Post-Closure Groundwater Monitoring
2010 Semiannual Report
Coldwater Road Landfill
Flint, Michigan
MID 005 356 860

Motors Liquidation Company
Detroit, Michigan

August 2010

O'BRIEN & GERE
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#14774 | 45042

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SCOTT L. CORMIER, P.E. – VICE PRESIDENT
O'Brien & Gere Engineers, Inc.

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August 25, 2010

Mr. Richard Conforti, P.E.
Environmental Engineer
Michigan Department of Environmental Quality
Waste and Hazardous Material Division
P.O. Box 30241
Lansing, Michigan 48909-7741

RE: Post-Closure Groundwater Monitoring 2010 Semiannual Report
Coldwater Road Landfill, Flint, Michigan
MID 005 356 860

FILE: 14774 / 45042 #5

Dear Mr. Conforti:

On behalf of Motors Liquidation Company, O'Brien & Gere is pleased to present the results of the semiannual groundwater sampling event conducted in June 2010 for the Coldwater Road Landfill site (Figure 1). The groundwater samples were analyzed for total organic carbon (TOC, Method 415.1), total organic halogen (TOX, Method 9020A), specific conductivity (Method 120.1), chloride (Method 300.0), cyanide (CN, Method 335.4), sulfate (Method 300.0), phenols (Method 420.1), volatile organic compounds (VOCs, Method 8260B), and dissolved metals (chromium (Cr), copper (Cu), nickel (Ni), zinc (Zn), iron (Fe), manganese (Mn) and sodium (Na), Method 200.8). The event also included field measurements for pH, specific conductivity, dissolved oxygen, oxidation reduction potential, temperature, and turbidity. Groundwater samples were collected using a bladder or peristaltic pump, and low-flow sampling techniques in accordance with O'Brien & Gere procedures and the site-specific Field Method Guide (Appendix A). Samples to be analyzed for dissolved metals were field filtered. Groundwater sampling logs are included as (Appendix B).

Gauging and sampling were conducted on June 15, 2010 through June 18, 2010. The results are presented in four separate tables: Table 1 - Depth to Groundwater Levels in Monitoring Wells; Table 2 - Post-Closure Monitoring - Historical Analytical Results (Physical Parameters, TOC, TOX and Metals); Table 3 - Post-Closure Monitoring - Historical Analytical Results (Chloride, Cyanide, Phenols and Sulfate); and Table 4 - Post-Closure Monitoring - Analytical Results (Volatile Organics). Laboratory analytical reports are included in Appendix C.

A site location map (Figure 1) and monitoring well location map (Figure 2) are also included. A groundwater elevation map was completed for the shallow wells (Figure 3) and a groundwater potentiometric surface map was completed for the deeper drift aquifer (Figure 4).

Contours were not plotted for groundwater in the shallow wells because the wells monitor discontinuous perched zones and therefore the water level elevations exhibited no pattern.

The drift aquifer static water elevations, which were calculated from depth to water measurements collected on June 15, 2010, were consistent with historical data. Groundwater in the drift aquifer flows in a southerly direction as shown on Figure 4.

Groundwater samples were collected from six monitoring wells screened in perched zones and six monitoring wells screened in the drift aquifer during this sampling event.

A review of the analytical data presented in the attached tables indicates analytical results similar to previous sampling events with the following exceptions:

- Chromium and copper concentrations were not detected

- Nickel concentrations were not detected, except in B-19 where nickel decreased in concentration
- Zinc concentrations were not detected, except in B-9 and B-18A where zinc decreased in concentration
- TOC concentrations stayed similar or decreased; however, TOC increased in B-2D
- TOX concentrations were not detected, except in B-9, B-24R, and B-27D where TOX decreased in B-9 and B-24R, and increased in B-27
- pH concentrations stayed similar or increased slightly
- Specific conductivity stayed similar or increased slightly; however, specific conductivity deceased in B-19AR,B-20D, B-21D, and B-23D
- Iron concentrations stayed similar or decreased; however, iron increased in B-2D, B-9, B-20D and B-28
- Manganese concentrations stayed similar or decreased; however, manganese increased in B-2D, B-7, B-9, B-24R and B-28
- Sodium concentrations stayed similar or decreased; however, sodium increased in B-7, B-9, B-24R, and B-28
- Chloride and sulfate concentrations stayed similar or decreased slightly
- Cyanide and phenols were not detected

The duplicate sample results collected from monitoring well B-27 were comparable to the original sample. VOCs concentrations were not detected during this sampling event.

There were no exceedances of the Shewart control limits during this sampling event (Appendix D). There was an increasing trend for specific conductivity at monitoring well B-22D. The increase in specific conductivity ranged from 699µg/L to 715 µg/L. This trend was not confirmed by other trends or spikes in the other constituents monitored in this well, and does not suggest a release from the landfill and will continue to be reviewed during future sampling events. No other trends or spikes were observed during this monitoring event. The data from this sampling event does not suggest a release from the landfill.

The next sampling event (annual event) is currently scheduled for November 2010. If you have any questions, please feel free to contact either of us at (248) 477-5701.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Scott L. Cormier, PE
Vice President

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Clifford S. Yantz
Technical Associate

cc: David Favero – MLC

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

On Behalf of Motors Liquidation Company

Scott L. Cormier, P.E.
Agent for Motors Liquidation Company

Vice President – O'Brien & Gere Engineers, Inc.

Title

8/26/10

Date

cc: file

TABLES

Table 1
Coldwater Road Facility
Depth to Ground Water Levels in Monitoring Wells
June 15, 2010

Well	Top Of Casing Elev. (ft) *	Depth To Water (ft)	Static Water Elev. (ft)
B-2D	805.18	54.82	750.36
B-7	815.20	23.46	791.74
B-9	809.16	6.02	803.14
B-18A	812.25	24.60	787.65
B-19A	813.89	8.42	805.47
B-19AR	813.15	39.80	773.35
B-20D	816.61	71.04	745.57
B-21D	822.60	81.91	740.69
B-22D	823.73	86.40	737.33
B-23DR	813.72	83.59	730.13
B-24R	817.37	13.66	803.71
B-27D**	814.36	78.96	735.40
B-28	818.07	7.02	811.05

Notes

Casing elevations were provided by Bartow & King Engineers and are in feet relative to National Geodetic Vertical Datum

* - Top of casing elevations were resurveyed in May 2005 after the installation of the replacement wells.

R - Indicates a replacement well location.

** - Top of casing elevation was surveyed in December 2005 after the installation of the new well.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	5.3	<10	9.0	434	15.0	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	6.3	130	8.3	479	14.4	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/19/1996	5.2	<100	7.5	580	12.4	<20	<20	<20	<20	--	--	--	--	--	--	--
B-2D	8/21/1996	7.4	<5	7.7	641	13.9	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	11.0	<5	7.3	769	7.6	<20	<20	<20	30	--	--	--	--	--	--	--
	5/6/1997	26.0	<100	6.3	1500	7.0	10	<10	28	30	--	--	--	--	--	--	--
	11/6/1997	15.0	<100	6.9	660	9.0	<10	<10	39	<10	280	577	--	12	<0.005	<0.020	79
	5/4/1998	29.0	12	6.7	549	12.4	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	52.0	18	4.7	498	8.6	<10	<10	<5	10	<10	17	33,600	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	13	<0.005	<0.020	40
	4/26/1999	52.0	<100	8.5	523	14.5	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1999	6.4	<100	7.4	405	12.8	<10	<10	<5	40	70	21	35,100	4	<0.005	<0.020	42
	4/26/2000	5.4	<100	8.0	770	17.4	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	5.5	<10	6.7	610	9.7	<10	<10	9	<10	40	--	22,900	7	<0.005	<0.020	81
	5/15/2001	5.5	<100	7.8	890	13.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	10/18/2001	4.1	<100	7.4	1830	9.4	<10	<10	<5	<10	230	--	12,900	2	<0.005	<0.020	32
Dup.	10/18/2001	3.6	<100	7.4	1780	7.8	<10	<10	<5	<10	210	--	12,700	1	<0.005	<0.020	32
	5/16/2002	4.0	<100	7.2	1000	11.6	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/7/2002	2.6	<30	7.4	490	9.5	<5	<5	<5	<5	140	8	11,900	2	<0.005	<0.020	32
Dup.	11/7/2002	2.7	<30	--	--	--	<5	<5	<5	<5	140	6	11,200	2	<0.005	<0.020	30
	6/3/2003	4.4	<30	6.9	530	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/13/2003	2.8	<30	8.0	630	7.7	<5	<5	<5	<5	110	7	--	2	<0.005	<0.010	31
	6/30/2004	4.2	<30	6.3	570	15.8	<5	<5	<5	7	--	--	--	--	--	--	--
	12/10/2004	2.0	<30	6.8	550	10.2	<5	<5	<5	10	760	145	10,700	2	<0.005	<0.010	35
	6/8/2005	2.0	<30	8.0	620	11.5	<5	<5	<5	<5	660	199	10,900	<5	<0.005	<0.010	34
	12/8/2005	3.0	<30	6.9	642	10.2	9	<4	<5	<10	140	120	13,300	--	--	--	--
	6/28/2006	6.3	<30	7.4	671	12.2	<5	<4	<5	8	110	70	15,000	2	<0.005	<0.010	50
Dup.	6/28/2006	5.1	<30	7.4	682	12.2	<5	<4	<5	8	120	70	15,200	3	<0.005	<0.010	50
	11/30/2006	5.1	43.3	7.2	677	8.4	<5	<4	<5	18	--	--	--	--	--	--	--
	6/8/2007	2.4	69.1	6.8	644	14.1	8	2	1	6	110	104	14,800	4	<0.005	<0.010	44
	11/14/2007	5.2	<30	7.1	783	14.9	1	1	4	9	--	--	--	--	--	--	--
	6/25/2008	5.7	<60	6.9	920	18.4	<5	1	5	7	350	32	26,100	10	<0.005	<0.010	98
	11/20/2008	4.5	<30	6.8	806	9.1	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/25/2009	5.6	<30	7.0	924	23.7	<5	203	<5	113	22	77	29,700	10	<0.005	<0.010	104
	11/16/2009	4	<30	7.2	835	10.2	<5	<4	<5	6	--	--	--	--	--	--	--
	6/16/2010	**5**	**<30**	**7.1**	**841**	**13.9**	**<5**	**<4**	**<5**	**<5**	**40**	**83**	**19,000**	**7**	**<0.005**	**<0.020**	**75**

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	8.7	23	7.5	1509	13.8	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	--	--	--	--	--	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	14.0	120	--	--	--	<20	<20	<40	22	--	--	--	--	--	--	--
	6/19/1996	20.0	<100	6.9	1,508	13.2	<20	<20	<20	20	--	--	--	--	--	--	--
B-7	8/21/1996	55.0	26	7.6	1,567	17.1	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	27.0	<5	8.0	1,960	7.2	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	16.0	<100	7.2	780	11.0	<10	10	14	10	--	--	--	--	--	--	--
	11/6/1997	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/4/1998	6.0	<5	6.6	1,270	10.7	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	4.0	<10	4.6	1,240	11.2	<10	<10	8	30	10	424	31,000	--	--	--	--
	12/23/1998	--	--	--	--	--		--	--	--	--	--	--	58	<0.005	<0.020	161
	4/26/1999	3.9	<100	7.5	1,413	14.2	<10	<10	10	<10	--	--	--	--	--	--	--
	11/5/1999	5.1	<100	6.5	1,230	14.2	<10	<10	8	30	260	313	41,800	64	<0.005	<0.020	301
	4/26/2000	4.8	<100	7.6	1,450	10.2	<10	<10	<5	<10	--	--	--	--	--	--	--
Dup.	4/26/2000	5.9	<100	NS	NS	NS	<10	<10	6	10	--	--	--	--	--	--	--
	12/8/2000	4.2	<10	7.1	1,180	9.5	<10	<10	20	10	50	--	58,900	79	<0.005	<0.020	227
	5/16/2001	5.0	<100	7.3	1,330	13.0	<10	<10	7	<10	--	--	--	--	--	--	--
	10/18/2001	5.3	<100	7.2	1,210	12.5	<10	<10	5	<10	330	--	60,800	81	<0.005	NA	205
	5/16/2002	3.9	<100	7.2	1,850	11.9	<10	<10	<5	10	--	--	--	--	--	--	--
	11/7/2002	NR	NR	7.4	1,120	10.3	<5	<5	5	5	250	<5	65,500	NA	NA	NA	NA
	6/4/2003	3.3	<30	6.9	1,460	12.6	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/13/2003	3.9	<30	6.9	1,590	9.6	<5	<5	<5	5	190	<5	--	85	<0.005	<0.010	279
	6/30/2004	4.3	43	7.1	1,353	16.0	<5	<5	9	7	--	--	--	--	--	--	--
	12/9/2004	4.0	<30	5.3	1,290	10.8	<5	<5	7	14	180	74	71,200	78	<0.005	<0.010	251
	6/8/2005	7.0	86	7.4	1,121	10.9	5	<5	9	13	170	31	81,900	80	<0.005	<0.010	254
	12/7/2005	7.5	<30	8.7	1,430	12.2	10	<4	6	20	150	50	85,300	--	--	--	--
	6/29/2006	4.3	<30	7.2	1,470	11.7	5	<4	9	18	190	150	76,900	73	<0.005	<0.010	270
	11/29/2006	4.4	<30	6.9	1,380	15.3	<5	<4	9	11	--	--	--	--	--	--	--
	6/7/2007	3.9	23.7	6.9	1,400	13.4	11	27	5	14	130	42	87,300	72	<0.005	<0.010	208
	11/14/2007	3.5	<30	6.9	1,350	13.4	14	6	16	20	--	--	--	--	--	--	--
	6/25/2008	3.8	72.9	6.9	1,410	20.7	<5	3	6	<5	350	10	94,800	68	<0.005	<0.010	222
	11/17/2008	4.6	20.5	6.8	1,258	5.5	<5	3	5	17	--	--	--	--	--	--	--
	6/24/2009	4.5	<30	6.9	1,184	20.0	<5	3	<5	14	67	36	84,500	40	<0.005	<0.010	154
	11/17/2009	8	25.3	7.3	1,090	10.3	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/17/2010	**5**	**<30**	**7.0**	**1,290**	**16.3**	**<5**	**<4**	**<5**	**<5**	**<20**	**47**	**86,000**	**61**	**<0.005**	**<0.020**	**160**

See notes on page 16.

Table 2
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Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	3.5	34	7.7	2,400	14.6	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	3.9	<10	7.7	1,829	14.8	37	43	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.1	<10	7.3	2,860	8.0	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	2.1	<100	6.8	2,550	11.5	<20	<20	<20	<20	--	--	--	--	--	--	--
B-9	8/21/1996	2.3	<5	8.0	2,310	16.4	<20	<20	<20	70	--	--	--	--	--	--	--
	11/13/1996	71.0	<5	6.8	3,280	9.2	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	6.8	2,600	10.0	<10	<10	51	20	--	--	--	--	--	--	--
	11/6/1997	2.0	<100	6.5	2,800	11.0	<10	<10	183	40	650	741	--	141	<0.005	<0.020	1,178
	5/4/1998	3.0	<5	6.6	2,400	14.5	10	10	18	40	--	--	--	--	--	--	--
	11/5/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS
	4/26/1999	4.0	<100	7.7	1,860	12.2	<10	<10	19	20	--	--	--	--	--	--	--
	11/5/1999	2.5	<100	6.8	2,340	15.4	<10	<10	20	30	610	1280	47,100	128	<0.005	<0.020	1,222
	4/26/2000	5.5	<100	7.6	2,780	9.5	<10	<10	12	30	--	--	--	--	--	--	--
	12/8/2000	5.0	<10	7.6	2,400	7.8	<10	<10	46	<10	50	--	69,500	142	<0.005	<0.020	1,246
	5/16/2001	4.8	<100	7.4	1,070	12.6	<10	<10	7	10	--	--	--	--	--	--	--
	10/17/2001	4.0	<100	7.5	2,130	10.8	<10	<10	8	20	940	--	66,000	122	<0.005	NA	1,150
	5/16/2002	1.9	<100	7.2	2,470	11.6	<10	<10	7	10	--	--	--	--	--	--	--
	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2003	2.2	57	6.8	2,690	10.7	<5	<5	15	13	--	--	--	--	--	--	--
	11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/30/2004	3.8	NS	6.9	2,379	12.7	<5	8	19	28	--	--	--	--	--	--	--
	12/9/2004	3.0	<30	5.9	2,480	11.4	<5	<5	11	19	570	248	55,900	149	<0.005	<0.010	1,350
	6/8/2005	4.0	<30	7.1	2,116	10.3	6	6	12	17	480	701	58,300	128	<0.005	<0.010	1,160
	12/7/2005	5.0	<30	8.6	2,830	11.9	11	5	12	40	320	410	58,500	--	--	--	--
	6/29/2006	1.9	<30	6.8	2,820	12.4	6	6	13	19	390	330	63,600	125	<0.005	<0.010	1,150
	11/30/2006	2.7	36.7	7.2	2,830	12.5	<5	6	<5	14	--	--	--	--	--	--	--
	6/5/2007	2.1	<30	6.7	2,770	11.0	12	6	24	21	320	1,900	67,300	112	<0.005	<0.010	1,120
	11/16/2007	2.0	27.4	6.7	3,000	9.4	2	6	24	18	--	--	--	--	--	--	--
	7/2/2008	1.8	36.4	6.4	3,060	19.7	<5	4	13	19	780	812	64,200	133	<0.005	<0.010	1,280
	11/20/2008	2.2	15.9	6.4	3,290	8.1	<5	<1	13	<5	--	--	--	--	--	--	--
Dup.	11/20/2008	2.0	127	6.4	3,280	8.1	<5	<1	13	<5	--	--	--	--	--	--	--
	6/25/2009	1.6	<30	6.7	2,700	19.8	<5	<1	<5	<5	59	173	65,300	107	<0.005	<0.010	1,120
	11/16/2009	3	84.1	6.7	3,030	12.7	<5	<4	16	8	--	--	--	--	--	--	--
	6/15/2010	**3**	**27.5**	**6.7**	**3,030**	**13.0**	**<5**	**<4**	**7**	**6**	**460**	**475**	**70,700**	**117**	**<0.005**	**<0.020**	**1,230**

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	4.0	<10	--	--	--	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	--	25	--	--	--	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.0	<10	7.6	776	8.9	<20	<20	<40	<20	--	--	--	--	--	--	--
B-14	6/19/1996	1.7	<100	7.3	704	13.6	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.6	<5	8.9	748	13.1	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	76.0	<5	7.8	980	7.2	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	7.0	670	10.0	<10	<10	11	<10	--	--	--	--	--	--	--
	11/6/1997	2.0	<100	6.8	670	10.0	<10	<10	43	10	550	67	--	12	<0.005	<0.020	61
	5/4/1998	6.0	<5	6.7	558	13.3	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	2.0	<10	6.4	642	9.9	<10	<10	<5	10	<10	<5	13,900	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	8	<0.005	<0.020	47
	4/26/1999	4.5	<100	8.0	488	13.3	<10	<10	<5	30	--	--	--	--	--	--	--
	11/5/1999	NS	NS	7.3	609	14.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/26/2000	7.1	<100	7.4	510	14.7	<10	<10	<5	960	--	--	--	--	--	--	--
	12/8/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/15/2001	5.0	--	7.8	510	13.2	<10	<10	6	380	--	--	--	--	--	--	--
	10/18/2001	2.1	<100	7.3	750	10.7	<10	<10	8	90	260	--	21,500	6	<0.005	NA	72
	5/16/2002	2.3	NR	7.1	1,790	12.1	<10	<10	<5	60	--	--	--	--	--	--	--
	11/7/2002	NR	NR	7.5	540	9.9	<5	<5	<5	31	170	15	14,400	NA	NA	NA	NA
	6/3/2003	2.4	<30	6.9	710	12.4	<5	<5	<5	54	--	--	--	--	--	--	--
	11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/29/2004	2.8	<30	7.3	693	14.9	<5	<5	<5	26	--	--	--	--	--	--	--
	12/9/2004	5.0	<30	6.6	560	10.5	<5	<5	<5	1,260	160	62	4,390	5	<0.005	<0.010	84
Re-sample	2/10/2005	--	--	--	--	--	--	--	--	160	--	--	--	--	--	--	--
	6/8/2005	4.0	<30	7.6	647	11.4	<5	<5	12	40	110	56	18,500	8	<0.005	<0.010	79
	12/8/2005	4.6	<30	6.1	818	1.6	8	<4	<5	30	210	40	16,000	--	--	--	--
Re-sample	2/14/2006	--	--	8.1	603	9.5	--	--	--	100	--	--	--	--	--	--	--
	6/27/2006	3.5	<30	7.1	767	13.2	<5	<4	<5	1,090	160	90	14,600	6	<0.005	<0.010	93
Re-sample	8/3/2006	--	--	7.5	840	12.4	--	--	--	203	--	--	--	--	--	--	--
	12/1/2006	3.2	<30	7.4	873	12.3	<5	<5	<5	1,440	--	--	--	--	--	--	--
Re-sample	1/30/2007	--	--	8	607	10.1	--	--	--	1,850	--	--	--	--	--	--	--
	6/5/2007	1.6	26.1	7.0	849	11.0	9	3	1	355	520	245	15,200	10	<0.005	<0.010	82
	11/15/2007	1.2	16.1	7.1	803	7.8	2	1	4	134	--	--	--	--	--	--	--

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	2.7	<10	7.5	1,048	13.3	<20	<20	<30	150	--	--	--	--	--	--	--
	8/31/1995	3.0	<10	7.9	989	13.2	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	2.3	<10	7.4	1,021	9.3	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	1.4	<100	7.0	944	13.2	<20	<20	<20	<20	--	--	--	--	--	--	--
B-18A	8/21/1996	2.4	<5	7.5	1,041	12.8	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	19.0	<5	7.2	1,331	6.4	<20	<20	<20	70	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.5	900	10.0	<10	<10	13	10	--	--	--	--	--	--	--
	11/6/1997	4.0	<100	6.4	1,100	10.0	<10	<10	62	10	380	62	--	12	<0.005	<0.020	130
	5/4/1998	2.0	<5	6.7	862	11.8	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	1.0	<10	6.0	1,090	11.8	<10	<10	<5	10	240	128	46,000	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	10	<0.005	<0.020	133
	4/26/1999	2.1	<100	8.1	921	14.0	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1999	4.3	<100	7.1	832	14.0	<10	<10	<5	60	180	155	39,200	8	<0.005	<0.020	130
	4/26/2000	2.4	<100	7.5	980	10.4	<10	<10	<5	30	--	--	--	--	--	--	--
	12/8/2000	2.6	<10	7.0	990	9.9	<10	<10	15	<10	<10	--	34,500	7	<0.005	<0.020	126
Dup.	12/8/2000	2.6	<10	--	--	--	<10	<10	13	<10	40	--	35,100	7	<0.005	<0.020	112
	5/16/2001	2.4	<100	7.9	1,160	12.9	<10	<10	<5	10	--	--	--	--	--	--	--
	10/17/2001	2.2	<100	7.1	1,020	12.2	<10	<10	<5	<10	350	--	35,400	7	<0.005	<0.020	132
	5/16/2002	1.5	<100	7.2	2,080	12.2	<10	<10	<5	10	--	--	--	--	--	--	--
	11/7/2002	1.9	<30	7.2	820	10.1	<5	<5	<5	<5	190	26	40,800	10	<0.005	<0.020	134
	6/4/2003	1.6	<30	6.9	790	13.1	<5	<5	<5	5	--	--	--	--	--	--	--
	11/13/2003	1	<30	7.7	1,180	7.1	<5	<5	<5	<5	160	<5	--	10	<0.005	<0.010	129
Dup.	11/13/2003	--	--	--	--	--	--	--	--	--	--	--	--	11	<0.005	<0.010	130
	6/29/2004	1.2	<30	7.2	863	12.0	<5	<5	7	10	--	--	--	--	--	--	--
	12/9/2004	3	<30	6.2	960	10.5	<5	<5	9	12	900	363	37,900	14	<0.005	<0.010	127
	6/8/2005	2	<30	7.4	819	10.9	<5	<5	6	16	170	80	40,000	11	<0.005	<0.010	120
	12/8/2005	2.6	<30	9.7	1,120	10.1	11	<4	<5	10	390	170	47,000	--	--	--	--
	6/27/2006	1.2	<30	7.1	1,110	13.2	5	4	<5	46	170	50	48,200	13	<0.005	<0.010	125
	11/30/2006	1.4	119	7.2	1,100	11.5	5	<4	<5	9	--	--	--	--	--	--	--
	6/4/2007	1	19.9	7.0	1,070	13.2	9	3	3	14	110	22	51,800	15	<0.005	<0.010	114
	11/14/2007	<1	19	6.9	1,090	13.7	1	2	6	11	--	--	--	--	--	--	--
	6/25/2008	12	34.1	7.1	1,060	20.4	<5	2	<5	11	310	<5	54,800	15	<0.005	<0.010	110
	11/18/2008	<1	<30	6.6	1,088	2.9	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/24/2009	<1	<30	7.3	1,060	26.2	<5	1	<5	15	<20	<5	53,100	16	<0.005	<0.010	111
	11/18/2009	2	<30	6.9	1,070	11.7	<5	<4	<5	45	--	--	--	--	--	--	--
	6/17/2010	**1**	**<30**	**7.2**	**1,080**	**17.5**	**<5**	**<4**	**<5**	**8**	**<20**	**<5**	**45,500**	**15**	**<0.005**	**<0.020**	**109**

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Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	8/31/1995	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	2/9/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	6/19/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
B-19A	8/21/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/13/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	5/6/1997	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/6/1997	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	WD	WD	WD	WD
	5/4/1998	3.0	<5	6.8	1,480	10.1	<10	<10	<5	30	--	--	--	--	--	--	--
	11/5/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS
	4/26/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/5/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/26/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/8/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/16/2001	4.0	<100	7.1	1,050	11.8	<10	<10	<5	<10	--	--	--	--	--	--	--
	10/17/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/16/2002	6.0	<100	7.2	1,740	10.6	<10	<10	<5	10	--	--	--	--	--	--	--
	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2003	5.8	<30	6.9	1,350	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/13/2003	3.4	<30	7.6	1,620	10.2	<5	<5	<5	<5	20	<5	--	148	<0.005	<0.010	229
	6/29/2004	3.9	<30	7.2	1,316	14.7	<5	<5	<5	8	--	--	--	--	--	--	--
	12/9/2004	5.0	33	6.2	1,340	9.9	<5	<5	<5	9	240	11	111,000	116	<0.005	<0.010	233
Dup.	12/9/2004	5.0	<30	--	--	--	<5	<5	<5	7	170	<5	114,000	116	<0.005	<0.010	233
B-19AR	6/7/2005	3.0	<30	7.1	829	12.2	<5	<5	7	<5	1,320	228	15,700	52	<0.005	<0.010	130
Dup.	12/8/2005	5.5	<30	--	1,390	--	10	<4	<5	20	160	<20	81,400	--	--	--	--
	12/8/2005	5.3	<30	7.1	1,390	12.3	10	<4	<5	<10	150	<20	74,800	--	--	--	--
Re-sample	2/14/2006	--	--	8.0	840	5.9	<5	--	--	--	--	--	--	--	--	--	--
	6/29/2006	2.7	<30	7.6	860	12.0	<5	<4	12	21	240	210	22,400	51	<0.005	<0.010	153
	11/30/2006	6.2	33.7	7.2	1,300	11.4	5	<4	<5	<5	--	--	--	--	--	--	--
	6/7/2007	2	<30	7.0	899	11.4	6	4	4	9	70	21	19,700	58	<0.005	<0.010	136
	11/13/2007	1.5	<30	7.3	1,070	12.1	3	7	26	11	--	--	--	--	--	--	--
	6/25/2008	2.4	38.8	7.1	1,060	17.4	<5	3	<5	16	380	9	18,500	58	<0.005	<0.010	148
	11/18/2008	1.3	<30	7.0	1,052	8.0	<5	1	<5	14	--	--	--	--	--	--	--
	6/24/2009	1.0	<30	7.7	911	17.3	<5	2	<5	<5	36	<5	21,200	60	<0.005	<0.010	147
	11/19/2009	2	<30	7.4	994	10.4	<5	<4	<5	7	--	--	--	--	--	--	--
	6/15/2010	**2**	**<30**	**7.6**	**992**	**16.1**	**<5**	**<4**	**<5**	**<5**	**<20**	**<5**	**19,800**	**59**	**<0.005**	**<0.020**	**154**

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Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	2.8	<10	8.3	771	15.1	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	4.7	47	8.1	1,204	14.6	<20	20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	21.0	38	7.1	801	9.1	32	28	54	120	--	--	--	--	--	--	--
	6/19/1996	2.4	<100	7.9	745	11.9	<20	<20	<20	<20	--	--	--	--	--	--	--
B-20D	8/21/1996	3.0	<5	8.0	750	13.1	<20	<20	<20	40	--	--	--	--	--	--	--
	11/13/1996	16.0	<5	7.7	1,075	6.7	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	6.8	640	10.0	<10	<10	15	10	--	--	--	--	--	--	--
	11/6/1997	5.0	<100	6.7	700	10.0	<10	20	41	<10	260	35	--	5	<0.005	<0.020	101
	5/4/1998	4.0	<5	6.8	579	12.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	3.0	11	6.5	667	13.5	<10	<10	<5	10	<10	18	31,000	--	--	--	--
Dup.	11/5/1998	5.0	16	6.5	677	13.6	<10	<10	<5	10	170	8	30,300	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	3	<0.005	<0.020	92
Dup.	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	3	<0.005	<0.020	89
	4/26/1999	3.2	<100	8.4	506	13.0	<10	<10	<5	10	--	--	--	--	--	--	--
	11/5/1999	5.3	<100	7.5	677	12.5	<10	<10	<5	60	130	60	31,400	33	<0.005	<0.020	105
	4/26/2000	3.2	<100	7.4	760	14.9	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	3.2	<10	7.5	780	4.7	<10	<10	15	<10	20	--	19,700	2	<0.005	<0.020	113
	5/15/2001	2.7	<100	7.0	590	13.0	<10	<10	<5	<10	--	--	--	--	--	--	--
	10/18/2001	2.5	<100	7.9	930	10.4	<10	<10	<5	<10	300	--	20,600	2	<0.005	<0.020	105
	5/16/2002	3.2	<100	7.2	780	11.9	<10	<10	<5	10	--	--	--	--	--	--	--
	11/7/2002	1.8	<30	7.6	610	8.7	<5	<5	<5	<5	250	74	20,900	3	<0.005	<0.020	115
	6/3/2003	2.5	<30	7.4	620	12.8	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/13/2003	1.3	<30	8.0	630	7.7	<5	<5	5	<5	200	15	--	5	<0.005	<0.010	127
	6/29/2004	9.4	<30	7.5	666	13.1	<5	<5	11	<5	--	--	--	--	--	--	--
	12/10/2004	2.0	<30	6.6	830	10.8	<5	<5	11	10	2,110	92	16,800	3	<0.005	<0.010	148
	6/7/2005	4.0	<30	7.3	707	11.9	7	<5	5	<5	2,140	66	16,500	<5	<0.005	<0.010	155
	12/8/2005	4.1	<30	4.8	957	11.1	11	<4	26	<10	120	120	20,600	--	--	--	--
	6/28/2006	1.7	<30	7.4	979	12.5	7	<4	<5	5	2,120	60	17,600	2	<0.005	<0.010	169
	11/30/2006	3.4	<30	7.5	980	12.5	6	<4	6	<5	--	--	--	--	--	--	--
	6/8/2007	3.4	30.9	6.7	929	13.4	10	22	19	124	610	160	25,500	4	<0.005	0.074	144
	11/13/2007	2.1	<30	7.2	932	13.5	3	1	13	9	--	--	--	--	--	--	--
	6/25/2008	<1	<60	7.0	946	15.5	<5	2	<5	7	2,400	55	19,500	4	<0.005	<0.010	164
	11/18/2008	1	36.1	6.9	1,006	12.6	<5	4	6	22	--	--	--	--	--	--	--
	6/24/2009	1.1	<30	7.2	1,000	19.4	<5	<1	<5	<5	1,720	56	21,000	3	<0.005	<0.010	180
Dup.	6/24/2009	<1	<30	7.2	1,010	19.4	<5	<1	<5	<5	1,640	56	20,800	3	<0.005	<0.010	183
	11/18/2009	2	<30	7.0	1,030	12.1	<5	<4	<5	5	--	--	--	--	--	--	--
	6/16/2010	**2**	**<30**	**7.3**	**1,020**	**15.1**	**<5**	**<4**	**<5**	**<5**	**1,930**	**49**	**19,000**	**2**	**<0.005**	**<0.020**	**177**

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Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	4.2	<10	8.3	870	14.5	<20	<20	<30	61	--	--	--	--	--	--	--
	8/31/1995	3.3	19	8.1	684	14.2	<20	21	<40	<20	--	--	--	--	--	--	--
	2/9/1996	4.1	<10	7.7	646	8.6	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	5.3	<100	7.6	577	14.1	<20	<20	<20	<20	--	--	--	--	--	--	--
B-21D	8/21/1996	2.5	<5	7.9	576	13.8	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	17.0	<5	7.3	810	8.8	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.8	530	10.2	<10	<10	8	<10	--	--	--	--	--	--	--
	11/6/1997	3.0	<100	6.7	540	10.0	<10	<10	30	<10	240	27	--	2	<0.005	<0.020	33
	5/4/1998	16.0	<5	6.9	480	11.5	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	5.0	<10	7.2	565	7.8	<10	<10	<5	10	240	43	26,700	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	15
	4/26/1999	11.0	<100	8.2	506	13.0	<10	<10	<5	10	--	--	--	--	--	--	--
	11/5/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/26/2000	2.5	<100	8.2	660	14.1	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	4.2	<10	8.4	680	7.1	<10	<10	11	<10	<10	--	29,600	2	<0.005	<0.020	36
	5/15/2001	1.9	<100	7.9	570	13.0	<10	<10	<5	10	--	--	--	--	--	--	--
Dup	5/15/2001	1.9	<100	8.3	560	13.0	<10	<10	<5	10	--	--	--	--	--	--	--
	10/18/2001	3.4	<100	7.6	570	13.7	<10	<10	<5	<10	200	--	22,200	1	<0.005	<0.020	41
	5/16/2002	6.1	<100	7.2	630	11.7	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/3/2003	5.8	<30	7.3	510	13.0	<5	<5	<5	6	--	--	--	--	--	--	--
	11/13/2003	1.0	<30	7.8	710	8.7	<5	<5	<5	9	100	<5	--	4	<0.005	<0.010	48
	6/30/2004	4.0	<30	6.8	570	14.8	<5	<5	<5	7	--	--	--	--	--	--	--
	12/10/2004	2.0	<30	6.4	600	9.9	<5	<5	<5	7	1,330	44	20,100	2	<0.005	<0.010	50
	6/8/2005	3.0	<30	7.7	560	14.2	<5	<5	12	6	1,350	72	21,000	<5	<0.005	<0.010	44
	12/8/2005	4.4	<30	5.5	741	11.4	8	<4	8	<10	1,070	60	21,500	--	--	--	--
	6/28/2006	1.5	<30	7.4	718	12.8	<5	6	5	13	430	60	23,500	2	<0.005	<0.010	53
	11/30/2006	1.8	49.1	7.6	693	11.5	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/8/2007	1.2	<30	6.3	709	13.2	10	2	5	7	1,200	49	21,500	4	<0.005	<0.010	60
	11/14/2007	<1	<30	7.3	738	14.5	2	1	5	8	--	--	--	--	--	--	--
	6/26/2008	1.8	16.8	7.1	738	16.9	<5	1	<5	<5	1,390	40	22,700	3	<0.005	<0.010	60
	11/19/2008	1.1	<30	6.9	739	11.0	<5	<1	5	<5	--	--	--	--	--	--	--
	6/25/2009	<1	<30	6.7	743	16.1	<5	<1	<5	<5	1,210	34	25,100	3	<0.005	<0.010	64
	11/19/2009	2	41.2	7.2	745	10.2	<5	<4	<5	6	--	--	--	--	--	--	--
Dup	11/19/2009	2	<30	7.2	739	10.2	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/17/2010	**2**	**<30**	**7.4**	**736**	**13.2**	**<5**	**<4**	**<5**	**<5**	**980**	**34**	**23,700**	**3**	**<0.005**	**<0.020**	**58**

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Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	2.6	<10	7.7	573	15.5	<20	<20	370	<20	--	--	--	--	--	--	--
	8/31/1995	4.5	47	8.3	739	14.3	<20	<20	<40	47	--	--	--	--	--	--	--
	2/9/1996	6.9	<10	NS	NS	NS	<20	<20	<40	80	--	--	--	--	--	--	--
	6/19/1996	1.8	<100	7.5	600	13.4	<20	<20	<20	20	--	--	--	--	--	--	--
B-22D	8/21/1996	1.7	<5	8.1	608	14.2	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	10.0	<5	7.2	817	7.7	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.7	550	10.1	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/6/1997	7.0	<100	6.9	550	10.0	<10	<10	29	10	1,360	55	--	2	<0.005	<0.020	32
	5/4/1998	5.0	<5	7.1	501	11.7	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	6.0	<10	6.6	559	9.8	<10	<10	<5	10	1,180	47	23,800	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	28
	4/26/1999	18.0	<100	8.2	485	13.2	<10	<10	<5	10	--	--	--	--	--	--	--
	11/5/1999	2.6	<100	7.3	474	13.6	<10	<10	<5	20	90	31	27,900	2	<0.005	<0.020	29
	4/26/2000	2.5	<100	8.2	670	14.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	2.5	<10	7.5	510	5.4	<10	<10	8	<10	<10	--	26,500	2	<0.005	<0.020	31
	5/15/2001	6.7	<100	8.0	690	13.7	<10	<10	6	30	--	--	--	--	--	--	--
	10/18/2001	1.7	<100	7.6	2,610	10.2	<10	<10	<5	<10	200	--	27,800	1	<0.005	<0.020	33
	5/16/2002	3.2	<100	7.1	630	12.1	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/7/2002	1.5	<30	7.4	480	8.8	<5	<5	<5	<5	120	11	25,200	2	<0.005	<0.020	35
	6/3/2003	2.3	<30	6.8	570	13.1	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/14/2003	1.6	<30	8.1	660	9.8	<5	<5	<5	9	6	<5	--	3	<0.005	<0.010	37
	6/30/2004	1.7	<30	6.3	610	15.5	<5	<5	<5	6	--	--	--	--	--	--	--
	12/10/2004	2.0	<30	7.0	600	10.3	<5	<5	<5	6	1,280	37	25,100	2	<0.005	<0.010	42
	6/8/2005	2.0	<30	7.7	531	13.2	6	<5	<5	<5	1,370	38	23,700	<5	<0.005	<0.010	40
	12/8/2005	2.7	<30	5.8	702	11.7	10	<4	46	<10	2,200	250	25,400	--	--	--	--
	6/28/2006	<1	<30	7.5	682	13.0	<5	<4	<5	<5	1,290	30	25,800	2	<0.005	<0.010	42
	11/30/2006	2.2	<30	7.5	684	13.3	<5	<4	<5	7	--	--	--	--	--	--	--
Dup.	11/30/2006	5.3	<30	7.5	676	13.3	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/8/2007	3.8	<30	6.6	680	14.3	7	2	1	5	1,180	32	28,100	3	<0.005	<0.010	46
Dup.	6/8/2007	3.1	21.1	6.6	669	14.3	9	2	1	4	1,210	31	28,400	4	<0.005	<0.010	47
	11/14/2007	1.1	<30	7.3	710	14.2	2	2	3	6	--	--	--	--	--	--	--
	6/26/2008	1.7	22.6	7.1	694	19.3	<5	<1	<5	5	1,100	33	25,900	3	<0.005	<0.010	46
Dup.	6/26/2008	2.6	<30	7.1	710	19.3	<5	<1	<5	7	1,150	34	26,400	3	<0.005	<0.010	46
	11/19/2008	8.9	<30	6.9	699	8.2	<5	<1	8	8	--	--	--	--	--	--	--
	6/25/2009	1.1	<30	6.7	705	16.6	<5	<1	<5	<5	1,340	30	28,500	2	<0.005	<0.010	54
	11/18/2009	2	<30	7.2	710	11.4	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/16/2010	**2**	**<30**	**7.4**	**715**	**15.7**	**<5**	**<4**	**<5**	**<5**	**1,100**	**28**	**26,000**	**2**	**<0.005**	**<0.020**	**51**

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Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	3.4	<10	7.3	680	15.1	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	3.9	96	8.2	845	15.4	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.8	34	7.5	751	11.3	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	2.2	<100	8.3	632	14.2	<20	<20	<20	<20	--	--	--	--	--	--	--
B-23D	8/21/1996	1.7	<5	8.9	691	14.6	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	40.0	<5	7.7	977	7.6	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.8	610	11.0	<10	<10	9	<10	--	--	--	--	--	--	--
	11/6/1997	3.0	<100	6.0	620	10.0	<10	<10	31	<10	160	15	--	2	<0.005	<0.020	25
	5/4/1998	2.0	<5	6.4	558	12.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	5.0	<10	6.5	639	9.8	<10	<10	<5	70	<10	<5	29,700	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	21
	4/26/1999	3.6	<100	8.1	552	13.3	<10	<10	<5	<10	--	--	--	--	--	--	--
Dup	4/26/1999	3.0	<100	NS	NS	NS	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1999	3.4	<100	7.4	546	13.3	<10	<10	<5	<10	80	14	34,700	3	<0.005	<0.020	26
Dup	11/5/1999	3.1	<100	NS	NS	NS	<10	<10	<5	<10	90	15	33,300	3	<0.005	<0.020	25
	4/26/2000	3.2	<100	7.9	800	13.7	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	2.0	<10	7.0	570	7.0	<10	<10	7	<10	60	--	35,400	2	<0.005	<0.020	22
	5/15/2001	3.2	<100	7.9	790	13.1	<10	<10	<5	10	--	--	--	--	--	--	--
	10/17/2001	1.8	<100	7.5	600	11.3	<10	<10	<5	<10	170	--	32,800	2	<0.005	<0.020	23
	5/16/2002	5.4	<100	7.2	1200	11.2	<10	<10	<5	10	--	--	--	--	--	--	--
	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/3/2003	3.9	<30	6.9	640	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--
Dup	6/3/2003	3.7	<30	--	--	--	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/30/2004	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--
	12/10/2004	2.0	<30	6.7	640.0	11.3	<5	<5	11	10	500	65	30,500	2	<0.005	<0.010	25
B-23DR	6/7/2005	2.0	<30	7.3	594.0	12.2	<5	<5	<5	<5	2,520	49	20,600	25	<0.005	<0.010	60
Dup	6/7/2005	2.0	<30	--	--	--	<5	<5	<5	<5	2,580	48	20,600	25	<0.005	<0.010	59
B-23DR	12/8/2005	3.8	<30	6.2	700.0	6.1	7	<4	<5	<10	370	60	39,200	--	--	--	--
	6/27/2006	1.2	<30	7.1	760.0	13.4	5	<4	<5	5	2,280	50	20,500	26	<0.005	0.010	67
	11/30/2006	2.2	<30	7.6	568.0	11.8	<5	<4	<5	6	--	--	--	--	--	--	--
	6/8/2007	1.1	33.7	6.5	736	13.1	7	1	1	5	1,100	43	23,800	28	<0.005	<0.010	62
	11/16/2007	<1	<30	7.3	780	21.4	2	1	3	8	--	--	--	--	--	--	--
	6/26/2008	2.0	27.2	7.0	753	18.2	<5	1	<5	<5	1,850	44	23,700	22	<0.005	<0.010	54
	11/21/2008	<1	<30	6.7	763	6.0	<5	<1	<5	19	--	--	--	--	--	--	--
	6/25/2009	<1	<30	6.7	776	18.9	<5	<1	<5	<5	1,500	43	23,900	29	<0.005	<0.010	63
	11/18/2009	2	<30	7.2	756	11.9	<5	<4	<5	10	--	--	--	--	--	--	--
B-23Dr	**6/16/2010**	**2**	**<30**	**7.4**	**747**	**18.2**	**<5**	**<4**	**<5**	**<5**	**950**	**35**	**23,200**	**20**	**<0.005**	**<0.020**	**45**

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Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
	6/21/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/31/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/9/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/19/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-24	8/21/1996	5.6	<5	7.8	1,502	12.7	<20	<20	<20	90	--	--	--	--	--	--	--
	11/13/1996	20.0	<5	7.1	2,030	7.8	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	5.0	<100	6.4	1,700	10.0	<10	<10	31	10	--	--	--	--	--	--	--
	11/6/1997	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS
	5/4/1998	4.0	<5	6.5	1,410	11.6	<10	<10	8	20	--	--	--	--	--	--	--
	11/5/1998	4.0	23	5.5	1,595	10.4	<10	<10	9	20	60	120	27,700	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	163	<0.005	<0.020	205
	4/26/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/5/1999	NS	NS	7.2	1,152	13.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/26/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/8/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/15/2001	NS	NS	6.4	1,450	12.9	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	10/17/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/16/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/3/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/30/2004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/9/2004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-24R	6/7/2005	8.0	<30	7.3	857	10.6	8	<5	<5	<5	10,600	448	27,100	49	<0.005	<0.010	206
B-24R	12/8/2005	6.6	<30	5.2	1,120	11.9	11	<4	<5	10	3,180	210	28,700	--	--	--	--
	6/28/2006	4.7	<30	7.3	1,080	11.9	6	<4	<5	<5	3,760	210	27,700	48	<0.005	<0.010	182
	11/30/2006	4.8	30	7.3	1,100	11.7	6	<4	<5	<5	--	--	--	--	--	--	--
	6/4/2007	4.5	110	7.2	1,080	11.0	9	2	2	19	2,400	194	27,900	47	<0.005	<0.010	184
	11/13/2007	4.1	30.1	7.1	1,130	14.0	3	1	5	7	--	--	--	--	--	--	--
	6/26/2008	4.3	<30	7.0	1,130	19.0	<5	1	<5	8	3,490	175	39,600	46	<0.005	<0.010	189
	11/18/2008	3.8	<30	6.8	1,125	5.3	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/24/2009	5.2	<30	6.6	1,120	17.4	<5	<1	<5	<5	4,000	155	38,400	48	<0.005	<0.010	201
	11/18/2009	5	86.4	7.1	1,140	12.9	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/16/2010	**4**	**22.7**	**7.0**	**1,150**	**16.3**	**<5**	**<4**	**<5**	**<5**	**1,880**	**222**	**39,500**	**46**	**<0.005**	**<0.020**	**196**

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
B-27D	12/8/2005	3.7	<30	5	714	4.8	9	<4	6	<10	240	140	34,200	--	--	--	--
	6/27/2006	1.3	<30	7.1	644	13.5	6	<4	7	6	1,050	110	32,300	--	--	--	--
	11/30/2006	<1	<30	7.5	540	11.7	<5	<4	<5	6	--	--	--	--	--	--	--
	6/8/2007	4	25.7	6.6	628	14.6	9	2	3	36	1,520	58	36,300	4	<0.005	<0.010	23
	11/15/2007	1.9	<30	7.3	649	11.6	2	1	5	32	--	--	--	--	--	--	--
	6/26/2008	1.7	<30	7.1	659	16.3	<5	<1	<5	<5	300	59	33,900	2	<0.005	<0.010	23
	11/21/2008	1.3	<30	6.8	667	6.6	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/25/2009	<1	<30	6.8	651	16.5	<5	1	<5	<5	2,030	52	37,200	2	<0.005	<0.010	20
	11/18/2009	2	<30	7.3	653	11.2	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/15/2010	**2**	**<30**	**7.4**	**646**	**15.7**	**<5**	**<4**	**<5**	**<5**	**1,250**	**36**	**32,200**	**2**	**<0.005**	**<0.020**	**19**
Dup.	**6/15/2010**	**2**	**31.2**	**7.4**	**652**	**15.7**	**<5**	**<4**	**<5**	**<5**	**1,220**	**35**	**31,700**	**2**	**<0.005**	**<0.020**	**20**

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
B-28	11/21/2005	--	--	6.2	994	12.3	--	--	--	<5	--	--	--	--	--	--	--
Dup.	11/21/2005	--	--	6.2	--	12.3	--	--	--	7	--	--	--	--	--	--	--
	6/27/2006	3	<30	7.1	828	13.2	5	<4	<5	18	2,380	210	17,000	--	--	--	--
	12/1/2006	2.4	<30	7.5	812	12.3	<5	<4	<5	5	--	--	--	--	--	--	--
Dup.	12/1/2006	3.3	<30	7.5	810	12.3	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/5/2007	2.1	<30	6.8	845	10.6	9	2	3	6	1,690	160	25,100	12	<0.005	<0.010	87
	11/15/2007	2.5	15	6.8	816	9.1	3	2	5	11	--	--	--	--	--	--	--
	6/27/2008	1.8	<30	6.9	840	17.6	<5	1	<5	5	370	84	16,300	10	<0.005	<0.010	88
	11/19/2008	1.1	<30	6.8	804	7.0	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/24/2009	1.1	<30	7.0	822	19.5	<5	<1	<5	<5	204	132	14,600	10	<0.005	<0.010	84
	11/18/2009	2	<30	6.9	814	11.6	<5	<4	<5	20	**--**	**--**	**--**	--	--	--	--
	6/16/2010	**2**	**<30**	**7.0**	**841**	**17.6**	**<5**	**<4**	**<5**	**<5**	**790**	**173**	**19,100**	**12**	**<0.005**	**<0.020**	**78**

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
B-29	11/21/2005	--	--	6.8	1,870	11.7	--	--	--	11	--	--	--	--	--	--	--
	6/27/2006	--	--	7.1	1,480	12.3	6	<4	<5	28	1,480	140	47,300	--	--	--	--
	12/1/2006	--	--	7.3	--	11.4	8	<4	5	9	--	--	--	--	--	--	--
	6/5/2007	2.4	31.1	6.9	1,402	10.3	11	3	3	8	800	118	46,300	70	<0.005	<0.010	218
	11/15/2007	3.2	17.3	6.9	1,370	12.2	4	2	7	14	--	--	--	--	--	--	--
Dup.	11/15/2007	2.7	16.5	6.9	1,380	12.2	3	2	7	10	--	--	--	--	--	--	--

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
B-30	11/21/2005	--	--	6.8	1,450	12.1	--	--	--	212	--	--	--	--	--	--	--
	6/27/2006	--	--	7.1	1,330	12.3	6	<4	<5	16	2,690	100	21,300	--	--	--	--
	12/1/2006	--	--	7.3	--	10.6	6	<4	<5	8	--	--	--	--	--	--	--
	6/5/2007	2.7	<30	7.0	1,542	10.9	11	4	4	17	1,260	171	25,000	35	<0.005	<0.010	452
	11/15/2007	2.4	17.4	7.0	1,510	9.3	4	3	7	14	--	--	--	--	--	--	--

See notes on page 16.

Table 2
REALM-Coldwater Road Facility
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (ug/L)							Inorganics (mg/L)			
Well ID	Sample Date	TOC (mg/L)	TOX (ug/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
Equipment Blank	12/10/2004	<1	<30	--	--	--	<5	<5	<5	11	<20	13	810	<2	<0.005	<0.010	<2
	6/8/2005	<1	<30	--	--	--	<5	<5	<5	<5	<20	<5	120	<5	<0.005	<0.010	<5
	12/8/2005	<1	<30	--	5	--	<5	<4	<5	<10	<100	<20	<1000	--	--	--	--
	6/28/2006	<1	<30	--	12	--	<5	<4	<5	<5	<100	<20	<1000	<1	<0.005	<0.010	<1
	12/1/2006	<1	<30	--	26	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/8/2007	<1	26	--	13	--	<5	1	1	13	<20	11	340	<2	<0.005	<0.010	<2
	11/15/2007	<1	<30	--	4	--	<5	1	1	9	--	--	--	--	--	--	--
	6/26/2008	<1	<30	--	3	--	<5	1	<5	<5	100	7	420	<2	<0.005	<0.010	<2
	11/19/2008	<1	<30	--	6	--	<5	1	<5	<5	--	--	--	--	--	--	--
	6/25/2009	<1	<30	--	24	--	<5	<1	<5	<5	110	<5	200	<2	<0.005	<0.010	<2
	11/19/2009	0.7	<30	--	5	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/17/2010	**0.4**	**<30**	--	**4**	--	**<5**	**<4**	**<5**	**<5**	**<20**	**<5**	**<200**	**<2**	**<0.005**	**<0.020**	**<2**

Notes

1) < = Not detected.
2) NS = Not sampled, insufficient liquid encountered.
3) NR = No Result, insufficient sample volume.
4) T = Temperature in degrees Celsius.
5) -- = Not analyzed.
6) Dup = Duplicate sample.

Table 3
REALM - Coldwater Road Facility
Post-Closure Monitoring - Analytical Results
Volatile Organics (VOC's)

Sample Tag	B-2D	B-7	B-9	B-18A	B-19AR	B-20D	B-21D	B-22D
Sample Date	6/16/2010	6/17/2010	6/15/2010	6/17/2010	6/15/2010	6/16/2010	6/17/2010	6/16/2010
Volatile Organics (mg/L)								
Acrolein	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Acrylonitrile	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Carbon tetrachloride	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Chloroethylvinyl ether	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethlybenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methylene chloride	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

NS - Not Sampled
EPA Method Used - 8260
Dup - Duplicate Analysis

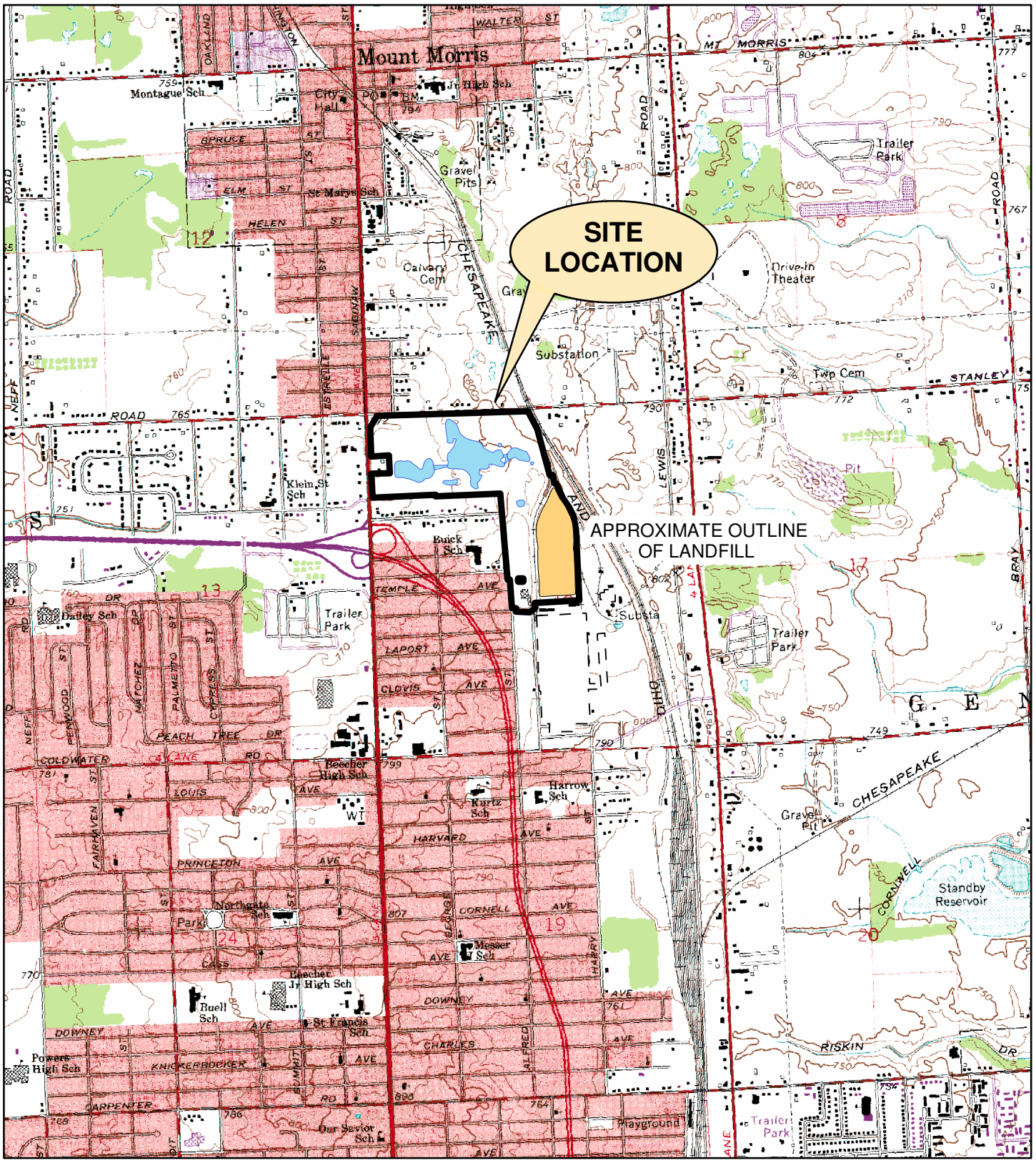
Table 3
REALM - Coldwater Road Facility
Post-Closure Monitoring - Analytical Results
Volatile Organics (VOC's)

Sample Tag	B-23DR	B-24R	B-27D	B-27D Dup	B-28	TB-02	TB-03	TB-04	EB-01
Sample Date	6/16/2010	6/16/2010	6/15/2010	6/15/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Volatile Organics (mg/L)									
Acrolein	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Acrylonitrile	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Carbon tetrachloride	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Chloroethylvinyl ether	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethlybenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methylene chloride	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

NS - Not Sampled
EPA Method Used - 8260
Dup - Duplicate Analysis

FIGURES

FIGURE 1



REALM
COLDWATER ROAD LANDFILL FACILITY
FLINT, MICHIGAN

SITE LOCATION MAP

0 1
Miles

AUGUST 2010
4966/46317/001

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 8/16/2010 jmo

I:\078\PROJECTS\4966CW\39196\O&M 2009\DOC\DWG\001.MXD

I:\078\PROJECTS\MLC 14774\46317\DOCS\REPORTS\SEMI-ANNUAL FIGURES\004.MXD

STANLEY ROAD

DIRT ROAD / TRAIL

RAILROAD

WETLANDS

B-2D

B-19AR

B-19A

KLEIN STREET

~ LANDFILL ~

B-20D

B-24r

B-18A

DRAINAGE SWALE

B-21D

DRAINAGE CULVERT (TYP)

B-7

CONTROL BUILDING

B-9

ABANDONED RAILROAD

B-27D

B-28

B-22D

B-23Dr

B-14

B-30

B-29

FENCE

I-475

MORRIS HILLS

CONCRETE / GRAVEL ROAD

MAP USES DATA FROM THE MICHIGAN CENTER FOR GEOGRAPHIC INFORMATION

PLOT DATE: 8-16-2010 jmo

FIGURE 2

N

LEGEND

- LEACHATE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT
- MONITORING WELL
- ABANDONED WELL

REALM
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

SITE LAYOUT

0 150 300 450 600
Feet

O'BRIEN & GERE ENGINEERS, INC.

AUGUST 2010
14774/46317-004

I:\078\PROJECTS\MLC 14774\46317\DOCS\REPORTS\SEMI ANNUAL FIGURES\011.MXD

PLOT DATE: 8/16/2010 jmo

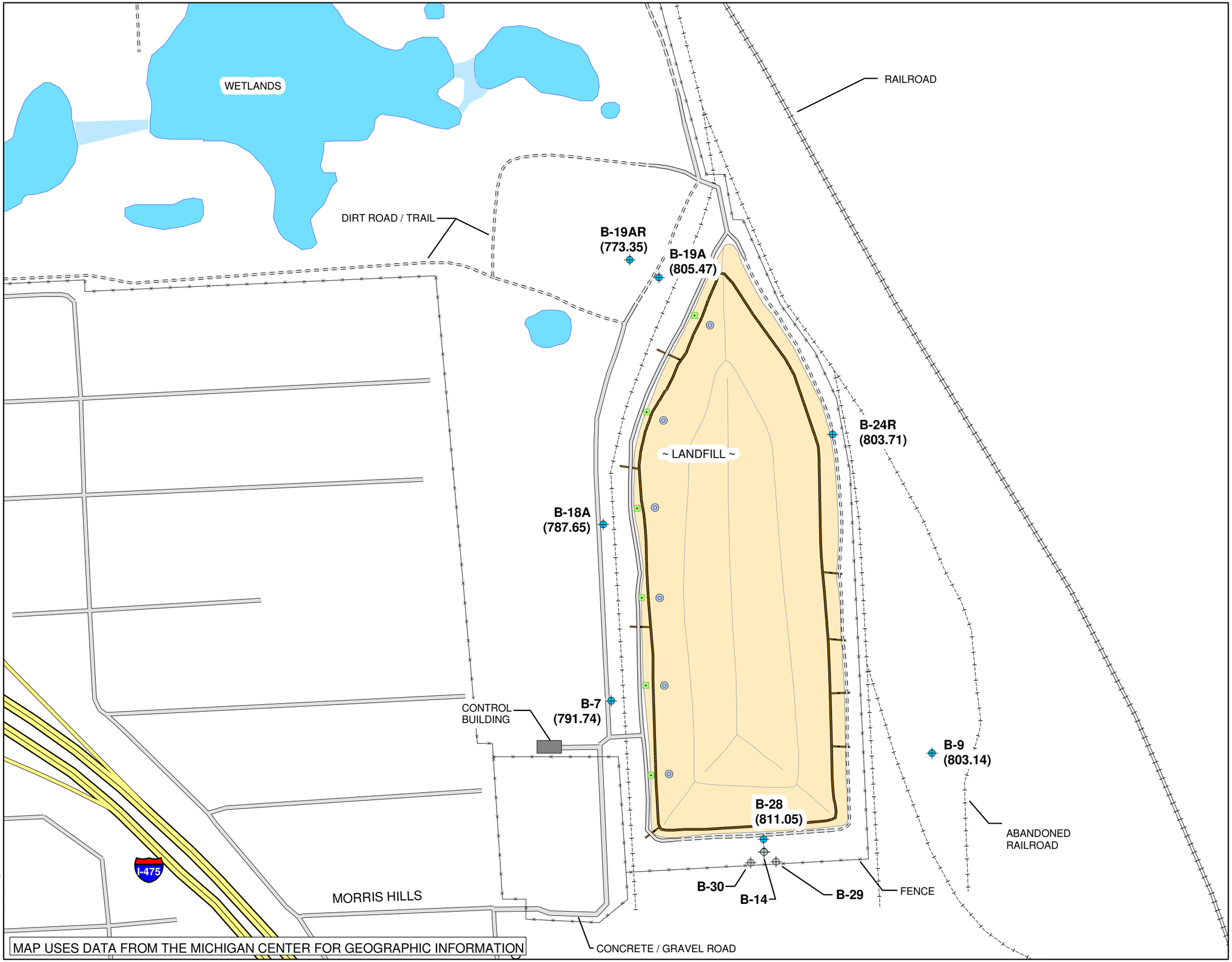


FIGURE 3

N

LEGEND

- MONITORING WELL
- (803.71) GROUNDWATER ELEVATION
- ABANDONED WELL

REALM
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

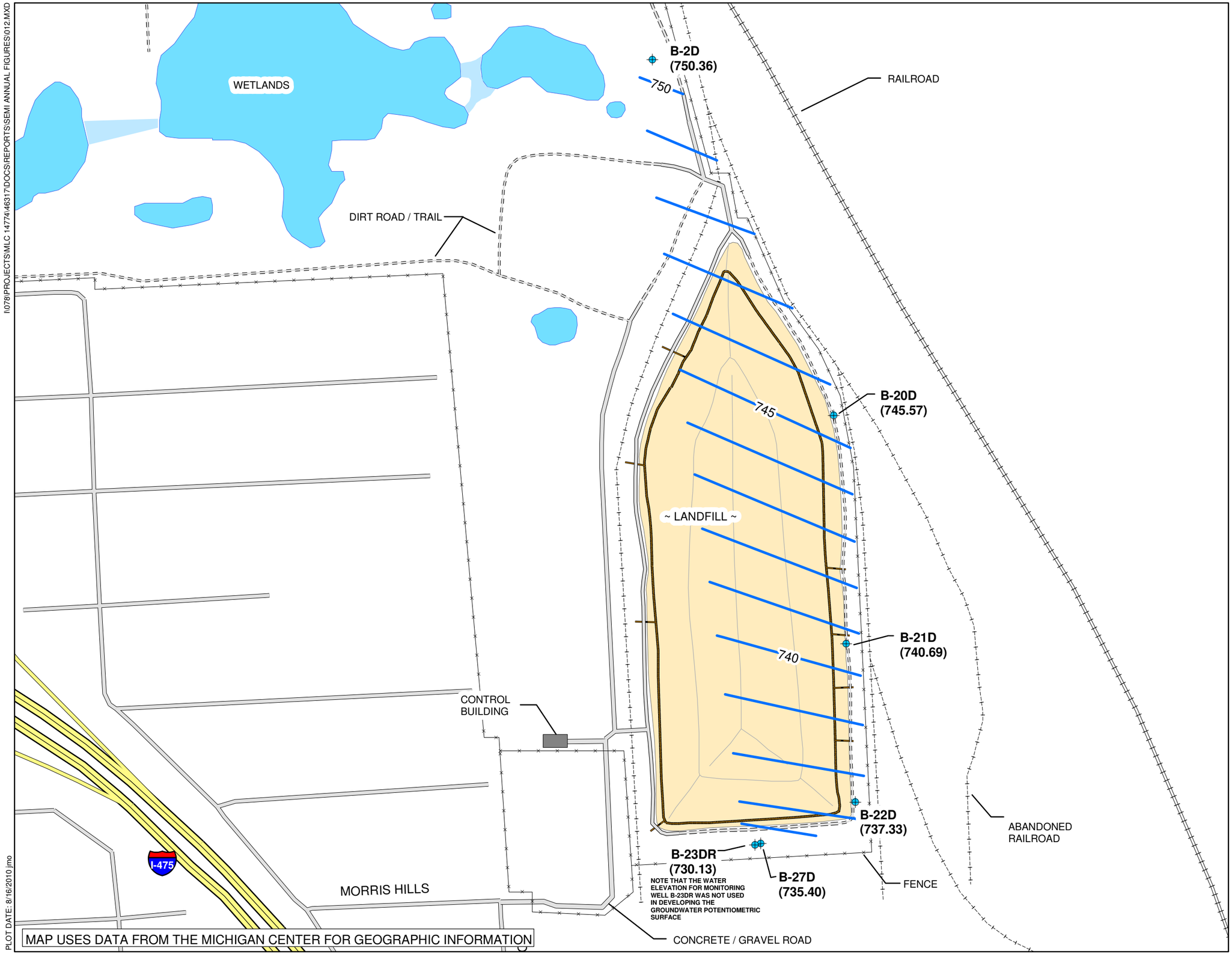
SHALLOW GROUNDWATER ELEVATION MAP JUNE 15, 2010

0 75 150 300 450 600
Feet

AUGUST 2010
14774/46317-011

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 4



N

LEGEND

- ⊕ MONITORING WELL
- (745.57) GROUNDWATER ELEVATION
- 740 GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION

REALM
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

DRIFT AQUIFER GROUNDWATER POTENTIOMETRIC SURFACE MAP JUNE 15, 2010

0 75 150 300 450 600
Feet

AUGUST 2010
14774/46317-012

O'BRIEN & GERE ENGINEERS, INC.

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PLOT DATE: 8/16/2010 jmo

APPENDIX A

Sampling Procedures

GROUND WATER SAMPLING STANDARD OPERATING PROCEDURE
COLDWATER ROAD LANDFILL
FLINT, MICHIGAN

TABLE OF CONTENTS

List of Forms *(Following Text)*

Ground Water Sampling Log

Introduction

This procedure is for the collection of ground water samples for laboratory analysis.

The objective of most ground water quality monitoring programs is to obtain samples that are representative of existing ground water conditions, or samples that retain the physical and chemical properties of the ground water within an aquifer.

One of the most important aspects of ground water sampling is acquiring samples that are free of suspended silt, sediment, or other fine grained particulates. Fine grain materials may often have a variety of chemical components sorbed to the particle or have the ability to sorb chemicals from the aqueous phase to the particle, which will bias the subsequent analytical results.

Constituents known to have an affinity for fine-grained particulates are: polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), and inorganics. Monitoring programs where these constituents are suspected or known to be prevalent must employ sampling methods that minimize particulate presence.

The sampling method of "preference" for sites where particulate sorption is an issue is the "low stress/low flow" technique described herein. Experience has shown that the "low stress/low flow" technique typically achieves representative ground water samples with minimal particulate interference.

Lastly, in “extreme” cases “ultra-low flow” techniques have been employed at select sites where “low stress/low flow” methods were used, yet particulate-sensitive constituents continue to bias the analytical results. Ultra-low flow techniques are conducted at purging rates below 100 mL per minute, and should only be utilized after careful review and a procedural variance has been approved.

GM Procedures Referenced

- FMG 1.4 - Data Recording - Field Books/Digital Recording.
- FMG 5.1 - Water Level Measurements.
- FMG 8.0 - Field Instruments - Use/Calibration
- FMG 9.0 - Equipment Decontamination.

Procedural Guidelines

The following describes the "Low Stress/Low Flow Methods" technique for ground water sampling.

"Low Stress/Low Flow Methods" will be employed at the Coldwater Road Landfill site to collect ground water samples truly representative of the ground water present, and to minimize the impact of sediment/ colloid presence. Analyses typically sensitive to turbidity/sediment issues are PCBs, SVOCs, and inorganic constituents.

Preparatory Requirements

1. Verify well identification and location using borehole log details and location layout figures. Note the condition of the well and inform the Project Manager of any required repair work.

2. For new wells, prior to opening the well cap, measure the breathing space above the well casing with a PID to establish baseline levels. Repeat this measurement once the well cap is opened. If either of these measurements exceeds the air quality criteria in the Health and Safety Plan, field personnel should adjust their PPE accordingly.

3. Prior to commencing the ground water purging/sampling tasks, water level and total well depth measurements must be obtained to determine the volume of water in the well. Refer to FMG 5.1 - Water Level Measurements for details, as necessary. In some settings it maybe necessary to allow time for the water level to equilibrate. This condition exists if a watertight seal exists at the well cap and the water level has fluctuated above the top of screen, creating a vacuum or pressurized area within the well casing. Three water level checks will verify static water level conditions or changing conditions.

4. Calculate the water volume in the well. Typically overburden well volumes consider only the quantity of water standing in the well screen and riser; bedrock well volumes are calculated on the quantity of water within the open core hole and within the overburden casing.

5. Estimate the natural ground water flow rate into well to determine the approximate pumping rate for purging/sampling activities.

Well Purging and Stabilization Monitoring (Low Stress/Low Flow Method)

1. The GM method of preference for ground water sampling will be the low stress/low flow method described below.

2. Bladder pumps/submersible variable rate pumps (i.e., Grundfos™ Rediflo or equivalent) or peristaltic pumps are typically employed.

3. Slowly lower the pump, safety cable, tubing and electrical lines into the well to the depth specified by the project requirements. The pump or tubing should be placed in the well as early as possible before sampling is initiated (this is to minimize well disturbance). Peristaltic tubing placement should include a tubing "clamp" at the well head, to minimize vibration transfer into

the water column. The pump or tubing intake must be at the mid-point of the well screen to prevent disturbance and re-suspension of any sediment in the screen base. Bedrock well sampling may require pump/tubing placement in specific fracture zone areas or other areas, which will be identified within the project Work Plan.

4. Before starting the pump, measure the water level again with the pump in the well leaving the water level measuring device in the well when completed.

5. Purge the well at 100 to a maximum of 500 milliliters per minute (mL/min). During purging, the water level should be monitored approximately every 5 minutes, or as appropriate. A steady flow rate should be maintained which results in drawdown of 0.3 ft or less. The rate of pumping should not exceed the natural flow rate conditions of the well being sampled. Care should be taken to maintain pump suction and to avoid entrainment of air in the tubing. Record adjustments made to the pumping rates and water levels immediately after each adjustment.

   If drawdowns of 0.3 feet or less can not be maintained because of the permeability of the formation at a particular well location, "ultra-low flow" purge techniques will be employed. Ultra-low flow purge rates are rates below 100 mL/min. However, if ultra-low flow purging still results in the well purging "dry," the well will be allowed to recharge for the balance of the day. As a sufficient volume of water enters the well, field parameter measurements will be collected and purging will continue up to a maximum of 24 hours from the beginning of purging, at which time the ground water sample from the well will be collected.

6. Calibrate field instrument and document calibration activity. Calibration shall be performed in accordance with manufacturer's recommendations and FMG 8.0 - Field Instruments - Use/Calibration.

7. During the purging of the well, monitor and record the field indicator parameters (pH, temperature, conductivity, oxidation-reduction (redox) reaction potential (ORP), dissolved oxygen (DO), and turbidity) approximately every 5 minutes. Stabilization is considered achieved when the final ground water flow rate is achieved, and three consecutive readings for each parameter are within the following limits:

   - pH ±0.1 pH units of the average value of the three readings;
   - temperature ±3 percent of the average value of the three readings;
   - conductivity ±0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity <1 mS/cm and ±0.01 mS/cm of the average value of the three readings for conductivity >1 MS/cm;
   - ORP ±10 millivolts (mV) of the average value of the three readings;
   - DO ±10 percent of the average value of the three readings; and
   - turbidity ±10 percent of the average value of the three readings, or a final value of less than 5 nephelometric turbidity units (NTU).

8. Should stabilization not be achieved for all field parameters, purging is continued until a maximum of 3 well volumes have been purged from the well. After purging 3 well volumes, purging is continued if the purge water remains visually turbid and appears to be clearing, or if stabilization parameters are varying slightly outside of the stabilization criteria listed above and appear to be approaching stabilization.

9. The pump must not be removed from the well between purging and sampling.

Sampling Techniques

1. Samples are typically collected directly from the pump with the ground water being discharged directly into the appropriate sample container. Avoid handling the interior of the bottle or bottle cap and don new gloves for each well sampled to avoid contamination of the sample.

2. Order of sample collection:
   - VOCs;
   - SVOCs and PCBs;
   - Total organic carbon (TOC);
   - Total organic halogens (TOX);
   - Extractable organics;
   - Total metals;
   - Dissolved metals;
   - Phenols;
   - Cyanide;
   - Sulfate and chloride; and
   - Nitrate and ammonia.

3. For low stress/low flow sampling, samples should be collected at a flow rate between 100 and 250 mL/min and such that drawdown of the water level within the well does not exceed the maximum allowable drawdown of 0.3 ft, except as noted in item 5. under well purging and stabilization monitoring.

4. The pumping rate used to collect a sample for VOCs should not exceed 100 mL/min. Samples should be transferred directly to the final container 40 mL glass vials completely full and topped with a teflon cap. Once capped the vial must be inverted and tapped to check for headspace/air presence (bubbles). If air is present the sample vial will be discarded, and re-collected until free of air.

5. Field filtration will be performed as indicated in the Post-Closure Care Plan. Sediment presence can interfere or bias sample results; false positive findings have been observed when turbid samples for inorganic (and other analytes) are analyzed. Field filtration can eliminate this concern; generally applicable to only inorganic/PCB analysis. In-line disposable filter cartridges are generally the easiest and quickest method for field filtration.

6. Sample labels/sample identification. All samples must be labeled with:

   - A unique sample number;
   - Date and time;
   - Parameters to be analyzed;
   - Project Reference ID; and
   - Sampler's initials.

7. Labels should be secured to the bottle(s) and should be written in indelible inks.

Equipment/Materials

1. pH, conductivity, nephlometric (i.e., turbidity), ORP, DO, and temperature multimeter. A separate turbidity meter may be utilized if necessary.

2. Flow-through cell for multimeter.

3. Field filtration units (if required).

4. Purging/sampling equipment:
   - Peristaltic pump (not suitable for VOCs [1]/SVOCs, or drawing water from depths greater than 25 ft [2]);
   - Suction pumps (not suitable for VOCs/SVOCs, or depths greater than 25 ft);
   - Submersible pumps (suitable for VOCs/SVOCs only at low flow rates); and
   - Bladder pumps (suitable for VOCs/SVOCs).

5. Water level probe.

6. Sampling materials (containers, log book/forms, coolers, chain-of-custody).

7. Post-Closure Care Plan.

8. Health and Safety Plan.

Note[1]: Peristaltic pump use for VOC collection is acceptable on select EPA/RCRA and MDEQ sites; this technique has gained acceptance in select areas (MDEQ allows VOC sampling with the peristaltic pump).

Note[2]: Exception is noted in locations that the suction line can be placed at the desired sample depth (i.e., 100 ft), and the natural recharge maintains a water level within 25 feet of the ground surface.

Field Notes

Field notes must document field activities and measurements collected during the sampling activities. FMG 1.4 - Data Recording - Field Books/Digital Recording describes the data/recording procedure for field activities. The log book/field file should document the following for each well sampled:

- Identification of well.
- PID readings before and after well opening (if required).
- Well depth.
- Static water level depth and measurement technique.
- Sounded well depth.
- Presence of immiscible layers and detection/collection method.
- Well yield – high or low.
- Purge volume, pumping rate, and final disposition.
- Time well purged.
- Measured field parameters and meter calibration records.
- Purge/sampling device used.
- Well sampling sequence.
- Sample appearance.
- Sample odors.
- Sample volume.
- Types of sample containers and sample identification.
- Preservative(s) used.
- Parameters requested for analysis.
- Field analysis data and method(s).
- Sample distribution and transporter.
- Analytical laboratory.
- Chain-of-custody number for shipment to laboratory.
- Field observations on sampling event.
- Name(s) of sampling personnel.
- Climatic conditions including air temperature.
- Problems encountered and any deviations made from the established sampling protocol.

A standard ground water sampling log form for documentation and reporting ground water purging and sampling events will be utilized.

Ground water/Decontamination Fluid Disposal

The Post-Closure Care Plan will identify the required disposal procedures for ground water and decontamination fluids. Ground water disposal methods will vary on a case-by-case basis but may range from:

1. Off-site treatment at private treatment/disposal facilities or public owned treatment facilities.

2. On-site treatment at Facility-operated facilities.

3. Direct discharge to the surrounding ground surface, allowing ground water infiltration to the underlying subsurface regime.

Decontamination fluids should be segregated and collected separately from wash waters/ground water containers.

References

ASTM D5474 - Guide for Selection of Data Elements for Ground water Investigations.

ASTM D4696 - Guide for Pore-Liquid Sampling from the Vadose Zone.

ASTM D5979 - Guide for Conceptualization and Characterization of Ground water Systems.

ASTM D5903 - Guide for Planning and Preparing for a Ground water Sampling Event.

ASTM D4448 - Standard Guide for Sampling Ground water Wells.

ASTM D6001 - Standard Guide for Direct Push Water Sampling for Geo-Environmental Investigations.

USEPA Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures (EPA/540/S -95/504).

USEPA RCRA Ground water Monitoring: Draft Technical Guidance (EPA/530-R-93-001).

MDEQ RRD Operational Memorandum No. 2: Sampling and Analysis.

APPENDIX B

Groundwater Sampling Logs

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/16/10	Weather	Mostly cloudy 70s°F
Site Name	Coldwater Road Landfill	Well #	B-2D
Location	Flint, MI	Evacuation Method	submersible pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	72.97 ft.	Water Volume /ft. for:
Depth to Water *	54.64 ft.	X 2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.	4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)	6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 1 3/4 gal.(s)
Did well go dry? NO

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	Yes
ORP	Yes
Conductivity	Yes
DO	Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
825 initial	110	54.70	16.52	0.784	11.89	6.90	196.7	27
830		54.70	15.80	0.751	9.08	6.86	164.2	148
835		54.70	15.08	0.849	6.44	6.90	82.8	1100
840		54.70	14.82	0.831	5.22	6.96	77.4	454
845		54.70	14.87	0.808	4.51	6.99	74.5	259
850		54.70	14.57	0.779	4.04	7.02	71.1	154
855		54.70	14.58	0.761	3.70	7.02	70.0	104
900		54.70	14.86	0.758	3.56	7.04	69.1	82
905		54.70	15.20	0.756	3.36	7.07	62.7	77
910		54.70	14.95	0.745	3.17	7.08	57.6	73
915		54.70	13.63	0.713	3.34	7.08	56.1	49

Water Sample:
Time Collected: 925

Physical Appearance at Start		Physical Appearance at Sampling	
Color	Not color	Color	clear
Odor	—	Odor	—
Turbidity (> 100 NTU)		Turbidity (> 100 NTU)	44
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	2	~~125 ml Plastic~~ 40 ml	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

B-2D

time	Pump	DD	Temp	con	DO	pH	ORP	Turb
920	110	54.70	13.91	0.712	3.14	7.06	55.3	46
925	110	54.70	13.97	0.711	3.08	7.09	54.9	44

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/17/10	Weather	Partly cloudy 70s °F
Site Name	Coldwater Road Landfill	Well #	B-7
Location	Flint, MI	Evacuation Method	peristaltic pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	31.69 ft.	Water Volume /ft. for:
Depth to Water *	23.50 ft.	X 2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.	4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)	6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 0.7 gal.(s)
Did well go dry? No

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	yes
ORP	yes
Conductivity	yes
DO	yes

Water parameters:

Time		Pumping Rate (ml/min.)		Drawdown (ft) 0.3 feet or less		Temperature (Celsius) ±3 percent		Conductivity (mS/cm) ±0.005 (mS/cm)		Dissolved Oxygen (mg/L) ±10 percent		pH ±0.1 pH units		ORP (mV) ±10 millivolts		Turbidity (NTUs) ±10 percent	
1110	initial	80	initial	24.14	initial	16.65	initial	1.179	initial	5.61	initial	7.18	initial	70.7	initial	33	
1115				24.50		16.31		1.147		3.62		7.12		54.8		22	
1120				24.94		16.50		1.160		2.15		7.09		53.3		20	
1125				25.35		15.89		1.152		1.79		7.07		51.4		18	
1130				25.89		16.05		1.156		1.56		7.06		46.7		18	
1135				26.33		16.07		1.163		1.49		7.05		43.2		18	
1140				26.80		16.18		1.165		1.35		7.05		44.2		20	
1145		V		26.89		16.31		1.168		1.35		7.04		42.4		18	

Water Sample:
Time Collected: 1145

Physical Appearance at Start		Physical Appearance at Sampling	
Color	clear	Color	clear
Odor	—	Odor	—
Turbidity (> 100 NTU)	33	Turbidity (> 100 NTU)	18
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/15/10	Weather	cloudy 70s° F
Site Name	Coldwater Road Landfill	Well #	B-9
Location	Flint, MI	Evacuation Method	peristaltic pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	25.35 ft.	Water Volume /ft. for:	
Depth to Water *	6.02 ft.	X	2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.		4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)		6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 1 3/4 gal.(s)
Did well go dry? NO

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	YES
ORP	YES
Conductivity	YES
DO	YES

Water parameters:

Time		Pumping Rate (ml/min.)		Drawdown (ft) 0.3 feet or less		Temperature (Celsius) ±3 percent		Conductivity (mS/cm) ±0.005 (mS/cm)		Dissolved Oxygen (mg/L) ±10 percent		pH ±0.1 pH units		ORP (mV) ±10 millivolts		Turbidity (NTUs) ±10 percent
945	initial	120	initial	7.29	initial	14.13	initial	2.599	initial	1.40	initial	6.44	initial	181.2	initial	32
950		120		7.81		14.36		2.594		1.31		6.61		120.7		36
955		100		8.72		13.99		2.587		1.28		6.61		111.6		28
1000						13.87		2.573		1.26		6.62		107.0		26
1005						14.04		2.584		1.38		6.68		97.5		23
1010				9.84		14.27		2.590		1.22		6.70		92.5		21
1015				10.31		13.85		2.551		1.55		6.67		87.7		21
1020						13.64		2.530		1.38		6.67		84.9		18
1025				12.22		13.14		2.490		1.32		6.67		81.5		10
1030				12.34		13.08		2.489		1.28		6.67		78.4		8
1035		↓		12.51		12.98		2.485		1.21		6.69		75.0		9

Water Sample:
Time Collected: 1035

Physical Appearance at Start		Physical Appearance at Sampling	
Color	Clear	Color	Clear
Odor	—	Odor	—
Turbidity (> 100 NTU)	32	Turbidity (> 100 NTU)	9
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

O'Brien & G **Engineers, Inc.** **Ground Water Sampling Log**

Date	6/17/10		
Site Name	Coldwater Road Landfill	Weather	Sunny 70s °F
Location	Flint, MI	Well #	B-18A
Project No.	4966/39196	Evacuation Method	peristaltic pump
Personnel	KBS / SMD	Sampling Method	Low-flow

Well Information:

Depth of Well *	43.4 ft.	Water Volume /ft. for:	
Depth to Water *	24.59 ft.	X	2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.		4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)		6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 0.5 gal.(s)

Did well go dry? No

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	Yes
ORP	Yes
Conductivity	Yes
DO	Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1315 initial	80 initial	25.25 initial	18.41 initial	1.071 initial	6.48 initial	7.33 initial	57.1 initial	13 initial
1320		25.40	18.17	1.049	4.92	7.27	55.9	8
1325		25.74	17.68	1.031	4.09	7.24	50.4	7
1330		26.07	17.80	1.032	3.56	7.26	46.9	7
1335		26.43	17.39	1.023	3.63	7.27	31.0	7
1340		26.60	17.40	1.020	3.55	7.18	30.6	9
1345	↓	26.78	17.48	1.021	3.51	7.19	39.1	9

Water Sample:
Time Collected: 1345

Physical Appearance at Start		Physical Appearance at Sampling	
Color	clear	Color	clear
Odor	—	Odor	—
Turbidity (> 100 NTU)	Low	Turbidity (> 100 NTU)	Low
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	10/15/10	Weather	cloudy 70° F
Site Name	Coldwater Road Landfill	Well #	B-19Ar
Location	Flint, MI	Evacuation Method	submersible pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	46.5 ft.	Water Volume /ft. for:	
Depth to Water *	39.18 ft.	X	2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.		4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)		6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 1 gal.(s)
Did well go dry? No

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	yes
ORP	yes
Conductivity	yes
DO	yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1220 initial	120 initial	39.14 initial	15.78 initial	0.933 initial	7.51 initial	7.47 initial	~~87.4~~ 85.3 initial	247 initial
1225	75	39.58	13.71	0.857	5.47	7.38	75.1	115
1230	75	39.68	13.75	0.851	5.36	7.42	74.6	91
1235	75	39.74	14.54	0.858	5.24	7.49	71.6	66
1240	75	39.88	14.64	0.864	4.89	7.56	71.3	53
1245	75	39.96	15.20	0.870	4.81	7.62	68.1	35
1250	75	40.28	15.42	0.876	4.74	7.63	65.9	28
1255	75	~~40.44~~	15.65	0.881	4.55	7.62	65.9	24
1300	~~45~~ 75	40.52	15.89	0.886	4.47	7.60	66.4	19
1305	75	40.63	16.21	0.892	4.86	7.57	67.6	17
1310	75	40.71	16.10	0.896	4.83	7.57	69.7	17

Water Sample:
Time Collected: 1310

Physical Appearance at Start		Physical Appearance at Sampling	
Color	slightly cloudy	Color	clear
Odor	—	Odor	
Turbidity (> 100 NTU)	247	Turbidity (> 100 NTU)	17
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	10/16/10	Weather	cloudy 70s °F
Site Name	Coldwater Road Landfill	Well #	B-20D
Location	Flint, MI	Evacuation Method	submersible pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	84.97 ft.	Water Volume /ft. for:	
Depth to Water *	70.87 ft.	X	2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.		4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)		6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 2.5 gal.(s)
Did well go dry? NO

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	Yes
ORP	Yes
Conductivity	Yes
DO	Yes

DTW after pump sent down well 70.62

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1020 initial	100 initial	71.05 initial	16.04 initial	0.906 initial	8.74 initial	7.57 initial	6.3 initial	188 initial
1025		71.05	17.23	0.918	6.23	7.49	5.1	171
1030		71.05	17.31	0.926	4.40	7.46	3.7	166
1035		71.09	16.54	0.915	3.55	7.37	-34.7	193
1040		71.09	16.25	0.908	3.27	7.36	-38.3	213
1045		71.09	15.82	0.892	2.25	7.33	-46.4	242
1050		71.09	15.94	0.889	0.99	7.31	-52.3	269
1055		71.11	15.81	0.887	0.87	7.30	-59.6	283
1100		71.15	15.44	0.882	0.71	7.30	-63.7	297
1105		71.11	15.65	0.884	0.61	7.29	-64.7	276
1110		71.11	14.23	0.859	0.63	7.30	-65.5	224

Water Sample:
Time Collected: 1205

Physical Appearance at Start		Physical Appearance at Sampling	
Color	cloudy	Color	clear
Odor	—	Odor	—
Turbidity (> 100 NTU)	188	Turbidity (> 100 NTU)	18
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

B-20D

Time	Pump	DD	Temp	Con	DO	pH	ORP	Turb
1115	100	7l.ll	14.24	0.852	0.63	7.29	-64.3	216
1120		7l.ll	14.90	0.866	0.64	7.29	-65.9	180
1125		7l.ll	15.77	0.890	1.10	7.29	-66.1	179
1130		7l.ll	16.11	0.896	1.02	7.32	-61.3	139
1135		7l.ll	16.35	0.904	0.99	7.30	-61.4	130
1140		7l.ll	16.43	0.907	0.87	7.30	-63.1	102
1145		7l.ll	16.22	0.901	0.79	7.29	-65.0	95
1150		7l.ll	15.59	0.889	0.64	7.29	-66.5	64
1155		7l.ll	15.30	0.880	0.56	7.29	-68.1	52
1200		7l.ll	15.20	0.877	0.54	7.29	-70.5	49
1205		7l.ll	15.11	0.878	0.56	7.30	-69.8	48

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/17/10	Weather	partly cloudy 60s °F
Site Name	Coldwater Road Landfill	Well #	B-21D
Location	Flint, MI	Evacuation Method	submersible pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	97.44 ft.	Water Volume /ft. for:
Depth to Water *	87.33 ft.	X 2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.	4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)	6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 2.5 gal.(s)
Did well go dry? NO

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration: Calibrated within Range

pH	yes
ORP	yes
Conductivity	yes
DO	yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
815 initial	120 initial	82.69 initial	13.74 initial	0.662 initial	2.98 initial	7.18 initial	98.1 initial	187
820	100	82.55	13.96	0.588	1.94	7.31	9.2	179
825	↓	82.55	13.79	0.573	1.75	7.37	-19.9	189
830		82.55	13.71	0.570	1.58	7.38	-30.7	241
835		82.55	13.60	0.520	1.38	7.37	-46.0	304
840		82.55	13.07	0.5768	1.05	7.37	-54.6	421
845		82.55	13.15	0.573	0.69	7.36	-58.7	399
850		82.55	13.33	0.581	0.76	7.38	-59.1	350
855		82.55	13.63	0.592	0.67	7.40	-62.4	309
900		82.55	13.58	0.595	0.64	7.41	-63.9	317
905		82.55	13.44	0.599	0.61	7.41	-65.4	303

Water Sample:
Time Collected: 1000

Physical Appearance at Start		Physical Appearance at Sampling	
Color	slightly cloudy	Color	slightly clear
Odor	—	Odor	
Turbidity (> 100 NTU)	187	Turbidity (> 100 NTU)	92
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

B-21D

Time	PUMP	DD	TEMP	Con	Do	pH	ORP	Turb
910	100	82.55	13.29	0.607	0.66	7.41	-68.5	279
915	↓	↓	13.23	0.609	0.64	7.39	-69.4	238
920			13.34	0.613	0.55	7.40	-71.5	198
925			13.37	0.616	0.49	7.41	-72.6	189
930			13.51	0.618	0.45	7.41	-73.0	183
935			13.28	0.619	0.47	7.41	-74.5	161
940			12.87	0.613	0.44	7.41	-74.6	152
945			12.93	0.615	0.42	7.38	-74.4	108
950			13.09	0.618	0.51	7.40	-74.4	101
955			13.15	0.619	0.49	7.41	-75.5	95
1000			13.17	0.623	0.45	7.40	-75.5	92

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/16/10	Weather	mostly cloudy 70's DF
Site Name	Coldwater Road Landfill	Well #	B-22D
Location	Flint, MI	Evacuation Method	submersible pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

			Water Volume /ft. for:
Depth of Well *	97.24 ft.		
Depth to Water *	86.11 ft.	X	2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.		4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)		6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 2 gal.(s)
Did well go dry? No

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	Yes
ORP	Yes
Conductivity	Yes
DO	Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1630 initial	120 initial	86.33 initial	14.53 initial	0.597 initial	5.58 initial	7.36 initial	-55.0 initial	83
1635		86.49	15.10	0.604	4.09	7.34	-57.1	83
1640		86.49	15.98	0.620	1.92	7.39	-45.0	80
1645		86.49	16.02	0.625	1.67	7.39	-42.0	78
1650		86.49	15.83	0.623	1.47	7.39	-44.2	84
1655		86.49	15.16	0.610	1.19	7.40	-64.2	91
1700		86.49	13.88	0.590	1.66	7.38	-69.9	76
1705		86.49	14.80	0.601	1.41	7.38	-59.6	62
1710		86.49	15.39	0.613	1.24	7.41	-58.1	53
1715		86.49	15.55	0.615	1.21	7.41	-59.1	47
1720	↓	86.49	15.72	0.618	1.15	7.43	-63.9	47

Water Sample:
Time Collected: 1720

Physical Appearance at Start		Physical Appearance at Sampling	
Color	Slightly cloudy	Color	clear
Odor		Odor	
Turbidity (> 100 NTU)	83	Turbidity (> 100 NTU)	47
Sheen/Free Product		Sheen/Free Product	

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	10/6/10	Weather	Partly cloudy 70s °F
Site Name	Coldwater Road Landfill	Well #	B-23Dr
Location	Flint, MI	Evacuation Method	submersible pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	107 ft.	Water Volume /ft. for:
Depth to Water *	83.41 ft.	X 2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.	4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)	6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 2 gal.(s)
Did well go dry? No

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	Yes
ORP	Yes
Conductivity	Yes
DO	Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1410 initial	100 initial	83.43 initial	18.32 initial	0.713 initial	8.88 initial	7.50 initial	-60.3 initial	509
1415		83.43	17.34	0.709	2.57	7.34	~~-80.5~~ -76.9	322
1420		83.43	17.19	0.708	1.19	7.34	-82.6	210
1425		83.43	17.01	0.700	0.95	7.34	-82.5	152
1430		83.43	16.91	0.695	0.86	7.35	-82.0	124
1435		83.43	17.01	0.688	0.86	7.37	-82.3	85
1440		83.43	16.79	0.678	0.90	7.36	-78.9	71
1445		83.43	16.85	0.677	0.98	7.36	-77.9	63
1450		83.43	16.59	0.671	1.03	7.36	-75.6	54
1455		83.43	15.04	0.642	1.21	7.31	-70.9	45
1500		83.43	15.47	0.645	1.23	7.32	-70.2	39

Water Sample:
Time Collected: 1520

Physical Appearance at Start		Physical Appearance at Sampling	
Color	cloudy	Color	clear
Odor	—	Odor	—
Turbidity (> 100 NTU)	509	Turbidity (> 100 NTU)	32
Sheen/Free Product	—	Sheen/Free Product	

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

B-23 Dr

Time	Pump	DD	Temp	Cn	Do	pH	ORP	Turb
1505	100	83.43	16.89	0.671	1.28	7.33	-70.8	36
1510	↓	83.43	17.76	0.688	1.36	7.34	-71.6	36
1515		83.43	18.09	0.689	1.31	7.36	-74.6	33
1520		83.43	18.24	0.692	1.30	7.36	-75.4	32

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/16/10	Weather	Mostly cloudy 70s °F
Site Name	Coldwater Road Landfill	Well #	B-24r
Location	Flint, MI	Evacuation Method	peristaltic pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	29.5 ft.	Water Volume /ft. for:	
Depth to Water *	13.60 ft.	X	2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.		4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)		6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 1 gal.(s)
Did well go dry? NO

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration:

	Calibrated within Range
pH	yes
ORP	yes
Conductivity	yes
DO	yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1030 initial	100	14.96	14.69	0.923	0.44	6.81	-86.7	12
1035	110	15.32	14.71	0.924	0.37	6.85	-90.6	13
1040	110	15.72	15.59	0.921	0.31	6.88	-90.5	15
1045	110	~~14.43~~ 16.16	14.43	0.922	0.27	6.89	-89.4	18
1050	50	16.36	14.69	0.927	0.23	6.91	-87.8	20
1055	50	16.29	15.43	0.945	0.28	6.95	-86.5	24
1100	50	16.18	16.16	0.960	0.31	6.99	-88.2	26
1105	~~150~~ 50	~~16.35~~ 16.35	16.00	0.980	0.36	7.04	-92.1	23
1110	50	~~15.72~~ 16.38	15.72	0.957	0.33	6.99	-88.7	22
1115	50	16.35	16.38	0.968	0.29	7.00	-81.3	22

Water Sample:
Time Collected: ____

Physical Appearance at Start		Physical Appearance at Sampling	
Color	clear	Color	clear
Odor	—	Odor	—
Turbidity (> 100 NTU)	12	Turbidity (> 100 NTU)	17
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

B-24r

Time	Pumping Rate	Drawn-Down	Temp	Conductivity	Dissolved Oxygen	pH	ORP	Turbidity
1120	50	16.33	16.92	0.981	0.24	7.02	-81.9	22
1125	50	16.33	17.23	0.988	0.22	7.03	-85.1	19
1130	50	16.30	17.62	0.997	0.26	7.05	-84.1	18
1135	70	16.39	16.41	0.978	0.29	7.08	-86.1	18
1140	70	16.44	16.31	0.977	0.27	7.02	-82.4	17
1145	70	16.44	16.27	0.973	0.26	7.02	-80.5	17

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/15/10	Weather	Cloudy 70s °F
Site Name	Coldwater Road Landfill	Well #	B-27D
Location	Flint, MI	Evacuation Method	submersible pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	89 ft.	Water Volume /ft. for:	
Depth to Water *	78.96 ft.	X	2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.		4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)		6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 2 1/2 gal.(s)
Did well go dry? NO

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration: Calibrated within Range

pH	YES
ORP	YES
Conductivity	YES
DO	YES

Depth to Water after pump in well: 77.94

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1450 initial	~~100~~ ~~87.31~~	~~78.31~~	16.35	0.596	5.79	7.43	-68.5	428
1455	100	78.31	16.39	0.592	1.98	7.31	-75.6	473
1500	100	78.24	16.12	0.588	1.10	7.32	-83.7	442
1505	100	78.24	15.99	0.584	0.59	7.33	-89.4	454
1510	100	78.21	16.39	0.590	0.43	7.38	-96.0	606
1515	100	78.21	16.63	0.592	0.35	7.41	-100.2	608
1520	100	78.16	16.35	0.587	0.32	7.40	-98.6	583
1525	100	78.16	17.13	0.598	0.38	7.43	-101.1	495
1530	100	78.24	16.42	0.593	0.31	7.45	-101.2	442
1535	100	78.26	15.74	0.580	0.31	7.40	-95.6	387

Water Sample:
Time Collected: 1625

Physical Appearance at Start		Physical Appearance at Sampling	
Color	Cloudy	Color	Clear
Odor		Odor	
Turbidity (> 100 NTU)	428	Turbidity (> 100 NTU)	45
Sheen/Free Product		Sheen/Free Product	

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes: DUP-03 collected

B-27D

Time	Pumping Rate	Drawdown	Temp	Conductivity	DO	pH	ORP	Turbidity	
1540	100	78.28	15.54	0.575	0.31	7.38	-93.4	313	
1545	100	78.28	15.52	0.574	0.36	7.39	-91.0	250	
1550	100	78.28	15.52	0.580	1.31	7.39	-88.2	199	*
1555	100	78.28	15.49	0.579	0.54	7.40	-89.5	133	
1600	100	78.28	15.54	0.581	0.47	7.40	-89.2	107	
1605	100	78.28	15.63	0.582	0.41	7.41	-89.3	89	
1610	100	78.25	15.39	0.579	0.40	7.42	-89.4	60	
1615	100	78.25	15.43	0.579	0.37	7.41	-88.6	49	
1620	100	78.25	15.56	0.581	0.36	7.42	-88.3	46	
1625	100	78.24	15.69	0.583	0.36	7.41	-87.2	45	

* probe meter shut off automatically
DO ~~high~~ reading was high and quickly dropping when meter turned back on.

O'Brien & Gere Engineers, Inc. — **Ground Water Sampling Log**

Date	6/16/2010	Weather	Mostly Cloudy 70s °F
Site Name	Coldwater Road Landfill	Well #	B-28
Location	Flint, MI	Evacuation Method	peristaltic pump
Project No.	4966/39196	Sampling Method	Low-flow
Personnel	KBS / SMD		

Well Information:

Depth of Well *	31.5 ft.	Water Volume /ft. for:
Depth to Water *	6.90 ft.	X 2" Diameter Well = 0.163 X LWC
Length of Water Column	ft.	4" Diameter Well = 0.653 X LWC
Volume of Water in Well	gal.(s)	6" Diameter Well = 1.469 X LWC

Volume removed before sampling: 1.0 gal.(s)
Did well go dry? NO

* Measurements taken from: [X] Well Casing [ ] Protective Casing [ ] (Other, Specify)

Instrument Calibration: Calibrated within Range

pH	yes
ORP	yes
Conductivity	yes
DO	yes

Water parameters:

Time		Pumping Rate (ml/min.)		Drawdown (ft) 0.3 feet or less		Temperature (Celsius) ±3 percent		Conductivity (mS/cm) ±0.005 (mS/cm)		Dissolved Oxygen (mg/L) ±10 percent		pH ±0.1 pH units		ORP (mV) ±10 millivolts		Turbidity (NTUs) ±10 percent
1535	initial	160	initial	8.21	initial	16.04	initial	0.713	initial	0.48	initial	7.16	initial	-38.9	initial	7
1540		140		9.02		15.96		0.708		0.26		7.08		-39.5		7
1545		80		9.23		15.82		0.708		0.25		7.05		-40.5		7
1550		80		9.54		16.42		0.719		0.22		7.05		-42.6		7
1555		80		9.56		17.51		0.739		0.24		7.08		-48.0		7
1600		80		9.60		17.86		0.748		0.26		7.09		-52.7		6
1605		80		9.61		17.60		0.746		0.22		7.07		-55.3		6
1610		80		9.63		17.21		0.738		0.21		7.03		-53.6		6
1615		80		9.63		17.40		0.738		0.21		7.02		-51.7		6
1620		80		9.65		17.57		0.741		0.22		7.02		-51.6		6

Water Sample:
Time Collected: 1620

Physical Appearance at Start		Physical Appearance at Sampling	
Color	Clear	Color	Clear
Odor	—	Odor	—
Turbidity (> 100 NTU)	7	Turbidity (> 100 NTU)	6
Sheen/Free Product	—	Sheen/Free Product	—

Samples collected:

Analyses	# Bottles	Bottle Size/Type	Preservative	Field Filtered
VOCs	2	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO_3	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Plastic	H_2SO_4	
TOC	1	125 ml Plastic	H_2SO_4	
TOX	1	125 ml Plastic	H_2SO_4	
Sulfate, Chlorides, SpC	1	500 ml Plasitc	None	

Notes:

APPENDIX C

Analytical Results

Analytical Laboratory Report

Report ID: S44580.01(01)
Generated on 07/02/2010

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S44580.01-S44580.08
Project: Coldwater Semi-Annual
Collected Date: 06/15/2010 - 06/16/2010
Submitted Date/Time: 06/16/2010 14:45
Sampled by: Kevin Schneider
P.O. #: 10910979

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.

Violetta F. Murshak
Laboratory Director

Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S44580.01	B-9	Groundwater	06/15/2010 10:35
S44580.02	B-19Ar	Groundwater	06/15/2010 13:10
S44580.03	B-27D	Groundwater	06/15/2010 16:25
S44580.04	Dup-03	Groundwater	06/15/2010
S44580.05	B-2D	Groundwater	06/16/2010 09:25
S44580.06	B-24r	Groundwater	06/16/2010 11:45
S44580.07	B-20D	Groundwater	06/16/2010 12:05
S44580.08	TB-02	Groundwater	06/16/2010

Analytical Laboratory Report

Lab Sample ID: S44580.01
Sample Tag: B-9
Collected Date/Time: 06/15/2010 10:35
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	None	Yes	5.0	IR
2	40ml Glass	H2SO4	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
2	125ml Amber	H2SO4	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	117	mg/L	2	300.0	06/28/10 10:33	JDP	16887-00-6	
Conductivity	3,030	umhos/cm		120.1	06/22/10 10:31	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:23	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/23/10 15:20	JKB		
Sulfate	1,230	mg/L	2	300.0	06/28/10 12:08	JDP	14808-79-8	
TOC	3	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:00	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:00	SLS	7440-50-8	
Iron, Dissolved	0.46	mg/L	0.02	200.8	06/23/10 13:00	SLS	7439-89-6	
Manganese, Dissolved	0.475	mg/L	0.005	200.8	06/23/10 13:00	SLS	7439-96-5	
Nickel, Dissolved	0.007	mg/L	0.005	200.8	06/23/10 16:18	SLS	7440-02-0	
Sodium, Dissolved	70.7	mg/L	0.20	200.8	06/22/10 16:28	PER	7440-23-5	
Sodium	68.6	mg/L	0.20	200.8	06/22/10 16:01	PER	7440-23-5	
Zinc, Dissolved	0.006	mg/L	0.005	200.8	06/23/10 13:00	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 17:13	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 17:13	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 17:13	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 17:13	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 17:13	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 17:13	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	75-34-3	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44580.01 (continued)
Sample Tag: B-9

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 17:13	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 17:13	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 17:13	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 17:13	JGH	75-01-4	
Organics								
TOX	27.5	ug/L	30.0	9020A	06/28/10 12:00	TestA		O1

O-Analysis performed by outside laboratory. See attached report. 1-Estimated result.Result is less than RL.

Analytical Laboratory Report

Lab Sample ID: S44580.02
Sample Tag: B-19Ar
Collected Date/Time: 06/15/2010 13:10
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	None	Yes	5.0	IR
2	40ml Glass	H2SO4	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
2	125ml Amber	H2SO4	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	59	mg/L	2	300.0	06/28/10 10:45	JDP	16887-00-6	
Conductivity	992	umhos/cm		120.1	06/22/10 10:34	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:31	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/23/10 15:30	JKB		
Sulfate	154	mg/L	2	300.0	06/28/10 10:45	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:02	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:02	SLS	7440-50-8	
Iron, Dissolved	Not detected	mg/L	0.02	200.8	06/23/10 13:02	SLS	7439-89-6	
Manganese, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:02	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 16:21	SLS	7440-02-0	
Sodium, Dissolved	19.8	mg/L	0.20	200.8	06/22/10 16:29	PER	7440-23-5	
Sodium	20.4	mg/L	0.20	200.8	06/22/10 16:02	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:02	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 17:31	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 17:31	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 17:31	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 17:31	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 17:31	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 17:31	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	75-34-3	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44580.02 (continued)
Sample Tag: B-19Ar

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 17:31	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 17:31	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 17:31	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 17:31	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44580.03
Sample Tag: B-27D
Collected Date/Time: 06/15/2010 16:25
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	None	Yes	5.0	IR
2	40ml Glass	H2SO4	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
2	125ml Amber	H2SO4	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	2	mg/L	2	300.0	06/28/10 12:54	JDP	16887-00-6	
Conductivity	646	umhos/cm		120.1	06/22/10 10:35	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:33	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/23/10 15:40	JKB		
Sulfate	19	mg/L	2	300.0	06/28/10 12:54	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:05	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:05	SLS	7440-50-8	
Iron, Dissolved	1.25	mg/L	0.02	200.8	06/23/10 13:05	SLS	7439-89-6	
Manganese, Dissolved	0.036	mg/L	0.005	200.8	06/23/10 13:05	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 16:24	SLS	7440-02-0	
Sodium, Dissolved	32.2	mg/L	0.20	200.8	06/22/10 16:30	PER	7440-23-5	
Sodium	31.9	mg/L	0.20	200.8	06/22/10 16:03	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:05	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 17:49	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 17:49	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 17:49	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 17:49	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 17:49	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 17:49	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	75-34-3	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44580.03 (continued)
Sample Tag: B-27D

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 17:49	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 17:49	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 17:49	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 17:49	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44580.04
Sample Tag: Dup-03
Collected Date/Time: 06/15/2010 :
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	None	Yes	5.0	IR
2	40ml Glass	H2SO4	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
2	125ml Amber	H2SO4	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	2	mg/L	2	300.0	06/28/10 13:06	JDP	16887-00-6	
Conductivity	652	umhos/cm		120.1	06/22/10 10:36	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:35	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/23/10 15:45	JKB		
Sulfate	20	mg/L	2	300.0	06/28/10 13:06	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:07	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:07	SLS	7440-50-8	
Iron, Dissolved	1.22	mg/L	0.02	200.8	06/23/10 13:07	SLS	7439-89-6	
Manganese, Dissolved	0.035	mg/L	0.005	200.8	06/23/10 13:07	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 16:27	SLS	7440-02-0	
Sodium, Dissolved	31.7	mg/L	0.20	200.8	06/22/10 16:31	PER	7440-23-5	
Sodium	31.9	mg/L	0.20	200.8	06/22/10 16:04	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:07	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 18:07	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 18:07	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 18:07	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 18:07	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 18:07	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 18:07	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	75-34-3	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44580.04 (continued)
Sample Tag: Dup-03

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 18:07	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 18:07	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 18:07	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 18:07	JGH	75-01-4	
Organics								
TOX	31.2	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44580.05
Sample Tag: B-2D
Collected Date/Time: 06/16/2010 09:25
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	None	Yes	5.0	IR
2	40ml Glass	H2SO4	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
2	125ml Amber	H2SO4	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	7	mg/L	2	300.0	06/28/10 13:17	JDP	16887-00-6	
Conductivity	841	umhos/cm		120.1	06/22/10 10:38	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:37	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/23/10 15:50	JKB		
Sulfate	75	mg/L	2	300.0	06/28/10 11:21	JDP	14808-79-8	
TOC	5	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:10	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:10	SLS	7440-50-8	
Iron, Dissolved	0.04	mg/L	0.02	200.8	06/23/10 13:10	SLS	7439-89-6	
Manganese, Dissolved	0.083	mg/L	0.005	200.8	06/23/10 13:10	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 16:29	SLS	7440-02-0	
Sodium, Dissolved	19.0	mg/L	0.20	200.8	06/22/10 16:33	PER	7440-23-5	
Sodium	19.8	mg/L	0.20	200.8	06/22/10 16:05	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:10	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 18:26	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 18:26	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 18:26	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 18:26	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 18:26	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 18:26	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	75-34-3	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44580.05 (continued)
Sample Tag: B-2D

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 18:26	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 18:26	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 18:26	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 18:26	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/29/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44580.06
Sample Tag: B-24r
Collected Date/Time: 06/16/2010 11:45
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	None	Yes	5.0	IR
2	40ml Glass	H2SO4	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
2	125ml Amber	H2SO4	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	46	mg/L	2	300.0	06/28/10 11:32	JDP	16887-00-6	
Conductivity	1,150	umhos/cm		120.1	06/22/10 10:40	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:39	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/23/10 15:55	JKB		
Sulfate	196	mg/L	2	300.0	06/28/10 11:32	JDP	14808-79-8	
TOC	4	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:12	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:12	SLS	7440-50-8	
Iron, Dissolved	1.88	mg/L	0.02	200.8	06/23/10 13:12	SLS	7439-89-6	
Manganese, Dissolved	0.222	mg/L	0.005	200.8	06/23/10 13:12	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 16:32	SLS	7440-02-0	
Sodium, Dissolved	39.5	mg/L	0.20	200.8	06/22/10 16:34	PER	7440-23-5	
Sodium	40.7	mg/L	0.20	200.8	06/22/10 16:07	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:12	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 18:44	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 18:44	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 18:44	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 18:44	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 18:44	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 18:44	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	75-34-3	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44580.06 (continued)
Sample Tag: B-24r

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 18:44	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 18:44	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 18:44	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 18:44	JGH	75-01-4	
Organics								
TOX	22.7	ug/L	30.0	9020A	06/28/10 12:00	TestA		O1

O-Analysis performed by outside laboratory. See attached report. 1-Estimated result.Result is less than RL.

Analytical Laboratory Report

Lab Sample ID: S44580.07
Sample Tag: B-20D
Collected Date/Time: 06/16/2010 12:05
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	None	Yes	5.0	IR
2	40ml Glass	H2SO4	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
2	125ml Amber	H2SO4	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	2	mg/L	2	300.0	06/28/10 13:29	JDP	16887-00-6	
Conductivity	1,020	umhos/cm		120.1	06/22/10 10:42	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:41	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/23/10 16:00	JKB		
Sulfate	177	mg/L	2	300.0	06/28/10 11:44	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:15	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:15	SLS	7440-50-8	
Iron, Dissolved	1.93	mg/L	0.02	200.8	06/23/10 13:15	SLS	7439-89-6	
Manganese, Dissolved	0.049	mg/L	0.005	200.8	06/23/10 13:15	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 16:35	SLS	7440-02-0	
Sodium, Dissolved	19.0	mg/L	0.20	200.8	06/22/10 16:35	PER	7440-23-5	
Sodium	20.9	mg/L	0.20	200.8	06/22/10 16:08	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:15	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 19:02	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 19:02	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 19:02	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 19:02	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 19:02	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 19:02	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	75-34-3	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44580.07 (continued)
Sample Tag: B-20D

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 19:02	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:02	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 19:02	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 19:02	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/29/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44580.08
Sample Tag: TB-02
Collected Date/Time: 06/16/2010 :
Matrix: Groundwater
COC Reference: 043458

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 19:20	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 19:20	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 19:20	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 19:20	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 19:20	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 19:20	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 19:20	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:20	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 19:20	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 19:20	JGH	75-01-4	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

043458

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River Ave Ste 260
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO: 248-477-5201 FAX NO: P.O. NO:
E-MAIL ADDRESS: QUOTE NO:

INVOICE TO

CONTACT NAME: SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: FAX NO: P.O. NO:

PROJECT NO./NAME: Coldwater Semi-Annual
SAMPLER(S) PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED: 24 HR 48 HR 72 HR STANDARD OTHER

DELIVERABLES REQUIRED: STANDARD LEVEL II LEVEL III OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	TOC	TOX	Phenols	Cyanide	Sulfate	Chlorides	Specific Conductance	Dissolved Metals	Sodium	SPECIAL INSTRUCTIONS/NOTES
44580.01	6/15/10	1035	B-9	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	Metals are: Cu, Cr, Ni, Zn, Fe, Mn, Na
.02	6/15/10	1310	B-19A	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	
.03	6/15/10	1625	B-27D	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	
.04	6/15/10	—	DUP-03	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	
.05	6/16/10	925	B-2D	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	
.06	6/16/10	1145	B-24C	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	
.07	6/16/10	1205	B-20D	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	
.08	6/16/10	—	TB-02		1		1						X										Trip Blank

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	6/16/10	1240
RELINQUISHED BY: SIGNATURE/ORGANIZATION		
RECEIVED BY: SIGNATURE/ORGANIZATION		

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	6-16-10	1445

SEAL NO. SEAL INTACT YES NO INITIALS
SEAL NO. SEAL INTACT YES NO INITIALS

NOTES: TEMP. ON ARRIVAL 4.9

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 44580

44580

Lot #: A0F180441

Paula Shaw

Merit Laboratories
2680 E Lansing Drive
Lansing, MI 48823

TESTAMERICA LABORATORIES, INC.

Designee for
Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

Approved for release.
Amy McCormick
Project Manager
7/2/2010 10:22 AM

July 2, 2010

CASE NARRATIVE

A0F180441

The following report contains the analytical results for seven water samples submitted to TestAmerica North Canton by Merit Laboratories from the 44580 Site, project number 44580. The samples were received June 18, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.4°C.

CASE NARRATIVE (continued)

GENERAL CHEMISTRY

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A0F180441

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
44580.01 06/15/10 10:35 001				
Total Organic Carbon	3	1	mg/L	MCAWW 415.1
Total Organic Halogens	27.5 B	30.0	ug/L	SW846 9020B
44580.02 06/15/10 13:10 002				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1
44580.03 06/15/10 16:25 003				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1
44580.04 06/15/10 004				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1
Total Organic Halogens	31.2	30.0	ug/L	SW846 9020B
44580.05 06/16/10 09:25 005				
Total Organic Carbon	5	1	mg/L	MCAWW 415.1
44580.06 06/16/10 11:45 006				
Total Organic Carbon	4	1	mg/L	MCAWW 415.1
Total Organic Halogens	22.7 B	30.0	ug/L	SW846 9020B
44580.07 06/16/10 12:05 007				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1

ANALYTICAL METHODS SUMMARY

A0F180441

PARAMETER	ANALYTICAL METHOD
Total Organic Carbon	MCAWW 415.1
Total Organic Halogens	SW846 9020B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0F180441

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L24JP	001	44580.01	06/15/10	10:35
L24JR	002	44580.02	06/15/10	13:10
L24JV	003	44580.03	06/15/10	16:25
L24JX	004	44580.04	06/15/10	
L24J0	005	44580.05	06/16/10	09:25
L24J1	006	44580.06	06/16/10	11:45
L24J3	007	44580.07	06/16/10	12:05

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Merit Laboratories

Client Sample ID: 44580.01

General Chemistry

Lot-Sample #...: A0F180441-001 **Work Order #...:** L24JP **Matrix.....:** WG
Date Sampled...: 06/15/10 10:35 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**3**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
	Dilution Factor: 1			MDL.....: 0.2		
Total Organic Halogens	**27.5 B**	**30.0**	**ug/L**	**SW846 9020B**	**06/28/10**	**0180228**
	Dilution Factor: 1			MDL.....: 19.0		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

Merit Laboratories

Client Sample ID: 44580.02

General Chemistry

Lot-Sample #...: A0F180441-002 **Work Order #...:** L24JR **Matrix.....:** WG
Date Sampled...: 06/15/10 13:10 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44580.03

General Chemistry

Lot-Sample #...: A0F180441-003 **Work Order #...:** L24JV **Matrix.....:** WG
Date Sampled...: 06/15/10 16:25 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44580.04

General Chemistry

Lot-Sample #...: A0F180441-004 **Work Order #...:** L24JX **Matrix.....:** WG
Date Sampled...: 06/15/10 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
	Dilution Factor: 1			MDL.....: 0.2		
Total Organic Halogens	**31.2**	**30.0**	**ug/L**	**SW846 9020B**	**06/28/10**	**0180228**
	Dilution Factor: 1			MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44580.05

General Chemistry

Lot-Sample #...: A0F180441-005 **Work Order #...:** L24J0 **Matrix.....:** WG
Date Sampled...: 06/16/10 09:25 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**5**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
	Dilution Factor: 1			MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/29/10	0180228
	Dilution Factor: 1			MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44580.06

General Chemistry

Lot-Sample #...: A0F180441-006 **Work Order #...:** L24J1 **Matrix.....:** WG
Date Sampled...: 06/16/10 11:45 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**4**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
	Dilution Factor: 1			MDL.....: 0.2		
Total Organic Halogens	**22.7 B**	**30.0**	**ug/L**	**SW846 9020B**	**06/28/10**	**0180228**
	Dilution Factor: 1			MDL.....: 19.0		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

Merit Laboratories

Client Sample ID: 44580.07

General Chemistry

Lot-Sample #...: A0F180441-007 **Work Order #...:** L24J3 **Matrix.....:** WG
Date Sampled...: 06/16/10 12:05 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
	Dilution Factor: 1			MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/29/10	0180228
	Dilution Factor: 1			MDL.....: 19.0		

TestAmerica
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QUALITY CONTROL SECTION

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A0F180441 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon		Work Order #: L3ELM1AA		MB Lot-Sample #:	A0F250000-104	
	ND	1	mg/L	MCAWW 415.1	06/25/10	0176104
		Dilution Factor: 1				
Total Organic Halogens		Work Order #: L3JK31AA		MB Lot-Sample #:	A0F290000-228	
	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0F180441 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon		Work Order #: L3ELM1AC	LCS Lot-Sample#: A0F250000-104		
	97	(88 - 115)	MCAWW 415.1	06/25/10	0176104
		Dilution Factor: 1			
Total Organic Halogens		Work Order #: L3JK31AC	LCS Lot-Sample#: A0F290000-228		
	101	(67 - 115)	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0F180441 **Matrix.....:** WATER
Date Sampled...: 06/24/10 09:17 **Date Received..:** 06/25/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	WO#: L24JA1AD-MS/L24JA1AE-MSD					MS Lot-Sample #: A0F180439-001	
	94	(72 - 136)			MCAWW 415.1	06/25/10	0176104
	94	(72 - 136)	0.20	(0-20)	MCAWW 415.1	06/25/10	0176104
	Dilution Factor: 1						
Total Organic Halogens	WO#: L3EQE1AC-MS/L3EQE1AD-MSD					MS Lot-Sample #: A0F250448-003	
	79	(59 - 126)			SW846 9020B	06/28/10	0180228
	89	(59 - 126)	12	(0-99)	SW846 9020B	06/28/10	0180228
	Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Merit Labs	Paula Shaw		182097
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
2680 East Lansing Dr.			
City East Lansing	**State** MI	**Zip Code** 48823	**Site Contact** / **Lab Contact**
Project Name and Location (State) 44580	**Carrier/Waybill Number**		
Contract/Purchase Order/Quote No. 44580			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TOX	TOC	Special Instructions/ Conditions of Receipt
44580.01	6-15-10	1035		✓				3					X	X	
.02	↓	1310		✓				↓					X	X	
.03		1625		✓									X	X	
.04	↓	—		✓									X	X	
.05	6-16-10	0925		✓									X	X	
.06	↓	1145		✓									X	X	
.07	↓	1205		✓				↓					X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Paula Shaw	6-17-10	1600		6-18-10	1000
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: *WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy*

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 440F180441
North Canton Facility

Client MERIT LABS Project 44580 By: _____ (Signature)
Cooler Received on 6.18.10 Opened on 6.18.10
FedEx ☐ UPS ☑ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # 241-935 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☐ No ☑ Intact? Yes ☐ No ☐ NA ☑
   If YES, Quantity _____ Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☐ No ☐ NA ☑
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☑ None ☐ Other _____
6. Cooler temperature upon receipt 2.4 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☑ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☑
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☑ Were VOAs on the COC? Yes ☐ No ☑

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 121709-HNO_3; *Sulfuric Acid Lot#* 121709-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
44580.01	≤2	8-16-10	JG
2	≤2		
3	≤2		
4	≤2		
5	≤2		
6	≤2		
7	≤2		

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

Analytical Laboratory Report

Report ID: S44594.01(01)
Generated on 07/02/2010

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S44594.01-S44594.06
Project: Coldwater Rd. Semi-Annual
Collected Date: 06/16/2010 - 06/17/2010
Submitted Date/Time: 06/17/2010 13:45
Sampled by: Kevin Schneider
P.O. #: 10910979

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S44594.01	B-23Dr	Groundwater	06/16/2010 15:20
S44594.02	B-28	Groundwater	06/16/2010 16:20
S44594.03	B-22D	Groundwater	06/16/2010 17:20
S44594.04	B-21D	Groundwater	06/17/2010 10:00
S44594.05	B-7	Groundwater	06/17/2010 11:45
S44594.06	TB-03	Groundwater	06/17/2010

Analytical Laboratory Report

Lab Sample ID: S44594.01
Sample Tag: B-23Dr
Collected Date/Time: 06/16/2010 15:20
Matrix: Groundwater
COC Reference: 041176

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.5	IR
1	250ml Plastic	None	Yes	5.5	IR
2	40ml Glass	H2SO4	Yes	5.5	IR
2	40ml Glass	HCL	Yes	5.5	IR
2	125ml Amber	H2SO4	Yes	5.5	IR
1	125ml Plastic	NaOH	Yes	5.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	20	mg/L	2	300.0	06/28/10 13:43	JDP	16887-00-6	
Conductivity	747	umhos/cm		120.1	06/22/10 10:43	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:43	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/24/10 15:30	JKB		
Sulfate	45	mg/L	2	300.0	06/28/10 13:43	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:30	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:30	SLS	7440-50-8	
Iron, Dissolved	0.95	mg/L	0.02	200.8	06/23/10 13:30	SLS	7439-89-6	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:11	SLS	7440-02-0	
Sodium	23.2	mg/L	0.20	200.8	06/22/10 16:14	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:30	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 19:38	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 19:38	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 19:38	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 19:38	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 19:38	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 19:38	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	75-35-4	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44594.01 (continued)
Sample Tag: B-23Dr

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 19:38	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:38	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 19:38	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 19:38	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44594.02
Sample Tag: B-28
Collected Date/Time: 06/16/2010 16:20
Matrix: Groundwater
COC Reference: 041176

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.5	IR
1	250ml Plastic	None	Yes	5.5	IR
2	40ml Glass	H2SO4	Yes	5.5	IR
2	40ml Glass	HCL	Yes	5.5	IR
2	125ml Amber	H2SO4	Yes	5.5	IR
1	125ml Plastic	NaOH	Yes	5.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	12	mg/L	2	300.0	06/28/10 13:54	JDP	16887-00-6	
Conductivity	841	umhos/cm		120.1	06/22/10 10:44	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:45	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/24/10 15:40	JKB		
Sulfate	78	mg/L	2	300.0	06/28/10 13:54	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:32	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:32	SLS	7440-50-8	
Iron, Dissolved	0.79	mg/L	0.02	200.8	06/23/10 13:32	SLS	7439-89-6	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:13	SLS	7440-02-0	
Sodium	19.1	mg/L	0.20	200.8	06/22/10 16:15	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:32	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 19:56	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 19:56	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 19:56	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 19:56	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 19:56	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 19:56	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	75-35-4	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44594.02 (continued)
Sample Tag: B-28

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 19:56	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 19:56	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 19:56	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 19:56	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44594.03
Sample Tag: B-22D
Collected Date/Time: 06/16/2010 17:20
Matrix: Groundwater
COC Reference: 041176

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.5	IR
1	250ml Plastic	None	Yes	5.5	IR
2	40ml Glass	H2SO4	Yes	5.5	IR
2	40ml Glass	HCL	Yes	5.5	IR
2	125ml Amber	H2SO4	Yes	5.5	IR
1	125ml Plastic	NaOH	Yes	5.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	2	mg/L	2	300.0	06/28/10 14:44	JDP	16887-00-6	
Conductivity	715	umhos/cm		120.1	06/22/10 10:45	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:47	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/24/10 15:45	JKB		
Sulfate	51	mg/L	2	300.0	06/28/10 14:44	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:35	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:35	SLS	7440-50-8	
Iron, Dissolved	1.10	mg/L	0.02	200.8	06/23/10 13:35	SLS	7439-89-6	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:16	SLS	7440-02-0	
Sodium	26.0	mg/L	0.20	200.8	06/22/10 16:16	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:35	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 20:14	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 20:14	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 20:14	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 20:14	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 20:14	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 20:14	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	75-35-4	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44594.03 (continued)
Sample Tag: B-22D

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 20:14	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 20:14	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 20:14	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 20:14	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44594.04
Sample Tag: B-21D
Collected Date/Time: 06/17/2010 10:00
Matrix: Groundwater
COC Reference: 041176

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.5	IR
1	250ml Plastic	None	Yes	5.5	IR
2	40ml Glass	H2SO4	Yes	5.5	IR
2	40ml Glass	HCL	Yes	5.5	IR
2	125ml Amber	H2SO4	Yes	5.5	IR
1	125ml Plastic	NaOH	Yes	5.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	3	mg/L	2	300.0	06/28/10 14:55	JDP	16887-00-6	
Conductivity	736	umhos/cm		120.1	06/22/10 10:47	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:51	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/24/10 15:50	JKB		
Sulfate	58	mg/L	2	300.0	06/28/10 14:55	JDP	14808-79-8	
TOC	2	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:37	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:37	SLS	7440-50-8	
Iron, Dissolved	0.98	mg/L	0.02	200.8	06/23/10 13:37	SLS	7439-89-6	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:19	SLS	7440-02-0	
Sodium	23.7	mg/L	0.20	200.8	06/22/10 16:18	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:37	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 20:32	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 20:32	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 20:32	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 20:32	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 20:32	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 20:32	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	75-35-4	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44594.04 (continued)
Sample Tag: B-21D

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 20:32	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 20:32	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 20:32	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 20:32	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44594.05
Sample Tag: B-7
Collected Date/Time: 06/17/2010 11:45
Matrix: Groundwater
COC Reference: 041176

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.5	IR
1	250ml Plastic	None	Yes	5.5	IR
2	40ml Glass	H2SO4	Yes	5.5	IR
2	40ml Glass	HCL	Yes	5.5	IR
2	125ml Amber	H2SO4	Yes	5.5	IR
1	125ml Plastic	NaOH	Yes	5.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	61	mg/L	2	300.0	06/28/10 15:07	JDP	16887-00-6	
Conductivity	1,290	umhos/cm		120.1	06/22/10 10:48	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:53	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/24/10 15:55	JKB		
Sulfate	160	mg/L	2	300.0	06/28/10 15:43	JDP	14808-79-8	
TOC	5	mg/L	1	EPA 415	06/25/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:40	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:40	SLS	7440-50-8	
Iron, Dissolved	Not detected	mg/L	0.02	200.8	06/23/10 13:40	SLS	7439-89-6	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:22	SLS	7440-02-0	
Sodium	86.0	mg/L	0.20	200.8	06/22/10 16:19	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:40	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 20:50	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 20:50	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 20:50	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 20:50	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 20:50	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 20:50	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	75-35-4	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44594.05 (continued)
Sample Tag: B-7

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 20:50	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 20:50	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 20:50	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 20:50	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/28/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44594.06
Sample Tag: TB-03
Collected Date/Time: 06/17/2010 :
Matrix: Groundwater
COC Reference: 041176

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/18/10 21:08	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/18/10 21:08	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/18/10 21:08	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/18/10 21:08	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/18/10 21:08	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/18/10 21:08	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/18/10 21:08	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/18/10 21:08	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/18/10 21:08	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/18/10 21:08	JGH	75-01-4	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

041176

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: Coldwater Rd Semi-Annual
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Sanecki

TURNAROUND TIME REQUIRED: 24 HR 48 HR 72 HR STANDARD OTHER
DELIVERABLES REQUIRED: STANDARD LEVEL II LEVEL III OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

SPECIAL INSTRUCTIONS/NOTES: Metals are copper, Chromium Nickel, zinc, Iron manganese

MERIT LAB NO.	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	TDC	TOX	Phenols	Cyanide	Sulfate	Chlorides	Specific Conductivity	Dissolved Metals	Sodium
44594.01	6/16/10	1520	B-23Dr	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X
.02	6/16/10	1620	B-28	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X
.03	6/16/10	1720	B-22D	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X
.04	6/17/10	1000	B-21D	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X
.05	6/17/10	1145	B-7	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X
.06	6/17/10	—	TB-03	QC	1		1						X									

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
OBG	6/17/10	1340
RECEIVED BY: SIGNATURE/ORGANIZATION	6-17-10	1240
RELINQUISHED BY: SIGNATURE/ORGANIZATION		
RECEIVED BY: SIGNATURE/ORGANIZATION		

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	6-17-10	1345
RECEIVED BY: SIGNATURE/ORGANIZATION	6-17-10	1345

SEAL NO. | SEAL INTACT YES NO | INITIALS
SEAL NO. | SEAL INTACT YES NO | INITIALS

NOTES: TEMP. ON ARRIVAL

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 44594

44594

Lot #: A0F180439

Paula Shaw

Merit Laboratories
2680 E Lansing Drive
Lansing, MI 48823

TESTAMERICA LABORATORIES, INC.

Designee for
Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

Approved for release.
Amy McCormick
Project Manager
7/2/2010 10:23 AM

July 2, 2010

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A0F180439

The following report contains the analytical results for five water samples submitted to TestAmerica North Canton by Merit Laboratories from the 44594 Site, project number 44594. The samples were received June 18, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.4°C.

CASE NARRATIVE (continued)

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A0F180439

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
44594.01 06/16/10 15:20 001				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1
44594.02 06/16/10 16:20 002				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1
44594.03 06/16/10 17:20 003				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1
44594.04 06/17/10 10:00 004				
Total Organic Carbon	2	1	mg/L	MCAWW 415.1
44594.05 06/17/10 11:45 005				
Total Organic Carbon	5	1	mg/L	MCAWW 415.1

ANALYTICAL METHODS SUMMARY

A0F180439

PARAMETER	ANALYTICAL METHOD
Total Organic Carbon	MCAWW 415.1
Total Organic Halogens	SW846 9020B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0F180439

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L24JA	001	44594.01	06/16/10	15:20
L24JC	002	44594.02	06/16/10	16:20
L24JD	003	44594.03	06/16/10	17:20
L24JF	004	44594.04	06/17/10	10:00
L24JH	005	44594.05	06/17/10	11:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Merit Laboratories

Client Sample ID: 44594.01

General Chemistry

Lot-Sample #...: A0F180439-001 **Work Order #...:** L24JA **Matrix.....:** WG
Date Sampled...: 06/16/10 15:20 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44594.02

General Chemistry

Lot-Sample #...: A0F180439-002 **Work Order #...:** L24JC **Matrix.....:** WG
Date Sampled...: 06/16/10 16:20 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44594.03

General Chemistry

Lot-Sample #...: A0F180439-003 **Work Order #...:** L24JD **Matrix.....:** WG
Date Sampled...: 06/16/10 17:20 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44594.04

General Chemistry

Lot-Sample #...: A0F180439-004 **Work Order #...:** L24JF **Matrix.....:** WG
Date Sampled...: 06/17/10 10:00 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**2**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44594.05

General Chemistry

Lot-Sample #...: A0F180439-005 **Work Order #...:** L24JH **Matrix.....:** WG
Date Sampled...: 06/17/10 11:45 **Date Received..:** 06/18/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**5**	**1**	**mg/L**	**MCAWW 415.1**	**06/25/10**	**0176104**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A0F180439 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon		Work Order #: L3ELM1AA		MB Lot-Sample #:	A0F250000-104	
	ND	1	mg/L	MCAWW 415.1	06/25/10	0176104
		Dilution Factor: 1				
Total Organic Halogens		Work Order #: L3JK31AA		MB Lot-Sample #:	A0F290000-228	
	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0F180439 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon		Work Order #: L3ELM1AC	LCS Lot-Sample#: A0F250000-104		
	97	(88 - 115)	MCAWW 415.1	06/25/10	0176104
		Dilution Factor: 1			
Total Organic Halogens		Work Order #: L3JK31AC	LCS Lot-Sample#: A0F290000-228		
	101	(67 - 115)	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0F180439 **Matrix.....:** WG
Date Sampled...: 06/16/10 15:20 **Date Received..:** 06/18/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	WO#: L24JA1AD-MS/L24JA1AE-MSD					MS Lot-Sample #: A0F180439-001	
	94	(72 - 136)			MCAWW 415.1	06/25/10	0176104
	94	(72 - 136)	0.20	(0-20)	MCAWW 415.1	06/25/10	0176104
	Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0F180439 **Matrix.....:** WATER
Date Sampled...: 06/24/10 09:17 **Date Received..:** 06/25/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Halogens	WO#: L3EQE1AC-MS/L3EQE1AD-MSD					MS Lot-Sample #: A0F250448-003	
	79	(59 - 126)			SW846 9020B	06/28/10	0180228
	89	(59 - 126)	12	(0-99)	SW846 9020B	06/28/10	0180228
	Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Merit Labs	Paula Shaw		182098
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
2680 East Lansing Dr.			
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
East Lansing / MI / 48823			
Project Name and Location (State)	**Carrier/Waybill Number**		
44594			
Contract/Purchase Order/Quote No.			
44594			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TOC	TOX	Special Instructions/ Conditions of Receipt
44594.01	6-16-10	1520		✓				3					X	X	
.02	↓	1620		✓				↓					X	X	
.03	↓	1720		✓				↓					X	X	
.04	6-17-10	1000		✓				↓					X	X	
.05	↓	1145		✓				↓					X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	6-17-10	1600	1. Received By	6/18/10	1000
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 240-10939
North Canton Facility

Client MERIT LABS Project 44594 By: _____
Cooler Received on 6.18.10 Opened on 6.18.10 (Signature)
FedEx ☐ UPS ☑ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # 241-935 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☐ No ☑ Intact? Yes ☐ No ☐ NA ☑
   If YES, Quantity_____ Quantity Unsalvageable_____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☐ No ☐ NA ☑
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☑ None ☐ Other _____
6. Cooler temperature upon receipt 2.4 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☑ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☑
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☑ Were VOAs on the COC? Yes ☐ No ☑

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s)_____ were received after the recommended holding time had expired.
Sample(s)_____ were received in a broken container.
Sample(s)_____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 121709-HNO_3; *Sulfuric Acid Lot#* 121709-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
44594.01		6.18.10	LP
2			
3			
4			
5			

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

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END OF REPORT

Analytical Laboratory Report

Report ID: S44616.01(01)
Generated on 07/08/2010

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S44616.01-S44616.03
Project: Coldwater Rd. Semi-Annual
Collected Date: 06/17/2010
Submitted Date/Time: 06/18/2010 13:30
Sampled by: Kevin Schneider
P.O. #: 10910979

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.

Violetta F. Murshak
Laboratory Director

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S44616.01	B-18A	Groundwater	06/17/2010 13:45
S44616.02	EB-01	Water	06/17/2010
S44616.03	TB-04	Water	06/17/2010

Analytical Laboratory Report

Lab Sample ID: S44616.01
Sample Tag: B-18A
Collected Date/Time: 06/17/2010 13:45
Matrix: Groundwater
COC Reference: 54836

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.4	IR
1	250ml Plastic	None	Yes	5.4	IR
2	40ml Glass	H2SO4	Yes	5.4	IR
2	40ml Glass	HCL	Yes	5.4	IR
2	125ml Amber	H2SO4	Yes	5.4	IR
1	125ml Plastic	NaOH	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	15	mg/L	2	300.0	06/28/10 15:18	JDP	16887-00-6	
Conductivity	1,080	umhos/cm		120.1	06/22/10 10:50	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:55	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/24/10 16:00	JKB		
Sulfate	109	mg/L	2	300.0	06/28/10 15:18	JDP	14808-79-8	
TOC	1	mg/L	1	EPA 415	06/28/10 12:00	TestA		O
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:27	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 13:27	SLS	7440-50-8	
Iron, Dissolved	Not detected	mg/L	0.02	200.8	06/23/10 13:27	SLS	7439-89-6	
Manganese, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 13:27	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:08	SLS	7440-02-0	
Sodium	45.5	mg/L	0.20	200.8	06/22/10 17:21	PER	7440-23-5	
Zinc, Dissolved	0.008	mg/L	0.005	200.8	06/23/10 13:27	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/21/10 18:09	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/21/10 18:09	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/21/10 18:09	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/21/10 18:09	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/21/10 18:09	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/21/10 18:09	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	107-06-2	

O-Analysis performed by outside laboratory. See attached report.

Lab Sample ID: S44616.01 (continued)
Sample Tag: B-18A

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,1-Dichloroethene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/21/10 18:09	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/21/10 18:09	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/21/10 18:09	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/21/10 18:09	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/29/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44616.02
Sample Tag: EB-01
Collected Date/Time: 06/17/2010 :
Matrix: Water
COC Reference: 54836

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.4	IR
1	250ml Plastic	None	Yes	5.4	IR
2	40ml Glass	H2SO4	Yes	5.4	IR
2	40ml Glass	HCL	Yes	5.4	IR
2	125ml Amber	H2SO4	Yes	5.4	IR
1	125ml Plastic	NaOH	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Metal Digestion	Completed			3015A	06/22/10 12:00	PER		
Inorganics								
Chloride	Not detected	mg/L	2	300.0	06/28/10 15:30	JDP	16887-00-6	
Conductivity	4	umhos/cm		120.1	06/22/10 10:53	MJC		
Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	06/28/10 13:57	JDP	57-12-5	
Phenols	Not detected	mg/L	0.02	420.1	06/24/10 16:05	JKB		
Sulfate	Not detected	mg/L	2	300.0	06/28/10 15:30	JDP	14808-79-8	
TOC	0.4	mg/L	1	EPA 415	06/28/10 12:00	TestA		O1
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:57	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	200.8	06/23/10 12:57	SLS	7440-50-8	
Iron, Dissolved	Not detected	mg/L	0.02	200.8	06/23/10 12:57	SLS	7439-89-6	
Manganese, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:57	SLS	7439-96-5	
Nickel, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 16:16	SLS	7440-02-0	
Sodium	Not detected	mg/L	0.20	200.8	06/22/10 17:32	PER	7440-23-5	
Zinc, Dissolved	Not detected	mg/L	0.005	200.8	06/23/10 12:57	SLS	7440-66-6	
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/21/10 18:27	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/21/10 18:27	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/21/10 18:27	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/21/10 18:27	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/21/10 18:27	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/21/10 18:27	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	107-06-2	

O-Analysis performed by outside laboratory. See attached report. 1-Estimated result.Result is less than RL.

Lab Sample ID: S44616.02 (continued)
Sample Tag: EB-01

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
1,1-Dichloroethene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/21/10 18:27	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/21/10 18:27	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/21/10 18:27	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/21/10 18:27	JGH	75-01-4	
Organics								
TOX	Not detected	ug/L	30.0	9020A	06/29/10 12:00	TestA		O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S44616.03
Sample Tag: TB-04
Collected Date/Time: 06/17/2010 :
Matrix: Water
COC Reference: 54836

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	624	06/21/10 18:45	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	624	06/21/10 18:45	JGH	107-13-1	
Benzene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	624	06/21/10 18:45	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	624	06/21/10 18:45	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	624	06/21/10 18:45	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	624	06/21/10 18:45	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	624	06/21/10 18:45	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	127-18-4	
Toluene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	624	06/21/10 18:45	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	624	06/21/10 18:45	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	624	06/21/10 18:45	JGH	75-01-4	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

54836

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz
COMPANY: OBrien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: Coldwater Rd Semi-Annual
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	TOC	TDX	Phenols	Cyanide	Sulfate	Chlorides	Specific Conductivity	Dissolved Metals	Sodium	SPECIAL INSTRUCTIONS/NOTES
446601	6/17/10	1345	B-18A	GW	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	Metals are: Cu, Cr, Ni, Zn, Fe, Mn
02	6/17/10	—	EB-01	QC	10	1	2	2	4	1			X	X	X	X	X	X	X	X	X	X	Equipment Blank
03	6/17/10	—	TB-04	QC	1		1						X										Trip Blank

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
OBG	6/18/10	1235
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	6/18/10	1235
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	6-18-10	1330
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	6-18-10	1330

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL 5.4
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 44616

44616

Lot #: A0F220492

Paula Shaw

Merit Laboratories
2680 E Lansing Drive
Lansing, MI 48823

TESTAMERICA LABORATORIES, INC.

Approved for release.
Denise D. Heckler
Project Manager
7/7/2010 9:00 AM

Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

July 01, 2010

CASE NARRATIVE

A0F220492

The following report contains the analytical results for two water samples submitted to TestAmerica North Canton by Merit Laboratories from the 44616 Site, project number 44616. The samples were received June 22, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.9°C.

CASE NARRATIVE (continued)

GENERAL CHEMISTRY

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A0F220492

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
44616.01 06/17/10 13:45 001				
Total Organic Carbon	1	1	mg/L	MCAWW 415.1
44616.02 06/17/10 002				
Total Organic Carbon	0.4 B	1	mg/L	MCAWW 415.1

ANALYTICAL METHODS SUMMARY

A0F220492

PARAMETER	ANALYTICAL METHOD
Total Organic Carbon	MCAWW 415.1
Total Organic Halogens	SW846 9020B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0F220492

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L28R6	001	44616.01	06/17/10	13:45
L28R9	002	44616.02	06/17/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Merit Laboratories

Client Sample ID: 44616.01

General Chemistry

Lot-Sample #...: A0F220492-001 **Work Order #...:** L28R6 **Matrix.....:** WG
Date Sampled...: 06/17/10 13:45 **Date Received..:** 06/22/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**1**	**1**	**mg/L**	**MCAWW 415.1**	**06/28/10**	**0179268**
	Dilution Factor: 1			MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/29/10	0180228
	Dilution Factor: 1			MDL.....: 19.0		

Merit Laboratories

Client Sample ID: 44616.02

General Chemistry

Lot-Sample #...: A0F220492-002 **Work Order #...:** L28R9 **Matrix.....:** WG
Date Sampled...: 06/17/10 **Date Received..:** 06/22/10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	**0.4 B**	**1**	**mg/L**	**MCAWW 415.1**	**06/28/10**	**0179268**
		Dilution Factor: 1		MDL.....: 0.2		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	06/28-06/29/10	0180228
		Dilution Factor: 1		MDL.....: 19.0		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A0F220492 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon		Work Order #: L3G9K1AA		MB Lot-Sample #:	A0F280000-268	
	ND	1	mg/L	MCAWW 415.1	06/28/10	0179268
		Dilution Factor: 1				
Total Organic Halogens		Work Order #: L3JK31AA		MB Lot-Sample #:	A0F290000-228	
	ND	30.0	ug/L	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0F220492 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon		Work Order #: L3G9K1AC	LCS Lot-Sample#: A0F280000-268		
	99	(88 - 115)	MCAWW 415.1	06/28/10	0179268
		Dilution Factor: 1			
Total Organic Halogens		Work Order #: L3JK31AC	LCS Lot-Sample#: A0F290000-228		
	101	(67 - 115)	SW846 9020B	06/28/10	0180228
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0F220492 **Matrix.....:** WATER
Date Sampled...: 06/24/10 09:17 **Date Received..:** 06/25/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	WO#: L22321C8-MS/L22321C9-MSD					MS Lot-Sample #: A0F170506-001	
	98	(72 - 136)			MCAWW 415.1	06/28/10	0179268
	100	(72 - 136)	1.9	(0-20)	MCAWW 415.1	06/28/10	0179268
	Dilution Factor: 1						
Total Organic Halogens	WO#: L3EQE1AC-MS/L3EQE1AD-MSD					MS Lot-Sample #: A0F250448-003	
	79	(59 - 126)			SW846 9020B	06/28/10	0180228
	89	(59 - 126)	12	(0-99)	SW846 9020B	06/28/10	0180228
	Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

54810

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Paula Shaw
COMPANY: Merit Labs
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: Julie Feague ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: 44616
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

SPECIAL INSTRUCTIONS/NOTES: *Sub'd to TestAmerica

MERIT LAB NO.	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TOC	TOX
	6-17	1345	44616.01	GW					3				X	X
	6-17	—	.02	GW					3				X	X

15 of 18

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Paula Shaw	6-21-10	1600
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
[illegible]	6-22-10	0945
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL _____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 40F220492
North Canton Facility

Client Merit Project 44616 By: [signature]
Cooler Received on 6-22-10 Opened on 6-22-10 (Signature)
FedEx ☐ UPS ☑ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ____
TestAmerica Cooler # 461 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other ____

1. Were custody seals on the outside of the cooler(s)? Yes ☐ No ☑ Intact? Yes ☐ No ☐ NA ☑
   If YES, Quantity ____ Quantity Unsalvageable ____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☐ No ☐ NA ☑
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? ____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other ____
6. Cooler temperature upon receipt 2.9 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ ____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☑ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☑
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☑ Were VOAs on the COC? Yes ☐ No ☑

Contacted PM ____ Date ____ by ____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning ____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 121709-HNO_3; *Sulfuric Acid Lot#* 121709-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? ____

Client ID	pH	Date	Initials
44616-1	≤2	6-22-10	JO
2	≤2	"	"

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

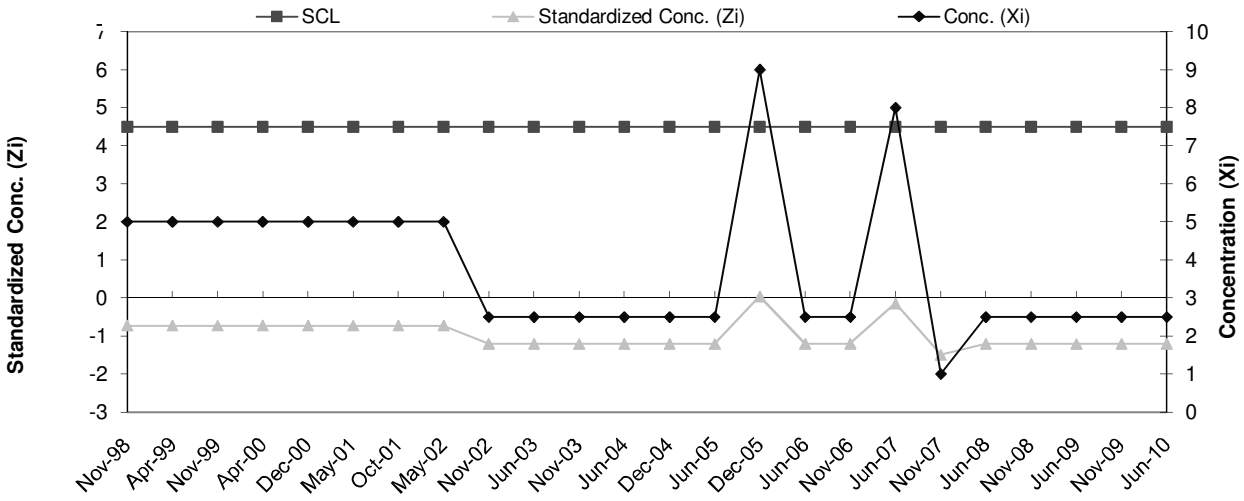
APPENDIX D

Shewart - Charts

REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Jun-96	10		
4	Aug-96	10	**8.78**	**5.19**
5	Nov-96	10		
6	May-97	10		
7	Nov-97	5		
8	May-98	5		

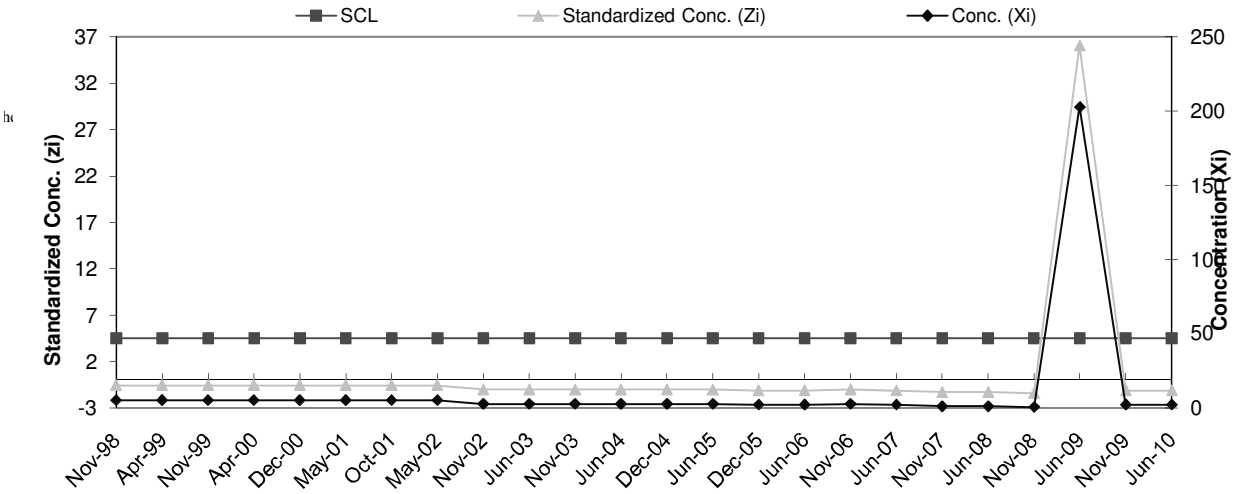
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.73
10	Apr-99	4.5	5	-0.73
11	Nov-99	4.5	5	-0.73
12	Apr-00	4.5	5	-0.73
13	Dec-00	4.5	5	-0.73
14	May-01	4.5	5	-0.73
15	Oct-01	4.5	5	-0.73
16	May-02	4.5	5	-0.73
17	Nov-02	4.5	2.5	-1.21
18	Jun-03	4.5	2.5	-1.21
19	Nov-03	4.5	2.5	-1.21
20	Jun-04	4.5	2.5	-1.21
21	Dec-04	4.5	2.5	-1.21
22	Jun-05	4.5	2.5	-1.21
23	Dec-05	4.5	9	0.04
24	Jun-06	4.5	2.5	-1.21
25	Nov-06	4.5	2.5	-1.21
26	Jun-07	4.5	8	-0.15
27	Nov-07	4.5	1	-1.50
28	Jun-08	4.5	2.5	-1.21
29	Nov-08	4.5	2.5	-1.21
30	Jun-09	4.5	2.5	-1.21
31	Nov-09	4.5	2.5	-1.21
32	Jun-10	4.5	2.5	-1.21



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Jun-96	10		
4	Aug-96	10	**8.13**	**5.40**
5	Nov-96	10		
6	May-97	5		
7	Nov-97	5		
8	May-98	5		

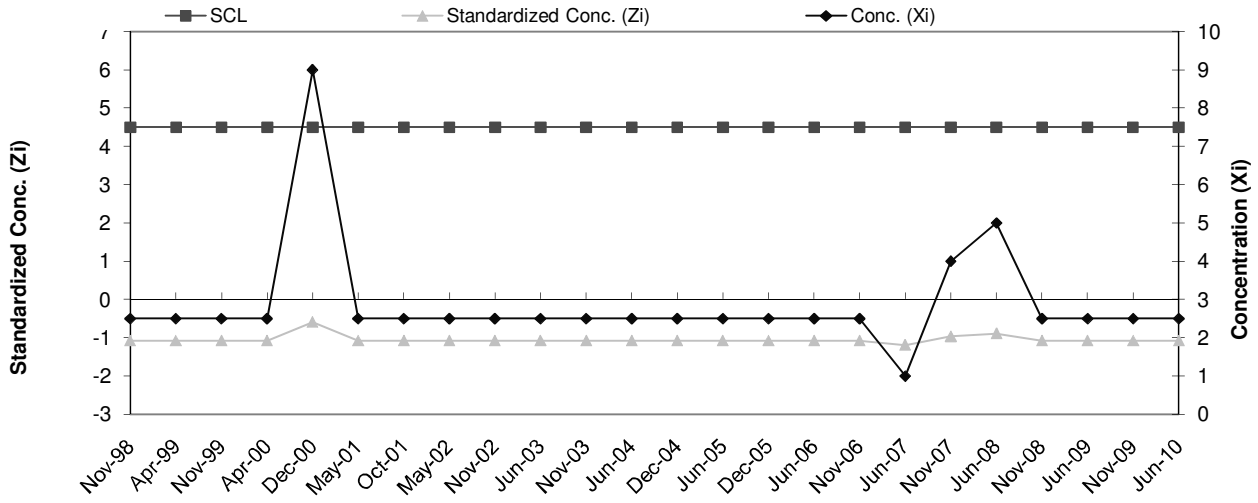
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.58
10	Apr-99	4.5	5	-0.58
11	Nov-99	4.5	5	-0.58
12	Apr-00	4.5	5	-0.58
13	Dec-00	4.5	5	-0.58
14	May-01	4.5	5	-0.58
15	Oct-01	4.5	5	-0.58
16	May-02	4.5	5	-0.58
17	Nov-02	4.5	2.5	-1.04
18	Jun-03	4.5	2.5	-1.04
19	Nov-03	4.5	2.5	-1.04
20	Jun-04	4.5	2.5	-1.04
21	Dec-04	4.5	2.5	-1.04
22	Jun-05	4.5	2.5	-1.04
23	Dec-05	4.5	2	-1.14
24	Jun-06	4.5	2	-1.14
25	Nov-06	4.5	2.5	-1.04
26	Jun-07	4.5	2	-1.14
27	Nov-07	4.5	1	-1.32
28	Jun-08	4.5	1	-1.32
29	Nov-08	4.5	0.5	-1.41
30	Jun-09	4.5	203	36.09
31	Nov-09	4.5	2	-1.14
32	Jun-10	4.5	2	-1.14



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15		
2	Aug-95	20		
3	Jun-96	10		
4	Aug-96	10	**16.83**	**13.28**
5	Nov-96	10		
6	May-97	28		
7	Nov-97	39		
8	May-98	2.5		

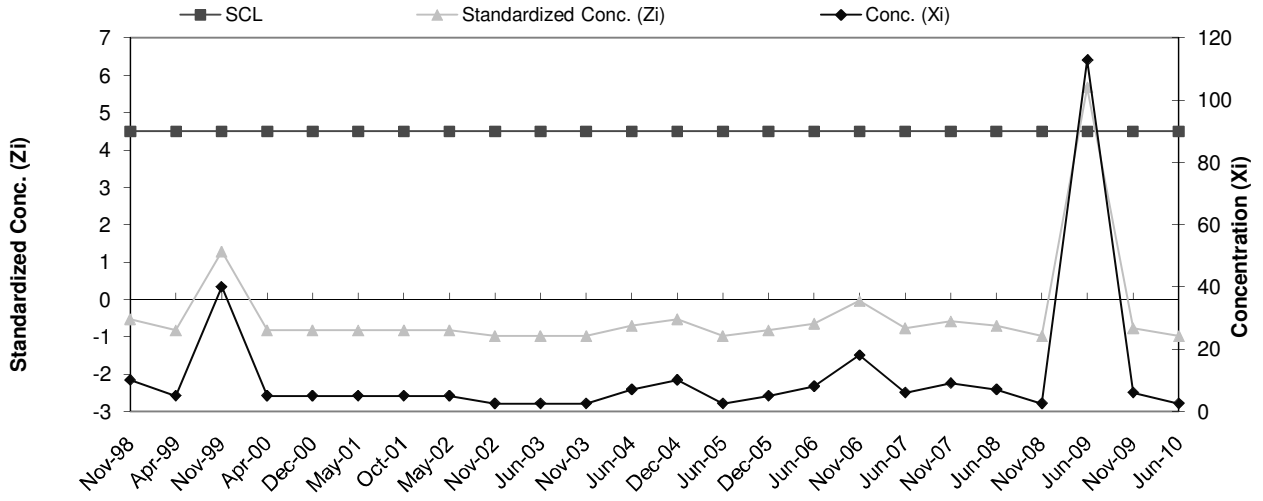
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	2.5	-1.08
10	Apr-99	4.5	2.5	-1.08
11	Nov-99	4.5	2.5	-1.08
12	Apr-00	4.5	2.5	-1.08
13	Dec-00	4.5	9	-0.59
14	May-01	4.5	2.5	-1.08
15	Oct-01	4.5	2.5	-1.08
16	May-02	4.5	2.5	-1.08
17	Nov-02	4.5	2.5	-1.08
18	Jun-03	4.5	2.5	-1.08
19	Nov-03	4.5	2.5	-1.08
20	Jun-04	4.5	2.5	-1.08
21	Dec-04	4.5	2.5	-1.08
22	Jun-05	4.5	2.5	-1.08
23	Dec-05	4.5	2.5	-1.08
24	Jun-06	4.5	2.5	-1.08
25	Nov-06	4.5	2.5	-1.08
26	Jun-07	4.5	1	-1.19
27	Nov-07	4.5	4	-0.97
28	Jun-08	4.5	5	-0.89
29	Nov-08	4.5	2.5	-1.08
30	Jun-09	4.5	2.5	-1.08
31	Nov-09	4.5	2.5	-1.08
32	Jun-10	4.5	2.5	-1.08



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Jun-96	10		
4	Aug-96	50	**18.75**	**16.62**
5	Nov-96	30		
6	May-97	30		
7	Nov-97	5		
8	May-98	5		

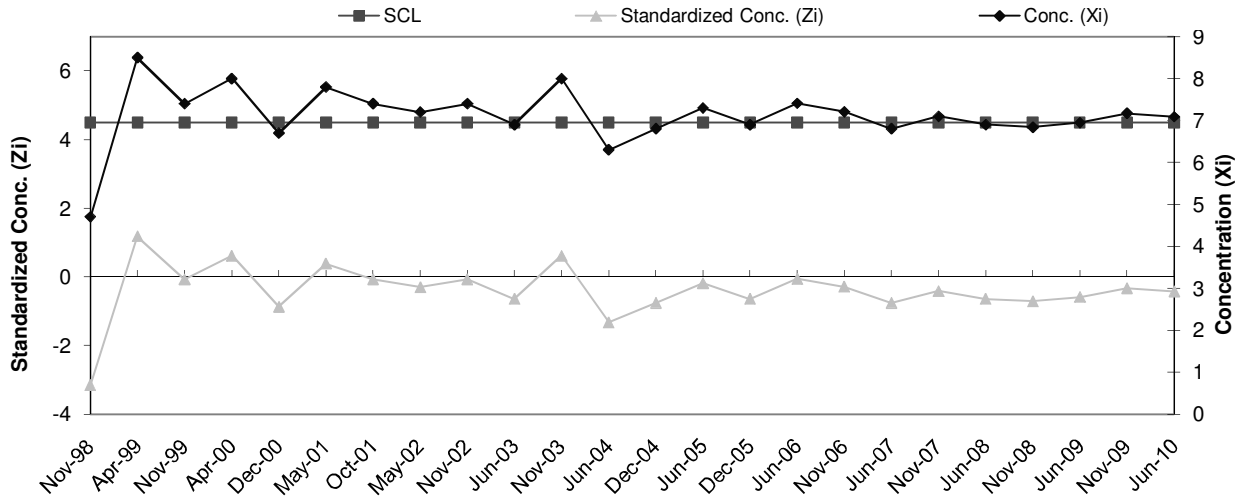
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	10	-0.53
10	Apr-99	4.5	5	-0.83
11	Nov-99	4.5	40	1.28
12	Apr-00	4.5	5	-0.83
13	Dec-00	4.5	5	-0.83
14	May-01	4.5	5	-0.83
15	Oct-01	4.5	5	-0.83
16	May-02	4.5	5	-0.83
17	Nov-02	4.5	2.5	-0.98
18	Jun-03	4.5	2.5	-0.98
19	Nov-03	4.5	2.5	-0.98
20	Jun-04	4.5	7	-0.71
21	Dec-04	4.5	10	-0.53
22	Jun-05	4.5	2.5	-0.98
23	Dec-05	4.5	5	-0.83
24	Jun-06	4.5	8	-0.65
25	Nov-06	4.5	18	-0.05
26	Jun-07	4.5	6	-0.77
27	Nov-07	4.5	9	-0.59
28	Jun-08	4.5	7	-0.71
29	Nov-08	4.5	2.5	-0.98
30	Jun-09	4.5	113	5.67
31	Nov-09	4.5	6	-0.77
32	Jun-10	4.5	2.5	-0.98



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	9.0		
2	Aug-95	8.3		
3	Jun-96	7.5		
4	Aug-96	7.7	**7.46**	**0.88**
5	Nov-96	7.3		
6	May-97	6.3		
7	Nov-97	6.9		
8	May-98	6.7		

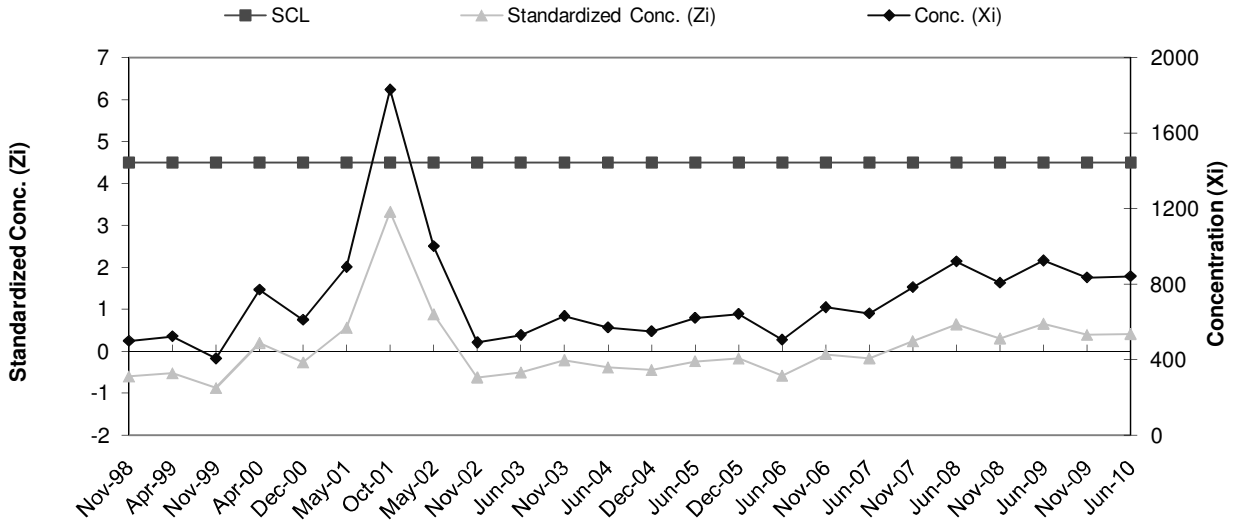
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	4.7	-3.15
10	Apr-99	4.5	8.5	1.18
11	Nov-99	4.5	7.4	-0.07
12	Apr-00	4.5	8.0	0.61
13	Dec-00	4.5	6.7	-0.87
14	May-01	4.5	7.8	0.38
15	Oct-01	4.5	7.4	-0.07
16	May-02	4.5	7.2	-0.30
17	Nov-02	4.5	7.4	-0.07
18	Jun-03	4.5	6.9	-0.64
19	Nov-03	4.5	8.0	0.61
20	Jun-04	4.5	6.3	-1.32
21	Dec-04	4.5	6.8	-0.75
22	Jun-05	4.5	7.3	-0.19
23	Dec-05	4.5	6.9	-0.64
24	Jun-06	4.5	7.4	-0.06
25	Nov-06	4.5	7.2	-0.29
26	Jun-07	4.5	6.8	-0.75
27	Nov-07	4.5	7.1	-0.41
28	Jun-08	4.5	6.9	-0.64
29	Nov-08	4.5	6.8	-0.71
30	Jun-09	4.5	7.0	-0.58
31	Nov-09	4.5	7.2	-0.33
32	Jun-10	4.5	7.1	-0.42



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	434.0	701.50	339.46
2	Aug-95	479.0		
3	Jun-96	580.0		
4	Aug-96	641.0		
5	Nov-96	769.0		
6	May-97	1500.0		
7	Nov-97	660.0		
8	May-98	549.0		

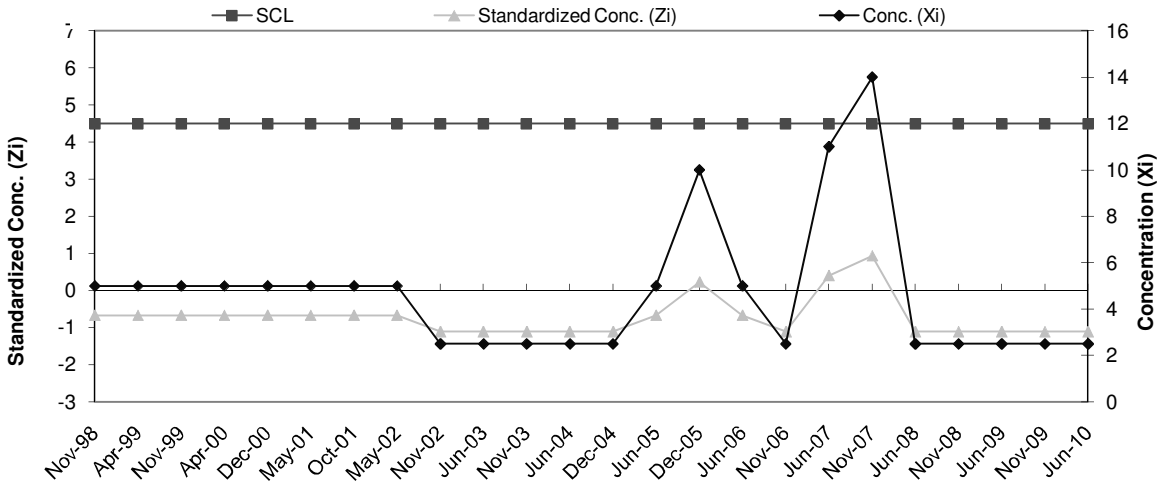
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	498.0	-0.60
10	Apr-99	4.5	523.0	-0.53
11	Nov-99	4.5	405.0	-0.87
12	Apr-00	4.5	770.0	0.20
13	Dec-00	4.5	610.0	-0.27
14	May-01	4.5	890.0	0.56
15	Oct-01	4.5	1830.0	3.32
16	May-02	4.5	1000.0	0.88
17	Nov-02	4.5	490.0	-0.62
18	Jun-03	4.5	530.0	-0.51
19	Nov-03	4.5	630.0	-0.21
20	Jun-04	4.5	570.0	-0.39
21	Dec-04	4.5	550.0	-0.45
22	Jun-05	4.5	620.0	-0.24
23	Dec-05	4.5	642.0	-0.18
24	Jun-06	4.5	504.1	-0.58
25	Nov-06	4.5	677.0	-0.07
26	Jun-07	4.5	644.0	-0.17
27	Nov-07	4.5	783.0	0.24
28	Jun-08	4.5	920.0	0.64
29	Nov-08	4.5	806.0	0.31
30	Jun-09	4.5	924.0	0.66
31	Nov-09	4.5	835.0	0.39
32	Jun-10	4.5	841.0	0.41



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**8.75**	**5.60**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	May-98	5		

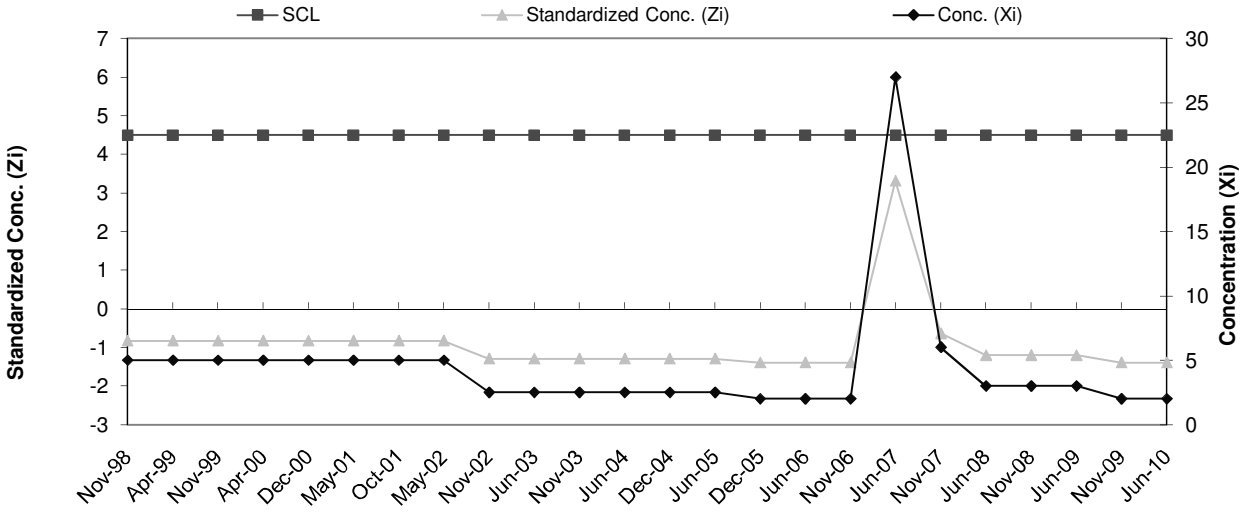
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.67
10	Apr-99	4.5	5	-0.67
11	Nov-99	4.5	5	-0.67
12	Apr-00	4.5	5	-0.67
13	Dec-00	4.5	5	-0.67
14	May-01	4.5	5	-0.67
15	Oct-01	4.5	5	-0.67
16	May-02	4.5	5	-0.67
17	Nov-02	4.5	2.5	-1.12
18	Jun-03	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12
22	Jun-05	4.5	5	-0.67
23	Dec-05	4.5	10	0.22
24	Jun-06	4.5	5	-0.67
25	Nov-06	4.5	2.5	-1.12
26	Jun-07	4.5	11	0.40
27	Nov-07	4.5	14	0.94
28	Jun-08	4.5	2.5	-1.12
29	Nov-08	4.5	2.5	-1.12
30	Jun-09	4.5	2.5	-1.12
31	Nov-09	4.5	2.5	-1.12
32	Jun-10	4.5	2.5	-1.12



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	**9.40**	**5.32**
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	10		
8	May-98	5		

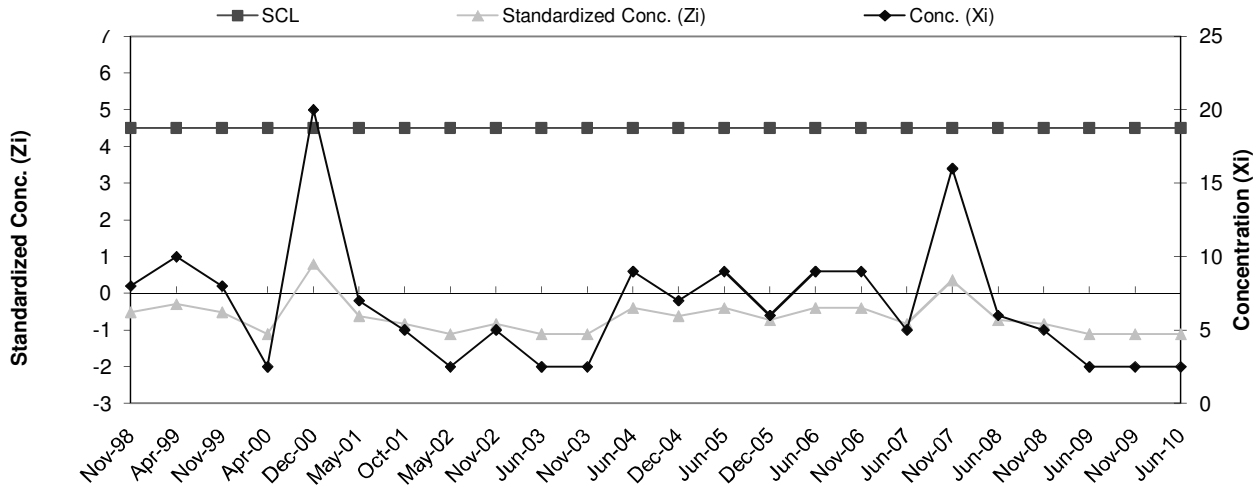
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.83
10	Apr-99	4.5	5	-0.83
11	Nov-99	4.5	5	-0.83
12	Apr-00	4.5	5	-0.83
13	Dec-00	4.5	5	-0.83
14	May-01	4.5	5	-0.83
15	Oct-01	4.5	5	-0.83
16	May-02	4.5	5	-0.83
17	Nov-02	4.5	2.5	-1.30
18	Jun-03	4.5	2.5	-1.30
19	Nov-03	4.5	2.5	-1.30
20	Jun-04	4.5	2.5	-1.30
21	Dec-04	4.5	2.5	-1.30
22	Jun-05	4.5	2.5	-1.30
23	Dec-05	4.5	2	-1.39
24	Jun-06	4.5	2	-1.39
25	Nov-06	4.5	2	-1.39
26	Jun-07	4.5	27	3.31
27	Nov-07	4.5	6	-0.64
28	Jun-08	4.5	3	-1.20
29	Nov-08	4.5	3	-1.20
30	Jun-09	4.5	3	-1.20
31	Nov-09	4.5	2	-1.39
32	Jun-10	4.5	2	-1.39



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15		
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10	**12.70**	**9.19**
5	Aug-96	10		
6	Nov-96	20		
7	May-97	14		
8	May-98	2.5		

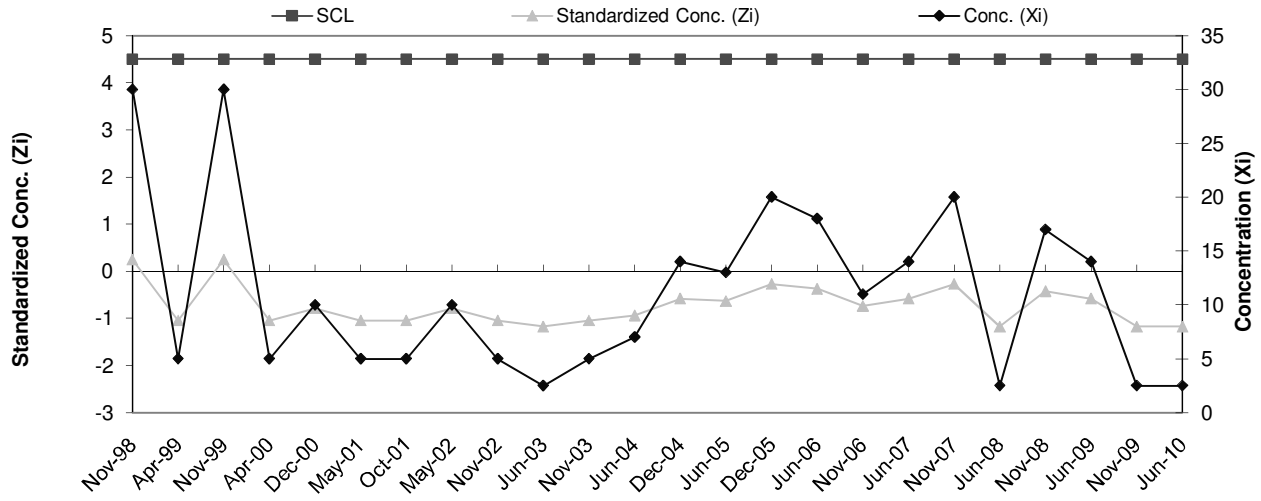
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	8	-0.51
10	Apr-99	4.5	10	-0.29
11	Nov-99	4.5	8	-0.51
12	Apr-00	4.5	2.5	-1.11
13	Dec-00	4.5	20	0.79
14	May-01	4.5	7	-0.62
15	Oct-01	4.5	5	-0.84
16	May-02	4.5	2.5	-1.11
17	Nov-02	4.5	5	-0.84
18	Jun-03	4.5	2.5	-1.11
19	Nov-03	4.5	2.5	-1.11
20	Jun-04	4.5	9	-0.40
21	Dec-04	4.5	7	-0.62
22	Jun-05	4.5	9	-0.40
23	Dec-05	4.5	6	-0.73
24	Jun-06	4.5	9	-0.40
25	Nov-06	4.5	9	-0.40
26	Jun-07	4.5	5	-0.84
27	Nov-07	4.5	16	0.36
28	Jun-08	4.5	6	-0.73
29	Nov-08	4.5	5	-0.84
30	Jun-09	4.5	2.5	-1.11
31	Nov-09	4.5	2.5	-1.11
32	Jun-10	4.5	2.5	-1.11



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	22		
4	Jun-96	20	**25.25**	**19.40**
5	Aug-96	60		
6	Nov-96	50		
7	May-97	10		
8	May-98	20		

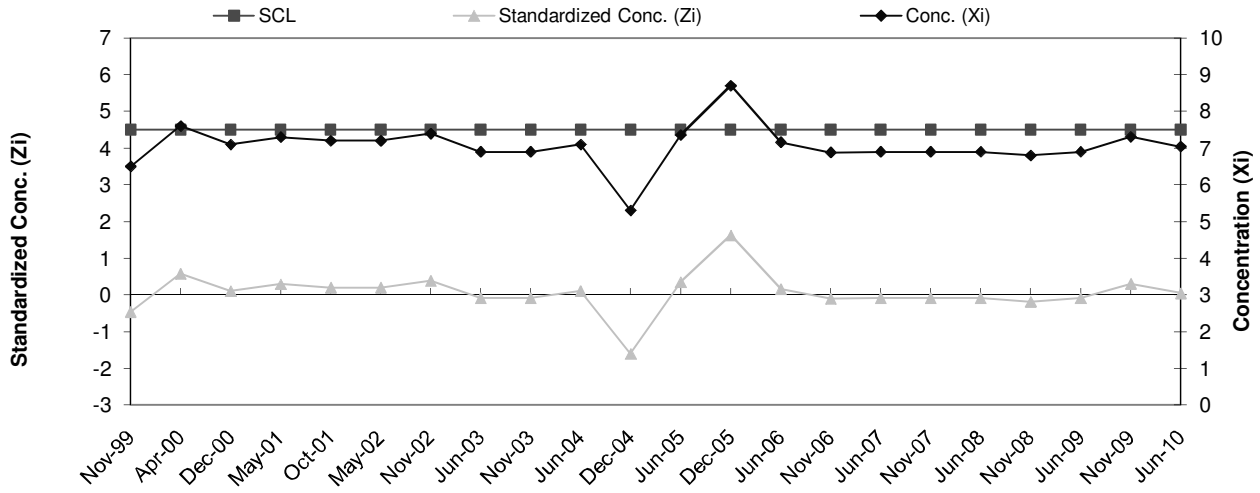
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	30	0.24
10	Apr-99	4.5	5	-1.04
11	Nov-99	4.5	30	0.24
12	Apr-00	4.5	5	-1.04
13	Dec-00	4.5	10	-0.79
14	May-01	4.5	5	-1.04
15	Oct-01	4.5	5	-1.04
16	May-02	4.5	10	-0.79
17	Nov-02	4.5	5	-1.04
18	Jun-03	4.5	2.5	-1.17
19	Nov-03	4.5	5	-1.04
20	Jun-04	4.5	7	-0.94
21	Dec-04	4.5	14	-0.58
22	Jun-05	4.5	13	-0.63
23	Dec-05	4.5	20	-0.27
24	Jun-06	4.5	18	-0.37
25	Nov-06	4.5	11	-0.73
26	Jun-07	4.5	14	-0.58
27	Nov-07	4.5	20	-0.27
28	Jun-08	4.5	2.5	-1.17
29	Nov-08	4.5	17	-0.43
30	Jun-09	4.5	14	-0.58
31	Nov-09	4.5	2.5	-1.17
32	Jun-10	4.5	2.5	-1.17



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.5	6.99	1.06
2	Jun-96	6.9		
3	Aug-96	7.6		
4	Nov-96	8.0		
5	May-97	7.2		
6	May-98	6.6		
7	Nov-98	4.6		
8	Apr-99	7.5		

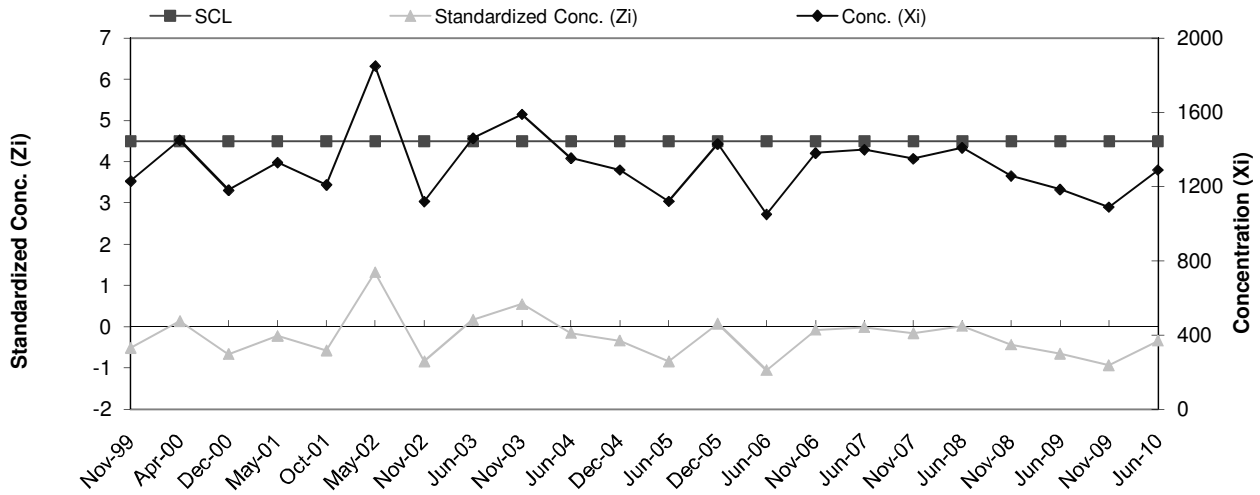
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-99	4.5	6.5	-0.46
10	Apr-00	4.5	7.6	0.58
11	Dec-00	4.5	7.1	0.11
12	May-01	4.5	7.3	0.30
13	Oct-01	4.5	7.2	0.20
14	May-02	4.5	7.2	0.20
15	Nov-02	4.5	7.4	0.39
16	Jun-03	4.5	6.9	-0.08
17	Nov-03	4.5	6.9	-0.08
18	Jun-04	4.5	7.1	0.11
19	Dec-04	4.5	5.3	-1.60
20	Jun-05	4.5	7.4	0.35
21	Dec-05	4.5	8.7	1.62
22	Jun-06	4.5	7.2	0.16
23	Nov-06	4.5	6.9	-0.10
24	Jun-07	4.5	6.9	-0.08
25	Nov-07	4.5	6.9	-0.08
26	Jun-08	4.5	6.9	-0.08
27	Nov-08	4.5	6.8	-0.18
28	Jun-09	4.5	6.9	-0.08
29	Nov-09	4.5	7.3	0.30
30	Jun-10	4.5	7.0	0.05



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	1509.0	**1,405.88**	**336.33**
2	Jun-96	1508.0		
3	Aug-96	1567.0		
4	Nov-96	1960.0		
5	May-97	780.0		
6	May-98	1270.0		
7	Nov-98	1240.0		
8	Apr-99	1413.0		

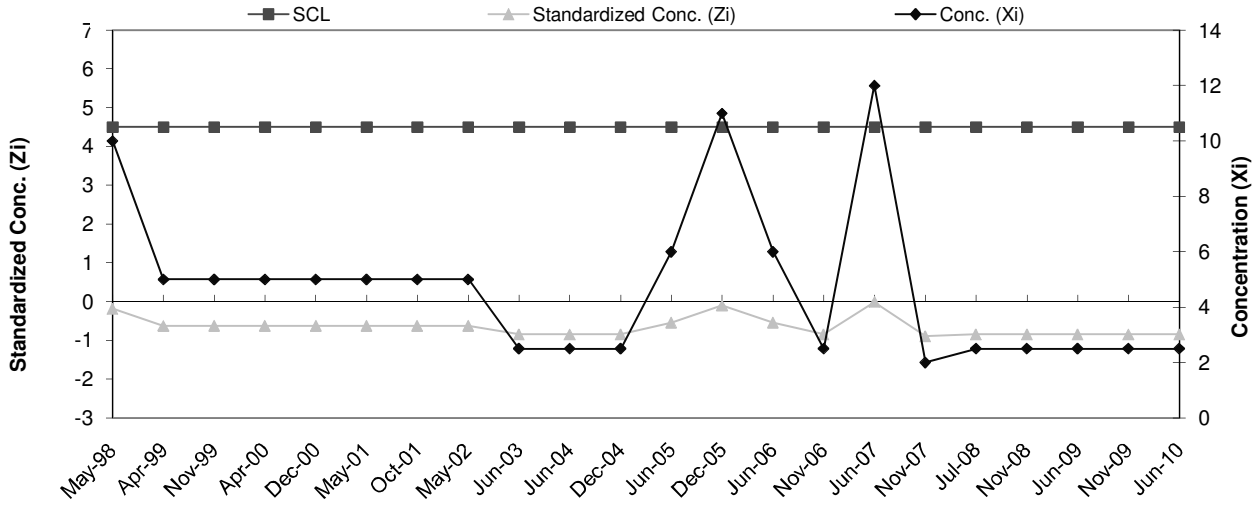
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-99	4.5	1230.0	-0.52
10	Apr-00	4.5	1450.0	0.13
11	Dec-00	4.5	1180.0	-0.67
12	May-01	4.5	1330.0	-0.23
13	Oct-01	4.5	1210.0	-0.58
14	May-02	4.5	1850.0	1.32
15	Nov-02	4.5	1120.0	-0.85
16	Jun-03	4.5	1460.0	0.16
17	Nov-03	4.5	1590.0	0.55
18	Jun-04	4.5	1353.0	-0.16
19	Dec-04	4.5	1290.0	-0.34
20	Jun-05	4.5	1121.0	-0.85
21	Dec-05	4.5	1430.0	0.07
22	Jun-06	4.5	1051.0	-1.06
23	Nov-06	4.5	1380.0	-0.08
24	Jun-07	4.5	1400.0	-0.02
25	Nov-07	4.5	1350.0	-0.17
26	Jun-08	4.5	1410.0	0.01
27	Nov-08	4.5	1258.0	-0.44
28	Jun-09	4.5	1184.0	-0.66
29	Nov-09	4.5	1090.0	-0.94
30	Jun-10	4.5	1290.0	-0.34



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	37		
3	Feb-96	10		
4	Jun-96	10	**12.12**	**11.34**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

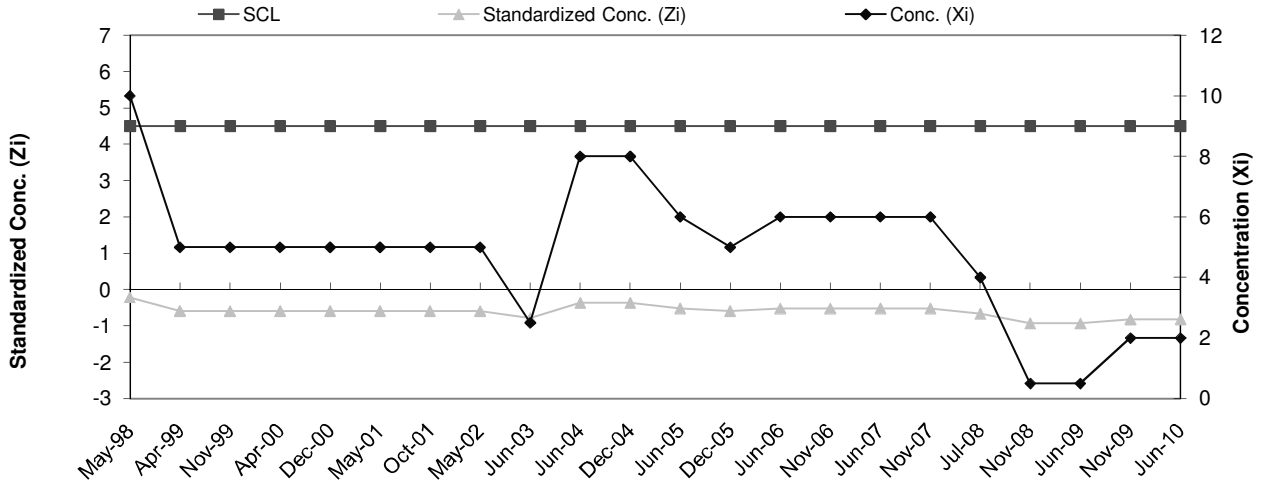
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	10	-0.19
10	Apr-99	4.5	5	-0.63
11	Nov-99	4.5	5	-0.63
12	Apr-00	4.5	5	-0.63
13	Dec-00	4.5	5	-0.63
14	May-01	4.5	5	-0.63
15	Oct-01	4.5	5	-0.63
16	May-02	4.5	5	-0.63
17	Jun-03	4.5	2.5	-0.85
18	Jun-04	4.5	2.5	-0.85
19	Dec-04	4.5	2.5	-0.85
20	Jun-05	4.5	6	-0.54
21	Dec-05	4.5	11	-0.10
22	Jun-06	4.5	6	-0.54
23	Nov-06	4.5	2.5	-0.85
24	Jun-07	4.5	12	-0.01
25	Nov-07	4.5	2	-0.89
26	Jul-08	4.5	2.5	-0.85
27	Nov-08	4.5	2.5	-0.85
28	Jun-09	4.5	2.5	-0.85
29	Nov-09	4.5	2.5	-0.85
30	Jun-10	4.5	2.5	-0.85



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	43		
3	Feb-96	10		
4	Jun-96	10	**12.87**	**13.26**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

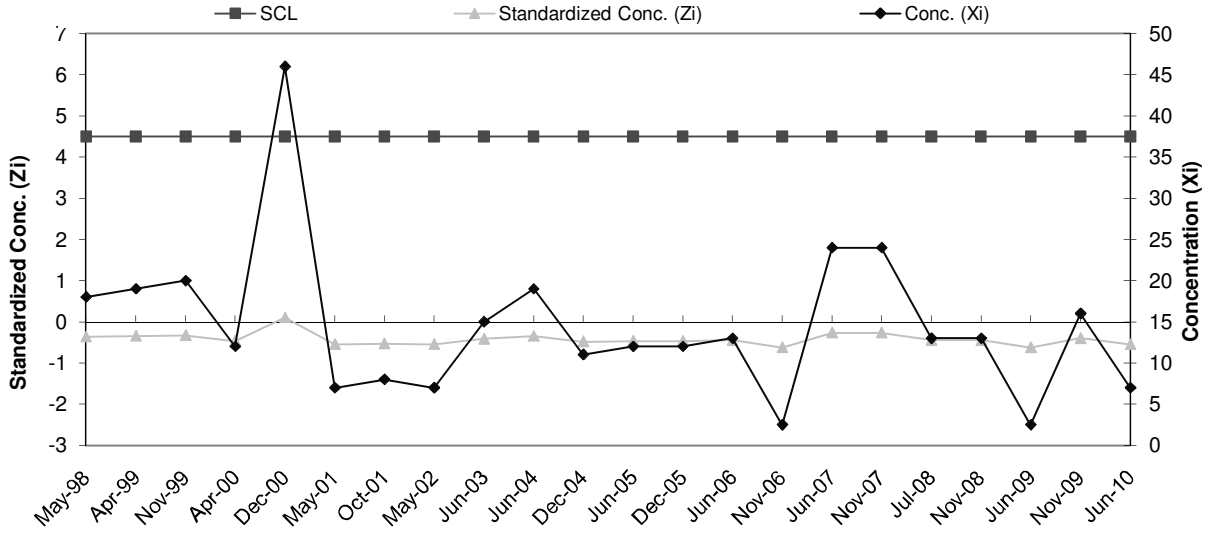
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	10	-0.22
10	Apr-99	4.5	5	-0.59
11	Nov-99	4.5	5	-0.59
12	Apr-00	4.5	5	-0.59
13	Dec-00	4.5	5	-0.59
14	May-01	4.5	5	-0.59
15	Oct-01	4.5	5	-0.59
16	May-02	4.5	5	-0.59
17	Jun-03	4.5	2.5	-0.78
18	Jun-04	4.5	8	-0.37
19	Dec-04	4.5	8	-0.37
20	Jun-05	4.5	6	-0.52
21	Dec-05	4.5	5	-0.59
22	Jun-06	4.5	6	-0.52
23	Nov-06	4.5	6	-0.52
24	Jun-07	4.5	6	-0.52
25	Nov-07	4.5	6	-0.52
26	Jul-08	4.5	4	-0.67
27	Nov-08	4.5	0.5	-0.93
28	Jun-09	4.5	0.5	-0.93
29	Nov-09	4.5	2	-0.82
30	Jun-10	4.5	2	-0.82



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	**39.83**	**59.86**
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	51		
8	Nov-97	183		

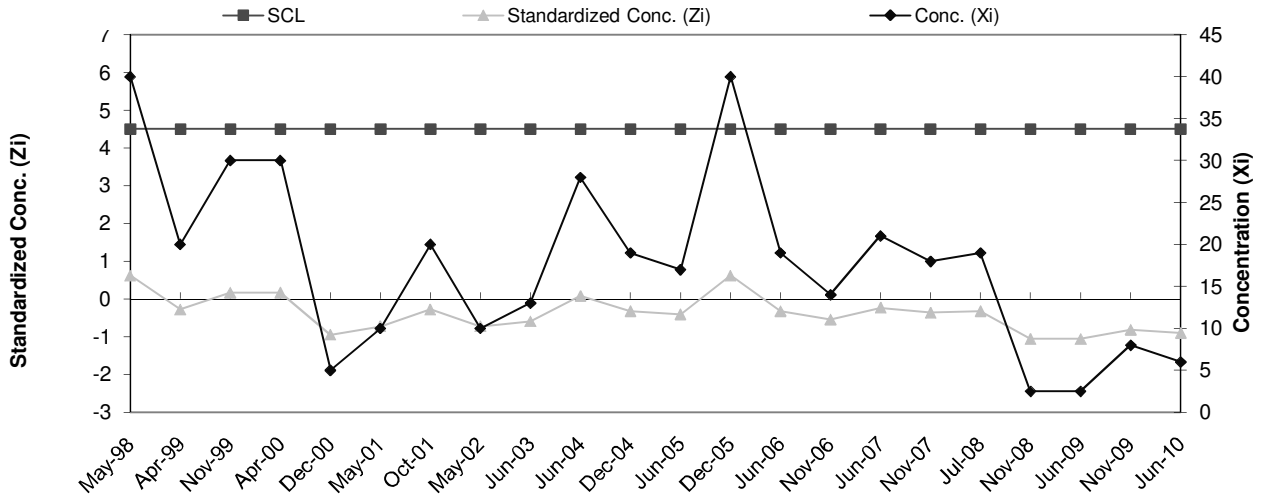
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	18	-0.36
10	Apr-99	4.5	19	-0.35
11	Nov-99	4.5	20	-0.33
12	Apr-00	4.5	12	-0.46
13	Dec-00	4.5	46	0.10
14	May-01	4.5	7	-0.55
15	Oct-01	4.5	8	-0.53
16	May-02	4.5	7	-0.55
17	Jun-03	4.5	15	-0.41
18	Jun-04	4.5	19	-0.35
19	Dec-04	4.5	11	-0.48
20	Jun-05	4.5	12	-0.46
21	Dec-05	4.5	12	-0.46
22	Jun-06	4.5	13	-0.45
23	Nov-06	4.5	2.5	-0.62
24	Jun-07	4.5	24	-0.26
25	Nov-07	4.5	24	-0.26
26	Jul-08	4.5	13	-0.45
27	Nov-08	4.5	13	-0.45
28	Jun-09	4.5	2.5	-0.62
29	Nov-09	4.5	16	-0.40
30	Jun-10	4.5	7	-0.55



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**26.23**	**22.36**
5	Aug-96	70		
6	Nov-96	40		
7	May-97	20		
8	Nov-97	40		

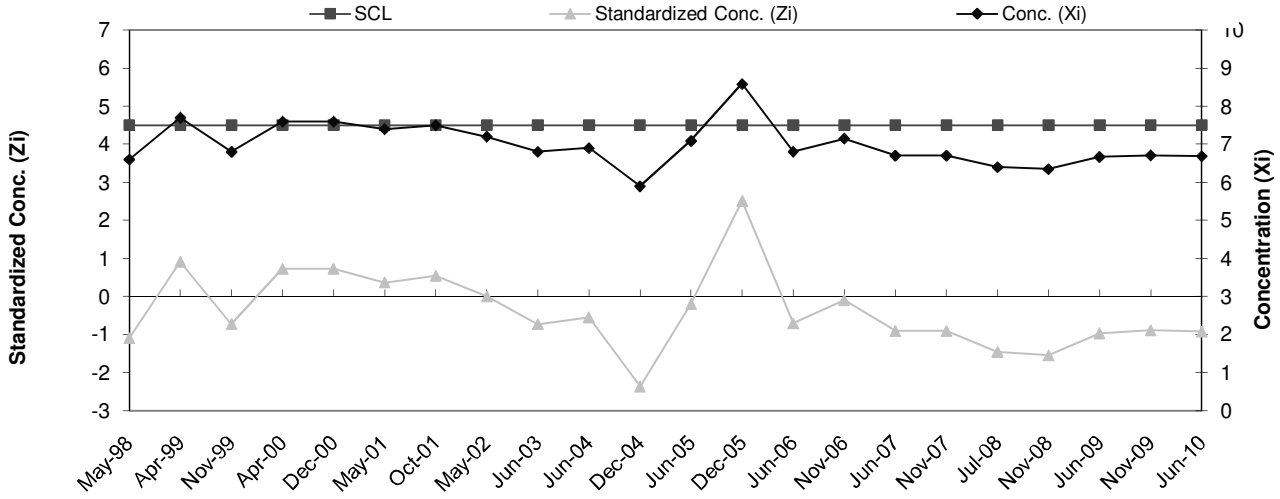
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	40	0.62
10	Apr-99	4.5	20	-0.28
11	Nov-99	4.5	30	0.17
12	Apr-00	4.5	30	0.17
13	Dec-00	4.5	5	-0.95
14	May-01	4.5	10	-0.73
15	Oct-01	4.5	20	-0.28
16	May-02	4.5	10	-0.73
17	Jun-03	4.5	13	-0.59
18	Jun-04	4.5	28	0.08
19	Dec-04	4.5	19	-0.32
20	Jun-05	4.5	17	-0.41
21	Dec-05	4.5	40	0.62
22	Jun-06	4.5	19	-0.32
23	Nov-06	4.5	14	-0.55
24	Jun-07	4.5	21	-0.23
25	Nov-07	4.5	18	-0.37
26	Jul-08	4.5	19	-0.32
27	Nov-08	4.5	2.5	-1.06
28	Jun-09	4.5	2.5	-1.06
29	Nov-09	4.5	8	-0.82
30	Jun-10	4.5	6	-0.90



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.7	**7.20**	**0.55**
2	Aug-95	7.7		
3	Feb-96	7.3		
4	Jun-96	6.8		
5	Aug-96	8.0		
6	Nov-96	6.8		
7	May-97	6.8		
8	Nov-97	6.5		

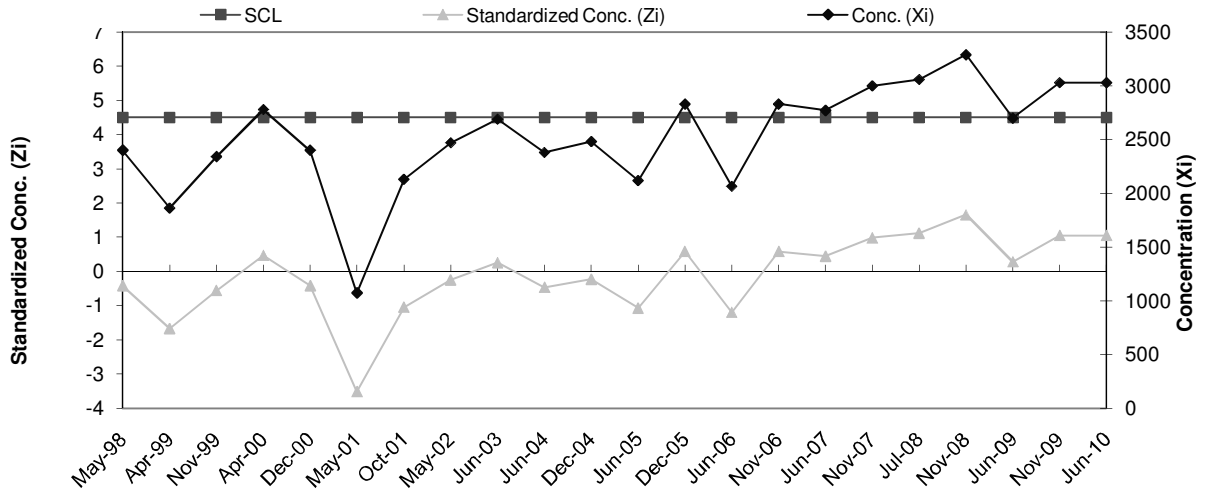
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.6	-1.09
10	Apr-99	4.5	7.7	0.91
11	Nov-99	4.5	6.8	-0.73
12	Apr-00	4.5	7.6	0.73
13	Dec-00	4.5	7.6	0.73
14	May-01	4.5	7.4	0.36
15	Oct-01	4.5	7.5	0.55
16	May-02	4.5	7.2	0.00
17	Jun-03	4.5	6.8	-0.73
18	Jun-04	4.5	6.9	-0.55
19	Dec-04	4.5	5.9	-2.36
20	Jun-05	4.5	7.1	-0.20
21	Dec-05	4.5	8.6	2.51
22	Jun-06	4.5	6.8	-0.71
23	Nov-06	4.5	7.2	-0.09
24	Jun-07	4.5	6.7	-0.91
25	Nov-07	4.5	6.7	-0.91
26	Jul-08	4.5	6.4	-1.45
27	Nov-08	4.5	6.4	-1.54
28	Jun-09	4.5	6.7	-0.96
29	Nov-09	4.5	6.7	-0.89
30	Jun-10	4.5	6.7	-0.93



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	2400		
2	Aug-95	1829		
3	Feb-96	2860		
4	Jun-96	2550	**2,578.63**	**428.85**
5	Aug-96	2310		
6	Nov-96	3280		
7	May-97	2600		
8	Nov-97	2800		

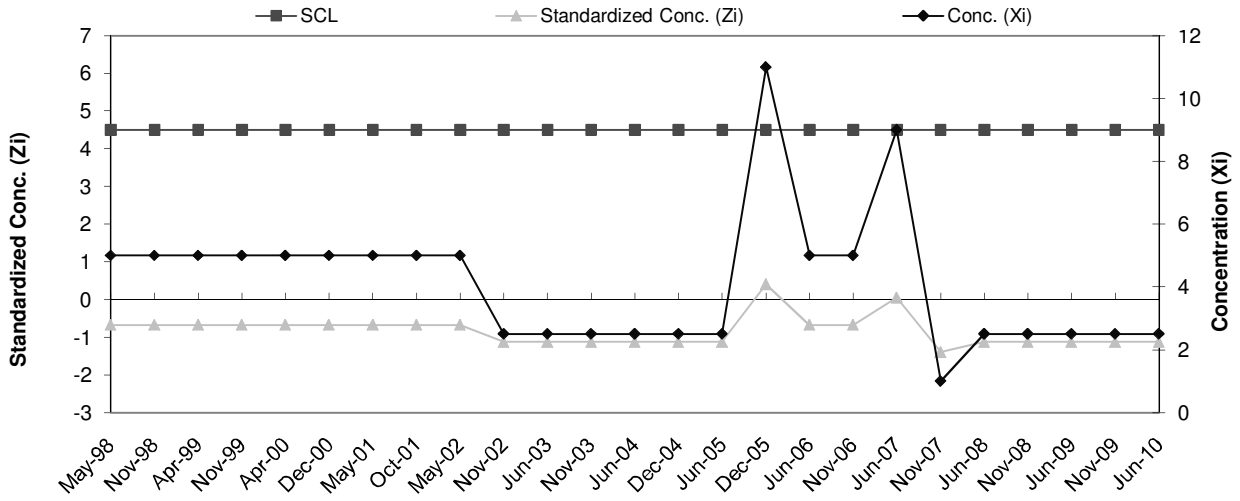
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2400	-0.42
10	Apr-99	4.5	1860	-1.68
11	Nov-99	4.5	2340	-0.56
12	Apr-00	4.5	2780	0.47
13	Dec-00	4.5	2400	-0.42
14	May-01	4.5	1070	-3.52
15	Oct-01	4.5	2130	-1.05
16	May-02	4.5	2470	-0.25
17	Jun-03	4.5	2690	0.26
18	Jun-04	4.5	2379	-0.47
19	Dec-04	4.5	2480	-0.23
20	Jun-05	4.5	2116	-1.08
21	Dec-05	4.5	2830	0.59
22	Jun-06	4.5	2065	-1.20
23	Nov-06	4.5	2830	0.59
24	Jun-07	4.5	2770	0.45
25	Nov-07	4.5	3000	0.98
26	Jul-08	4.5	3060	1.12
27	Nov-08	4.5	3290	1.66
28	Jun-09	4.5	2700	0.28
29	Nov-09	4.5	3030	1.05
30	Jun-10	4.5	3030	1.05



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	**8.74**	**5.57**
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

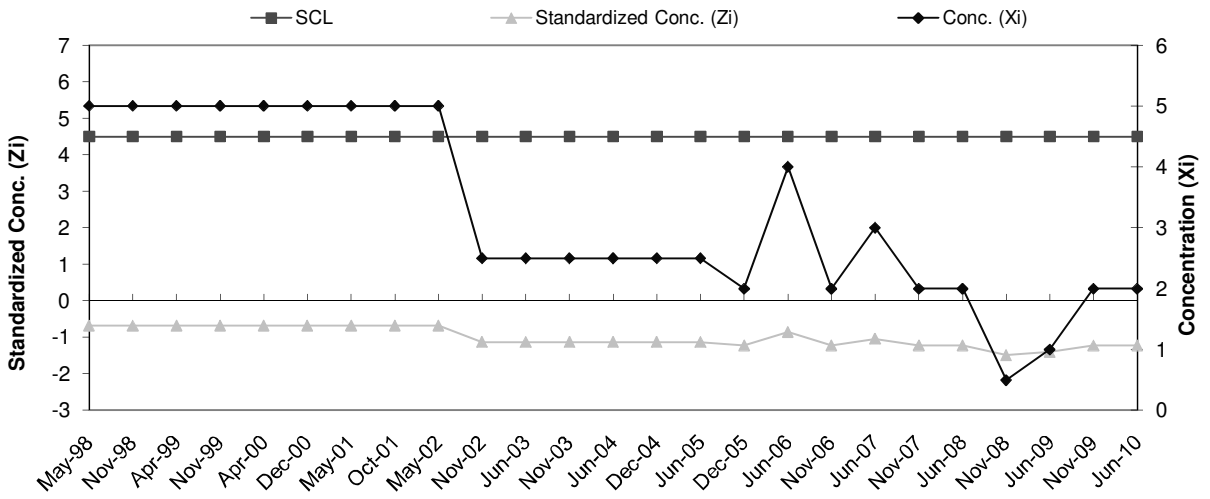
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67
10	Nov-98	4.5	5	-0.67
11	Apr-99	4.5	5	-0.67
12	Nov-99	4.5	5	-0.67
13	Apr-00	4.5	5	-0.67
14	Dec-00	4.5	5	-0.67
15	May-01	4.5	5	-0.67
16	Oct-01	4.5	5	-0.67
17	May-02	4.5	5	-0.67
18	Nov-02	4.5	2.5	-1.12
19	Jun-03	4.5	2.5	-1.12
20	Nov-03	4.5	2.5	-1.12
21	Jun-04	4.5	2.5	-1.12
22	Dec-04	4.5	2.5	-1.12
23	Jun-05	4.5	2.5	-1.12
24	Dec-05	4.5	11	0.41
25	Jun-06	4.5	5	-0.67
26	Nov-06	4.5	5	-0.67
27	Jun-07	4.5	9	0.05
28	Nov-07	4.5	1	-1.39
29	Jun-08	4.5	2.5	-1.12
30	Nov-08	4.5	2.5	-1.12
31	Jun-09	4.5	2.5	-1.12
32	Nov-09	4.5	2.5	-1.12
33	Jun-10	4.5	2.5	-1.12



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**8.78**	**5.56**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

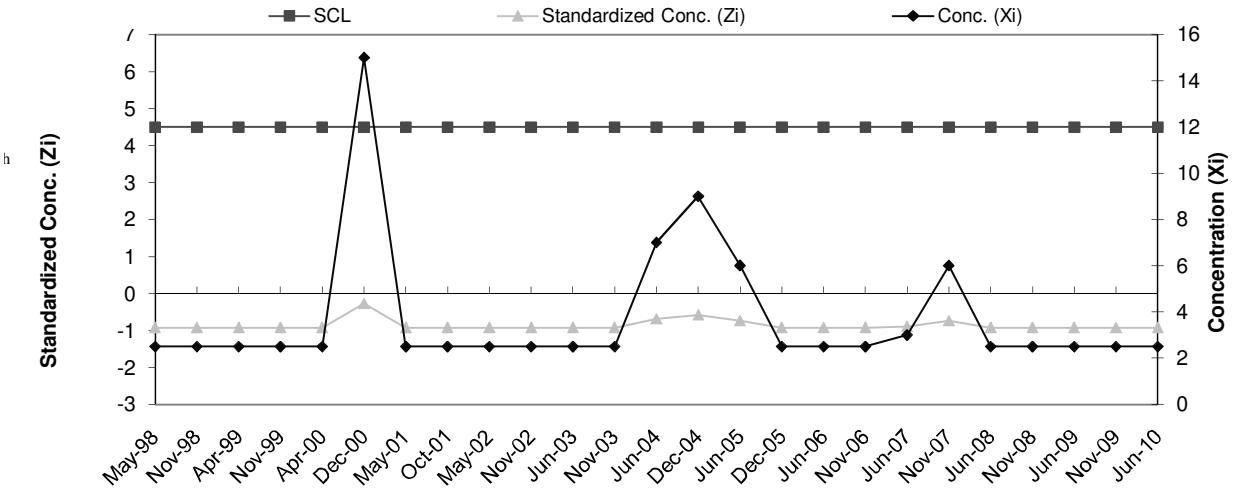
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.68
10	Nov-98	4.5	5	-0.68
11	Apr-99	4.5	5	-0.68
12	Nov-99	4.5	5	-0.68
13	Apr-00	4.5	5	-0.68
14	Dec-00	4.5	5	-0.68
15	May-01	4.5	5	-0.68
16	Oct-01	4.5	5	-0.68
17	May-02	4.5	5	-0.68
18	Nov-02	4.5	2.5	-1.13
19	Jun-03	4.5	2.5	-1.13
20	Nov-03	4.5	2.5	-1.13
21	Jun-04	4.5	2.5	-1.13
22	Dec-04	4.5	2.5	-1.13
23	Jun-05	4.5	2.5	-1.13
24	Dec-05	4.5	2	-1.22
25	Jun-06	4.5	4	-0.86
26	Nov-06	4.5	2	-1.22
27	Jun-07	4.5	3	-1.04
28	Nov-07	4.5	2	-1.22
29	Jun-08	4.5	2	-1.22
30	Nov-08	4.5	0.5	-1.49
31	Jun-09	4.5	1	-1.40
32	Nov-09	4.5	2	-1.22
33	Jun-10	4.5	2	-1.22



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15		
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10	**20.01**	**18.96**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	13		
8	Nov-97	62		

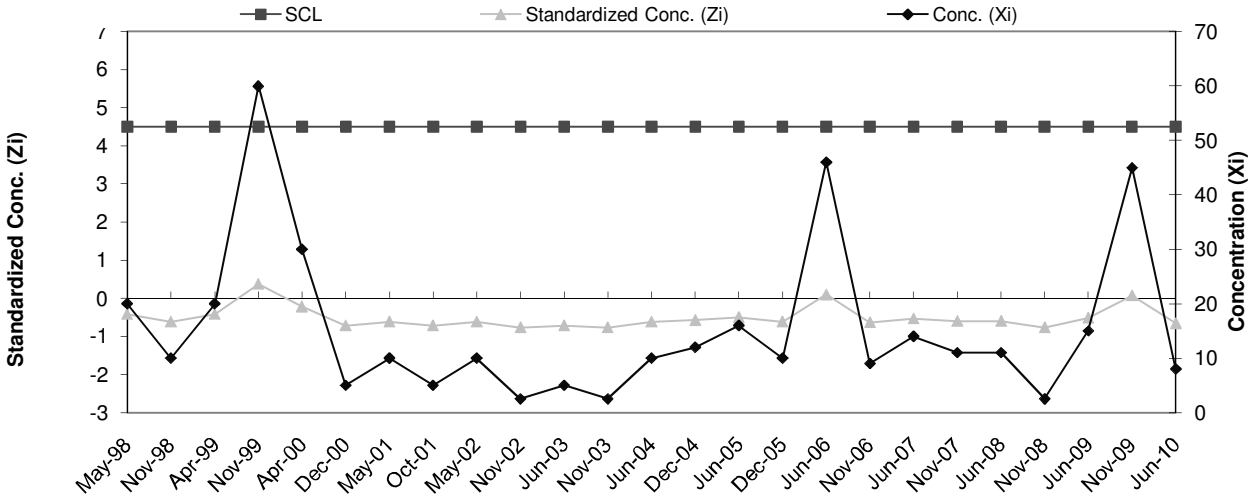
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-0.92
10	Nov-98	4.5	2.5	-0.92
11	Apr-99	4.5	2.5	-0.92
12	Nov-99	4.5	2.5	-0.92
13	Apr-00	4.5	2.5	-0.92
14	Dec-00	4.5	15	-0.26
15	May-01	4.5	2.5	-0.92
16	Oct-01	4.5	2.5	-0.92
17	May-02	4.5	2.5	-0.92
18	Nov-02	4.5	2.5	-0.92
19	Jun-03	4.5	2.5	-0.92
20	Nov-03	4.5	2.5	-0.92
21	Jun-04	4.5	7	-0.69
22	Dec-04	4.5	9	-0.58
23	Jun-05	4.5	6	-0.74
24	Dec-05	4.5	2.5	-0.92
25	Jun-06	4.5	2.5	-0.92
26	Nov-06	4.5	2.5	-0.92
27	Jun-07	4.5	3	-0.90
28	Nov-07	4.5	6	-0.74
29	Jun-08	4.5	2.5	-0.92
30	Nov-08	4.5	2.5	-0.92
31	Jun-09	4.5	2.5	-0.92
32	Nov-09	4.5	2.5	-0.92
33	Jun-10	4.5	2.5	-0.92



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	150		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**41.25**	**50.67**
5	Aug-96	60		
6	Nov-96	70		
7	May-97	10		
8	Nov-97	10		

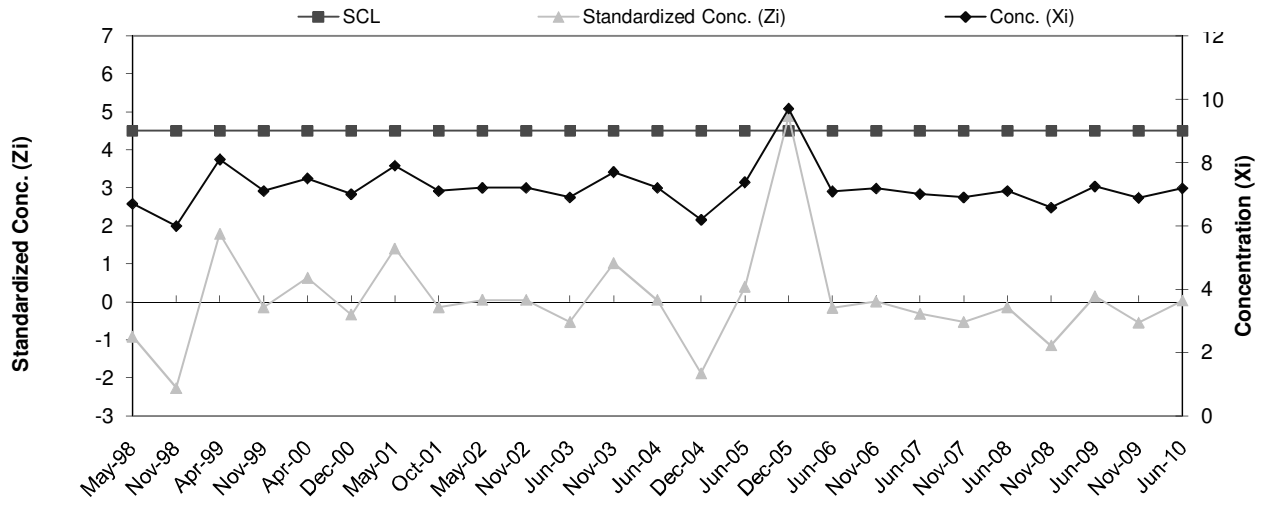
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	20	-0.42
10	Nov-98	4.5	10	-0.62
11	Apr-99	4.5	20	-0.42
12	Nov-99	4.5	60	0.37
13	Apr-00	4.5	30	-0.22
14	Dec-00	4.5	5	-0.72
15	May-01	4.5	10	-0.62
16	Oct-01	4.5	5	-0.72
17	May-02	4.5	10	-0.62
18	Nov-02	4.5	2.5	-0.76
19	Jun-03	4.5	5	-0.72
20	Nov-03	4.5	2.5	-0.76
21	Jun-04	4.5	10	-0.62
22	Dec-04	4.5	12	-0.58
23	Jun-05	4.5	16	-0.50
24	Dec-05	4.5	10	-0.62
25	Jun-06	4.5	46	0.09
26	Nov-06	4.5	9	-0.64
27	Jun-07	4.5	14	-0.54
28	Nov-07	4.5	11	-0.60
29	Jun-08	4.5	11	-0.60
30	Nov-08	4.5	2.5	-0.76
31	Jun-09	4.5	15	-0.52
32	Nov-09	4.5	45	0.07
33	Jun-10	4.5	8	-0.66



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.5	**7.18**	**0.52**
2	Aug-95	7.9		
3	Feb-96	7.4		
4	Jun-96	7.0		
5	Aug-96	7.5		
6	Nov-96	7.2		
7	May-97	6.5		
8	Nov-97	6.4		

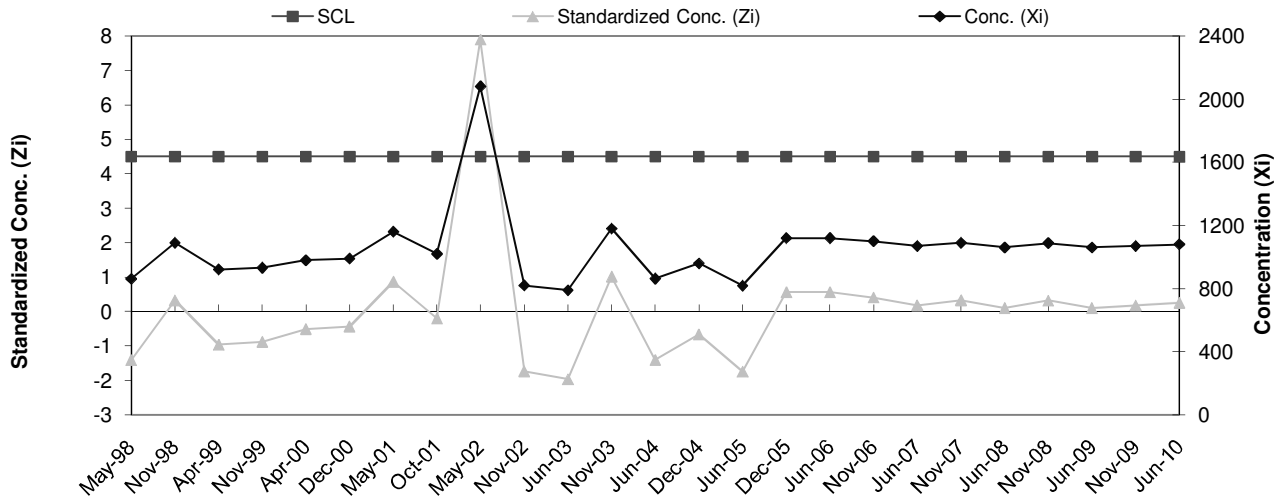
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.7	-0.92
10	Nov-98	4.5	6.0	-2.27
11	Apr-99	4.5	8.1	1.79
12	Nov-99	4.5	7.1	-0.14
13	Apr-00	4.5	7.5	0.63
14	Dec-00	4.5	7.0	-0.34
15	May-01	4.5	7.9	1.40
16	Oct-01	4.5	7.1	-0.14
17	May-02	4.5	7.2	0.05
18	Nov-02	4.5	7.2	0.05
19	Jun-03	4.5	6.9	-0.53
20	Nov-03	4.5	7.7	1.01
21	Jun-04	4.5	7.2	0.05
22	Dec-04	4.5	6.2	-1.88
23	Jun-05	4.5	7.4	0.40
24	Dec-05	4.5	9.7	4.88
25	Jun-06	4.5	7.1	-0.16
26	Nov-06	4.5	7.2	0.01
27	Jun-07	4.5	7.0	-0.32
28	Nov-07	4.5	6.9	-0.53
29	Jun-08	4.5	7.1	-0.14
30	Nov-08	4.5	6.6	-1.15
31	Jun-09	4.5	7.3	0.14
32	Nov-09	4.5	6.9	-0.55
33	Jun-10	4.5	7.2	0.03



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	1048		
2	Aug-95	989		
3	Feb-96	1021		
4	Jun-96	944.0	**1,046.75**	**130.80**
5	Aug-96	1041		
6	Nov-96	1331		
7	May-97	900		
8	Nov-97	1100		

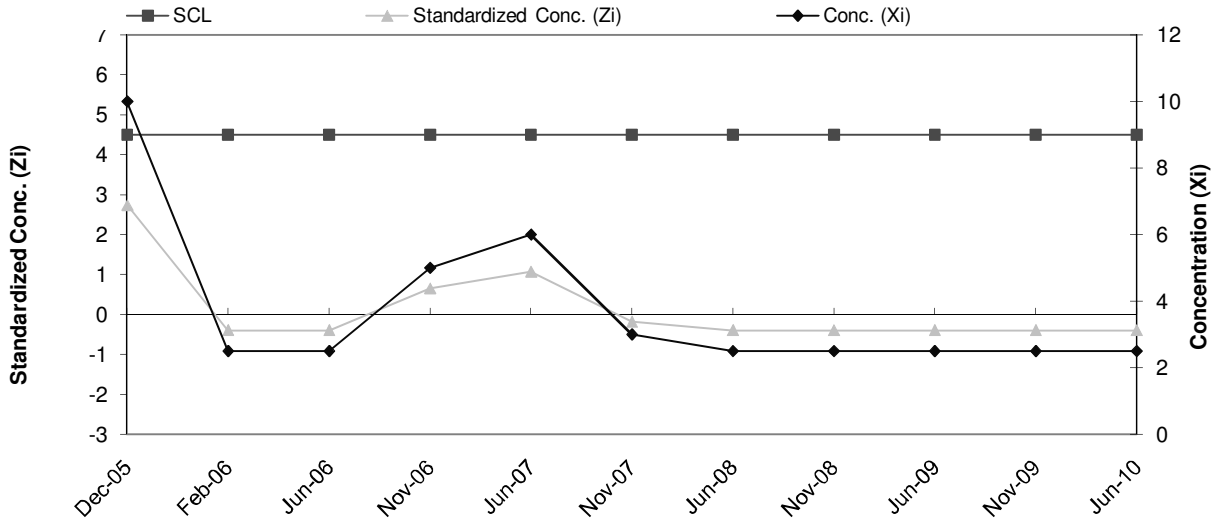
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	862	-1.41
10	Nov-98	4.5	1090.0	0.33
11	Apr-99	4.5	921	-0.96
12	Nov-99	4.5	932	-0.88
13	Apr-00	4.5	980	-0.51
14	Dec-00	4.5	990.0	-0.43
15	May-01	4.5	1160	0.87
16	Oct-01	4.5	1020	-0.20
17	May-02	4.5	2080	7.90
18	Nov-02	4.5	820	-1.73
19	Jun-03	4.5	790	-1.96
20	Nov-03	4.5	1180	1.02
21	Jun-04	4.5	863	-1.40
22	Dec-04	4.5	960	-0.66
23	Jun-05	4.5	819	-1.74
24	Dec-05	4.5	1120	0.56
25	Jun-06	4.5	1120	0.56
26	Nov-06	4.5	1100	0.41
27	Jun-07	4.5	1070	0.18
28	Nov-07	4.5	1090	0.33
29	Jun-08	4.5	1060	0.10
30	Nov-08	4.5	1088	0.32
31	Jun-09	4.5	1060	0.10
32	Nov-09	4.5	1070	0.18
33	Jun-10	4.5	1080	0.25



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	5		
2	May-01	5		
3	May-02	5		
4	Jun-03	2.5	**3.44**	**2.39**
5	Nov-03	2.5		
6	Jun-04	2.5		
7	Dec-04	2.5		
8	Jun-05	2.5		

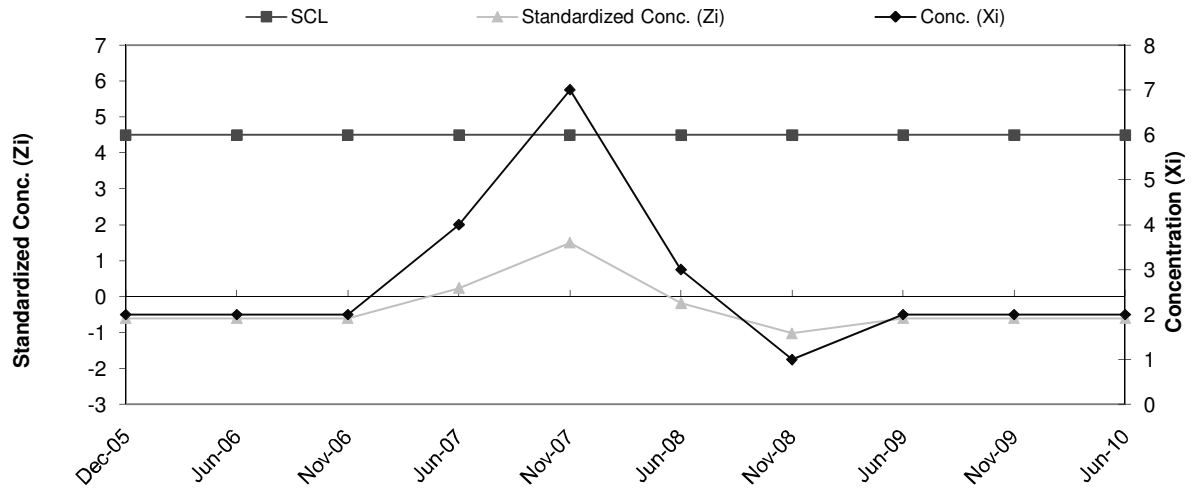
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	10	2.74
10	Feb-06	4.5	2.5	-0.39
11	Jun-06	4.5	2.5	-0.39
12	Nov-06	4.5	5	0.65
13	Jun-07	4.5	6	1.07
14	Nov-07	4.5	3	-0.18
15	Jun-08	4.5	2.5	-0.39
16	Nov-08	4.5	2.5	-0.39
17	Jun-09	4.5	2.5	-0.39
18	Nov-09	4.5	2.5	-0.39
19	Jun-10	4.5	2.5	-0.39



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	5		
2	May-01	5		
3	May-02	5		
4	Jun-03	2.5	**3.43**	**2.38**
5	Nov-03	2.5		
6	Jun-04	2.5		
7	Dec-04	2.5		
8	Jun-05	2.5		

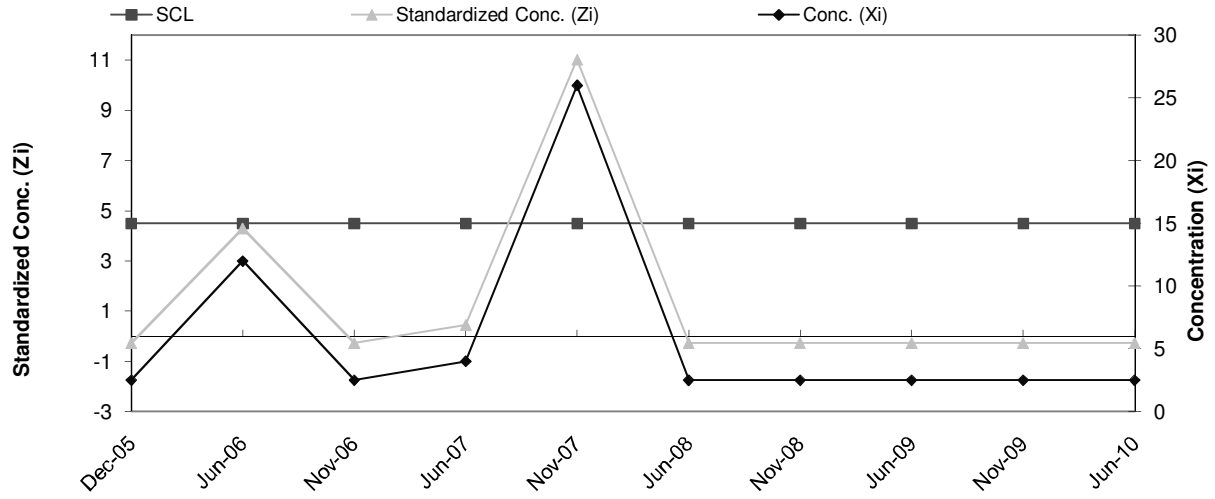
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	2	-0.60
10	Jun-06	4.5	2	-0.60
11	Nov-06	4.5	2	-0.60
12	Jun-07	4.5	4	0.24
13	Nov-07	4.5	7	1.50
14	Jun-08	4.5	3	-0.18
15	Nov-08	4.5	1	-1.02
16	Jun-09	4.5	2	-0.60
17	Nov-09	4.5	2	-0.60
18	Jun-10	4.5	2	-0.60



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	2.5	**3.06**	**2.08**
2	May-01	2.5		
3	May-02	2.5		
4	Jun-03	2.5		
5	Nov-03	2.5		
6	Jun-04	2.5		
7	Dec-04	2.5		
8	Jun-05	7		

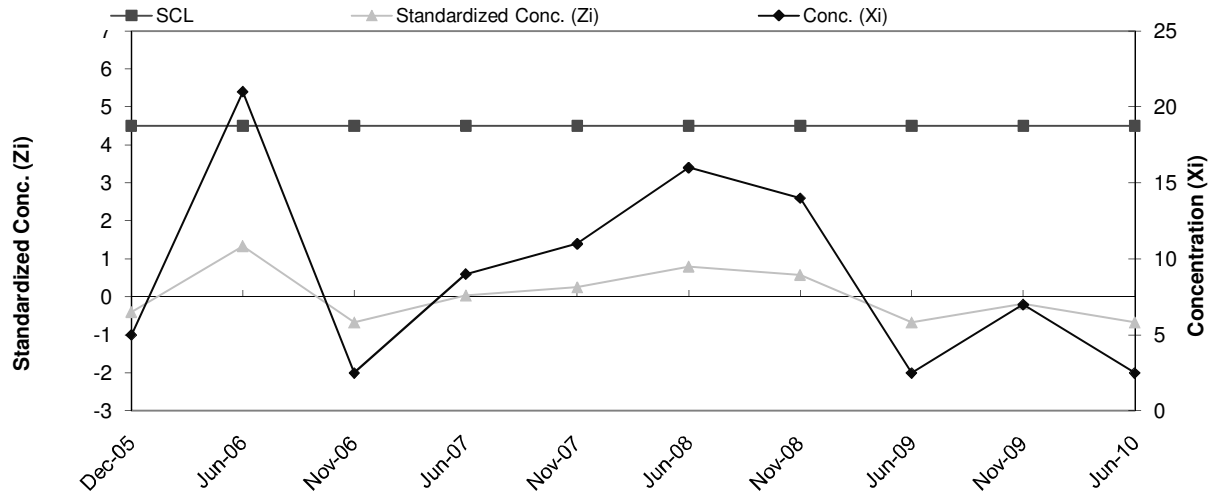
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	2.5	-0.27
10	Jun-06	4.5	12	4.30
11	Nov-06	4.5	2.5	-0.27
12	Jun-07	4.5	4	0.45
13	Nov-07	4.5	26	11.03
14	Jun-08	4.5	2.5	-0.27
15	Nov-08	4.5	2.5	-0.27
16	Jun-09	4.5	2.5	-0.27
17	Nov-09	4.5	2.5	-0.27
19	Jun-10	4.5	2.5	-0.27



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	30	**8.69**	**9.24**
2	May-01	5		
3	May-02	10		
4	Jun-03	2.5		
5	Nov-03	2.5		
6	Jun-04	8		
7	Dec-04	9		
8	Jun-05	2.5		

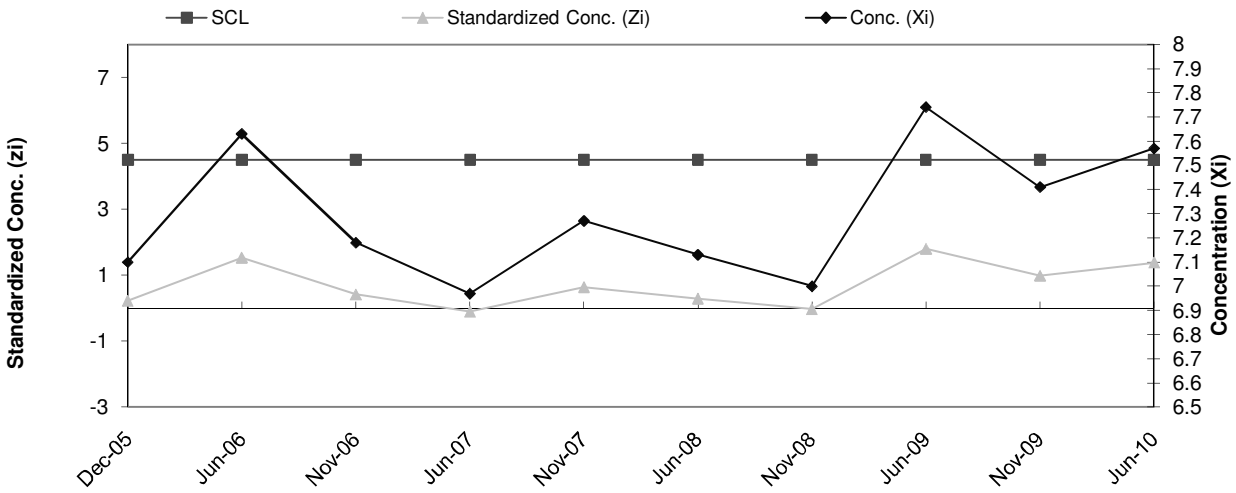
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	5	-0.40
10	Jun-06	4.5	21	1.33
11	Nov-06	4.5	2.5	-0.67
12	Jun-07	4.5	9	0.03
13	Nov-07	4.5	11	0.25
14	Jun-08	4.5	16	0.79
15	Nov-08	4.5	14	0.57
16	Jun-09	4.5	2.5	-0.67
17	Nov-09	4.5	7	-0.18
18	Jun-10	4.5	2.5	-0.67



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	6.8	**7.01**	**0.40**
2	May-01	7.1		
3	May-02	7.2		
4	Jun-03	6.9		
5	Nov-03	7.6		
6	Jun-04	7.2		
7	Dec-04	6.2		
8	Jun-05	7.1		

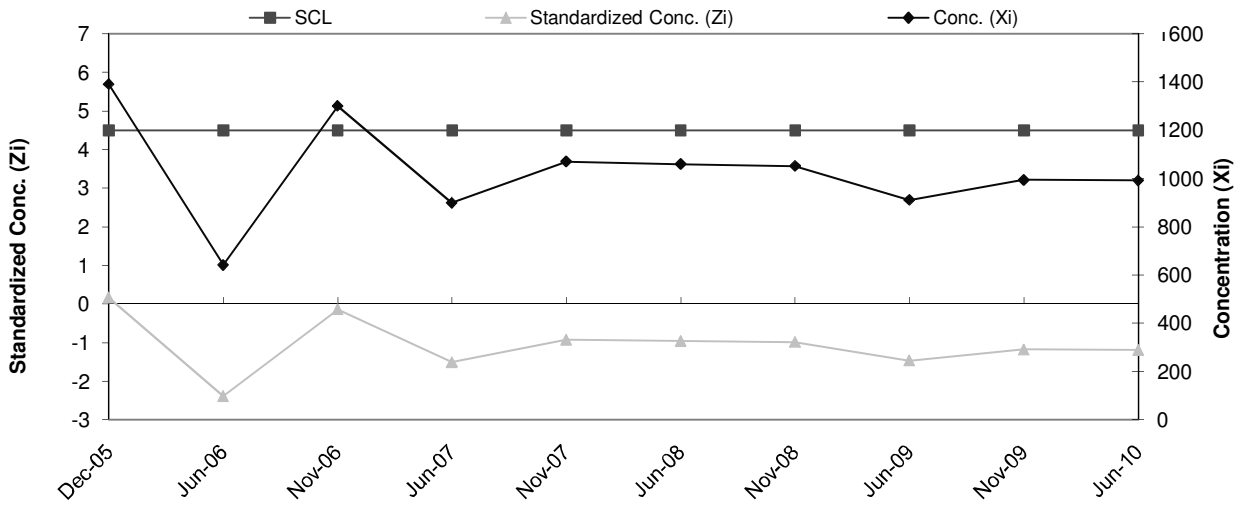
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	7.1	0.22
10	Jun-06	4.5	7.6	1.53
11	Nov-06	4.5	7.2	0.42
12	Jun-07	4.5	7.0	-0.10
13	Nov-07	4.5	7.3	0.64
14	Jun-08	4.5	7.1	0.29
15	Nov-08	4.5	7.0	-0.03
16	Jun-09	4.5	7.7	1.80
17	Nov-09	4.5	7.4	0.99
18	Jun-10	4.5	7.6	1.38



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	1480		
2	May-01	1050		
3	May-02	1740		
4	Jun-03	1350	**1,340.63**	**293.72**
5	Nov-03	1620		
6	Jun-04	1316		
7	Dec-04	1340		
8	Jun-05	829		

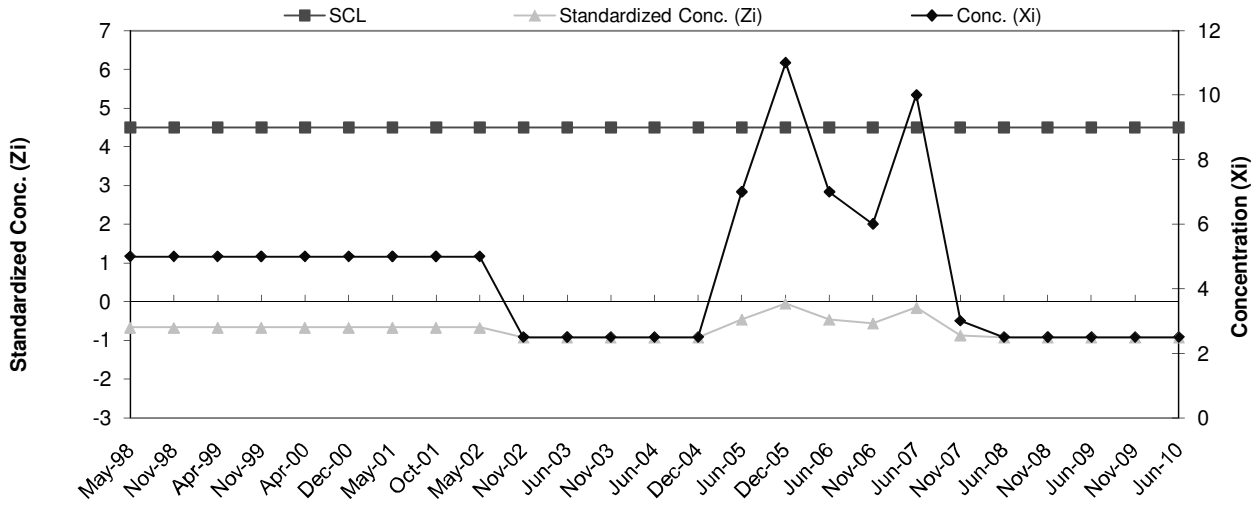
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	1390	0.17
10	Jun-06	4.5	642	-2.38
11	Nov-06	4.5	1300	-0.14
12	Jun-07	4.5	899	-1.50
13	Nov-07	4.5	1070	-0.92
14	Jun-08	4.5	1060	-0.96
15	Nov-08	4.5	1052	-0.98
16	Jun-09	4.5	911	-1.46
17	Nov-09	4.5	994	-1.18
18	Jun-10	4.5	992	-1.19



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	32		
4	Jun-96	10	**11.51**	**9.80**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

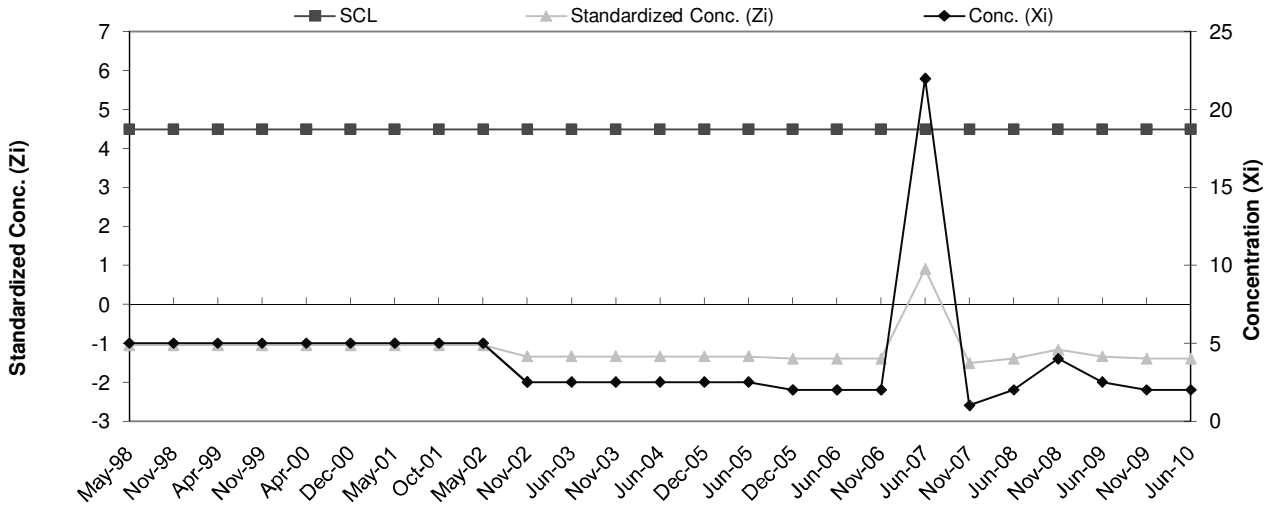
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.66
10	Nov-98	4.5	5	-0.66
11	Apr-99	4.5	5	-0.66
12	Nov-99	4.5	5	-0.66
13	Apr-00	4.5	5	-0.66
14	Dec-00	4.5	5	-0.66
15	May-01	4.5	5	-0.66
16	Oct-01	4.5	5	-0.66
17	May-02	4.5	5	-0.66
18	Nov-02	4.5	2.5	-0.92
19	Jun-03	4.5	2.5	-0.92
20	Nov-03	4.5	2.5	-0.92
21	Jun-04	4.5	2.5	-0.92
22	Dec-04	4.5	2.5	-0.92
23	Jun-05	4.5	7	-0.46
24	Dec-05	4.5	11	-0.05
25	Jun-06	4.5	7	-0.46
26	Nov-06	4.5	6	-0.56
27	Jun-07	4.5	10	-0.15
28	Nov-07	4.5	3	-0.87
29	Jun-08	4.5	2.5	-0.92
30	Nov-08	4.5	2.5	-0.92
31	Jun-09	4.5	2.5	-0.92
32	Nov-09	4.5	2.5	-0.92
33	Jun-10	4.5	2.5	-0.92



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	20		
3	Feb-96	28		
4	Jun-96	10	**14.13**	**8.70**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	20		

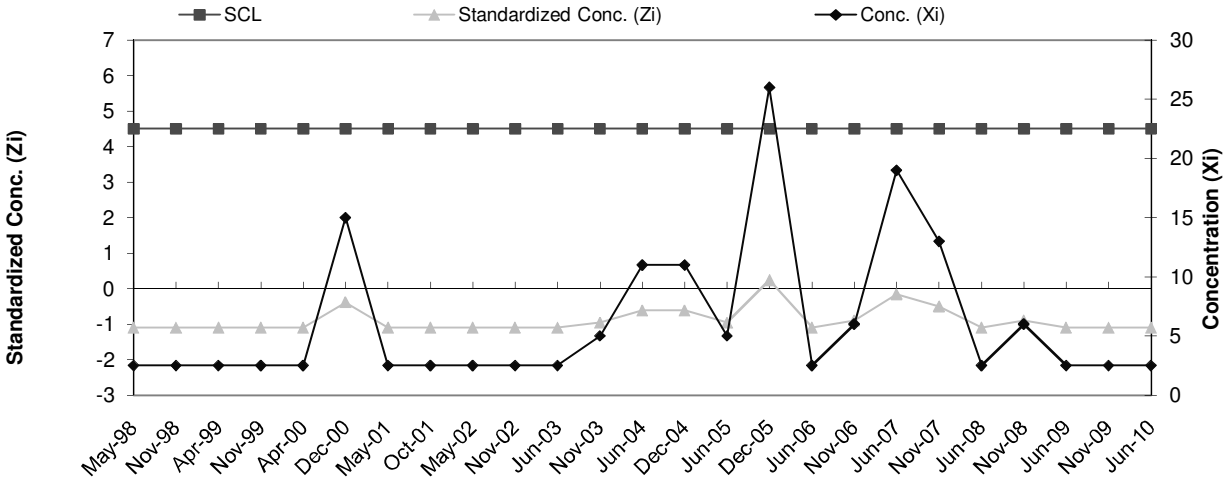
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.05
10	Nov-98	4.5	5	-1.05
11	Apr-99	4.5	5	-1.05
12	Nov-99	4.5	5	-1.05
13	Apr-00	4.5	5	-1.05
14	Dec-00	4.5	5	-1.05
15	May-01	4.5	5	-1.05
16	Oct-01	4.5	5	-1.05
17	May-02	4.5	5	-1.05
18	Nov-02	4.5	2.5	-1.34
19	Jun-03	4.5	2.5	-1.34
20	Nov-03	4.5	2.5	-1.34
21	Jun-04	4.5	2.5	-1.34
22	Dec-05	4.5	2.5	-1.34
23	Jun-05	4.5	2.5	-1.34
24	Dec-05	4.5	2	-1.39
25	Jun-06	4.5	2	-1.39
26	Nov-06	4.5	2	-1.39
27	Jun-07	4.5	22	0.90
28	Nov-07	4.5	1	-1.51
29	Jun-08	4.5	2	-1.39
30	Nov-08	4.5	4	-1.16
31	Jun-09	4.5	2.5	-1.34
32	Nov-09	4.5	2	-1.39
33	Jun-10	4.5	2	-1.39



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15		
2	Aug-95	20		
3	Feb-96	54		
4	Jun-96	10	**21.88**	**17.64**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	15		
8	Nov-97	41		

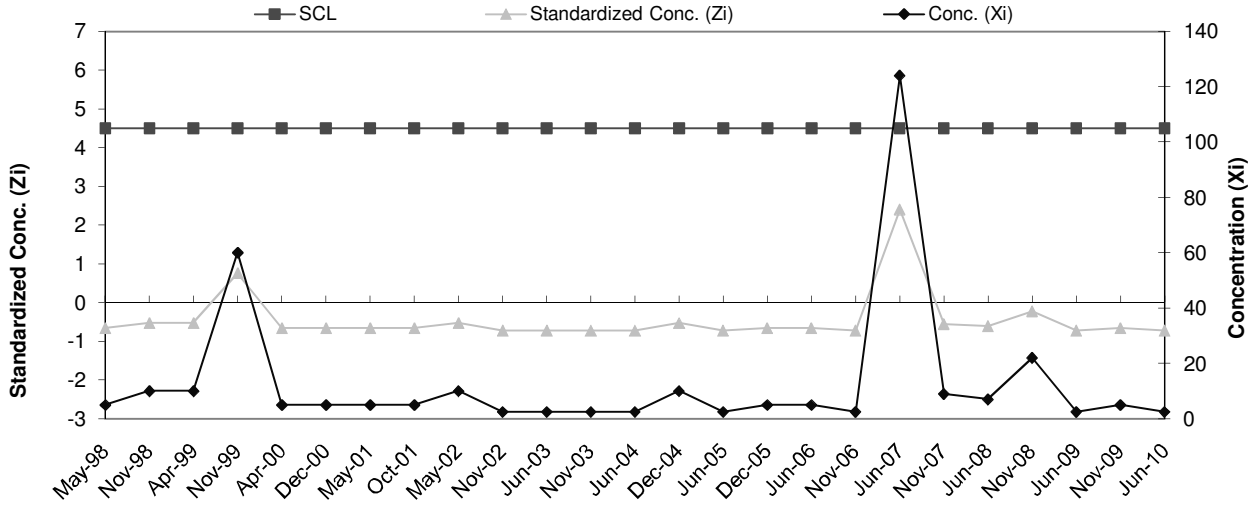
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.10
10	Nov-98	4.5	2.5	-1.10
11	Apr-99	4.5	2.5	-1.10
12	Nov-99	4.5	2.5	-1.10
13	Apr-00	4.5	2.5	-1.10
14	Dec-00	4.5	15	-0.39
15	May-01	4.5	2.5	-1.10
16	Oct-01	4.5	2.5	-1.10
17	May-02	4.5	2.5	-1.10
18	Nov-02	4.5	2.5	-1.10
19	Jun-03	4.5	2.5	-1.10
20	Nov-03	4.5	5	-0.96
21	Jun-04	4.5	11	-0.62
22	Dec-04	4.5	11	-0.62
23	Jun-05	4.5	5	-0.96
24	Dec-05	4.5	26	0.23
25	Jun-06	4.5	2.5	-1.10
26	Nov-06	4.5	6	-0.90
27	Jun-07	4.5	19	-0.16
28	Nov-07	4.5	13	-0.50
29	Jun-08	4.5	2.5	-1.10
30	Nov-08	4.5	6	-0.90
31	Jun-09	4.5	2.5	-1.10
32	Nov-09	4.5	2.5	-1.10
33	Jun-10	4.5	2.5	-1.10



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	120		
4	Jun-96	10	**30.66**	**38.93**
5	Aug-96	40		
6	Nov-96	40		
7	May-97	10		
8	Nov-97	5		

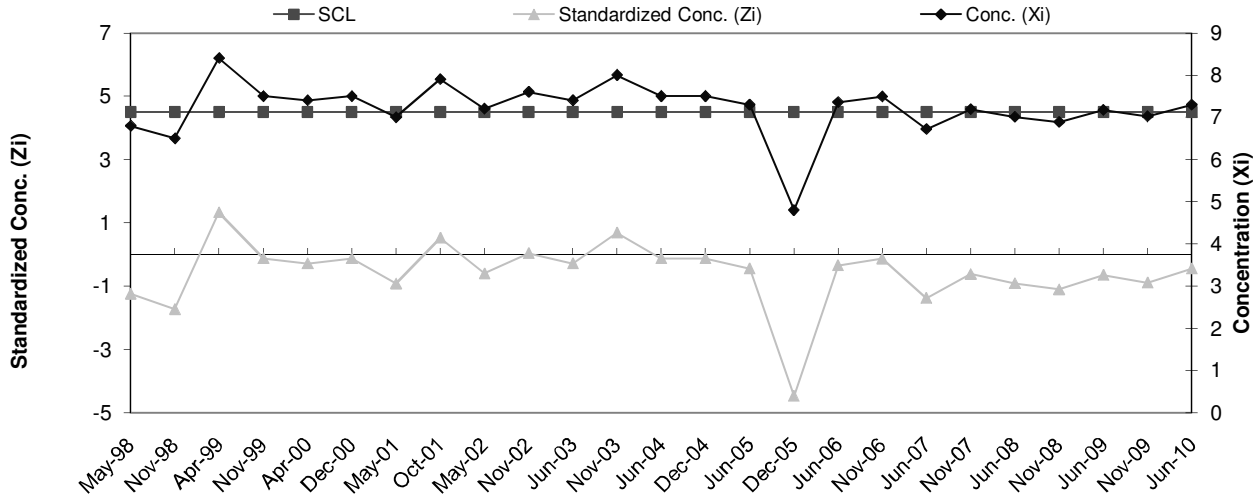
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.66
10	Nov-98	4.5	10	-0.53
11	Apr-99	4.5	10	-0.53
12	Nov-99	4.5	60	0.75
13	Apr-00	4.5	5	-0.66
14	Dec-00	4.5	5	-0.66
15	May-01	4.5	5	-0.66
16	Oct-01	4.5	5	-0.66
17	May-02	4.5	10	-0.53
18	Nov-02	4.5	2.5	-0.72
19	Jun-03	4.5	2.5	-0.72
20	Nov-03	4.5	2.5	-0.72
21	Jun-04	4.5	2.5	-0.72
22	Dec-04	4.5	10	-0.53
23	Jun-05	4.5	2.5	-0.72
24	Dec-05	4.5	5	-0.66
25	Jun-06	4.5	5	-0.66
26	Nov-06	4.5	2.5	-0.72
27	Jun-07	4.5	124	2.40
28	Nov-07	4.5	9	-0.56
29	Jun-08	4.5	7	-0.61
30	Nov-08	4.5	22	-0.22
31	Jun-09	4.5	2.5	-0.72
32	Nov-09	4.5	5	-0.66
33	Jun-10	4.5	2.5	-0.72



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	8.3	**7.58**	**0.62**
2	Aug-95	8.1		
3	Feb-96	7.1		
4	Jun-96	7.9		
5	Aug-96	8.0		
6	Nov-96	7.7		
7	May-97	6.8		
8	Nov-97	6.7		

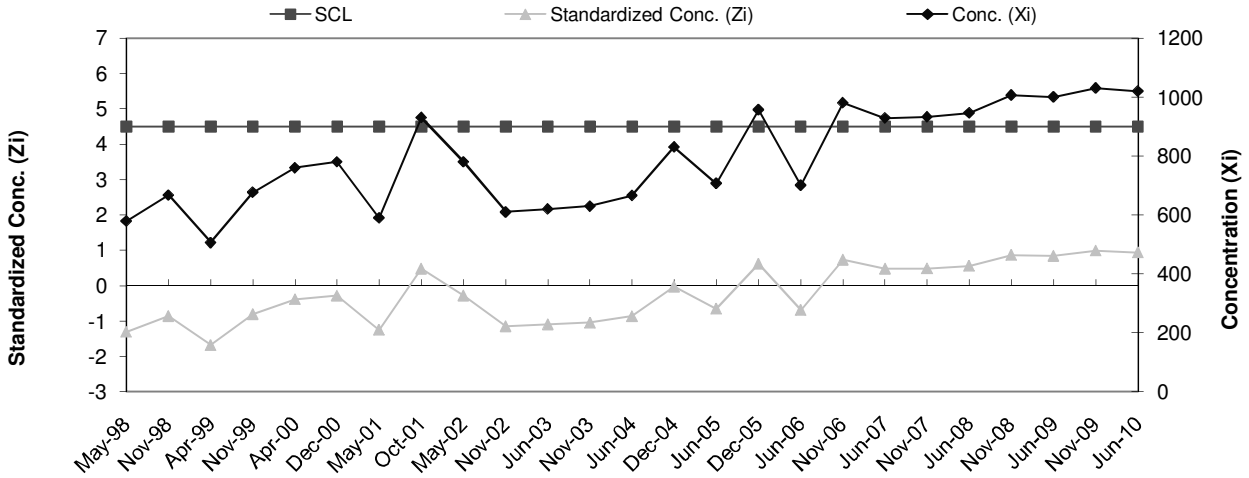
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.8	-1.25
10	Nov-98	4.5	6.5	-1.73
11	Apr-99	4.5	8.4	1.33
12	Nov-99	4.5	7.5	-0.12
13	Apr-00	4.5	7.4	-0.28
14	Dec-00	4.5	7.5	-0.12
15	May-01	4.5	7.0	-0.93
16	Oct-01	4.5	7.9	0.52
17	May-02	4.5	7.2	-0.60
18	Nov-02	4.5	7.6	0.04
19	Jun-03	4.5	7.4	-0.28
20	Nov-03	4.5	8.0	0.68
21	Jun-04	4.5	7.5	-0.12
22	Dec-04	4.5	7.5	-0.12
23	Jun-05	4.5	7.3	-0.44
24	Dec-05	4.5	4.8	-4.47
25	Jun-06	4.5	7.4	-0.35
26	Nov-06	4.5	7.5	-0.14
27	Jun-07	4.5	6.7	-1.38
28	Nov-07	4.5	7.2	-0.62
29	Jun-08	4.5	7.0	-0.91
30	Nov-08	4.5	6.9	-1.10
31	Jun-09	4.5	7.2	-0.65
32	Nov-09	4.5	7.0	-0.89
33	Jun-10	4.5	7.3	-0.44



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	771		
2	Aug-95	1204		
3	Feb-96	801		
4	Jun-96	745	**835.75**	**196.61**
5	Aug-96	750		
6	Nov-96	1075		
7	May-97	640		
8	Nov-97	700		

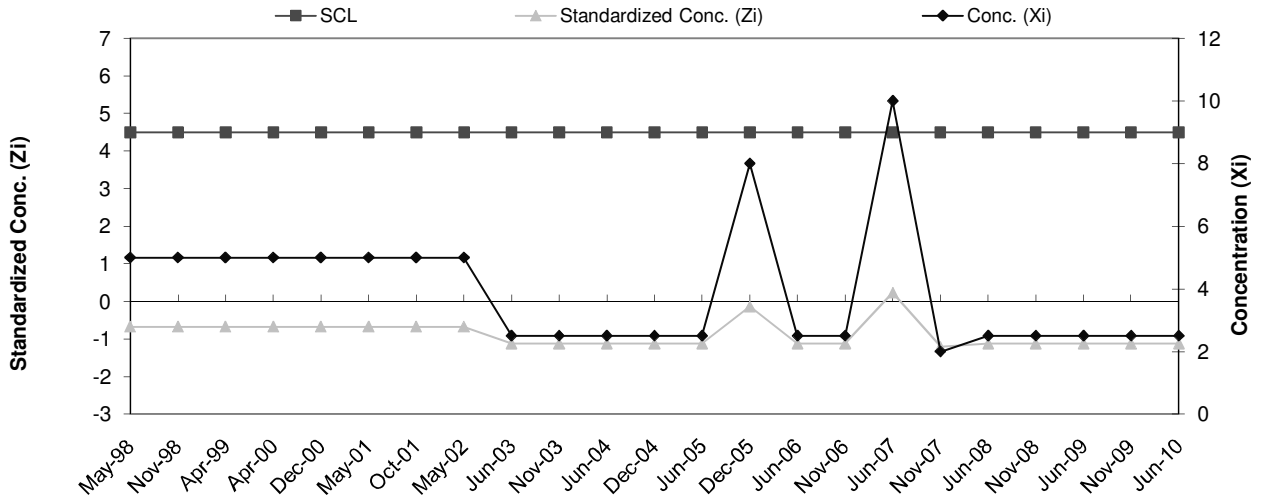
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	579	-1.31
10	Nov-98	4.5	667	-0.86
11	Apr-99	4.5	506	-1.68
12	Nov-99	4.5	677	-0.81
13	Apr-00	4.5	760	-0.39
14	Dec-00	4.5	780	-0.28
15	May-01	4.5	590	-1.25
16	Oct-01	4.5	930	0.48
17	May-02	4.5	780	-0.28
18	Nov-02	4.5	610	-1.15
19	Jun-03	4.5	620	-1.10
20	Nov-03	4.5	630	-1.05
21	Jun-04	4.5	666	-0.86
22	Dec-04	4.5	830	-0.03
23	Jun-05	4.5	707	-0.65
24	Dec-05	4.5	957	0.62
25	Jun-06	4.5	701	-0.69
26	Nov-06	4.5	980	0.73
27	Jun-07	4.5	929	0.47
28	Nov-07	4.5	932	0.49
29	Jun-08	4.5	946	0.56
30	Nov-08	4.5	1006	0.87
31	Jun-09	4.5	1000	0.84
32	Nov-09	4.5	1030	0.99
33	Jun-10	4.5	1020	0.94



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**8.74**	**5.57**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

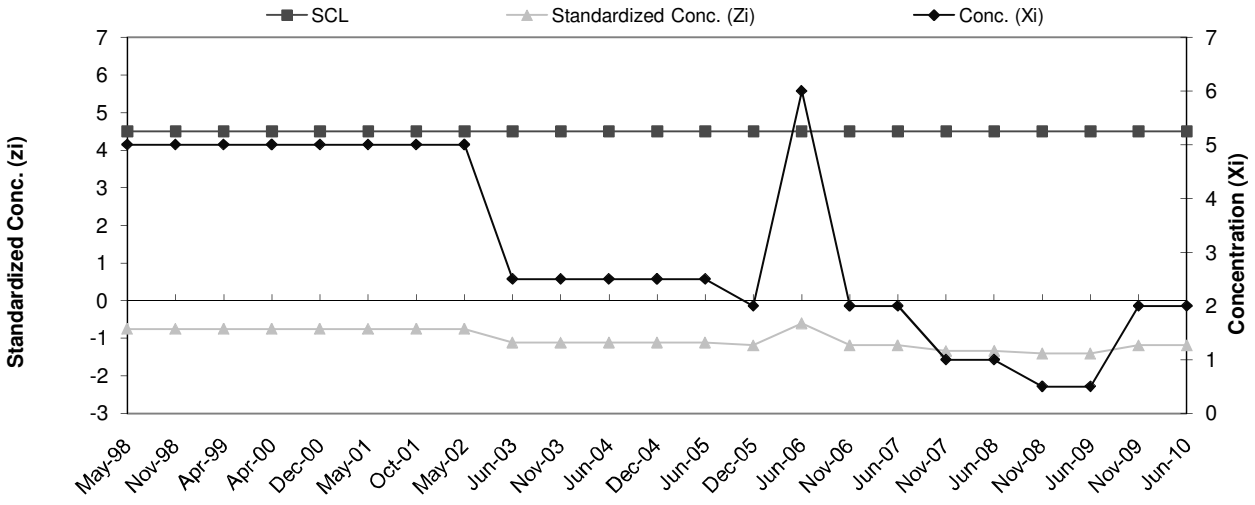
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67
10	Nov-98	4.5	5	-0.67
11	Apr-99	4.5	5	-0.67
12	Apr-00	4.5	5	-0.67
13	Dec-00	4.5	5	-0.67
14	May-01	4.5	5	-0.67
15	Oct-01	4.5	5	-0.67
16	May-02	4.5	5	-0.67
18	Jun-03	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12
22	Jun-05	4.5	2.5	-1.12
23	Dec-05	4.5	8	-0.13
24	Jun-06	4.5	2.5	-1.12
25	Nov-06	4.5	2.5	-1.12
26	Jun-07	4.5	10	0.23
27	Nov-07	4.5	2	-1.21
28	Jun-08	4.5	2.5	-1.12
29	Nov-08	4.5	2.5	-1.12
30	Jun-09	4.5	2.5	-1.12
31	Nov-09	4.5	2.5	-1.12
32	Jun-10	4.5	2.5	-1.12



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	21		
3	Feb-96	10		
4	Jun-96	10	**10.13**	**6.83**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

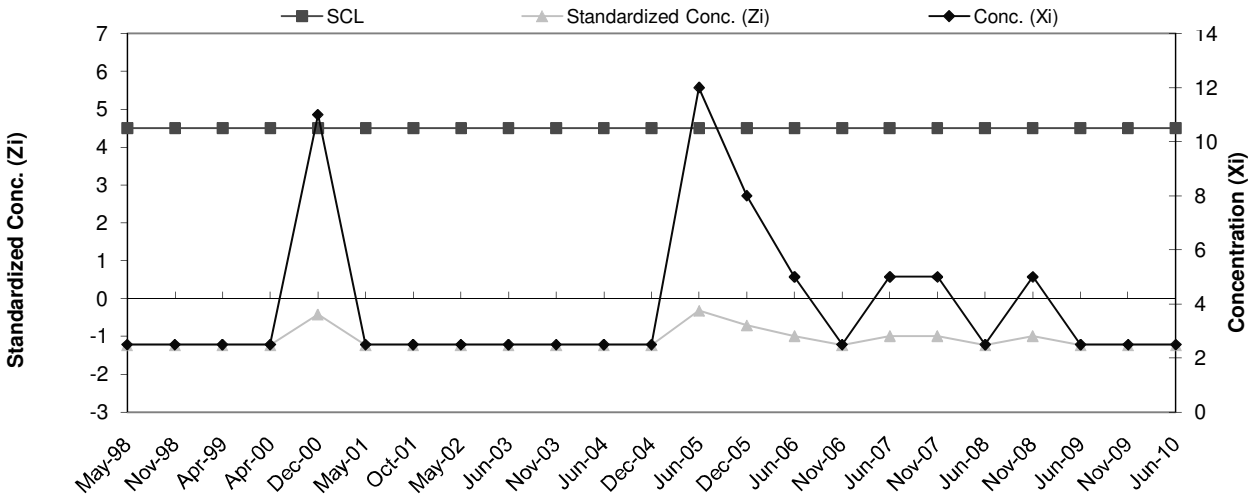
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.75
10	Nov-98	4.5	5	-0.75
11	Apr-99	4.5	5	-0.75
12	Apr-00	4.5	5	-0.75
13	Dec-00	4.5	5	-0.75
14	May-01	4.5	5	-0.75
15	Oct-01	4.5	5	-0.75
16	May-02	4.5	5	-0.75
18	Jun-03	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12
22	Jun-05	4.5	2.5	-1.12
23	Dec-05	4.5	2	-1.19
24	Jun-06	4.5	6	-0.60
25	Nov-06	4.5	2	-1.19
26	Jun-07	4.5	2	-1.19
27	Nov-07	4.5	1	-1.34
28	Jun-08	4.5	1	-1.34
29	Nov-08	4.5	0.5	-1.41
30	Jun-09	4.5	0.5	-1.41
31	Nov-09	4.5	2	-1.19
32	Jun-10	4.5	2	-1.19



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	15.37	10.43
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	8		
8	Nov-97	30		

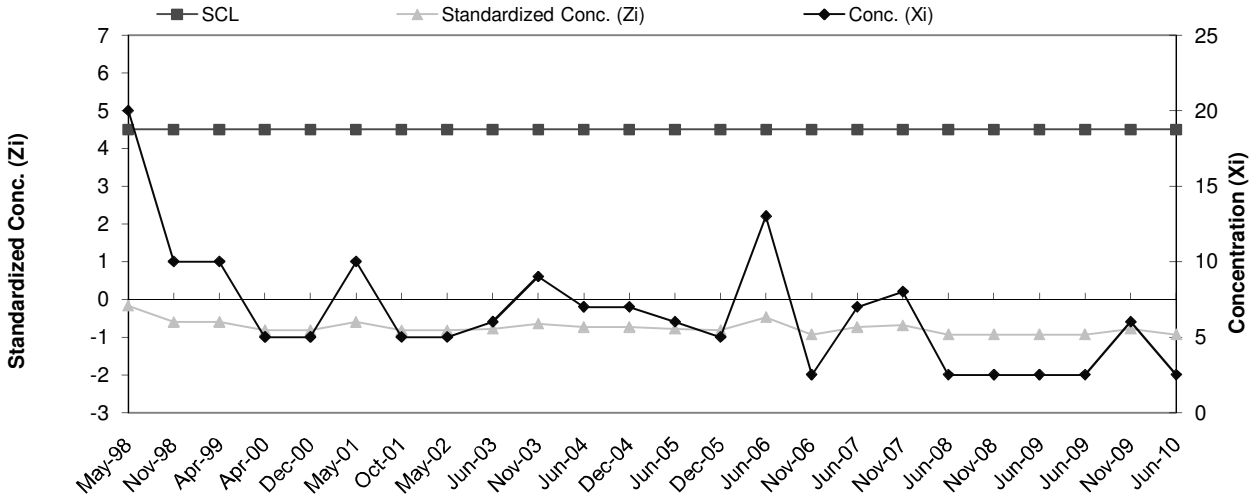
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.23
10	Nov-98	4.5	2.5	-1.23
11	Apr-99	4.5	2.5	-1.23
12	Apr-00	4.5	2.5	-1.23
13	Dec-00	4.5	11	-0.42
14	May-01	4.5	2.5	-1.23
15	Oct-01	4.5	2.5	-1.23
16	May-02	4.5	2.5	-1.23
18	Jun-03	4.5	2.5	-1.23
19	Nov-03	4.5	2.5	-1.23
20	Jun-04	4.5	2.5	-1.23
20	Dec-04	4.5	2.5	-1.23
21	Jun-05	4.5	12	-0.32
22	Dec-05	4.5	8	-0.71
23	Jun-06	4.5	5	-0.99
24	Nov-06	4.5	2.5	-1.23
25	Jun-07	4.5	5	-0.99
26	Nov-07	4.5	5	-0.99
27	Jun-08	4.5	2.5	-1.23
28	Nov-08	4.5	5	-0.99
30	Jun-09	4.5	2.5	-1.23
31	Nov-09	4.5	2.5	-1.23
32	Jun-10	4.5	2.5	-1.23



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	61		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**23.89**	**23.00**
5	Aug-96	50		
6	Nov-96	40		
7	May-97	5		
8	Nov-97	5		

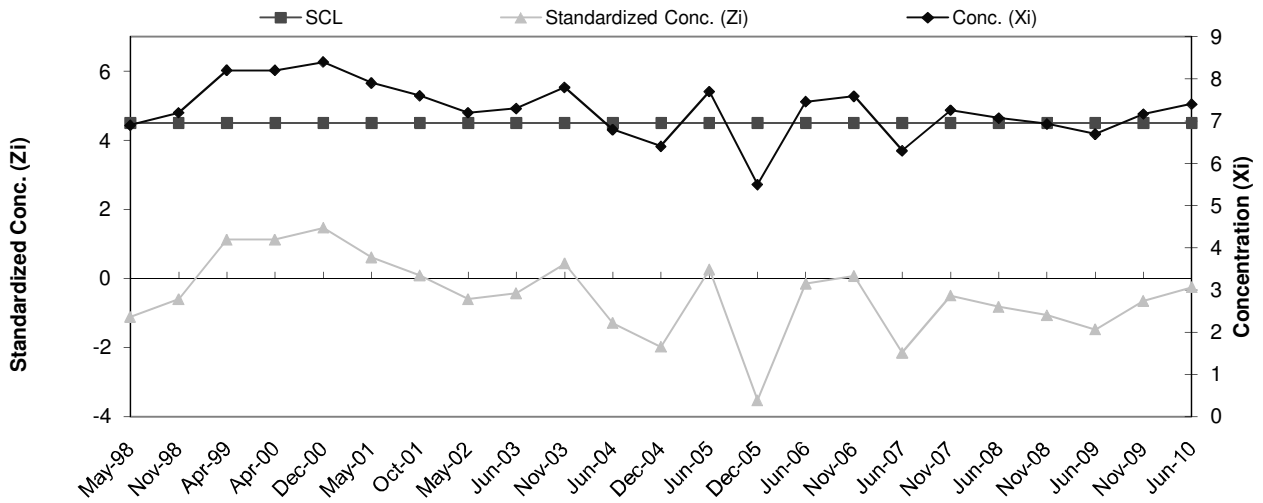
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	20	-0.17
10	Nov-98	4.5	10	-0.60
11	Apr-99	4.5	10	-0.60
12	Apr-00	4.5	5	-0.82
13	Dec-00	4.5	5	-0.82
14	May-01	4.5	10	-0.60
15	Oct-01	4.5	5	-0.82
16	May-02	4.5	5	-0.82
18	Jun-03	4.5	6	-0.78
19	Nov-03	4.5	9	-0.65
20	Jun-04	4.5	7	-0.73
21	Dec-04	4.5	7	-0.73
22	Jun-05	4.5	6	-0.78
23	Dec-05	4.5	5	-0.82
24	Jun-06	4.5	13	-0.47
25	Nov-06	4.5	2.5	-0.93
26	Jun-07	4.5	7	-0.73
27	Nov-07	4.5	8	-0.69
28	Jun-08	4.5	2.5	-0.93
29	Nov-08	4.5	2.5	-0.93
30	Jun-09	4.5	2.5	-0.93
31	Jun-09	4.5	2.5	-0.93
32	Nov-09	4.5	6	-0.78
33	Jun-10	4.5	2.5	-0.93



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	8.3	**7.55**	**0.58**
2	Aug-95	8.1		
3	Feb-96	7.7		
4	Jun-96	7.6		
5	Aug-96	7.9		
6	Nov-96	7.3		
7	May-97	6.8		
8	Nov-97	6.7		

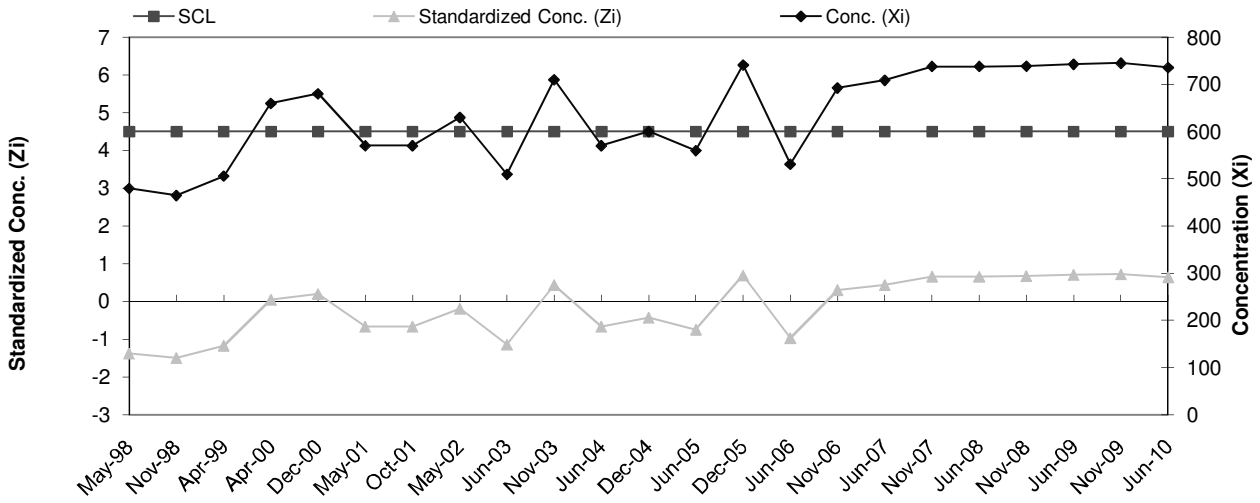
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.9	-1.12
10	Nov-98	4.5	7.2	-0.60
11	Apr-99	4.5	8.2	1.12
12	Apr-00	4.5	8.2	1.12
13	Dec-00	4.5	8.4	1.46
14	May-01	4.5	7.9	0.60
15	Oct-01	4.5	7.6	0.09
16	May-02	4.5	7.2	-0.60
18	Jun-03	4.5	7.3	-0.43
19	Nov-03	4.5	7.8	0.43
20	Jun-04	4.5	6.8	-1.29
21	Dec-04	4.5	6.4	-1.98
22	Jun-05	4.5	7.7	0.26
23	Dec-05	4.5	5.5	-3.53
24	Jun-06	4.5	7.5	-0.16
25	Nov-06	4.5	7.6	0.07
26	Jun-07	4.5	6.3	-2.15
27	Nov-07	4.5	7.3	-0.50
28	Jun-08	4.5	7.1	-0.83
29	Nov-08	4.5	6.9	-1.07
30	Jun-09	4.5	6.7	-1.48
31	Nov-09	4.5	7.2	-0.65
32	Jun-10	4.5	7.4	-0.26



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	870		
2	Aug-95	684		
3	Feb-96	646		
4	Jun-96	577	**654.13**	**126.68**
5	Aug-96	576		
6	Nov-96	810		
7	May-97	530		
8	Nov-97	540		

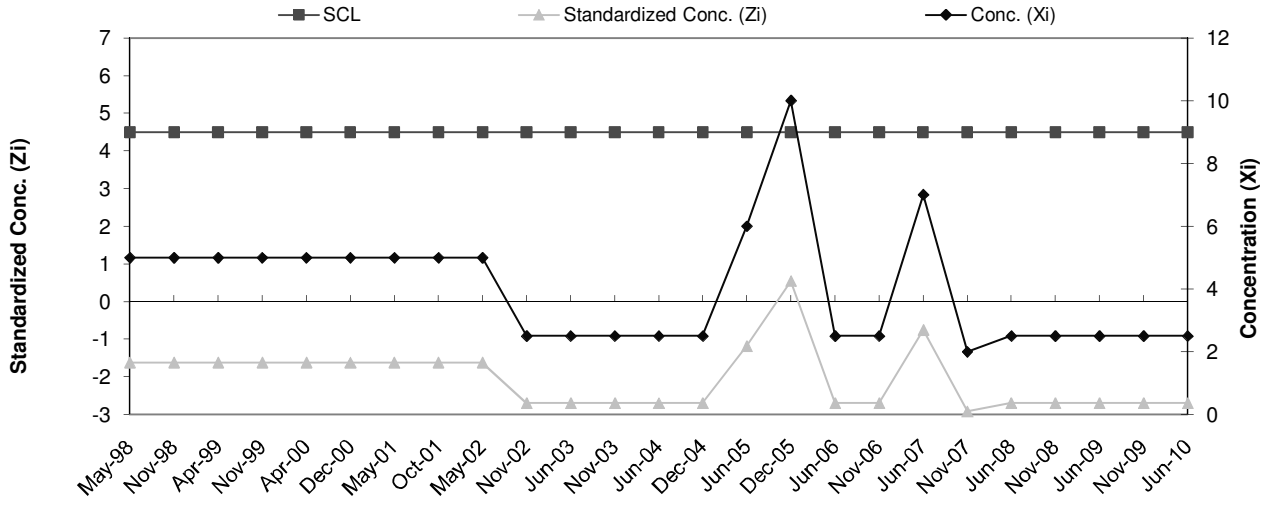
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	480	-1.37
10	Nov-98	4.5	465	-1.49
11	Apr-99	4.5	506	-1.17
12	Apr-00	4.5	660	0.05
13	Dec-00	4.5	680	0.20
14	May-01	4.5	570	-0.66
15	Oct-01	4.5	570	-0.66
16	May-02	4.5	630	-0.19
18	Jun-03	4.5	510	-1.14
19	Nov-03	4.5	710	0.44
20	Jun-04	4.5	570	-0.66
21	Dec-04	4.5	600	-0.43
22	Jun-05	4.5	560	-0.74
23	Dec-05	4.5	741	0.69
24	Jun-06	4.5	531.3	-0.97
25	Nov-06	4.5	693	0.31
26	Jun-07	4.5	709	0.43
27	Nov-07	4.5	738	0.66
28	Jun-08	4.5	738	0.66
29	Nov-08	4.5	739	0.67
30	Jun-09	4.5	743	0.70
31	Nov-09	4.5	745	0.72
32	Jun-10	4.5	736	0.65



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	**8.75**	**2.31**
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

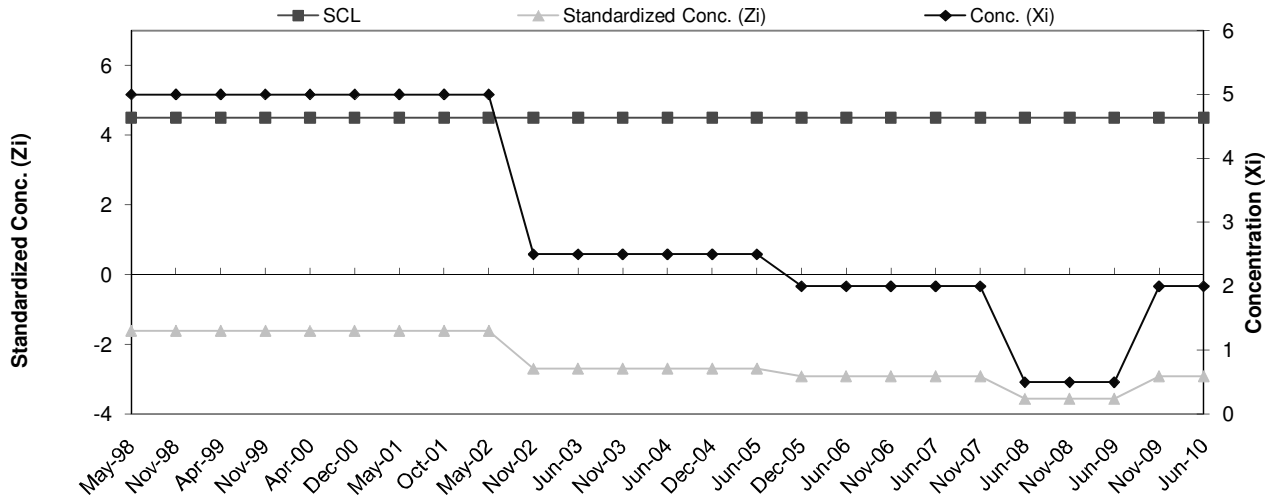
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.62
10	Nov-98	4.5	5	-1.62
11	Apr-99	4.5	5	-1.62
12	Nov-99	4.5	5	-1.62
13	Apr-00	4.5	5	-1.62
14	Dec-00	4.5	5	-1.62
15	May-01	4.5	5	-1.62
16	Oct-01	4.5	5	-1.62
17	May-02	4.5	5	-1.62
18	Nov-02	4.5	2.5	-2.70
19	Jun-03	4.5	2.5	-2.70
20	Nov-03	4.5	2.5	-2.70
21	Jun-04	4.5	2.5	-2.70
22	Dec-04	4.5	2.5	-2.70
23	Jun-05	4.5	6	-1.19
24	Dec-05	4.5	10	0.54
25	Jun-06	4.5	2.5	-2.70
26	Nov-06	4.5	2.5	-2.70
27	Jun-07	4.5	7	-0.76
28	Nov-07	4.5	2	-2.92
29	Jun-08	4.5	2.5	-2.70
30	Nov-08	4.5	2.5	-2.70
31	Jun-09	4.5	2.5	-2.70
32	Nov-09	4.5	2.5	-2.70
33	Jun-10	4.5	2.5	-2.70



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	**8.75**	**2.31**
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

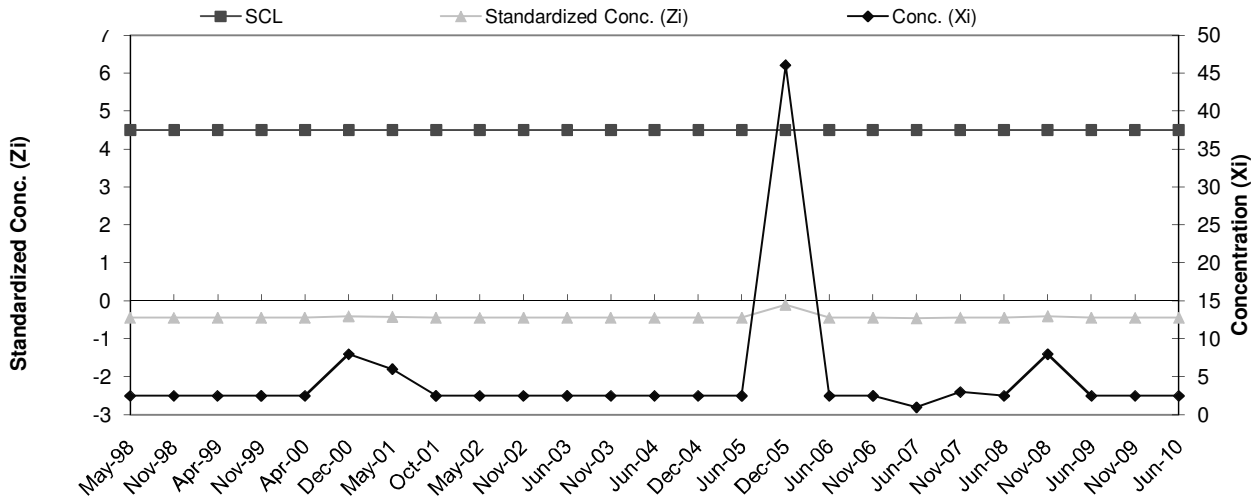
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.62
10	Nov-98	4.5	5	-1.62
11	Apr-99	4.5	5	-1.62
12	Nov-99	4.5	5	-1.62
13	Apr-00	4.5	5	-1.62
14	Dec-00	4.5	5	-1.62
15	May-01	4.5	5	-1.62
16	Oct-01	4.5	5	-1.62
17	May-02	4.5	5	-1.62
18	Nov-02	4.5	2.5	-2.70
19	Jun-03	4.5	2.5	-2.70
20	Nov-03	4.5	2.5	-2.70
21	Jun-04	4.5	2.5	-2.70
22	Dec-04	4.5	2.5	-2.70
23	Jun-05	4.5	2.5	-2.70
24	Dec-05	4.5	2	-2.92
25	Jun-06	4.5	2	-2.92
26	Nov-06	4.5	2	-2.92
27	Jun-07	4.5	2	-2.92
28	Nov-07	4.5	2	-2.92
29	Jun-08	4.5	0.5	-3.56
30	Nov-08	4.5	0.5	-3.56
31	Jun-09	4.5	0.5	-3.56
32	Nov-09	4.5	2	-2.92
33	Jun-10	4.5	2	-2.92



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	370		
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10	**58.94**	**125.96**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	2.5		
8	Nov-97	29		

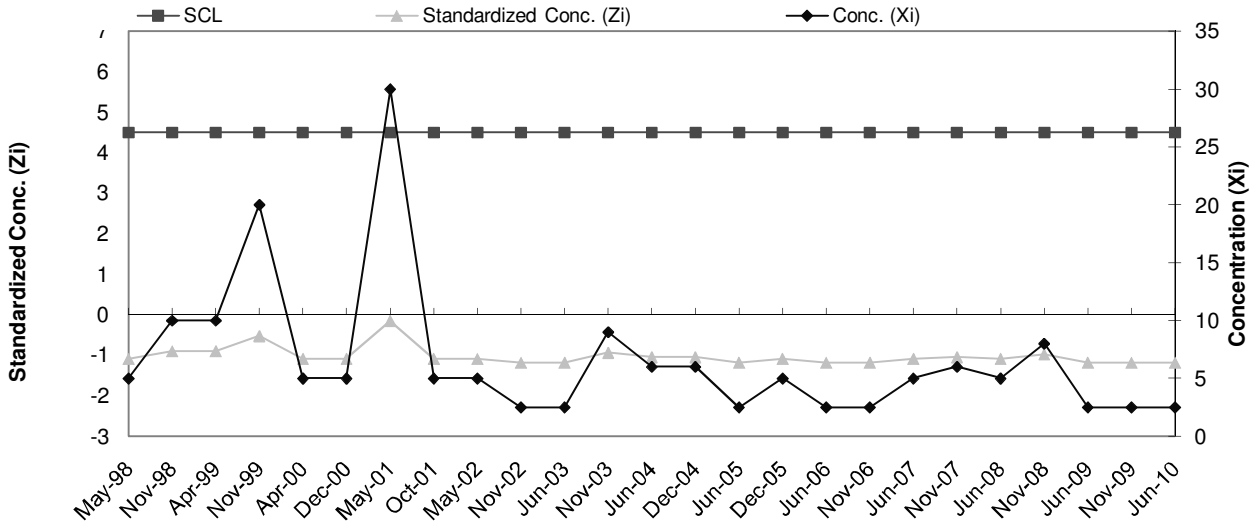
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-0.45
10	Nov-98	4.5	2.5	-0.45
11	Apr-99	4.5	2.5	-0.45
12	Nov-99	4.5	2.5	-0.45
13	Apr-00	4.5	2.5	-0.45
14	Dec-00	4.5	8	-0.40
15	May-01	4.5	6	-0.42
16	Oct-01	4.5	2.5	-0.45
17	May-02	4.5	2.5	-0.45
18	Nov-02	4.5	2.5	-0.45
19	Jun-03	4.5	2.5	-0.45
20	Nov-03	4.5	2.5	-0.45
21	Jun-04	4.5	2.5	-0.45
22	Dec-04	4.5	2.5	-0.45
23	Jun-05	4.5	2.5	-0.45
24	Dec-05	4.5	46	-0.10
25	Jun-06	4.5	2.5	-0.45
26	Nov-06	4.5	2.5	-0.45
27	Jun-07	4.5	1	-0.46
28	Nov-07	4.5	3	-0.44
29	Jun-08	4.5	2.5	-0.45
30	Nov-08	4.5	8	-0.40
31	Jun-09	4.5	2.5	-0.45
32	Nov-09	4.5	2.5	-0.45
33	Jun-10	4.5	2.5	-0.45



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	47		
3	Feb-96	80		
4	Jun-96	20	**34.00**	**26.69**
5	Aug-96	50		
6	Nov-96	50		
7	May-97	5		
8	Nov-97	10		

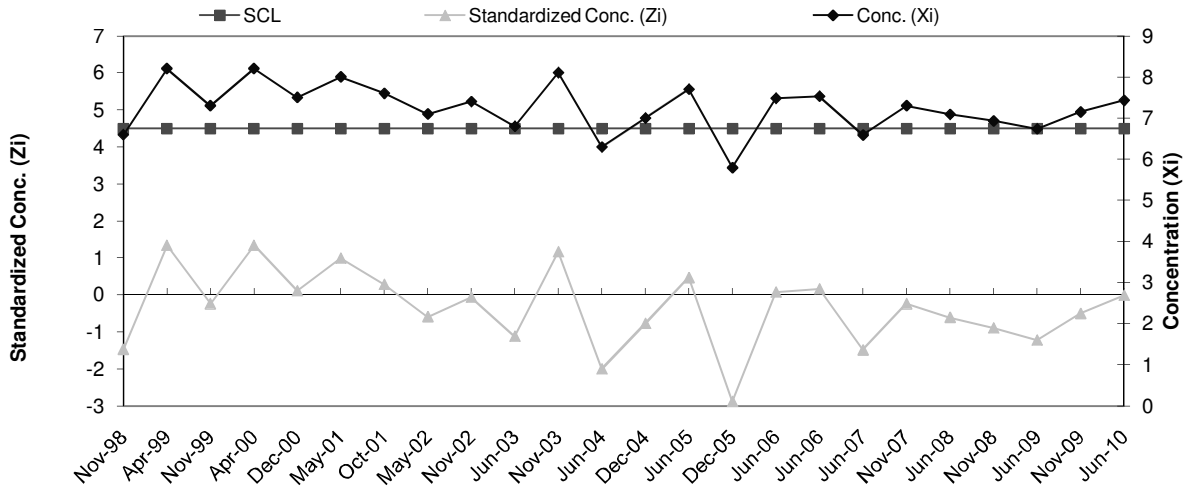
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.09
10	Nov-98	4.5	10	-0.90
11	Apr-99	4.5	10	-0.90
12	Nov-99	4.5	20	-0.52
13	Apr-00	4.5	5	-1.09
14	Dec-00	4.5	5	-1.09
15	May-01	4.5	30	-0.15
16	Oct-01	4.5	5	-1.09
17	May-02	4.5	5	-1.09
18	Nov-02	4.5	2.5	-1.18
19	Jun-03	4.5	2.5	-1.18
20	Nov-03	4.5	9	-0.94
21	Jun-04	4.5	6	-1.05
22	Dec-04	4.5	6	-1.05
23	Jun-05	4.5	2.5	-1.18
24	Dec-05	4.5	5	-1.09
25	Jun-06	4.5	2.5	-1.18
26	Nov-06	4.5	2.5	-1.18
27	Jun-07	4.5	5	-1.09
28	Nov-07	4.5	6	-1.05
29	Jun-08	4.5	5	-1.09
30	Nov-08	4.5	8	-0.97
31	Jun-09	4.5	2.5	-1.18
32	Nov-09	4.5	2.5	-1.18
33	Jun-10	4.5	2.5	-1.18



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.7	**7.44**	**0.57**
2	Aug-95	8.3		
3	Jun-96	7.5		
4	Aug-96	8.1		
5	Nov-96	7.2		
6	May-97	6.7		
7	Nov-97	6.9		
8	May-98	7.1		

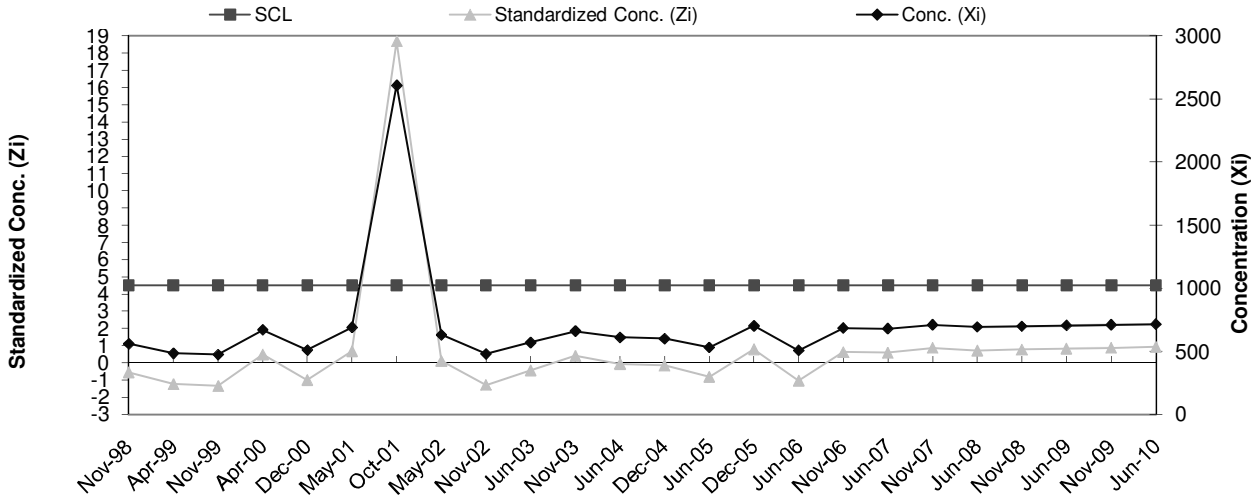
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	6.6	-1.47
10	Apr-99	4.5	8.2	1.34
11	Nov-99	4.5	7.3	-0.24
12	Apr-00	4.5	8.2	1.34
13	Dec-00	4.5	7.5	0.11
14	May-01	4.5	8	0.99
15	Oct-01	4.5	7.6	0.29
16	May-02	4.5	7.1	-0.59
17	Nov-02	4.5	7.4	-0.07
18	Jun-03	4.5	6.8	-1.12
19	Nov-03	4.5	8.1	1.17
20	Jun-04	4.5	6.3	-2.00
21	Dec-04	4.5	7	-0.77
22	Jun-05	4.5	7.7	0.46
23	Dec-05	4.5	5.8	-2.88
24	Jun-06	4.5	7.5	0.07
25	Jun-06	4.5	7.5	0.16
26	Jun-07	4.5	6.6	-1.49
27	Nov-07	4.5	7.3	-0.24
28	Jun-08	4.5	7.1	-0.61
29	Nov-08	4.5	6.9	-0.89
30	Jun-09	4.5	6.7	-1.23
31	Nov-09	4.5	7.2	-0.51
32	Jun-10	4.5	7.4	-0.01



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	573		
2	Aug-95	739		
3	Jun-96	600		
4	Aug-96	608	**617.25**	**106.65**
5	Nov-96	817		
6	May-97	550		
7	Nov-97	550		
8	May-98	501		

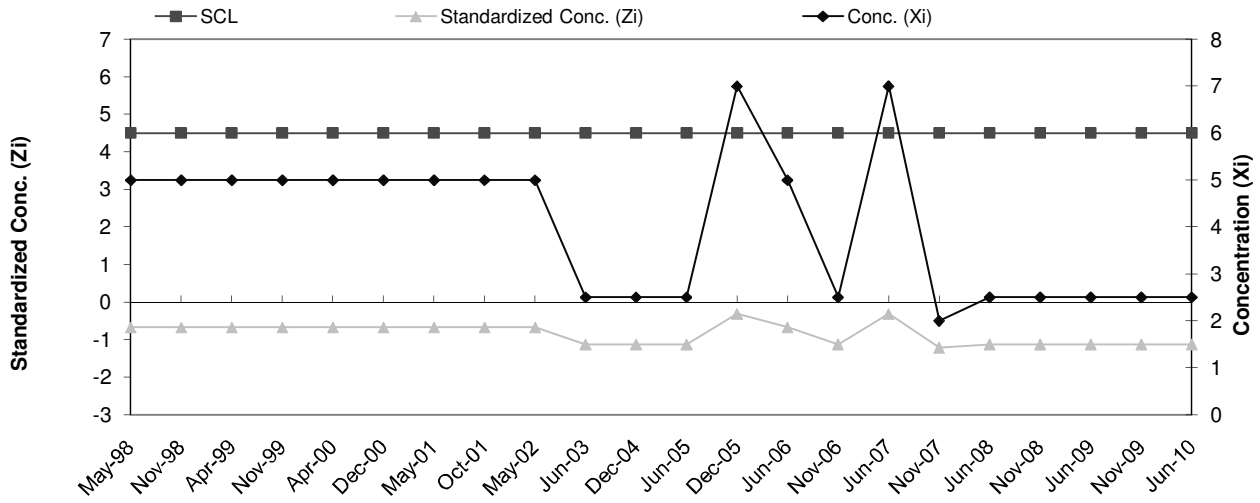
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	559	-0.55
10	Apr-99	4.5	485	-1.24
11	Nov-99	4.5	474	-1.34
12	Apr-00	4.5	670	0.49
13	Dec-00	4.5	510	-1.01
14	May-01	4.5	690	0.68
15	Oct-01	4.5	2610	18.68
16	May-02	4.5	630	0.12
17	Nov-02	4.5	480	-1.29
18	Jun-03	4.5	570	-0.44
19	Nov-03	4.5	660	0.40
20	Jun-04	4.5	610	-0.07
21	Dec-04	4.5	600	-0.16
22	Jun-05	4.5	531	-0.81
23	Dec-05	4.5	702	0.79
24	Jun-06	4.5	507	-1.04
25	Nov-06	4.5	684	0.63
26	Jun-07	4.5	680	0.59
27	Nov-07	4.5	710	0.87
28	Jun-08	4.5	694	0.72
29	Nov-08	4.5	699	0.77
30	Jun-09	4.5	705	0.82
31	Nov-09	4.5	710	0.87
32	Jun-10	4.5	715	0.92



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**8.79**	**5.60**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

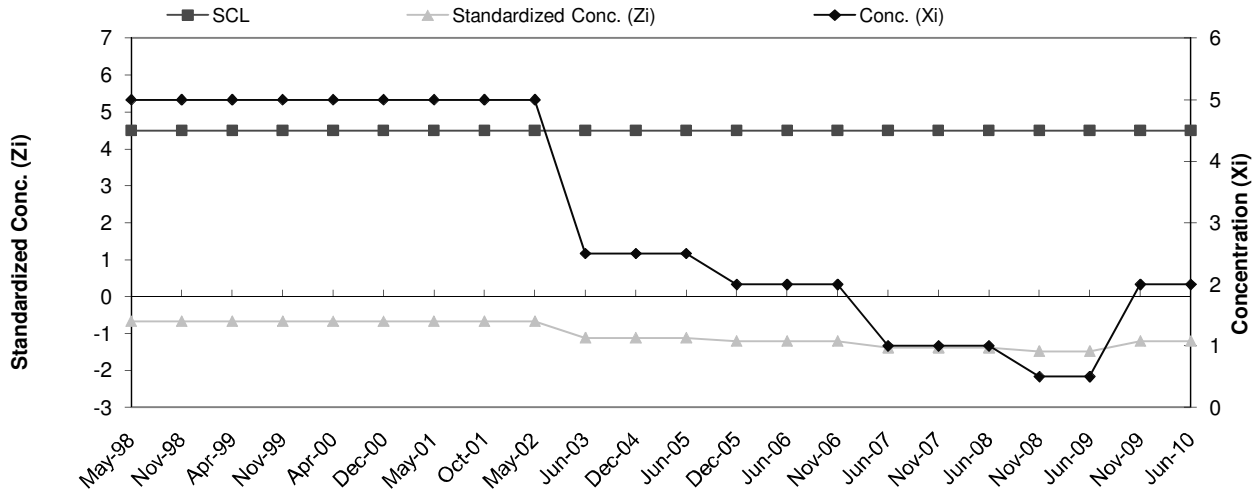
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.68
10	Nov-98	4.5	5	-0.68
11	Apr-99	4.5	5	-0.68
12	Nov-99	4.5	5	-0.68
13	Apr-00	4.5	5	-0.68
14	Dec-00	4.5	5	-0.68
15	May-01	4.5	5	-0.68
16	Oct-01	4.5	5	-0.68
17	May-02	4.5	5	-0.68
18	Jun-03	4.5	2.5	-1.12
19	Dec-04	4.5	2.5	-1.12
20	Jun-05	4.5	2.5	-1.12
21	Dec-05	4.5	7.0	-0.32
22	Jun-06	4.5	5.0	-0.68
23	Nov-06	4.5	2.5	-1.12
24	Jun-07	4.5	7	-0.32
25	Nov-07	4.5	2	-1.21
26	Jun-08	4.5	2.5	-1.12
27	Nov-08	4.5	2.5	-1.12
28	Jun-09	4.5	2.5	-1.12
29	Nov-09	4.5	2.5	-1.12
30	Jun-10	4.5	2.5	-1.12



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**8.75**	**5.59**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

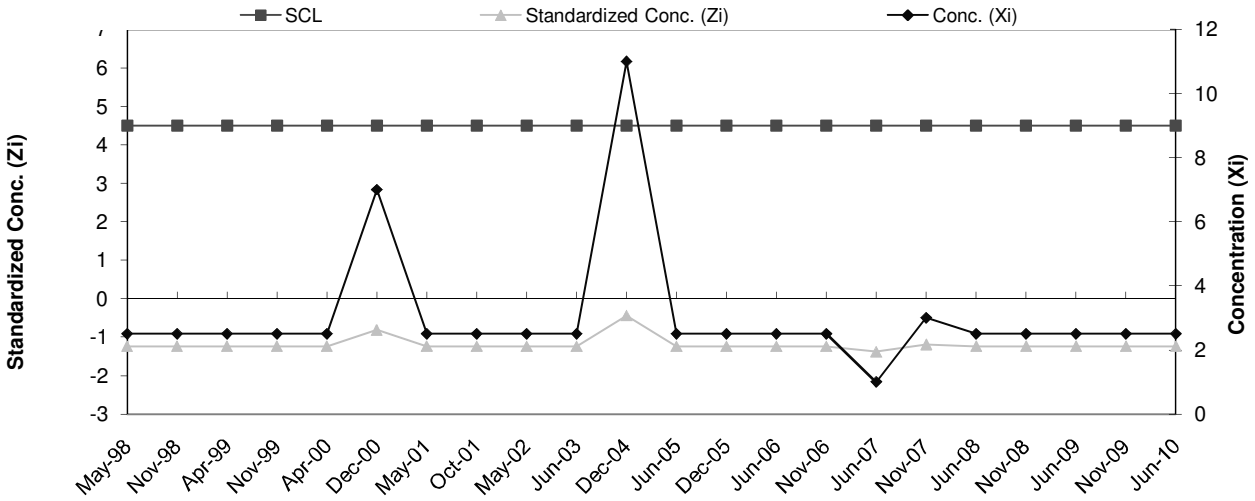
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67
10	Nov-98	4.5	5	-0.67
11	Apr-99	4.5	5	-0.67
12	Nov-99	4.5	5	-0.67
13	Apr-00	4.5	5	-0.67
14	Dec-00	4.5	5	-0.67
15	May-01	4.5	5	-0.67
16	Oct-01	4.5	5	-0.67
17	May-02	4.5	5	-0.67
18	Jun-03	4.5	2.5	-1.12
19	Dec-04	4.5	2.5	-1.12
20	Jun-05	4.5	2.5	-1.12
21	Dec-05	4.5	2.0	-1.21
22	Jun-06	4.5	2.0	-1.21
23	Nov-06	4.5	2.0	-1.21
24	Jun-07	4.5	1	-1.39
25	Nov-07	4.5	1	-1.39
26	Jun-08	4.5	1	-1.39
27	Nov-08	4.5	0.5	-1.48
28	Jun-09	4.5	0.5	-1.48
29	Nov-09	4.5	2	-1.21
30	Jun-10	4.5	2	-1.21



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15		
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10	**15.61**	**10.57**
5	Aug-96	10		
6	Nov-96	10		
7	May-97	9		
8	Nov-97	31		

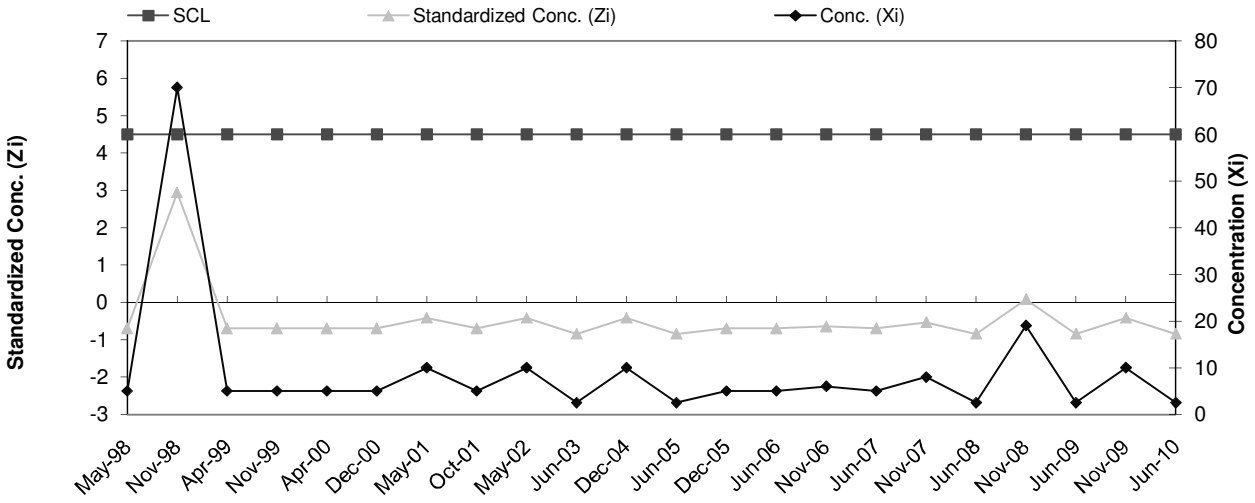
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.24
10	Nov-98	4.5	2.5	-1.24
11	Apr-99	4.5	2.5	-1.24
12	Nov-99	4.5	2.5	-1.24
13	Apr-00	4.5	2.5	-1.24
14	Dec-00	4.5	7.0	-0.81
15	May-01	4.5	2.5	-1.24
16	Oct-01	4.5	2.5	-1.24
17	May-02	4.5	2.5	-1.24
18	Jun-03	4.5	2.5	-1.24
19	Dec-04	4.5	11.0	-0.44
20	Jun-05	4.5	2.5	-1.24
21	Dec-05	4.5	2.5	-1.24
22	Jun-06	4.5	2.5	-1.24
23	Nov-06	4.5	2.5	-1.24
24	Jun-07	4.5	1	-1.38
25	Nov-07	4.5	3	-1.19
26	Jun-08	4.5	2.5	-1.24
27	Nov-08	4.5	2.5	-1.24
28	Jun-09	4.5	2.5	-1.24
29	Nov-09	4.5	2.5	-1.24
30	Jun-10	4.5	2.5	-1.24



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10		
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10	**17.49**	**17.84**
5	Aug-96	50		
6	Nov-96	40		
7	May-97	5		
8	Nov-97	5		

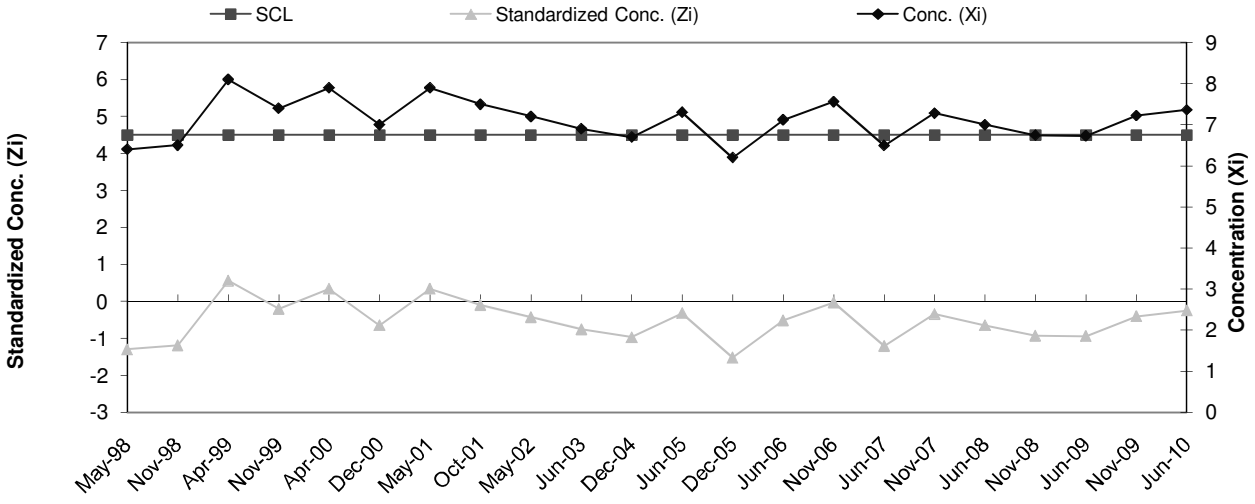
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5.0	-0.70
10	Nov-98	4.5	70.0	2.94
11	Apr-99	4.5	5.0	-0.70
12	Nov-99	4.5	5.0	-0.70
13	Apr-00	4.5	5.0	-0.70
14	Dec-00	4.5	5.0	-0.70
15	May-01	4.5	10.0	-0.42
16	Oct-01	4.5	5.0	-0.70
17	May-02	4.5	10.0	-0.42
18	Jun-03	4.5	2.5	-0.84
19	Dec-04	4.5	10.0	-0.42
20	Jun-05	4.5	2.5	-0.84
21	Dec-05	4.5	5.0	-0.70
22	Jun-06	4.5	5.0	-0.70
23	Nov-06	4.5	6.0	-0.64
24	Jun-07	4.5	5	-0.70
25	Nov-07	4.5	8	-0.53
26	Jun-08	4.5	2.5	-0.84
27	Nov-08	4.5	19	0.08
28	Jun-09	4.5	2.5	-0.84
29	Nov-09	4.5	10	-0.42
30	Jun-10	4.5	2.5	-0.84



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.3	**7.59**	**0.91**
2	Aug-95	8.2		
3	Feb-96	7.5		
4	Jun-96	8.3		
5	Aug-96	8.9		
6	Nov-96	7.7		
7	May-97	6.8		
8	Nov-97	6.0		

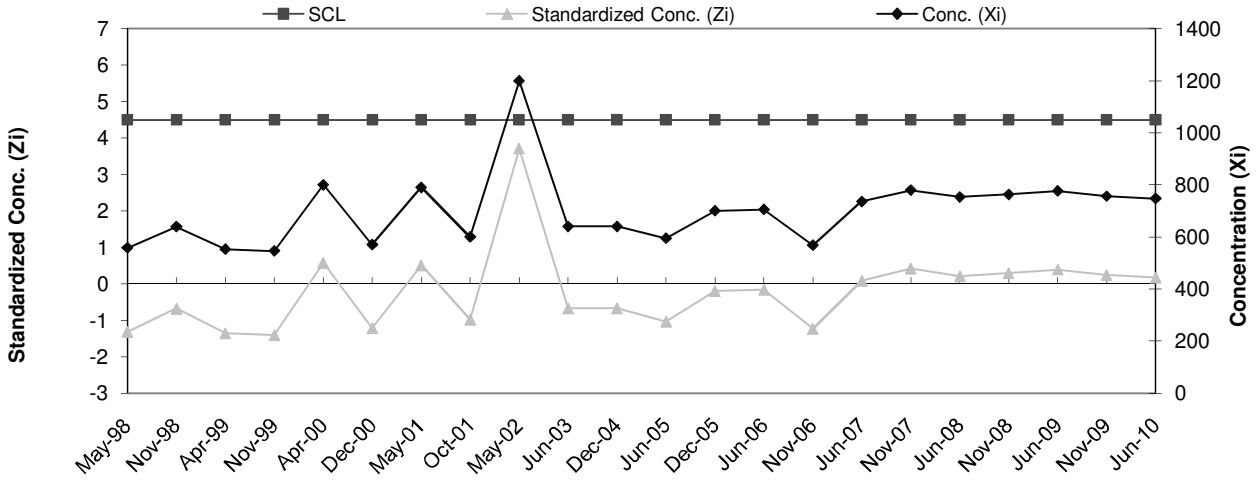
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.4	-1.30
10	Nov-98	4.5	6.5	-1.19
11	Apr-99	4.5	8.1	0.56
12	Nov-99	4.5	7.4	-0.21
13	Apr-00	4.5	7.9	0.34
14	Dec-00	4.5	7.0	-0.64
15	May-01	4.5	7.9	0.34
16	Oct-01	4.5	7.5	-0.10
17	May-02	4.5	7.2	-0.42
18	Jun-03	4.5	6.9	-0.75
19	Dec-04	4.5	6.7	-0.97
20	Jun-05	4.5	7.3	-0.31
21	Dec-05	4.5	6.2	-1.52
22	Jun-06	4.5	7.1	-0.51
23	Nov-06	4.5	7.6	-0.03
24	Jun-07	4.5	6.5	-1.20
25	Nov-07	4.5	7.3	-0.34
26	Jun-08	4.5	7.0	-0.64
27	Nov-08	4.5	6.7	-0.93
28	Jun-09	4.5	6.7	-0.94
29	Nov-09	4.5	7.2	-0.40
30	Jun-10	4.5	7.36	-0.25



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	680		
2	Aug-95	845		
3	Feb-96	751		
4	Jun-96	632	**725.75**	**127.98**
5	Aug-96	691		
6	Nov-96	977		
7	May-97	610		
8	Nov-97	620		

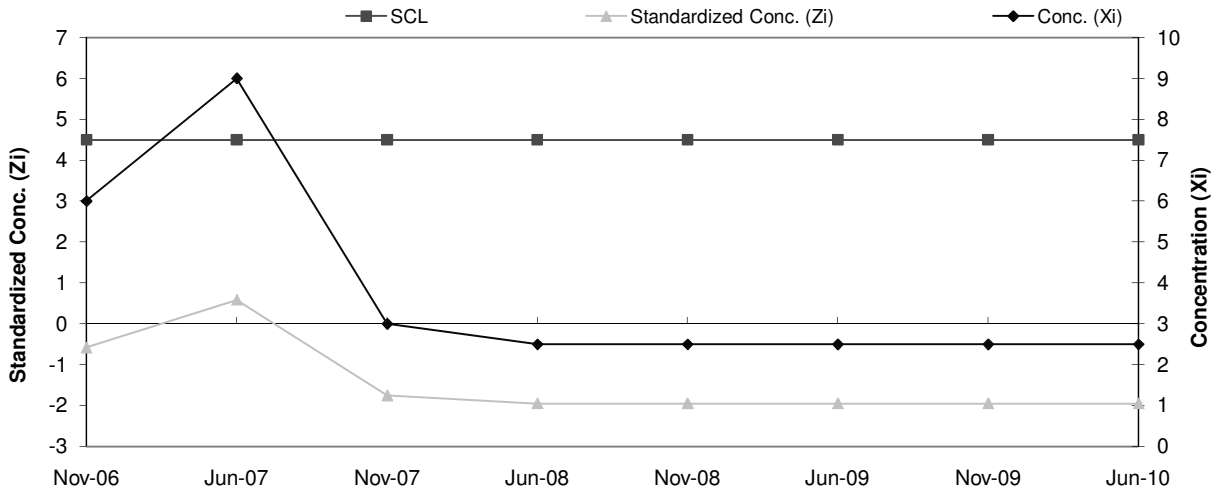
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	558	-1.31
10	Nov-98	4.5	639	-0.68
11	Apr-99	4.5	552	-1.36
12	Nov-99	4.5	546	-1.40
13	Apr-00	4.5	800	0.58
14	Dec-00	4.5	570	-1.22
15	May-01	4.5	790	0.50
16	Oct-01	4.5	600	-0.98
17	May-02	4.5	1200	3.71
18	Jun-03	4.5	640	-0.67
19	Dec-04	4.5	640	-0.67
20	Jun-05	4.5	594	-1.03
21	Dec-05	4.5	700	-0.20
22	Jun-06	4.5	705	-0.16
23	Nov-06	4.5	568	-1.23
24	Jun-07	4.5	736	0.08
25	Nov-07	4.5	780	0.42
26	Jun-08	4.5	753	0.21
27	Nov-08	4.5	763	0.29
28	Jun-09	4.5	776	0.39
29	Nov-09	4.5	756	0.24
30	Jun-10	4.5	747	0.17



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	10	**7.50**	**2.56**
2	Nov-96	10		
3	May-97	5		
4	May-98	5		
5	Nov-03	5		
6	Jun-05	8		
7	Dec-05	11		
8	Jun-06	6		

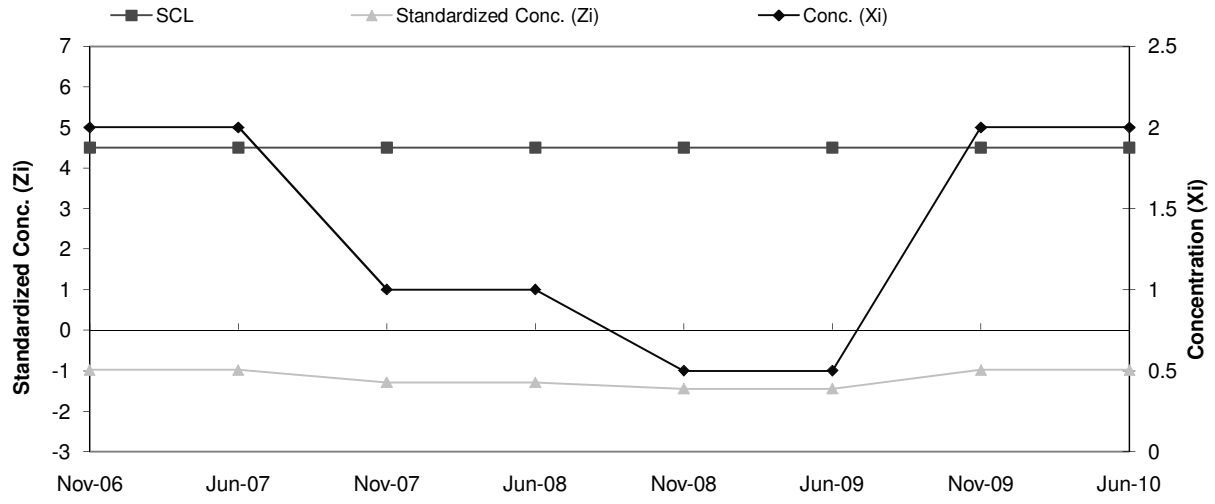
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	6	-0.59
10	Jun-07	4.5	9	0.59
11	Nov-07	4.5	3	-1.76
12	Jun-08	4.5	2.5	-1.95
13	Nov-08	4.5	2.5	-1.95
14	Jun-09	4.5	2.5	-1.95
15	Nov-09	4.5	2.5	-1.95
16	Jun-10	4.5	2.5	-1.95



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	10	**5.19**	**3.25**
2	Nov-96	10		
3	May-97	5		
4	May-98	5		
5	Nov-03	5		
6	Jun-05	2.5		
7	Dec-05	2		
8	Jun-06	2		

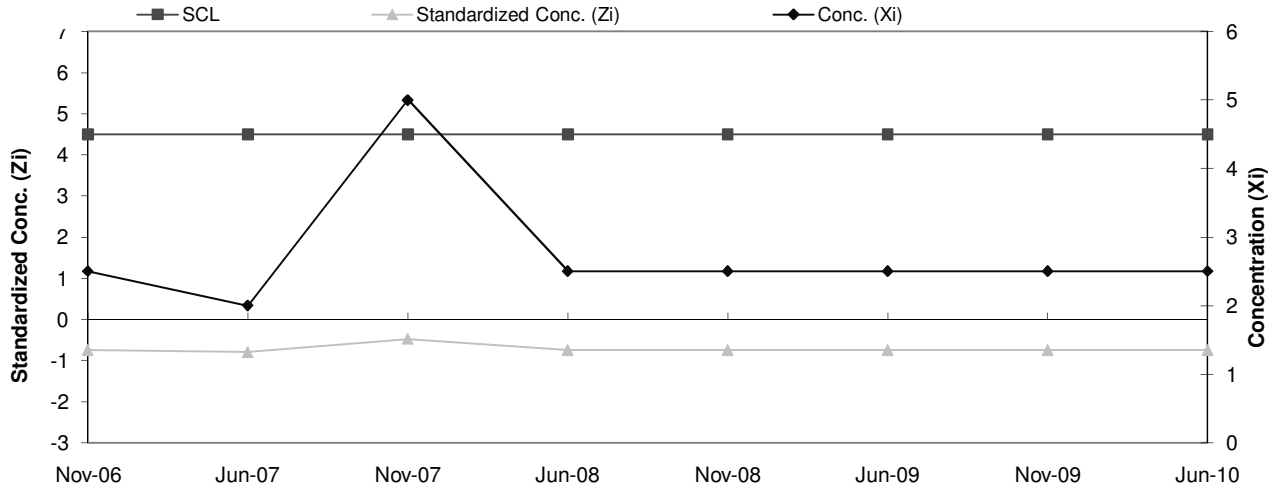
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	2	-0.98
10	Jun-07	4.5	2	-0.98
11	Nov-07	4.5	1	-1.29
12	Jun-08	4.5	1	-1.29
13	Nov-08	4.5	0.5	-1.44
14	Jun-09	4.5	0.5	-1.44
15	Nov-09	4.5	2	-0.98
16	Jun-10	4.5	2	-0.98



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	10	**9.44**	**9.35**
2	Nov-96	10		
3	May-97	31		
4	May-98	8		
5	Nov-03	9		
6	Jun-05	2.5		
7	Dec-05	2.5		
8	Jun-06	2.5		

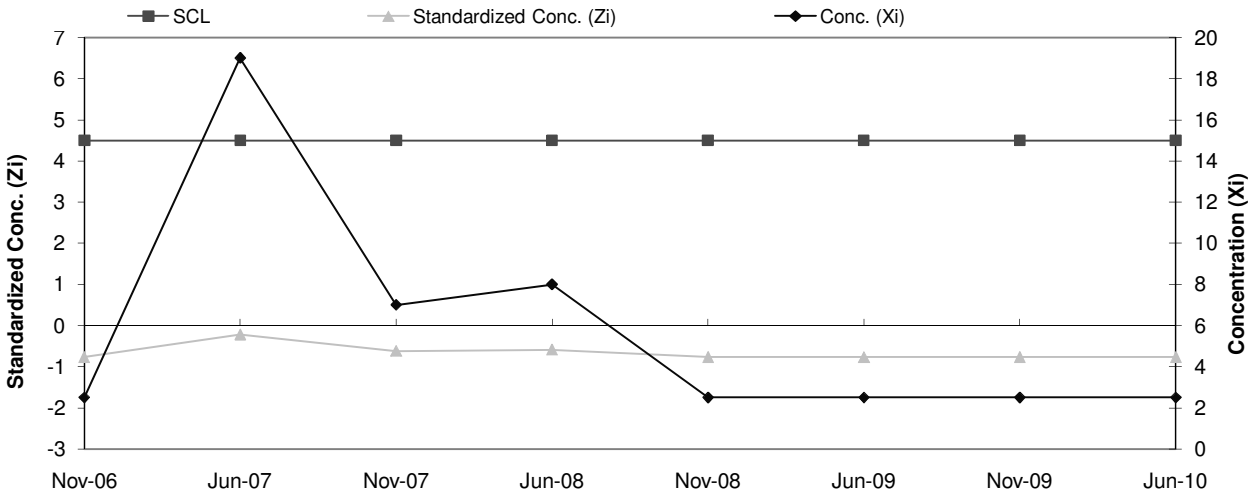
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	2.5	-0.74
10	Jun-07	4.5	2	-0.80
11	Nov-07	4.5	5	-0.47
12	Jun-08	4.5	2.5	-0.74
13	Nov-08	4.5	2.5	-0.74
14	Jun-09	4.5	2.5	-0.74
15	Nov-09	4.5	2.5	-0.74
16	Jun-10	4.5	2.5	-0.74



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	90	**25.63**	**30.14**
2	Nov-96	50		
3	May-97	10		
4	May-98	20		
5	Nov-03	20		
6	Jun-05	2.5		
7	Dec-05	10		
8	Jun-06	2.5		

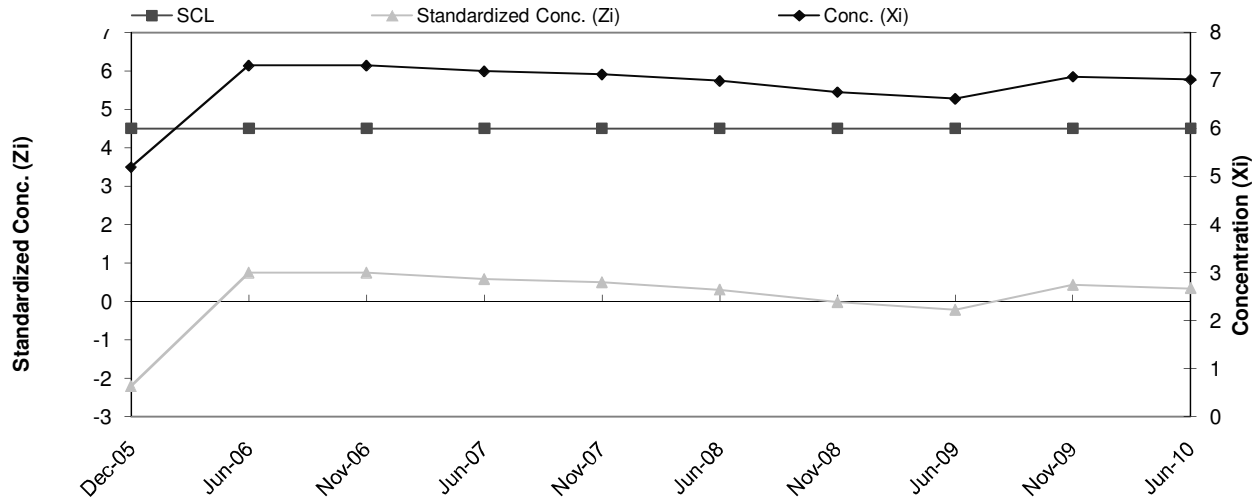
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	2.5	-0.77
10	Jun-07	4.5	19	-0.22
11	Nov-07	4.5	7	-0.62
12	Jun-08	4.5	8	-0.58
13	Nov-08	4.5	2.5	-0.77
14	Jun-09	4.5	2.5	-0.77
15	Nov-09	4.5	2.5	-0.77
16	Jun-10	4.5	2.5	-0.77



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	7.8	**6.78**	**0.72**
2	Nov-96	7.1		
3	May-97	6.4		
4	May-98	7		
5	Nov-98	6		
6	Nov-99	7		
7	May-01	6.4		
8	Jun-05	7.3		

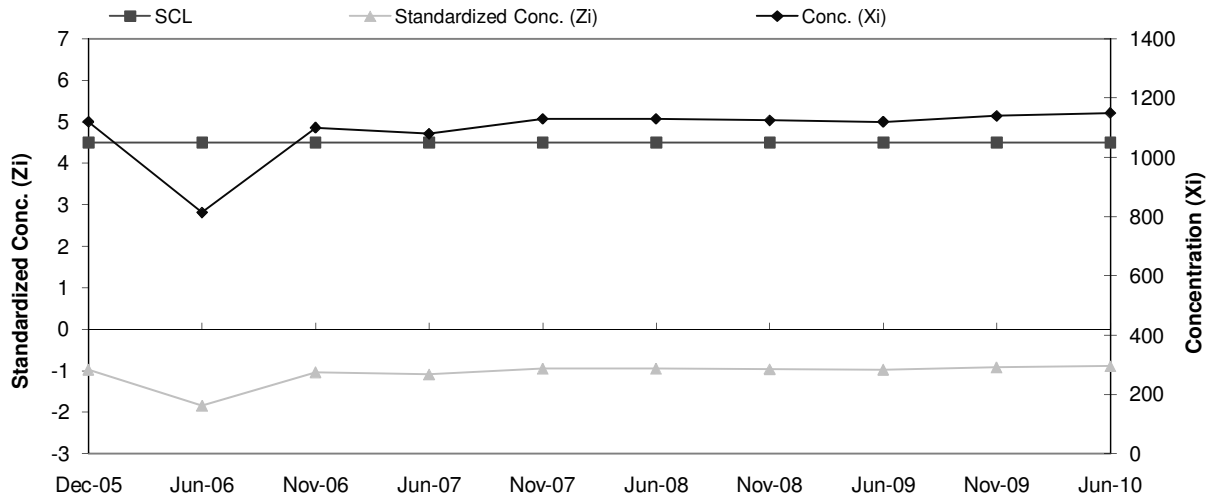
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	5.2	-2.20
10	Jun-06	4.5	7.3	0.75
11	Nov-06	4.5	7.3	0.75
12	Jun-07	4.5	7.2	0.58
13	Nov-07	4.5	7.1	0.50
14	Jun-08	4.5	7.0	0.30
15	Nov-08	4.5	6.8	-0.02
14	Jun-09	4.5	6.6	-0.22
15	Nov-09	4.5	7.1	0.43
16	Jun-10	4.5	7.0	0.34



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	1502	**1,462.00**	**351.23**
2	Nov-96	2030		
3	May-97	1700		
4	May-98	1410		
5	Nov-98	1595		
6	Nov-99	1152		
7	May-01	1450		
8	Jun-05	857		

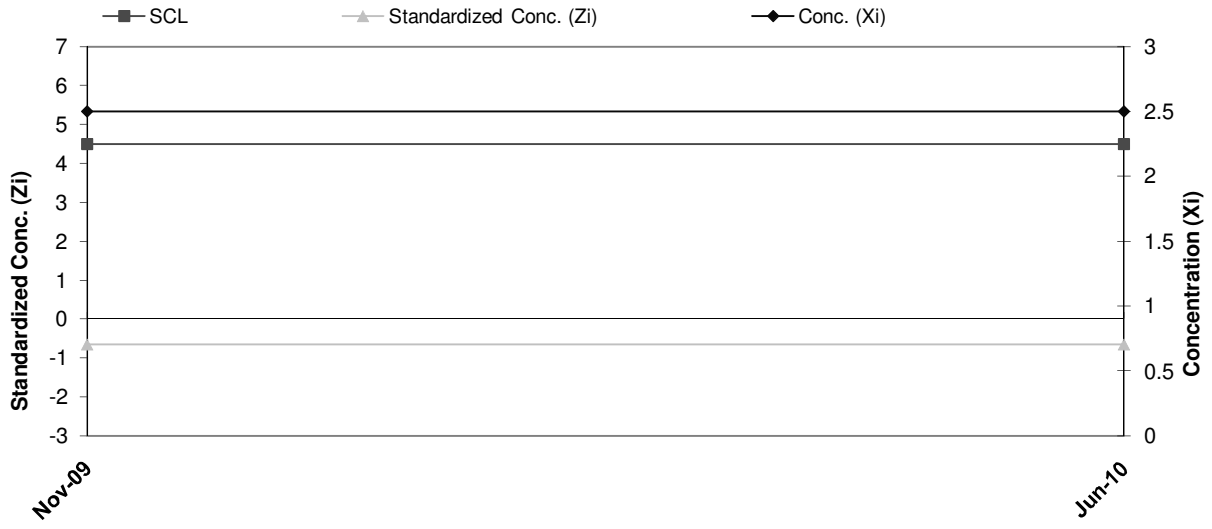
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	1120	-0.97
10	Jun-06	4.5	814	-1.84
11	Nov-06	4.5	1100	-1.03
12	Jun-07	4.5	1080	-1.09
13	Nov-07	4.5	1130	-0.95
14	Jun-08	4.5	1130	-0.95
15	Nov-08	4.5	1125	-0.96
16	Jun-09	4.5	1120	-0.97
17	Nov-09	4.5	1140	-0.92
18	Jun-10	4.5	1150	-0.89



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	9	**4.50**	**3.05**
2	Jun-06	6		
3	Nov-06	2.5		
4	Jun-07	9		
5	Nov-07	2		
6	Jun-08	2.5		
7	Nov-08	2.5		
8	Jun-09	2.5		

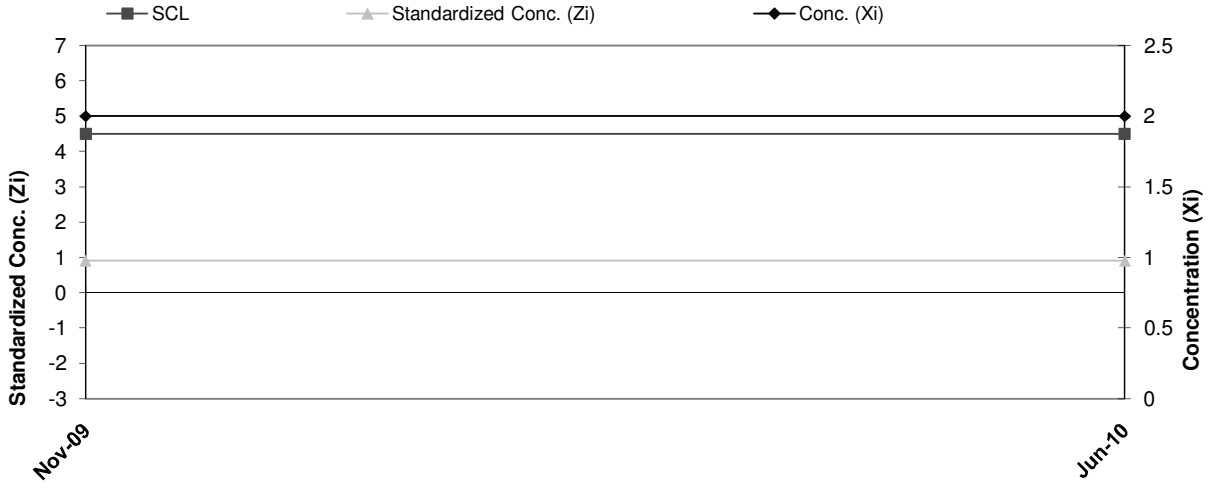
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2.5	-0.66
10	Jun-10	4.5	2.5	-0.66



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	2	**1.38**	**0.69**
2	Jun-06	2		
3	Nov-06	2		
4	Jun-07	2		
5	Nov-07	1		
6	Jun-08	0.5		
7	Nov-08	0.5		
8	Jun-09	1		

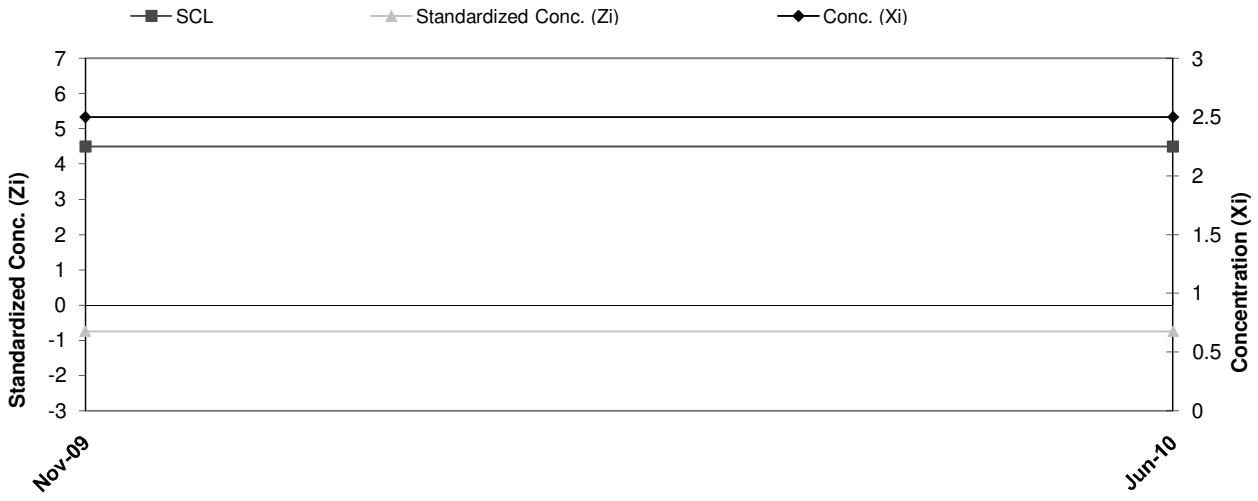
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2	0.90
10	Jun-10	4.5	2	0.90



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	6	**3.88**	**1.85**
2	Jun-06	7		
3	Nov-06	2.5		
4	Jun-07	3		
5	Nov-07	5		
6	Jun-08	2.5		
7	Nov-08	2.5		
8	Jun-09	2.5		

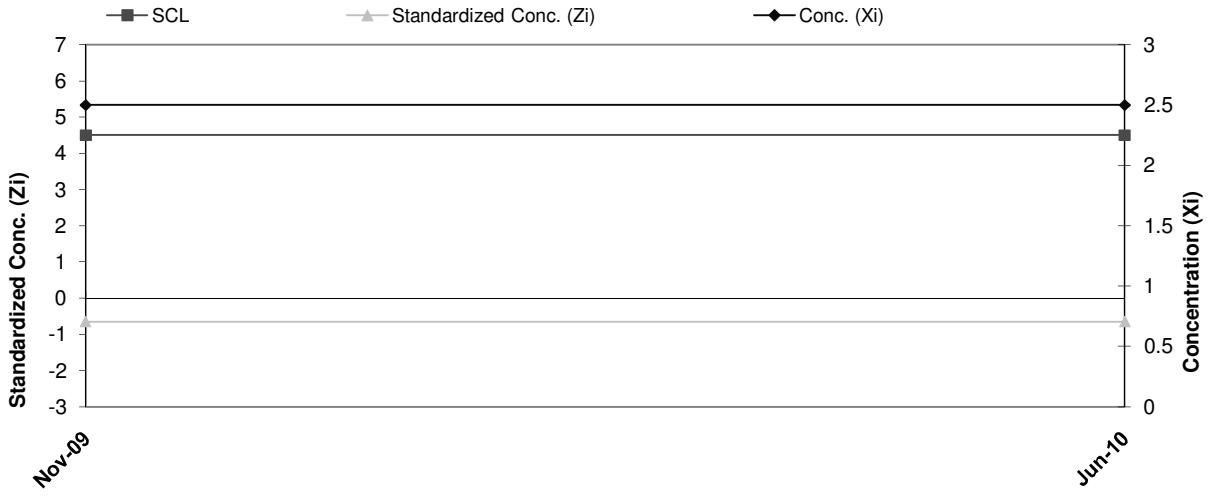
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2.5	-0.74
10	Jun-10	4.5	2.5	-0.74



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	5	**11.56**	**13.97**
2	Jun-06	6		
3	Nov-06	6		
4	Jun-07	36		
5	Nov-07	32		
6	Jun-08	2.5		
7	Nov-08	2.5		
8	Jun-09	2.5		

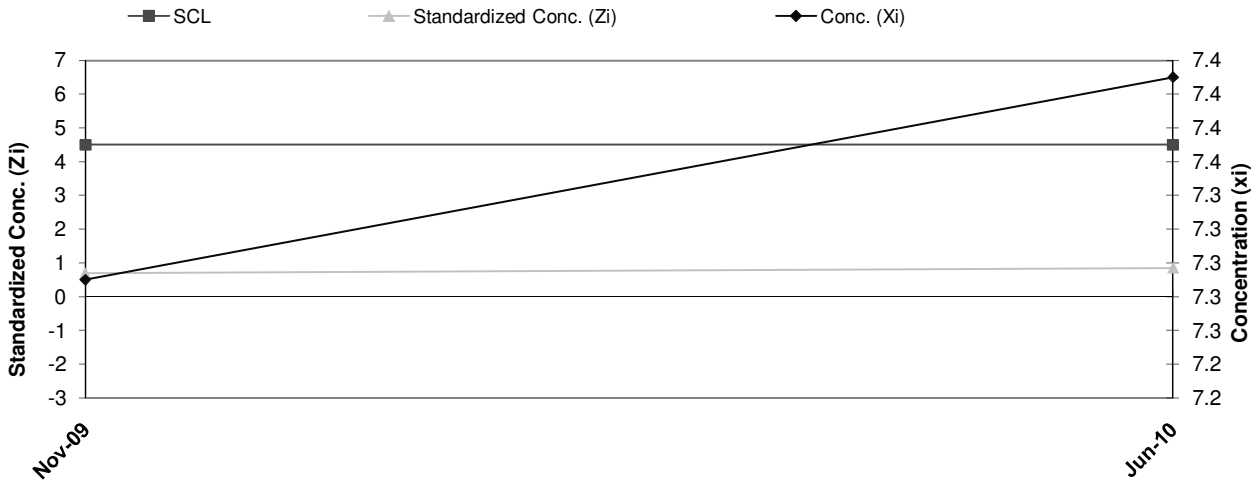
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2.5	-0.65
10	Jun-10	4.5	2.5	-0.65



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	5.1	**6.79**	**0.73**
2	Jun-06	7.1		
3	Nov-06	7.5		
4	Jun-07	6.6		
5	Nov-07	7.3		
6	Jun-08	7.1		
7	Nov-08	6.8		
8	Jun-09	6.8		

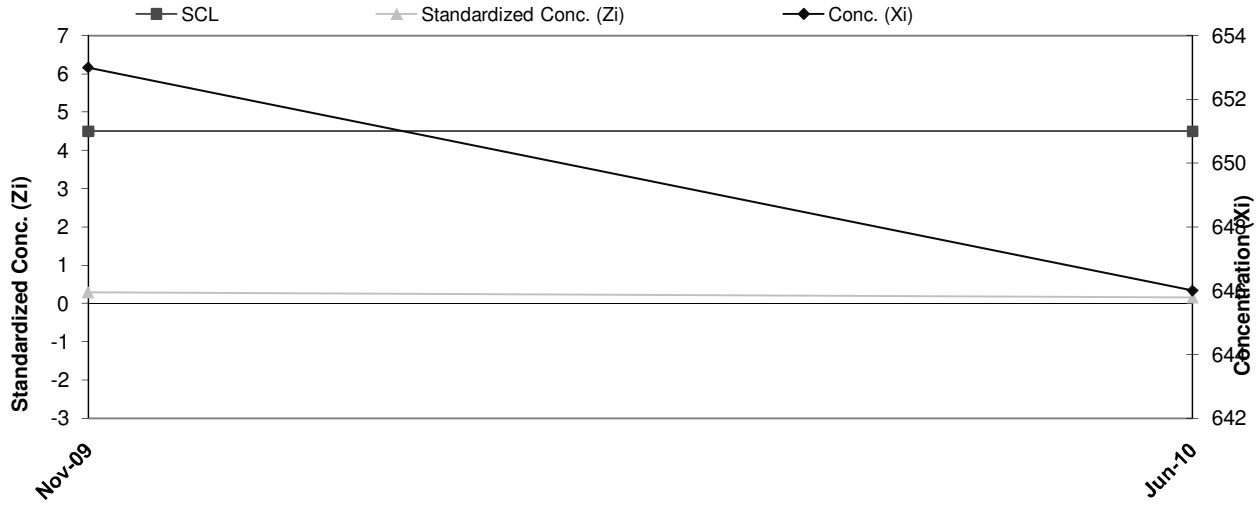
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	7.3	0.69
10	Jun-10	4.5	7.4	0.85



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	714		
2	Jun-06	594		
3	Nov-06	540		
4	Jun-07	628	**637.75**	**52.08**
5	Nov-07	649		
6	Jun-08	659		
7	Nov-08	667		
8	Jun-09	651		

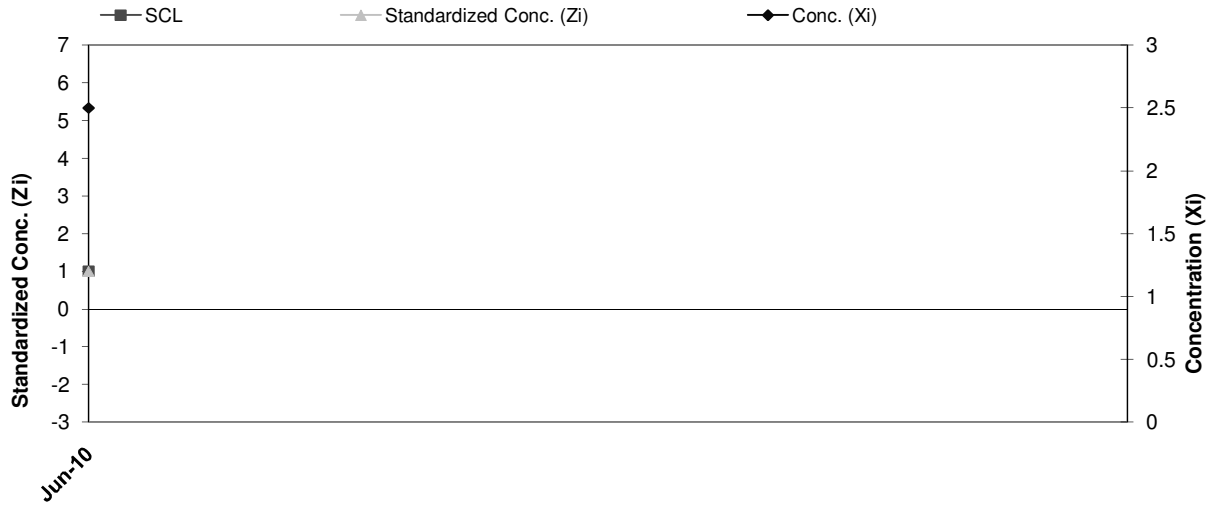
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	653	0.29
10	Jun-10	4.5	646	0.16



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	5	**3.69**	**2.31**
2	Dec-06	2.5		
3	Jun-07	9		
4	Nov-07	3		
5	Jun-08	2.5		
6	Nov-08	2.5		
7	Jun-09	2.5		
8	Nov-09	2.5		

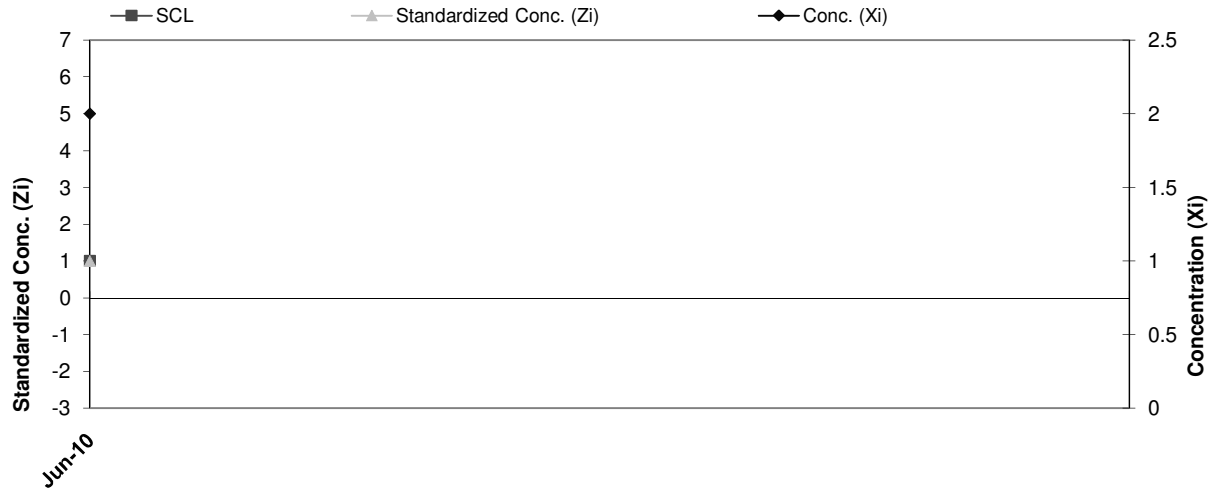
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	2.5	-0.51



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	2	**1.50**	**0.71**
2	Dec-06	2		
3	Jun-07	2		
4	Nov-07	2		
5	Jun-08	1		
6	Nov-08	0.5		
7	Jun-09	0.5		
8	Nov-09	2		

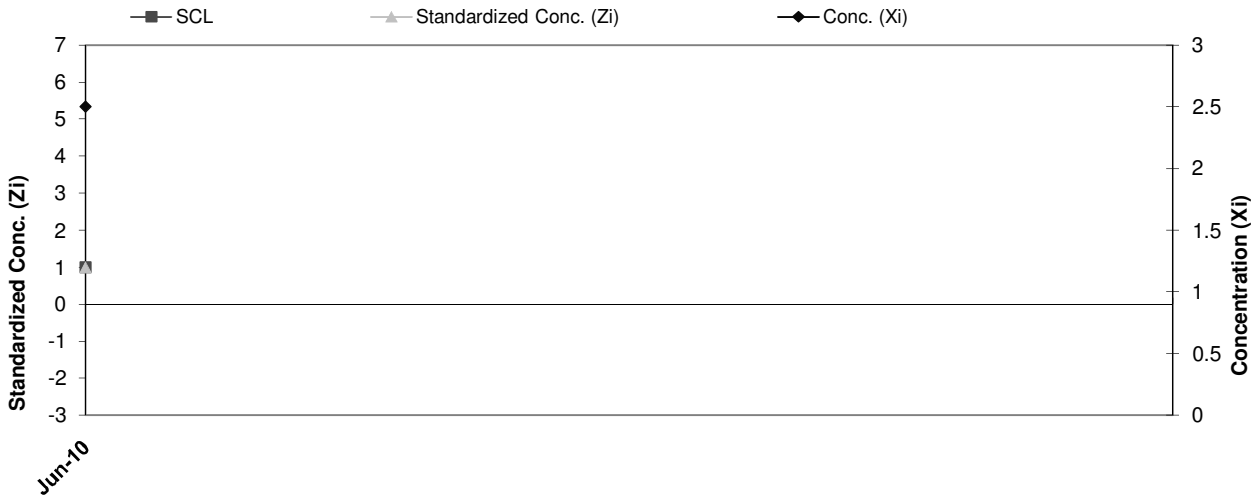
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	2	0.71



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	2.5	**2.88**	**0.88**
2	Dec-06	2.5		
3	Jun-07	3		
4	Nov-07	5		
5	Jun-08	2.5		
6	Nov-08	2.5		
7	Jun-09	2.5		
8	Nov-09	2.5		

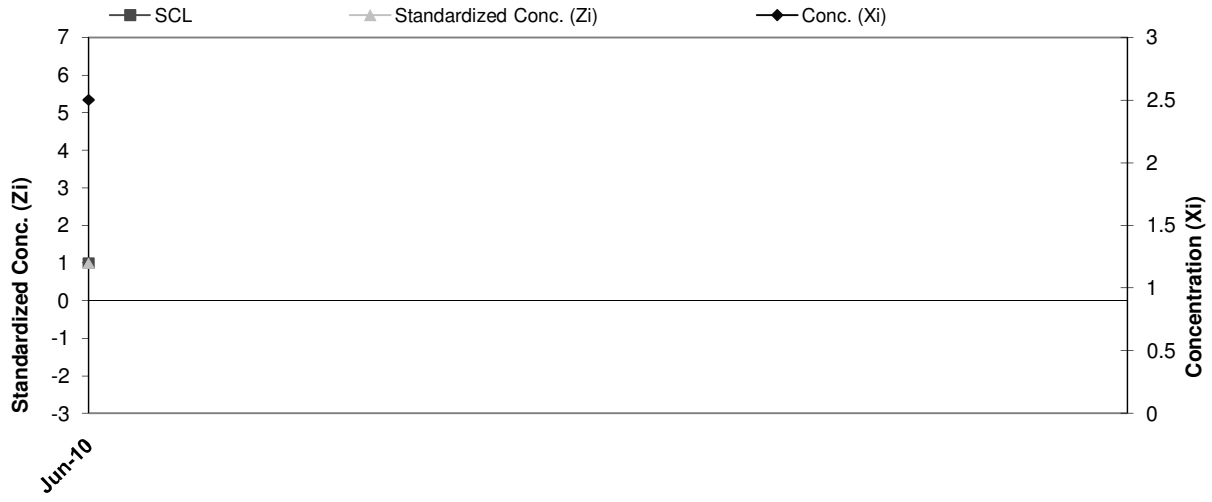
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	2.5	-0.43



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	18	**8.75**	**6.88**
2	Dec-06	5		
3	Jun-07	6		
4	Nov-07	11		
5	Jun-08	5		
6	Nov-08	2.5		
7	Jun-09	2.5		
8	Nov-09	20		

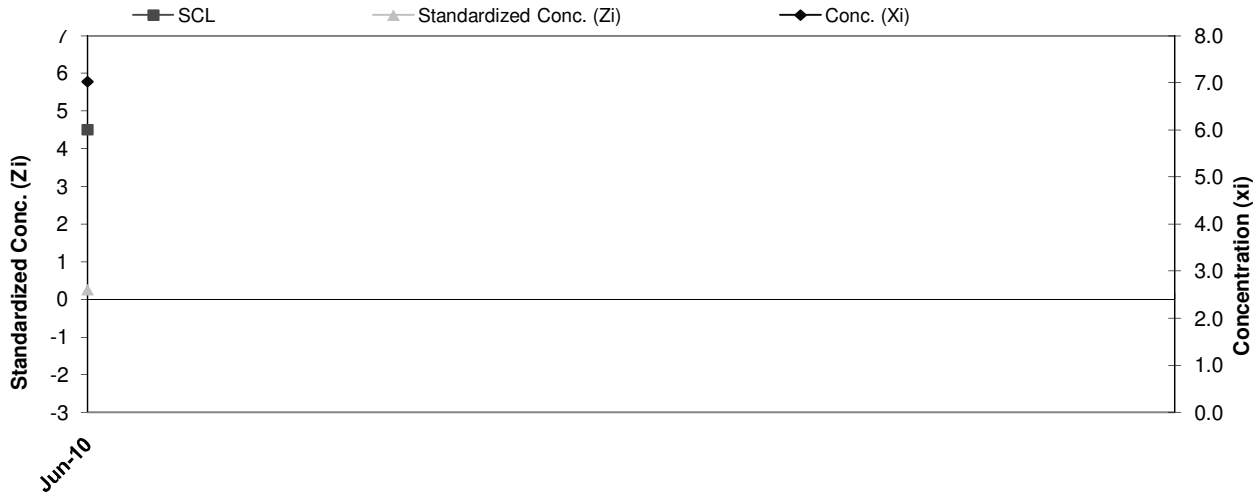
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	2.5	-0.91



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	7.1	**6.97**	**0.21**
2	Dec-06	7.4		
3	Jun-07	6.8		
4	Nov-07	6.8		
5	Jun-08	6.9		
6	Nov-08	6.8		
7	Jun-09	7.0		
8	Nov-09	6.9		

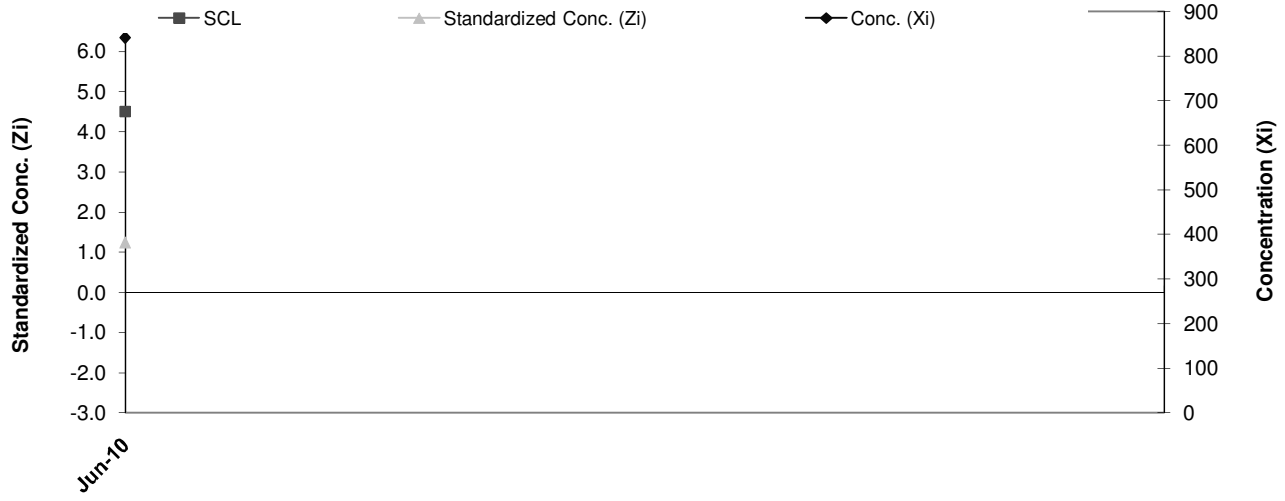
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	7.0	0.26



REALM - COLDWATER ROAD FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	785		
2	Dec-06	812		
3	Jun-07	845		
4	Nov-07	816	**817.25**	**19.14**
5	Jun-08	840		
6	Nov-08	804		
7	Jun-09	822		
8	Nov-09	814		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	841	1.24



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