dissolved Oxygen mg/L	pH	Water Temperature °C	Turbidity ntu	Specific Conductivity µS/cm	*E. coli* MPN	Ammonia as N mg/L	Boron µg/L	Chloride mg/L	Fluoride mg/L	Perchlorate mg/L	Sodium mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Total Calcium mg/L	Total Hardness mg/L	Total Magnesium mg/L
4/19/2012	10.9	8.34	19.6	34	230			< 50.				10.					
5/10/2012	8.46	8.05	19.3	25	410												
5/24/2012	7.80	7.64	20.1	19	170			< 50.				17					
6/7/2012	7.83	7.81	21.0	11	210												
6/26/2012	7.02	7.63	20.9	7.9	170			< 20.				6.6					
7/12/2012	3.01	7.16	27.2	4.9	210												
7/26/2012	5.10	7.22	25.2	5.5	200			< 50.				6.6				96	
8/13/2012	4.70	7.28	25.1	5.5	190	35.5											
8/29/2012	5.85	7.34	21.0	6.8	180	19.9		< 50.				6.8			15.6	76	89.8
9/12/2012	6.72	7.46	19.8	7.3	160	31.8											
9/26/2012	5.61	7.56	19.9	7.1	230	10.9	< 1	< 50.	2.8	0.13	< 4.0	11	4.6	120	20	100	13
10/11/2012	7.62	7.72	16.9	1.8	460	14.5											
10/30/2012	8.24	7.83	15.0	2.7	460		4	37	5.1			21	15	280	46	240	31
11/15/2012	8.78	7.52	11.9	15	220	138											
11/27/2012	6.93	7.33	11.4	12	200		0.1	20.	5.4			9.0	8.0	130		76	
12/13/2012	12.3	7.61	9.29	58	190	69.1											
12/27/2012	11.9	7.80	7.35	85	110			14				4.9			9.3	45	5.3
1/10/2013	13.9	7.84	6.76	41	180	44.3											
1/30/2013	11.2	7.78	9.13	45	230		< 0.1	18	3.7	0.10	< 2.0	11	6.0	160	21	100	13
2/14/2013	11.5	7.90	10.0	56	280	63.1											
2/26/2013	11.0	7.92	9.18	92	280		0.1	16	5.8			13	9.1	240	25	120	15
3/14/2013	8.97	8.04	16.4	17	380	63.1											
3/28/2013	8.99	7.95	15.7	21	390		< 0.1	23	4.6	0.11	< 10.	17	12	240	37	180	23
4/25/2013	7.73	7.65	17.2	32	160	88.0	0.2		2.0			7.1	6.0	99	15	75	8.9
5/21/2013	7.00	7.40	21.0	7.7	200	33.2	< 0.1		3.2			8.5	8.7	130	17	81	9.5
6/20/2013	6.64	7.41	21.9	4.7	200	37.9	< 0.1		2.2	0.12	< 2.0	8.9	6.3	130	18	87	10
7/25/2013		7.45	26.2	4.8	200	83.9	< 0.1		2.6			6.8	5.8	120	18	88	10
8/29/2013	5.15	7.29	21.5	10	200	23.3	0.1		2.1			8.6	3.4	130	18	83	9.6
9/26/2013		7.86	16.1	5.4	290	44.1	< 0.1		4.9	< 0.10	< 2.0	12	8.2	170	25	120	14
Count	27	29	29	29	29	16	12	12	12	5	5	18	12	12	13	15	13
Min	3.01	7.16	6.76	1.8	110	10.9	< 0.1	14	2.0	< 0.10	< 2.0	5	3.4	100	9	45	5
Max	13.9	8.34	27.2	92	460	138	4	< 50.	5.8	0.13	< 10.	21	15	280	46	240	90
Median	7.80	7.64	19.3	11	200	41.0	< 0.1	30	3.5	0.11	< 2.0	9	7.2	130	18	88	13
Mean	8.18	7.65	17.3	22	240	50.0	0.4	16.3	3.7	0.11	1.0	10	7.8	160	22	104	19

E 4: Cherokee Canal, upstream of effluent (520BUT002) continued…

	Nutrients		Metals										
	Nitrate as N	Nitrite as N	Dissolved Aluminum	Dissolved Arsenic	Dissolved Iron	Dissolved Manganese	Total Aluminum	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium
Date	mg/L		µg/L									
4/19/2012	0.15	< 0.15					1700		< 10.			
5/10/2012												
5/24/2012	0.11	< 0.15					930		< 10.			
6/7/2012												
6/26/2012	< 0.11	< 0.15					210		1.0			
7/12/2012												
7/26/2012	< 0.11						170		< 10.			
8/13/2012												
8/29/2012	< 0.11						210		< 10.			
9/12/2012												
9/26/2012	< 0.11		< 50.	< 10.	122	13	110	< 5	1.0	90.	< 1	< 1.0
10/11/2012												
10/30/2012	0.25			< 10.					4.9			
11/15/2012												
11/27/2012	< 0.10			1.8					2.2			
12/13/2012												
12/27/2012	0.29								1.6			
1/10/2013												
1/30/2013	< 0.22		18	1.6	240	1.6	1700	< 0.5	2.8	110	< 0.5	< 0.25
2/14/2013												
2/26/2013	0.22			1.6					3.4			
3/14/2013												
3/28/2013	< 0.22		5.7	3.0	20.	15	670	< 0.5	3.2	120	< 0.5	< 0.25
4/25/2013				1.4					1.8			
5/21/2013				1.5					1.8			
6/20/2013			9.2	1.8	46.0	5.7	190	< 0.5	2.1	72	< 0.5	< 0.25
7/25/2013				1.7					2.0			
8/29/2013				1.0					1.3			
9/26/2013			< 5.0	1.9	58.0	3.3	180	< 0.5	2.0	82	< 0.5	< 0.25
Count	12	3	5	12	5	5	10	5	18	5	5	5
Min	< 0.10	< 0.15	< 5.0	1.0	20.	1.6	110	< 0.5	1.0	72	< 0.5	< 0.25
Max	0.29	< 0.15	< 50.	< 10.	240	15	1700	< 5	< 10.	120	< 1	< 1.0
Median	0.13	< 0.15	9.2	1.8	58	5.7	210	< 0.5	2.2	90.	< 0.5	< 0.25
Mean	0.10	< 0.15	9.3	1.9	97	7.8	610	0.4	2.3	95	0.2	0.10

E 4: Cherokee Canal, upstream of effluent (520BUT002) continued…

	Metals												
	Total Chromium	Total Copper	Total Iron	Total Lead	Total Manganese	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc
Date	µg/L												
4/19/2012			1800		140								
5/10/2012													
5/24/2012			990		58								
6/7/2012													
6/26/2012			610		30.								
7/12/2012													
7/26/2012			370		44								
8/13/2012													
8/29/2012			530		17								
9/12/2012													
9/26/2012	< 5.0	< 5.0	480	< 1	25	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	< 5.0
10/11/2012													
10/30/2012													
11/15/2012													
11/27/2012													
12/13/2012													
12/27/2012													
1/10/2013													
1/30/2013	4.0	6.0	3500	0.9	150	< 0.2		7.7	< 1.0	< 1	< 1.0		5.9
2/14/2013													
2/26/2013													
3/14/2013													
3/28/2013	2.0	2.6	980	0.4	200	< 0.2		3.7	< 1.0	< 1	< 1.0		< 5.0
4/25/2013													
5/21/2013													
6/20/2013	0.61	3.1	350	0.1	30.	< 0.2		3.3	< 1.0	< 1	< 1.0		< 5.0
7/25/2013													
8/29/2013													
9/26/2013	0.60	1.2	380	0.1	44	< 0.2		2.1	< 1.0	< 0.3	< 1.0		1.8
Count	5	5	10	5	10	5	1	5	5	5	5	1	5
Min	0.60	1.2	350	0.1	17	< 0.2	< 5.0	2.1	< 1.0	< 0.3	< 1.0	< 10.0	1.8
Max	< 5.0	6.0	3500	< 1	200	< 0.2	< 5.0	7.7	< 20.	< 5	< 1.0	< 10.0	5.9
Median	2.0	3.1	570	0.4	44	< 0.2	< 5.0	3.7	< 1.0	< 1	< 1.0	< 10.0	< 5.0
Mean	1.7	2.8	1000	0.4	74	< 0.2	< 5.0	3.6	1.2	0.4	< 1.0	< 10.0	2.3

E 4: Cherokee Canal, upstream of effluent (520BUT002) continued…

	Organics																
Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane (TCA)	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane (123TCP)	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (1,2-DCA)	1,2-Dichloropropane
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/10/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
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3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5

E 4: Cherokee Canal, upstream of effluent (520BUT002) continued…

Date	Organics															
	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Isopropyltoluene	4-Methyl-2-pentanone	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
5/10/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 0.5					< 0.5				< 10	< 5	< 0.5	
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	5	5	4	4	4	4	5	2	4	4	1	1	5	4
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5

E 4: Cherokee Canal, upstream of effluent (520BUT002) continued…

	Organics															
Date	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Di-isopropyl ether
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/10/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012																
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	5	5	5	5	5	5	5	5	5	4	5	5	5	5	4	4
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

E 4: Cherokee Canal, upstream of effluent (520BUT002) continued…

	Organics															
Date	Ethanol	Ethyl tert-Butyl Ether	Ethylbenzene	Gasoline Range Hydrocarbons	Hexachlorobutadiene	Hexavalent Chromium	Iodomethane	Isopropylbenzene	m,p-Xylene	MBAs	Methylene chloride	Methyl-tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
	µg/L															
4/19/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
5/10/2012																
5/24/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012			< 0.5		< 0.5			< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012						2.7										
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/25/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/29/2013																
9/26/2013																
Count	4	4	5	2	5	1	4	5	5	5	5	1	5	5	5	5
Min	< 20	< 0.5	< 0.5	< 50	< 0.5	2.7	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 20	< 0.5	< 0.5	< 50	< 0.5	2.7	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 20	< 0.5	< 0.5	< 50	< 0.5	2.7	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 20	< 0.5	< 0.5	< 50	< 0.5	2.7	< 0.5	< 0.5		< 0.1		< 1	< 0.5	< 0.5	< 0.5	< 0.5

E 4: Cherokee Canal, upstream of effluent (520BUT002) continued…

	Organics																
Date	Perchlorate	p-Isopropyltoluene	sec-Butylbenzene	Styrene	TBA	Tert-Amyl Methyl Ether	tert-Butylbenzene	Tetrachlorethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Trichlorotrifluoroethane	Vinyl chloride	Xylenes, total
	µg/L															
4/19/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
5/10/2012																
5/24/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
6/7/2012																
6/26/2012			< 0.1				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	
7/12/2012																
7/26/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
8/13/2012																
8/29/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
9/12/2012																
9/26/2012	< 4															
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013	< 10															
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013	< 2															
4/25/2013																
5/21/2013																
6/20/2013	< 2															
7/25/2013																
8/29/2013																
9/26/2013	< 2															
Count	5	2	5	4	4	4	5	5	5	5	5	5	4	4	5	4
Min	< 2	< 0.5	< 0.1	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Max	< 10	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Median	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Mean		< 0.5		< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1

E 5: Biggs Effluent

	Field Data					Bacteria	General Chemistry								Inorganics		
Date	Dissolved Oxygen	pH	Water Temperature	Turbidity	Specific Conductivity	*E. coli*	Ammonia as N	Boron	Chloride	Fluoride	Perchlorate	Sodium	Sulfate	Total Dissolved Solids	Total Calcium	Total Hardness	Total Magnesium
	mg/L		°C	ntu	µS/cm	MPN	mg/L	µg/L	mg/L								
4/19/2012	8.04	7.60	16.8	13	240			89				46					
5/7/2012		7.50	18.9	8.2	370												
5/24/2012	8.14	7.56	18.7	6.1	414			98				150					
6/7/2012	8.23	7.59	20.1	24	869												
6/26/2012	7.39	7.38	19.5	54	807		4.9	140	69.0	< 0.10		69	35.0	510	46	260	35
7/12/2012	6.97	7.31	24.7	16	839												
7/26/2012	6.08	7.44	22.9	29	837			120				67				238	
8/13/2012	9.87	7.30	24.0	24	827	1100											
8/29/2012	7.87	7.37	21.1	46	900	15		120				83			41	230	31.7
9/12/2012	6.78	7.33	20.4	59	863	4.1											
9/26/2012	9.16	7.47	19.7	38	809	> 2400	12	100	52.0	0.12	< 4.0	61	30.0	420		250	
10/11/2012	10.6	7.30	17.2	44	895	35											
10/30/2012	8.89	7.30	15.5	98	842		11	110	68.0			75	24.0	490	47	270	36
11/15/2012	8.62	7.19	11.9	85	814	7.5											
11/27/2012	8.25	7.34	12.5	50.	370		13	85	42.1			48	14.3	368		200	
12/13/2012	8.32	7.35	11.3	28	684	121											
12/27/2012	10.5	7.31	9.80	7.0	637			87				35			44	250	34
1/10/2013	8.53	7.50	9.04	13	667	33											
1/30/2013	10.3	7.30	10.7	17	677		5.4	82	32.0	0.14	< 10.	45	20.0	410	44	250	35
2/14/2013	8.97	7.34	10.7	19	645	580											
2/26/2013	6.48	7.46	9.8	19	671		6.1	84	28.0			44	18.0	430	44	250	34
3/14/2013	6.65	7.53	14.6	32	678	47											
3/28/2013	6.70	7.40	14.2	36	702		7.4	94	40.0	0.13	< 10.	48	8.50	420	43	240	33
4/10/2013		7.40	14.4														
4/25/2013	5.40	7.12	16.7	67	796	< 1.0	9.5		51.0			60	12.0	450	45	260	35
5/8/2013		7.50															
5/21/2013	6.53	7.15	20.1	62	757	9.6	8.8		51.0			58	12.0	460	43	240	33
6/20/2013	7.27	7.39	21.4	95	793	2.0	12		48.0	0.15	< 40.	59	16.0	460	43	240	33
7/25/2013		7.08	25.7	30.	819	330	14		57.0			59	12.0	460	38	210	29
8/6/2013		7.30		39													
8/29/2013	8.85	7.58	22.9	66	823	< 1.0	14		63.0			66	14.0	520	40	230	31
9/10/2013		7.50		32												210	
9/26/2013		7.54	18.5	38	900	< 1.0	13		92.0	0.10	< 20.	81	36.0	510	37		28
Count	26	33	30	31	29	16	13	12	13	6	5	18	13	13	13	16	13
Min	5.40	7.08	9.04	6.1	240.	< 1.0	4.9	82	28.0	< 0.10	< 4.0	35	8.50	370	37	200	28
Max	10.6	7.60	25.7	98	900	> 2400	14	140	92.0	0.15	< 40.	150	36.0	520	47	270	36
Median	8.19	7.38	17.8	32	796	24	11	96	51.0	0.13	< 10.	60.	16.0	460	43	240	33
Mean	8.05	7.39	17.1	39	722	300	10	100	53.3	0.11	4.2	64	19.4	450	43	239	33

E 5: Biggs Effluent continued…

	Nutrients		Metals									
	Nitrate as N	Nitrite as N	Dissolved Aluminum	Dissolved Arsenic	Dissolved Iron	Dissolved Manganese	Total Aluminum	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium
Date	mg/L		µg/L									
4/19/2012	0.14	< 0.15					< 50.		< 10.			
5/7/2012												
5/24/2012	0.13	< 0.15					< 50.		< 10.			
6/7/2012												
6/26/2012	< 0.11	< 0.15					11	< 1	3.2	82		< 0.20
7/12/2012												
7/26/2012	< 0.11						< 50.		< 10.			
8/13/2012												
8/29/2012	0.11						< 50.		< 10.			
9/12/2012												
9/26/2012	< 0.11		< 50.	< 10.	44.2	18	< 50.	< 5	2.9	78	< 1	< 1.0
10/11/2012												
10/30/2012	0.28			< 10.					3.8			
11/15/2012												
11/27/2012	< 0.10			2.6					2.6			
12/13/2012												
12/27/2012	0.25								3.6			
1/10/2013												
1/30/2013	< 0.22		5.4	3.4	75.0	25	12	< 0.5	4.2	79	< 0.5	< 0.25
2/14/2013												
2/26/2013	< 0.44			3.1					3.4			
3/14/2013												
3/28/2013	0.28		< 5.0	2.9	67.0	3.1	9.8	< 0.5	2.9	74	< 0.5	< 0.25
4/10/2013												
4/25/2013				4.2					3.5			
5/8/2013												
5/21/2013				3.6					3.8			
6/20/2013			21.0	3.7	33.0	17	18	< 0.5	4.2	81	< 0.5	< 0.25
7/25/2013				4.6					4.6			
8/6/2013												
8/29/2013				3.3					3.0			
9/10/2013												
9/26/2013			7.3	3.1	35.0	14	13	< 0.5	2.9	70.	< 0.5	< 0.25
Count	12	3	5	12	5	5	10	6	18	6	5	6
Min	< 0.10	< 0.15	< 5.0	2.6	33.0	3.1	9.8	< 0.5	2.6	70.	< 0.5	< 0.20
Max	0.44	< 0.15	< 50.	< 10.	75.0	25	< 50.	< 5	< 10.	82	< 1	< 1.0
Median	0.14	< 0.15	7.3	3.5	44.2	17	34	< 0.5	3.7	79	< 0.5	< 0.25
Mean	0.11	< 0.15	9.5	3.3	50.8	16	13	0.3	3.3	77	0.2	0.09

E 5: Biggs Effluent continued…

	Metals												
	Total Chromium	Total Copper	Total Iron	Total Lead	Total Manganese	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc
Date	µg/L												
4/19/2012			550		32								
5/7/2012													
5/24/2012			42		18								
6/7/2012													
6/26/2012	2.2	2.3	160	< 0.5	28			2.0	< 1.0	< 1	< 1.0		< 5.0
7/12/2012													
7/26/2012			42		22								
8/13/2012													
8/29/2012			54		32								
9/12/2012													
9/26/2012	< 5.0	< 5.0	57	< 1	19	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	5.7
10/11/2012													
10/30/2012													
11/15/2012													
11/27/2012													
12/13/2012													
12/27/2012													
1/10/2013													
1/30/2013	2.0	2.8	990	< 0.1	37	< 0.2		1.9	< 1.0	< 1	< 1.0		< 5.0
2/14/2013													
2/26/2013													
3/14/2013													
3/28/2013	1.8	1.8	120	< 0.1	17	< 0.2		1.1	< 1.0	< 1	< 1.0		< 5.0
4/10/2013													
4/25/2013													
5/8/2013													
5/21/2013													
6/20/2013	2.0	2.8	57	< 0.1	19	< 0.2		1.6	< 1.0	< 1	< 1.0		< 5.0
7/25/2013													
8/6/2013													
8/29/2013													
9/10/2013													
9/26/2013	1.3	1.3	53	< 0.1	17	< 0.2		1.4	< 1.0	< 0.3	< 1.0		2.9
Count	6	6	10	6	10	5	1	6	6	6	6	1	6
Min	1.3	1.3	42	< 0.1	17	< 0.2	< 5.0	1.1	< 1.0	< 0.3	< 1.0	< 10.0	2.9
Max	< 5.0	< 5.0	990	< 1	37	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	5.7
Median	2.0	2.6	57	< 0.1	21	< 0.2	< 5.0	1.8	< 1.0	< 1	< 1.0	< 10.0	< 5.0
Mean	1.8	2.0	210	0.1	24	< 0.2	< 5.0	1.5	1.0	0.4	< 1.0	< 10.0	2.3

E 5: Biggs Effluent continued…

	Organics																			
Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane (TCA)	1,1,2,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane (123TCP)	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (1,2-DCA)	1,2-Dichloropropane
	µg/L																
4/19/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/7/2012																	
5/24/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																	
6/26/2012	< 0.5	< 0.5				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 10	< 5	< 5	< 2	< 0.5
7/12/2012																	
7/26/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																	
8/29/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																	
9/26/2012	< 0.5	< 0.5				< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
Count	10	10	8	4	8	10	10	9	10	10	10	10	10	10	10	10	10
Min	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 2	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5										< 0.5

E 5: Biggs Effluent continued…

	Organics																
Date	1,2-Diphenylhydrazine	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2,3,7,8-TCDD (Dioxin)	2,4,5-T	2,4,5-TP (Silvex)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-D	2,4-DB	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene
	µg/L																
4/19/2012		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5											
5/7/2012																	
5/24/2012		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5											
6/7/2012																	
6/26/2012	< 5	< 0.5	< 5	< 0.5	< 5		< 5.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
7/12/2012																	
7/26/2012		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5											
8/13/2012																	
8/29/2012		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5											
9/12/2012																	
9/26/2012		< 0.5	< 0.5		< 0.5												
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013		< 5	< 0.5	< 5	< 0.5	< 5											
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013		< 5	< 0.5	< 5	< 0.5	< 5											
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013		< 5	< 0.5	< 5	< 0.5	< 5											
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013		< 5	< 0.5	< 5	< 0.5	< 5											
Count	1	10	10	9	10	8	1	1	1	1	1	1	1	1	1	1	1
Min	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Max	< 5	< 5	< 5	< 5	< 5	< 5	< 5.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Median	< 5	< 0.5	< 0.5	< 0.5	< 0.5	3	< 5.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Mean	< 5						< 5.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

E 5: Biggs Effluent continued…

	Organics																
Date	2,6-Dinitrotoluene	2-Butanone	2-Chloronaphthalene	2-Chlorophenol	2-Chlorotoluene	2-Hexanone	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Hydroxycarbofuran	3-Methylphenol	3-Nitroaniline	4,4'-DDD	4,4'-DDE	4,4'-DDT
	µg/L																
4/19/2012		< 5			< 0.5	< 5											
5/7/2012																	
5/24/2012		< 5			< 0.5	< 5											
6/7/2012																	
6/26/2012	< 5		< 5	< 5			< 5	< 5	< 5	< 5	< 5	< 2	< 5	< 5	< 0.06	< 0.06	< 0.06
7/12/2012																	
7/26/2012		< 5			< 0.5	< 5											
8/13/2012																	
8/29/2012		< 5			< 0.5	< 5											
9/12/2012																	
9/26/2012																	
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013		< 20			< 5	< 20											
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013		< 20			< 5	< 20											
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013		< 20			< 5	< 20											
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013		< 20			< 5	< 20											
Count	1	8	1	1	8	8	1	1	1	1	1	1	1	1	1	1	1
Min	< 5	< 5	< 5	< 5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 2	< 5	< 5	< 0.06	< 0.06	< 0.06
Max	< 5	< 20	< 5	< 5	< 5	< 20	< 5	< 5	< 5	< 5	< 5	< 2	< 5	< 5	< 0.06	< 0.06	< 0.06
Median	< 5	13	< 5	< 5	3	13	< 5	< 5	< 5	< 5	< 5	< 2	< 5	< 5	< 0.06	< 0.06	< 0.06
Mean	< 5		< 5	< 5			< 5	< 5	< 5	< 5	< 5	< 2	< 5	< 5	< 0.06	< 0.06	< 0.06

E 5: Biggs Effluent continued…

Date	Organics																
	4,6-Dinitro-2-methylphenol	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline	4-Chlorophenyl phenyl ether	4-Chlorotoluene	4-Isopropyltoluene	4-Methyl-2-pentanone	4-Methylphenol	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Acetone	Acrolein	Acrylonitrile	Aldicarb
	µg/L																
4/19/2012						< 0.5	< 0.5	< 5						< 5			
5/7/2012																	
5/24/2012						< 0.5	< 0.5	< 5						< 5			
6/7/2012																	
6/26/2012	< 5	< 5	< 5	< 5	< 5	< 0.5			< 5	< 5	< 5	< 5	< 5		< 10	< 5	< 2
7/12/2012																	
7/26/2012						< 0.5		< 5						< 5			
8/13/2012																	
8/29/2012						< 0.5		< 5						< 5			
9/12/2012																	
9/26/2012						< 0.5									< 10	< 5	
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013						< 0.5		< 20						< 20			
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013						< 0.5		< 20						< 20			
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013						< 0.5		< 20						< 20			
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013						< 0.5		< 20						< 20			
Count	1	1	1	1	1	10	2	8	1	1	1	1	1	8	2	2	1
Min	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 2
Max	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 20	< 5	< 5	< 5	< 5	< 5	< 20	< 10	< 5	< 2
Median	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	13	< 5	< 5	< 5	< 5	< 5	13	< 10	< 5	< 2
Mean	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5		< 5	< 5	< 5	< 5	< 5		< 10	< 5	< 2

E 5: Biggs Effluent continued…

	Organics																
Date	Aldicarb sulfone	Aldrin	alpha-BHC	alpha-Chlordane	Anthracene	Atrazine	Azinphos methyl	Benzene	Benzidine	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	beta-BHC	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether
	µg/L																
4/19/2012								< 0.5									
5/7/2012																	
5/24/2012								< 0.5									
6/7/2012																	
6/26/2012	< 2	< 0.06	< 0.06	< 0.05	< 5	< 0.5	< 0.2	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.05	< 5	< 5
7/12/2012																	
7/26/2012								< 0.5									
8/13/2012																	
8/29/2012								< 0.5									
9/12/2012																	
9/26/2012								< 0.5									
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013								< 0.5									
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013								< 0.5									
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013								< 0.5									
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013								< 0.5									
Count	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1
Min	< 2	< 0.06	< 0.06	< 0.05	< 5	< 0.5	< 0.2	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.05	< 5	< 5
Max	< 2	< 0.06	< 0.06	< 0.05	< 5	< 0.5	< 0.2	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.05	< 5	< 5
Median	< 2	< 0.06	< 0.06	< 0.05	< 5	< 0.5	< 0.2	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.05	< 5	< 5
Mean	< 2	< 0.06	< 0.06	< 0.05	< 5	< 0.5	< 0.2	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.05	< 5	< 5

E 5: Biggs Effluent continued…

Date	Organics																	
	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Bolstar	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Butyl benzyl phthalate	Carbaryl	Carbofuran	Carbon disulfide	Carbon tetrachloride	Chlordane (tech)	Chlorobenzene	Chloroethane	Chloroform
	µg/L																
4/19/2012				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	< 0.5		< 0.5	< 0.5	0.6
5/7/2012																	
5/24/2012				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	< 0.5		< 0.5	< 0.5	1.9
6/7/2012																	
6/26/2012	< 5	0.43	< 0.2		< 0.5	< 0.5	< 0.5	< 2	< 5	< 2	< 2	< 0.5	< 0.5	< 0.11	< 0.5	< 0.5	< 0.5
7/12/2012																	
7/26/2012				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	< 0.5		< 0.5	< 0.5	4.4
8/13/2012																	
8/29/2012				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	< 0.5		< 0.5	< 0.5	6.1
9/12/2012																	
9/26/2012					< 0.5	< 0.5	< 0.5					< 0.5	< 0.5		< 0.5	< 0.5	1.1
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013				< 0.5	< 5	< 0.5	< 0.5	< 1				< 50	< 0.5		< 0.5	< 0.5	< 0.5
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013				< 0.5	< 5	< 0.5	< 0.5	< 1				< 50	< 0.5		< 0.5	< 0.5	1.2
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013				< 0.5	< 5	< 0.5	< 0.5	8.4				< 50	< 0.5		< 0.5	< 0.5	0.95
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013				< 0.5	< 5	< 0.5	< 0.5	< 1				< 50	< 0.5		< 0.5	< 0.5	1
Count	1	1	1	8	10	10	10	9	1	1	1	10	10	1	10	10	10
Min	< 5	0.43	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 2	< 2	< 0.5	< 0.5	< 0.11	< 0.5	< 0.5	< 0.5
Max	< 5	0.43	< 0.2	< 0.5	< 5	< 0.5	< 0.5	8.4	< 5	< 2	< 2	< 50	< 0.5	< 0.11	< 0.5	< 0.5	6.1
Median	< 5	0.43	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 5	< 2	< 2	< 0.5	< 0.5	< 0.11	< 0.5	< 0.5	1.1
Mean	< 5	0.43	< 0.2	< 0.5		< 0.5	< 0.5	1.1	< 5	< 2	< 2		< 0.5	< 0.11	< 0.5	< 0.5	1.8

E 5: Biggs Effluent continued…

	Organics																
Date	Chloromethane	Chlorpyrifos	Chrysene	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Coumaphos	Dalapon	delta-BHC	Demeton O/S	Diazinon	Dibenzo(a,h)anthracene	Dibenzofuran	Dibromochloromethane	Dibromomethane	Dicamba	Dichlorodifluoromethane	Dichloromethane
	µg/L																
4/19/2012	< 0.5			< 0.5	< 0.5								< 0.5	< 0.5		< 0.5	
5/7/2012																	
5/24/2012	< 0.5			< 0.5	< 0.5								< 0.5	< 0.5		< 0.5	
6/7/2012																	
6/26/2012		< 0.2	< 5	< 0.5	< 0.5	< 0.2	< 20	< 0.05	< 0.2	< 0.2	< 5	< 5	< 0.5	< 0.5	< 0.5		
7/12/2012																	
7/26/2012	< 0.5			< 0.5	< 0.5								< 0.5	< 0.5		< 0.5	
8/13/2012																	
8/29/2012	< 0.5			< 0.5	< 0.5								< 0.5	< 0.5		< 0.5	
9/12/2012																	
9/26/2012				< 0.5	< 0.5								< 0.5	< 0.5			
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013	< 0.5			< 0.5	< 0.5								< 0.5	< 0.5		< 1	< 0.5
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013	< 0.5			< 0.5	< 0.5								< 0.5	< 0.5		< 1	< 0.5
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013	< 0.5			< 0.5	< 0.5								< 0.5	< 0.5		< 1	< 0.5
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013	< 0.5			< 0.5	< 0.5									< 0.5		< 1	< 0.5
Count	8	1	1	10	10	1	1	1	1	1	1	1	9	10	1	8	4
Min	< 0.5	< 0.2	< 5	< 0.5	< 0.5	< 0.2	< 20	< 0.05	< 0.2	< 0.2	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.2	< 5	< 0.5	< 0.5	< 0.2	< 20	< 0.05	< 0.2	< 0.2	< 5	< 5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
Median	< 0.5	< 0.2	< 5	< 0.5	< 0.5	< 0.2	< 20	< 0.05	< 0.2	< 0.2	< 5	< 5	< 0.5	< 0.5	< 0.5	0.8	< 0.5
Mean	< 0.5	< 0.2	< 5	< 0.5	< 0.5	< 0.2	< 20	< 0.05	< 0.2	< 0.2	< 5	< 5	< 0.5	< 0.5	< 0.5		< 0.5

E 5: Biggs Effluent continued…

	Organics																
Date	Dichloroprop	Dichlorvos	Dieldrin	Diethyl phthalate	Di-isopropyl ether	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Dinoseb	Dioxacarb	Diphenylamine	Disulfoton	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde
	µg/L																
4/19/2012					< 0.5												
5/7/2012																	
5/24/2012					< 0.5												
6/7/2012																	
6/26/2012	< 5	< 0.2	< 0.06	< 5		< 5	< 5	< 5	< 2.5	< 2	< 5	< 0.5	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
7/12/2012																	
7/26/2012					< 0.5												
8/13/2012																	
8/29/2012					< 0.5												
9/12/2012																	
9/26/2012																	
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013																	
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013																	
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013																	
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013																	
Count	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
Min	< 5	< 0.2	< 0.06	< 5	< 0.5	< 5	< 5	< 5	< 2.5	< 2	< 5	< 0.5	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Max	< 5	< 0.2	< 0.06	< 5	< 0.5	< 5	< 5	< 5	< 2.5	< 2	< 5	< 0.5	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Median	< 5	< 0.2	< 0.06	< 5	< 0.5	< 5	< 5	< 5	< 2.5	< 2	< 5	< 0.5	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Mean	< 5	< 0.2	< 0.06	< 5	< 0.5	< 5	< 5	< 5	< 2.5	< 2	< 5	< 0.5	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06

E 5: Biggs Effluent continued…

	Organics																
Date	Endrin ketone	Ethanol	Ethoprop	Ethyl tert-Butyl Ether	Ethylbenzene	Fensulfothion	Fenthion	Fluoranthene	Fluorene	gamma-BHC (Lindane)	gamma-Chlordane	Gasoline Range Hydrocarbons	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
	µg/L																
4/19/2012		< 20		< 0.5	< 0.5							< 50				< 0.5	
5/7/2012																	
5/24/2012		< 20		< 0.5	< 0.5							< 50				< 0.5	
6/7/2012																	
6/26/2012	< 0.05		< 0.2		< 0.5	< 0.2	< 0.2	< 5	< 5	< 0.06	< 0.05		< 0.06	< 0.06	< 5	< 5	< 5
7/12/2012																	
7/26/2012		< 20		< 0.5	< 0.5											< 0.5	
8/13/2012																	
8/29/2012		< 20		< 0.5	< 0.5											< 0.5	
9/12/2012																	
9/26/2012					< 0.5											< 0.5	
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013					< 0.5											< 5	
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013					< 0.5											< 5	
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013					< 0.5											< 5	
7/25/2013																	
8/6/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013					< 0.5											< 5	
Count	1	4	1	4	10	1	1	1	1	1	1	2	1	1	1	10	1
Min	< 0.05	< 20	< 0.2	< 0.5	< 0.5	< 0.2	< 0.2	< 5	< 5	< 0.06	< 0.05	< 50	< 0.06	< 0.06	< 5	< 0.5	< 5
Max	< 0.05	< 20	< 0.2	< 0.5	< 0.5	< 0.2	< 0.2	< 5	< 5	< 0.06	< 0.05	< 50	< 0.06	< 0.06	< 5	< 5	< 5
Median	< 0.05	< 20	< 0.2	< 0.5	< 0.5	< 0.2	< 0.2	< 5	< 5	< 0.06	< 0.05	< 50	< 0.06	< 0.06	< 5	3	< 5
Mean	< 0.05	< 20	< 0.2	< 0.5	< 0.5	< 0.2	< 0.2	< 5	< 5	< 0.06	< 0.05	< 50	< 0.06	< 0.06	< 5		< 5

E 5: Biggs Effluent continued…

	Organics															
Date	Hexachloroethane	Hexavalent Chromium	Indeno(1,2,3-cd)pyrene	Iodomethane	Isopropylbenzene	m,p-Xylene	MBAs	MCPA	MCPP	Merphos	Methiocarb	Methomyl	Methoxychlor	Methyl parathion	Methylene chloride	Methyl-tert-Butyl Ether (MTBE)
	µg/L															
4/19/2012				< 0.5	< 0.5	0.2	0.2								< 5	
5/7/2012																
5/24/2012				< 0.5	< 0.5	< 0.1	< 0.1								< 5	
6/7/2012																
6/26/2012	< 5		< 5		< 0.5	0.1	0.1	< 30	< 30	< 0.2	< 2	< 2	< 0.06	< 0.2	< 1	< 1
7/12/2012																
7/26/2012				< 0.5	< 0.5	< 0.1	< 0.1								< 5	
8/13/2012																
8/29/2012				< 0.5	< 0.5	0.2	0.2								< 5	
9/12/2012																
9/26/2012		12			< 0.5										< 1	< 1
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013	< 50			< 50	< 5											< 0.5
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013	< 50			< 50	< 5											< 0.5
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013	< 50			< 50	< 5											< 0.5
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013	< 50			< 50	< 5											< 0.5
Count	5	1	1	8	10	5	5	1	1	1	1	1	1	1	6	6
Min	< 5	12	< 5	< 0.5	< 0.5	< 0.1	< 0.1	< 30	< 30	< 0.2	< 2	< 2	< 0.06	< 0.2	< 1	< 0.5
Max	< 50	12	< 5	< 50	< 5	0.2	0.2	< 30	< 30	< 0.2	< 2	< 2	< 0.06	< 0.2	< 5	< 1
Median	< 50	12	< 5	25	< 0.5	0.1	0.1	< 30	< 30	< 0.2	< 2	< 2	< 0.06	< 0.2	< 5	< 0.5
Mean		12	< 5			0.1	0.1	< 30	< 30	< 0.2	< 2	< 2	< 0.06	< 0.2		

E 5: Biggs Effluent continued…

	Organics															
	Mevinphos	Naled	Naphthalene	n-Butylbenzene	Nitrobenzene	n-Nitrosodimethylamine	n-Nitrosodi-n-propylamine	n-Nitrosodiphenylamine	n-Propylbenzene	o-Xylene	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254
Date	µg/L															
4/19/2012			< 0.5	< 0.5					< 0.5	< 0.5						
5/7/2012																
5/24/2012			< 0.5	< 0.5					< 0.5	< 0.5						
6/7/2012																
6/26/2012	< 0.2	< 0.2	< 5	< 0.5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012			< 0.5	< 0.5					< 0.5	< 0.5						
8/13/2012																
8/29/2012			< 0.5	< 0.5					< 0.5	< 0.5						
9/12/2012																
9/26/2012			< 0.5	< 0.5					< 0.5	< 0.5						
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013			< 5	< 5					< 5	< 0.5						
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013			< 5	< 5					< 5	< 0.5						
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013			< 5	< 5					< 5	< 0.5						
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013			< 5	< 5					< 5	< 0.5						
Count	1	1	10	10	1	1	1	1	10	10	1	1	1	1	1	1
Min	< 0.2	< 0.2	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.2	< 0.2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 0.2	< 0.2	3	< 0.5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.2	< 0.2			< 5	< 5	< 5	< 5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

E 5: Biggs Effluent continued…

	Organics															
Date	PCB-1260	Pentachlorophenol	Perchlorate	Phenanthrene	Phenol	Phorate	p-Isopropyltoluene	Promecarb	Propoxur (Baygon)	Pyrene	Ronnel (Fenchlorphos)	sec-Butylbenzene	Simazine	Stirophos (Tetrachlorvinphos)	Styrene	TBA
	µg/L															
4/19/2012												< 0.5			< 0.5	< 5
5/7/2012																
5/24/2012												< 0.5			< 0.5	< 5
6/7/2012																
6/26/2012	< 0.5	< 5		< 5	< 5	< 0.2		< 2	< 2	< 5	< 0.2	< 10	< 0.5	< 0.2		
7/12/2012																
7/26/2012							< 0.5					< 0.5			< 0.5	< 5
8/13/2012																
8/29/2012							< 0.5					< 0.5			< 0.5	< 5
9/12/2012																
9/26/2012			< 4									< 10				
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013			< 10				< 5					< 5			< 5	
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013			< 10				< 5					< 5			< 5	
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013			< 40				< 5					< 5			< 5	
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013			< 20				< 5					< 5			< 5	
Count	1	1	5	1	1	1	6	1	1	1	1	10	1	1	8	4
Min	< 0.5	< 5	< 4	< 5	< 5	< 0.2	< 0.5	< 2	< 2	< 5	< 0.2	< 0.5	< 0.5	< 0.2	< 0.5	< 5
Max	< 0.5	< 5	< 40	< 5	< 5	< 0.2	< 5	< 2	< 2	< 5	< 0.2	< 10	< 0.5	< 0.2	< 5	< 5
Median	< 0.5	< 5	< 10	< 5	< 5	< 0.2	< 5	< 2	< 2	< 5	< 0.2	< 5	< 0.5	< 0.2	3	< 5
Mean	< 0.5	< 5		< 5	< 5	< 0.2		< 2	< 2	< 5	< 0.2		< 0.5	< 0.2		< 5

E 5: Biggs Effluent continued…

Date	Organics														
	Tert-Amyl Methyl Ether	tert-Butylbenzene	Tetrachlorethene (PCE)	Tokuthion (Prothiofos)	Toluene	Toxaphene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Trichloronate	Trichlorotrifluoroethane	Trifluralin	Vinyl chloride	Xylenes, total
	µg/L														
4/19/2012	< 0.5	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		< 1		< 0.5	< 1
5/7/2012															
5/24/2012	< 0.5	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		< 1		< 0.5	< 1
6/7/2012															
6/26/2012		< 0.5	< 0.5	< 0.2	< 0.5	< 0.06	< 0.5	< 0.5	< 0.5		< 0.2		< 0.06	< 0.5	
7/12/2012															
7/26/2012	< 0.5	< 0.5	< 0.5		1		< 0.5	< 0.5	< 0.5	< 0.5		< 1		< 0.5	< 1
8/13/2012															
8/29/2012	< 0.5	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		< 1		< 0.5	< 1
9/12/2012															
9/26/2012		< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5					< 0.5	
10/11/2012															
10/30/2012															
11/15/2012															
11/27/2012															
12/13/2012															
12/27/2012															
1/10/2013															
1/30/2013		< 5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	
2/14/2013															
2/26/2013															
3/14/2013															
3/28/2013		< 5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	
4/10/2013															
4/25/2013															
5/8/2013															
5/21/2013															
6/20/2013		< 5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	
7/25/2013															
8/6/2013															
8/29/2013															
9/10/2013															
9/26/2013		< 5	< 0.5		< 0.5		< 0.5	< 0.5	< 0.5	< 0.5				< 0.5	
Count	4	10	10	1	10	1	10	10	10	8	1	4	1	10	4
Min	< 0.5	< 0.5	< 0.5	< 0.2	< 0.15	< 0.06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1	< 0.06	< 0.5	< 1
Max	< 0.5	< 5	< 0.5	< 0.2	1	< 0.06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1	< 0.06	< 0.5	< 1
Median	< 0.5	< 0.5	< 0.5	< 0.2	< 0.5	< 0.06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1	< 0.06	< 0.5	< 1
Mean	< 0.5		< 0.5	< 0.2	0.21	< 0.06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1	< 0.06	< 0.5	< 1

E 6: Lateral K, 100 ft downstream (520BUT003)

	Field Data					Bacteria	General Chemistry								Inorganics		
	Dissolved Oxygen	pH	Water Temperature	Turbidity	Specific Conductivity	*E. coli*	Ammonia as N	Boron	Chloride	Fluoride	Perchlorate	Sodium	Sulfate	Total Dissolved Solids	Total Calcium	Total Hardness	Total Magnesium
Date	mg/L		°C	ntu	µS/cm	MPN	mg/L	µg/L	mg/L								
4/19/2012	8.90	7.83	17.6	12	630			58				35					
5/7/2012	7.70	7.50	18.9	8.2	370												
5/24/2012	6.72	7.71	18.7	25	250			< 50.				40.					
6/7/2012	4.90	7.67	19.5	12	350												
6/26/2012	8.01	7.72	18.6	10.	140			29				6.4					
7/12/2012	3.34	7.39	22.8	10.	230												
7/26/2012	4.54	7.20	21.6	17	240			< 50.				12				90	
8/13/2012	3.90	7.20	22.3	21	300	387											
8/29/2012	5.87	7.29	17.7	15	220	72.7		< 50.				11			15.6	80	10
9/12/2012	7.27	7.58	17.4	23	250	27.5											
9/26/2012	6.46	7.54	18.6	22	410	921	3	50.	15	< 0.10	< 4.0	24	12	220	< 0.01	160	21
10/11/2012	7.48	7.57	16.4	19	510	67.0											
10/30/2012	7.86	7.66	14.6	47	510		5	64	28			37	14	280	35	190	24
11/15/2012	9.32	7.73	10.8	9.6	190	52.8											
11/27/2012	7.97	7.16	12.7	59	310		2	29	8.4			14	7.5	150		100	
12/13/2012	8.45	7.45	10.1	43	370	127											
12/27/2012	9.82	7.59	7.62	40.	300			36				14			22	120	16
1/10/2013	10.2	7.68	7.67	32	370	45.7											
1/30/2013	11.7	7.62	10.3	34	550		2	49	18	0.14	< 2.0	30.	17	330	42	230	31
2/14/2013	9.59	7.59	9.94	75	510	197											
2/26/2013	9.86	7.65	9.15	11	620		4	64	21			36	17	440	47	260	35
3/14/2013	10.0	7.75	14.5	17	580	58.1											
3/28/2013	9.36	7.66	14.8	14	620		5	77	29	0.13	< 10.	41	13	390	46	260	34
4/10/2013	9.50	7.00															
4/25/2013	6.76	7.45	15.4	29	280	1120	0.9		26			18	4.4	180	13	68	8.8
5/8/2013		7.00															
5/21/2013	6.27	7.63	18.5	8.0	160	411	0.7		4.2			7.2	4.8	110	13	62	7.4
6/20/2013	6.62	7.71	20.0	12	180	258	0.8		4.1	< 0.10	< 2.0	8.3	5.0	120	13	67	8.1
7/25/2013		7.60	24.0	25	190	67.0	0.8		4.6			8.6	6.7	120	16	79	9.6
8/6/2013				18													
8/13/2013	7.70	6.90															
8/29/2013	6.75	7.39	19.4	36	200	194	0.9		4.5			10.	3.8	150	16	80	9.7
9/10/2013	8.40	6.90		16													
9/26/2013		7.75	15.0	13	450	130	3		25	25	< 2.0	28	14	270	30	150	19
Count	30	33	29	31	29	16	12	12	12	5	5	18	12	12	13	15	13
Min	3.34	6.90	7.62	8.0	140	27.5	0.7	29	4.1	< 0.10	< 2.0	6.4	3.8	110	< 0.01	62	7
Max	11.7	7.83	24.0	75	630	1120	5	77	29	25	< 10.	41	17	440	47	260	35
Median	7.78	7.59	17.4	18	310	129	2	< 50.	17	0.13	< 2.0	16	9.7	200	16	100	16
Mean	7.71	7.49	16.0	24	350	258	2	41.1	16	5.1	1.0	21	9.9	230	24	133	18

E 6: Lateral K, 100 ft downstream (520BUT003) continued…

	Nutrients		Metals									
	Nitrate as N	Nitrite as N	Dissolved Aluminum	Dissolved Arsenic	Dissolved Iron	Dissolved Manganese	Total Aluminum	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium
Date	mg/L		µg/L									
4/19/2012	0.50	< 0.15					250		< 10.			
5/7/2012												
5/24/2012	0.21	< 0.15					1000		< 10.			
6/7/2012												
6/26/2012	< 0.11	< 0.15					310		1.3			
7/12/2012												
7/26/2012	< 0.11						410		< 10.			
8/13/2012												
8/29/2012	0.13						420		< 10.			
9/12/2012												
9/26/2012	< 0.11		< 50.	< 10.	24.4	61	350	< 5	2.4	66	< 1	< 1.0
10/11/2012												
10/30/2012	0.32			< 10.					3.0			
11/15/2012												
11/27/2012	0.10			2.4					3.8			
12/13/2012												
12/27/2012	0.63								2.7			
1/10/2013												
1/30/2013	0.66		< 5.0	3.2	41.0	1.5	1300	< 0.5	3.9	110	< 0.5	< 0.25
2/14/2013												
2/26/2013	0.60			3.3					3.5			
3/14/2013												
3/28/2013	0.41		< 5.0	3.8	39.0	29	120	< 0.5	3.7	91	< 0.5	< 0.25
4/10/2013												
4/25/2013				2.7					2.9			
5/8/2013												
5/21/2013				1.4					1.4			
6/20/2013			13	1.6	73.0	6.0	300	< 0.5	1.9	45	< 0.5	< 0.25
7/25/2013				1.6					2.1			
8/6/2013												
8/13/2013												
8/29/2013				1.2					1.4			
9/10/2013												
9/26/2013			< 5.0	2.6	22.0	220	460	< 0.5	2.8	71	< 0.5	< 0.25
Count	12	3	5	12	5	5	10	5	18	5	5	5
Min	< 0.10	< 0.15	< 5.0	1.2	22.0	1.5	120	< 0.5	1.3	45	< 0.5	< 0.25
Max	0.66	< 0.15	< 50.	< 10.	73.0	220	1300	< 5	< 10.	110	< 1	< 1.0
Median	0.27	< 0.15	< 5.0	2.7	39.0	29	380	< 0.5	3.0	71	< 0.5	< 0.25
Mean	0.30	< 0.15	5.9	2.4	39.9	63	490	0.4	2.6	77	0.2	0.10

E 6: Lateral K, 100 ft downstream (520BUT003) continued…

	Metals												
	Total Chromium	Total Copper	Total Iron	Total Lead	Total Manganese	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc
Date	µg/L												
4/19/2012			560		150								
5/7/2012													
5/24/2012			1000		180								
6/7/2012													
6/26/2012			510		56								
7/12/2012													
7/26/2012			730		140								
8/13/2012													
8/29/2012			860		64								
9/12/2012													
9/26/2012	< 5.0	< 5.0	440	< 1	88	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	< 5.0
10/11/2012													
10/30/2012													
11/15/2012													
11/27/2012													
12/13/2012													
12/27/2012													
1/10/2013													
1/30/2013	4.0	4.9	1800	0.5	200	< 0.2		5.2	< 1.0	< 1	< 1.0		5.4
2/14/2013													
2/26/2013													
3/14/2013													
3/28/2013	1.6	1.7	200	< 0.1	59	< 0.2		1.8	< 1.0	< 1	< 1.0		< 5.0
4/10/2013													
4/25/2013													
5/8/2013													
5/21/2013													
6/20/2013	1.2	3.1	470	0.2	38	< 0.2		4.2	< 1.0	< 1	< 1.0		< 5.0
7/25/2013													
8/6/2013													
8/13/2013													
8/29/2013													
9/10/2013													
9/26/2013	1.7	1.6	590	0.2	300	< 0.2		3.2	< 1.0	< 0.3	< 1.0		2.5
Count	5	5	10	5	10	5	1	5	5	5	5	1	5
Min	1.2	1.6	200	< 0.1	38	< 0.2	< 5.0	1.8	< 1.0	< 0.3	< 1.0	< 10.0	2.5
Max	< 5.0	< 5.0	1800	< 1	300	< 0.2	< 5.0	5.2	< 20.	< 5	< 1.0	< 10.0	5.4
Median	1.7	3.1	570	0.2	120	< 0.2	< 5.0	4.2	< 1.0	< 1	< 1.0	< 10.0	< 5.0
Mean	2.0	2.5	720	0.2	130	< 0.2	< 5.0	3.1	1.2	0.4	< 1.0	< 10.0	2.3

E 6: Lateral K, 100 ft downstream (520BUT003) continued…

Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane (TCA)	1,1,2,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane (123TCP)	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (1,2-DCA)	1,2-Dichloropropane
	Organics																
	µg/L																
4/19/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/7/2012																	
5/24/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																	
6/26/2012	< 0.5	< 0.5				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
7/12/2012																	
7/26/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																	
8/29/2012	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																	
9/26/2012	< 0.5	< 0.5				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
7/25/2013																	
8/6/2013																	
8/13/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5		< 0.5	< 0.5	< 0.5	< 0.5
Count	10	10	8	4	8	10	10	10	10	10	10	10	9	10	10	10	10
Min	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 0.5	< 2	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5								< 0.5		< 0.5

E 6: Lateral K, 100 ft downstream (520BUT003) continued…

	Organics																	
Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Isopropyltoluene	4-Methyl-2-pentanone	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane
	µg/L																
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	5.8			< 0.5	< 0.5	< 0.5
5/7/2012																	
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5	< 0.5
6/7/2012																	
6/26/2012	< 0.5	< 0.5	< 0.5	< 0.5					< 0.5				< 10	< 5	< 0.5		< 0.5
7/12/2012																	
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5	< 0.5
8/13/2012																	
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5	< 0.5
9/12/2012																	
9/26/2012	< 0.5	< 0.5	< 0.5	< 0.5					< 0.5				< 10	< 5	< 0.5		< 0.5
10/11/2012																	
10/30/2012																	
11/15/2012																	
11/27/2012																	
12/13/2012																	
12/27/2012																	
1/10/2013																	
1/30/2013	< 5	< 0.5	< 5	< 0.5	< 5	< 20	< 5	< 20	< 0.5		< 20	< 20			< 0.5	< 0.5	< 5
2/14/2013																	
2/26/2013																	
3/14/2013																	
3/28/2013	< 5	< 0.5	< 5	< 0.5	< 5	< 20	< 5	< 20	< 0.5		< 20	< 20			< 0.5	< 0.5	< 5
4/10/2013																	
4/25/2013																	
5/8/2013																	
5/21/2013																	
6/20/2013	< 5	< 0.5	< 5	< 0.5	< 5	< 20	< 5	< 20	< 0.5		< 20	< 20			< 0.5	< 0.5	< 5
7/25/2013																	
8/6/2013																	
8/13/2013																	
8/29/2013																	
9/10/2013																	
9/26/2013	< 5	< 0.5	< 5	< 0.5	< 5	< 20	< 5	< 20	< 0.5		< 20	< 20			< 0.5	< 0.5	< 5
Count	10	10	10	10	8	8	8	8	10	2	8	8	2	2	10	8	10
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5	< 0.5
Max	< 5	< 0.5	< 5	< 0.5	< 5	< 20	< 5	< 20	< 0.5	< 0.5	< 20	< 20	< 10	< 5	< 0.5	< 0.5	< 5
Median	< 0.5	< 0.5	< 0.5	< 0.5	3	13	3	13	< 0.5	< 0.5	13	13	< 10	< 5	< 0.5	< 0.5	< 0.5
Mean		< 0.5		< 0.5					< 0.5	< 0.5		30	< 10	< 5	< 0.5	< 0.5	

E 6: Lateral K, 100 ft downstream (520BUT003) continued…

Date	Organics																																			
	Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-Dichloroethene		cis-1,3-Dichloropropene		Dibromochloromethane		Dibromomethane		Dichlorodifluoromethane		Dichloromethane		Di-isopropyl ether		Ethanol	
	µg/L																																			
4/19/2012	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	20
5/7/2012																																				
5/24/2012	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		7	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	20
6/7/2012																																				
6/26/2012	<	0.5	<	0.5	<	2	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5										
7/12/2012																																				
7/26/2012	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	20
8/13/2012																																				
8/29/2012	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		0.4	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	20
9/12/2012																																				
9/26/2012	<	0.5	<	0.5	<	2	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5										
10/11/2012																																				
10/30/2012																																				
11/15/2012																																				
11/27/2012																																				
12/13/2012																																				
12/27/2012																																				
1/10/2013																																				
1/30/2013	<	0.5	<	0.5	<	1	<	50	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	1	<	0.5				
2/14/2013																																				
2/26/2013																																				
3/14/2013																																				
3/28/2013	<	0.5	<	0.5	<	1	<	50	<	0.5	<	0.5	<	0.5		0.7	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	1	<	0.5				
4/10/2013																																				
4/25/2013																																				
5/8/2013																																				
5/21/2013																																				
6/20/2013	<	0.5	<	0.5	<	1	<	50	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	1	<	0.5				
7/25/2013																																				
8/6/2013																																				
8/13/2013																																				
8/29/2013																																				
9/10/2013																																				
9/26/2013	<	0.5	<	0.5	<	1	<	50	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	1	<	0.5				
Count		10		10		10		10		10		10		10		10		8		10		10		10		10		8		4		4		4
Min	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		0.4	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	20
Max	<	0.5	<	0.5	<	2	<	50	<	0.5	<	0.5	<	0.5		7	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	1	<	0.5	<	0.5	<	20
Median	<	0.5	<	0.5	<	1	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		0.8	<	0.5	<	0.5	<	20
Mean	<	0.5	<	0.5					<	0.5	<	0.5	<	0.5		0.9	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	20

E 6: Lateral K, 100 ft downstream (520BUT003) continued…

	Organics															
Date	Ethyl tert-Butyl Ether	Ethylbenzene	Gasoline Range Hydrocarbons	Hexachlorobutadiene	Hexachloroethane	Hexavalent Chromium	Iodomethane	Isopropylbenzene	m,p-Xylene	MBAs	Methylene chloride	Methyl-tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
	µg/L															
4/19/2012	< 0.5	< 0.5	< 50	< 0.5			< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
5/7/2012																
5/24/2012	< 0.5	< 0.5	< 50	< 0.5			< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012		< 0.5		< 0.5				< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012		< 0.5		< 0.5		7		< 0.5	< 0.5		< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013		< 0.5		< 5	< 50		< 50	< 5	< 0.5			< 0.5	< 5	< 5	< 5	< 0.5
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013		< 0.5		< 5	< 50		< 50	< 5	< 0.5			< 0.5	< 5	< 5	< 5	< 0.5
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013		< 0.5		< 5	< 50		< 50	< 5	< 0.5			< 0.5	< 5	< 5	< 5	< 0.5
7/25/2013																
8/6/2013																
8/13/2013																
8/29/2013																
9/10/2013																
9/26/2013		< 0.5		< 5			< 50	< 5	< 0.5			< 0.5	< 5	< 5	< 5	< 0.5
Count	4	10	2	10	3	1	8	10	10	5	6	6	10	10	10	10
Min	< 0.5	< 0.5	< 50	< 0.5	< 50	7	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 50	< 5	< 50	7	< 50	< 5	< 1	< 0.1	< 5	< 1	< 5	< 5	< 5	< 0.5
Median	< 0.5	< 0.5	< 50	< 0.5	< 50	7	26	< 0.5	< 0.5	< 0.1	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 50		< 50	7				< 0.1						< 0.5

E 6: Lateral K, 100 ft downstream (520BUT003) continued…

	Organics																
Date	Perchlorate	p-Isopropyltoluene	sec-Butylbenzene	Styrene	TBA	Tert-Amyl Methyl Ether	tert-Butylbenzene	Tetrachlorethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Trichlorotrifluoroethane	Vinyl chloride	Xylenes, total
	µg/L															
4/19/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
5/7/2012																
5/24/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
6/7/2012																
6/26/2012			< 10				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	
7/12/2012																
7/26/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
8/13/2012																
8/29/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
9/12/2012																
9/26/2012	< 4		< 10				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013	< 2	< 5	< 5	< 5			< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013	< 10	< 5	< 5	< 5			< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013	< 2	< 5	< 5	< 5			< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	
7/25/2013																
8/6/2013																
8/13/2013																
8/29/2013																
9/10/2013																
9/26/2013	< 2	< 5	< 5	< 5			< 5	< 0.5	0.15	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	
Count	5	6	10	8	4	4	10	10	10	10	10	10	8	4	10	4
Min	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Max	< 10	< 5	< 10	< 5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Median	< 2	< 5	< 5	3	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Mean					< 5	< 0.5		< 0.5	0.13	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1

E 7: Lateral K, 100 ft upstream of effluent (520BUT004)

	Field Data					Bacteria	General Chemistry								Inorganics		
Date	Dissolved Oxygen mg/L	pH	Water Temperature °C	Turbidity ntu	Specific Conductivity µS/cm	*E. coli* MPN	Ammonia as N mg/L	Boron µg/L	Chloride mg/L	Fluoride mg/L	Perchlorate mg/L	Sodium mg/L	Sulfate mg/L	Total Dissolved Solids mg/L	Total Calcium mg/L	Total Hardness mg/L	Total Magnesium mg/L
4/19/2012	9.53	7.70	17.2	20.	500			< 50.				24					
5/7/2012	7.90	7.50	18.9	11	260												
5/24/2012	6.10	7.51	18.4	24	150			< 50.				13					
6/7/2012	7.72	7.61	18.9	9.8	170												
6/26/2012	7.87	7.47	18.3	10.	120			24				4.1					
7/12/2012	6.48	7.11	22.6	11	190												
7/26/2012	4.62	7.00	21.1	15	190			< 50.				5.1				70	
8/13/2012	8.60	6.80	22.0	17	160	206											
8/29/2012	1.79	7.37	17.8	21	190	108		< 50.				5.8			14.1	71	85.8
9/12/2012	4.94	7.32	17.2	17	190	16.1											
9/26/2012	6.69	7.49	18.0	15	270	13.4	1	< 50.	3.1	< 0.10	< 4.0	12	6.3	150	42	130	35
10/11/2012	8.05	7.48	15.6	7.7	330	65.0											
10/30/2012	5.42	7.49	13.7	15	290		< 1	34	3.7			11	7.4	190	29	150	19
11/15/2012	8.24	7.41	10.6	9.3	160	70.3											
11/27/2012	7.64	7.33	12.5	110	220		0.1	21	3.3			8.0	5.7	110		78	
12/13/2012	8.85	7.43	9.39	36	240	102											
12/27/2012	10.4	7.55	6.85	49	210			24				8.3			16	87	11
1/10/2013	13.2	7.86	6.85	39	270	35.0											
1/30/2013	9.80	7.39	9.57	44	450		< 0.1	31	6.6	0.14	< 2.0	20.	14	280	39	210	28
2/14/2013	10.2	7.62	9.30	110	320	83.6											
2/26/2013	12.0	7.75	7.38	19	360		0.2	30.	8.5			22	17	370	45	250	33
3/14/2013	9.65	7.70	13.9	20.	450	144											
3/28/2013	8.46	7.63	14.8	14	90.		0.2	40.	8.3	0.13	< 2.0	22	16	320	45	250	32
4/10/2013	8.90	7.00															
4/25/2013	6.70	7.10	15.1	26	280	2420	0.3		28			15	4.2	180	11	56	7.1
5/8/2013		6.90															
5/21/2013	5.61	7.25	18.2	6.9	140	411	0.4		2.5			4.9	4.6	95	11	53	6.1
6/20/2013	6.50	7.38	19.8	19	130	109	< 0.1		1.6	< 0.10	< 2.0	4.7	3.2	97	11	55	6.4
7/25/2013		7.80	22.9	24	160	44.8	0.1		1.5			5.4	6.2	94	14	69	8.2
8/6/2013				17													
8/29/2013	7.02	7.33	19.5	37	190	236	0.2		1.7			5.9	3.4	120	14	69	8.4
9/10/2013	9.70	7.00		19													
9/26/2013		7.42	13.8	26	310	185	< 0.1		3.5	< 0.10	< 2.0	11	6.7	190	27	130	16
Count	29	32	29	31	29	16	12	12	12	5	5	18	12	12	13	15	13
Min	1.79	6.80	6.85	6.9	90	13.4	< 0.1	21	1.5	< 0.10	< 2.0	4	3.2	94	11	53	6
Max	13.2	7.86	22.9	110	500	2420	1	< 50.	28	0.14	< 4.0	24	17	370	45	250	86
Median	7.90	7.43	17.2	19	210	110	0.2	37	3.4	< 0.10	< 2.0	10.	6.3	170	16	78	16
Mean	7.88	7.40	15.5	27	240	270	0.2	22.2	6.0	0.07	0.6	11	7.9	180	24	115	23

E 7: Lateral K, 100 ft upstream of effluent (520BUT004) continued…

	Nutrients		Metals									
	Nitrate as N	Nitrite as N	Dissolved Aluminum	Dissolved Arsenic	Dissolved Iron	Dissolved Manganese	Total Aluminum	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium
Date	mg/L		µg/L									
4/19/2012	0.86	< 0.15					690		< 10.			
5/7/2012												
5/24/2012	0.18	< 0.15					1200		< 10.			
6/7/2012												
6/26/2012	< 0.11	< 0.15					350		1.3			
7/12/2012												
7/26/2012	0.11						360		< 10.			
8/13/2012												
8/29/2012	0.25						500		< 10.			
9/12/2012												
9/26/2012	< 0.11		< 50.	< 10.	17.8	59	440	< 5	2.2	61	< 1	< 1.0
10/11/2012												
10/30/2012	0.23			< 10.					2.3			
11/15/2012												
11/27/2012	0.11			2.5					3.6			
12/13/2012												
12/27/2012	0.65								2.4			
1/10/2013												
1/30/2013	0.93		6.7	2.8	21.0	120	2600	< 0.5	4.1	130	< 0.5	< 0.25
2/14/2013												
2/26/2013	1.0			3.3					3.6			
3/14/2013												
3/28/2013	0.50		18	5.4	11.0	5.2	290	< 0.5	5.1	120	< 0.5	< 0.25
4/10/2013												
4/25/2013				3.6					3.3			
5/8/2013												
5/21/2013				1.3					1.4			
6/20/2013			14	1.4	83.0	4.1	320	< 0.5	1.6	41	< 0.5	< 0.25
7/25/2013				1.3					2.0			
8/6/2013												
8/29/2013				0.92					1.5			
9/10/2013												
9/26/2013			< 5.0	2.4	19.0	100	680	< 0.5	3.3	71	< 0.5	< 0.25
Count	12	3	5	12	5	5	10	5	18	5	5	5
Min	< 0.11	< 0.15	< 5.0	0.92	11.0	4.1	290	< 0.5	1.3	41	< 0.5	< 0.25
Max	1.0	< 0.15	< 50.	< 10.	83.0	120	2600	< 5	< 10.	130	< 1.0	< 1.0
Median	0.24	< 0.15	14	2.7	19.0	59	470	< 0.5	3.3	71	< 0.5	< 0.25
Mean	0.41	< 0.15	10	2.5	30.4	58	740	0.4	2.7	85	0.2	0.10

E 7: Lateral K, 100 ft upstream of effluent (520BUT004) continued…

	Metals												
	Total Chromium	Total Copper	Total Iron	Total Lead	Total Manganese	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc
Date	µg/L												
4/19/2012			680		290								
5/7/2012													
5/24/2012			1100		160								
6/7/2012													
6/26/2012			590		58								
7/12/2012													
7/26/2012			740		150								
8/13/2012													
8/29/2012			940		69								
9/12/2012													
9/26/2012	< 5.0	< 5.0	560	< 1	120	< 0.2	< 5.0	< 5.0	< 20.	< 5	< 1.0	< 10.0	< 5.0
10/11/2012													
10/30/2012													
11/15/2012													
11/27/2012													
12/13/2012													
12/27/2012													
1/10/2013													
1/30/2013	6.5	7.2	2700	0.9	350	< 0.2		8.1	< 1.0	< 1	< 1.0		6.7
2/14/2013													
2/26/2013													
3/14/2013													
3/28/2013	1.1	1.4	300	0.2	160	< 0.2		3.0	< 1.0	< 1	< 1.0		< 5.0
4/10/2013													
4/25/2013													
5/8/2013													
5/21/2013													
6/20/2013	1.4	3.4	510	0.2	37	< 0.2		4.3	< 1.0	< 1	< 1.0		< 5.0
7/25/2013													
8/6/2013													
8/29/2013													
9/10/2013													
9/26/2013	2.0	1.7	780	0.3	390	< 0.2		3.8	< 1.0	< 0.3	< 1.0		6.3
Count	5	5	10	5	10	5	1	5	5	5	5	1	5
Min	1.1	1.4	300	0.2	37	< 0.2	< 5.0	3.0	< 1.0	< 0.3	< 1.0	< 10.0	< 5.0
Max	6.5	7.2	2700	< 1.00	390	< 0.2	< 5.0	8.1	< 20.	< 5	< 1.0	< 10.0	6.7
Median	2.0	3.4	710	0.3	160	< 0.2	< 5.0	4.3	< 1.0	< 1	< 1.0	< 10.0	< 5.0
Mean	2.5	3.0	890	0.4	180	< 0.2	< 5.0	4.1	1.2	0.4	< 1.0	< 10.0	3.4

E 7: Lateral K, 100 ft upstream of effluent (520BUT004) continued…

Date	Organics																	
	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane (TCA)	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane (123TCP)	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (1,2-DCA)	1,2-Dichloropropane
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/7/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012							< 0.5									
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013																
Count	5	5	4	4	5	5	6	5	5	5	5	5	5	5	5	5
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 5	< 0.5	< 2	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5		< 0.5

E 7: Lateral K, 100 ft upstream of effluent (520BUT004) continued…

	Organics															
Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Isopropyltoluene	4-Methyl-2-pentanone	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
5/7/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5			< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5		< 0.5				< 10	< 5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5		< 5	< 5			< 0.5	< 0.5
9/12/2012																
9/26/2012			< 0.5													
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013																
Count	5	5	6	5	5	4	5	4	5	2	4	4	1	1	5	5
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 0.5	< 5	< 5	< 10	< 5	< 0.5	< 0.5

E 7: Lateral K, 100 ft upstream of effluent (520BUT004) continued…

	Organics															
Date	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Di-isopropyl ether
	µg/L															
4/19/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
5/7/2012																
5/24/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
7/12/2012																
7/26/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012				< 2												
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
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4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013																
Count	5	5	5	6	5	5	5	5	5	5	5	5	5	5	4	4
Min	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 0.5	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

E 7: Lateral K, 100 ft upstream of effluent (520BUT004) continued…

	Organics															
Date	Ethanol	Ethyl tert-Butyl Ether	Ethylbenzene	Gasoline Range Hydrocarbons	Hexachlorobutadiene	Hexavalent Chromium	Iodomethane	Isopropylbenzene	m,p-Xylene	MBAs	Methylene chloride	Methyl-tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
	µg/L															
4/19/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
5/7/2012																
5/24/2012	< 20	< 0.5	< 0.5	< 50	< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
6/7/2012																
6/26/2012			< 0.5		< 0.5			< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
7/12/2012																
7/26/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
8/13/2012																
8/29/2012	< 20	< 0.5	< 0.5		< 0.5		< 0.5	< 0.5	< 1	< 0.1	< 5		< 0.5	< 0.5	< 0.5	< 0.5
9/12/2012																
9/26/2012						< 10										
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013																
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013																
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013																
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013																
Count	4	4	5	2	5	1	4	5	5	5	5	1	5	5	5	5
Min	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Max	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Median	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5	< 1	< 0.1	< 5	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Mean	< 20	< 0.5	< 0.5	< 50	< 0.5	< 10	< 0.5	< 0.5		< 0.1		< 1	< 0.5	< 0.5	< 0.5	< 0.5

E 7: Lateral K, 100 ft upstream of effluent (520BUT004) continued…

	Organics															
Date	Perchlorate	p-Isopropyltoluene	sec-Butylbenzene	Styrene	TBA	Tert-Amyl Methyl Ether	tert-Butylbenzene	Tetrachlorethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Trichlorotrifluoroethane	Vinyl chloride	Xylenes, total
	µg/L															
4/19/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
5/7/2012																
5/24/2012			< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
6/7/2012																
6/26/2012		< 0.5	< 10				< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	
7/12/2012																
7/26/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
8/13/2012																
8/29/2012		< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
9/12/2012																
9/26/2012	< 4															
10/11/2012																
10/30/2012																
11/15/2012																
11/27/2012																
12/13/2012																
12/27/2012																
1/10/2013																
1/30/2013	< 2															
2/14/2013																
2/26/2013																
3/14/2013																
3/28/2013	< 2															
4/10/2013																
4/25/2013																
5/8/2013																
5/21/2013																
6/20/2013	< 2															
7/25/2013																
8/6/2013																
8/29/2013																
9/10/2013																
9/26/2013	< 2															
Count	5	3	5	4	4	4	5	5	5	5	5	5	4	4	5	4
Min	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Max	< 4	< 0.5	< 10	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Median	< 2	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1
Mean		< 0.5		< 0.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1