April 3, 2009

Mr. Qu Qi
North Carolina Department of Environment and Natural Resources
Division of Water Quality
1636 Mail Service Center
Raleigh, NC 27604

Subject: Summary of 2009 Groundwater Sampling Results
Former Girmes Site, Asheville, North Carolina
Underground Injection Control (UIC) Permit # WI0100043

Dear Mr. Qi:

The *in situ* chemical oxidation pilot study was completed during 2007 at the Former Girmes Site in Asheville, North Carolina (site) now owned by Blue Ridge Motion Pictures, and occupied at the southeast end by Highland Brewing Company. The pilot study was conducted in accordance with the approved UIC Permit #WI0100043. The pilot study activities and performance monitoring results were presented in summary report submitted to the UIC Program Manager in March 2008. Consistent with the recommendations set forth in that summary report, an annual groundwater sampling event was conducted in February 2009.

The purpose of this letter is to summarize the groundwater sampling activities conducted during February 2009.

Background

A groundwater recovery and treatment system (air stripper) has been operating at the site since March 1998. Groundwater quality data collected since the initiation of the system indicates that chlorinated volatile organic compound (VOC) concentrations in groundwater have gradually reduced over time. However, the slow rate of this decline indicated that many more years of operation of this system will be required to achieve a remedial endpoint. To achieve that endpoint more rapidly, consideration was made by SKF USA Inc. (SKF) to augment the existing groundwater recovery and treatment technology with *in situ* chemical oxidation of the residual source.

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On May 24, 2006, SKF and RMT North Carolina, Inc. (RMT) met with North Carolina Department of Environment and Natural Resources (NC DENR) representatives to discuss plans for conducting a pilot test to implement alternative remedy, using *in situ* chemical oxidation technology at the site. A workplan was developed for conducting a pilot study using catalyzed sodium persulfate as the *in situ* oxidation technology. The pilot study was performed in a small, focused area of the site, where a residual source of VOCs was believed to exist beneath the former maintenance area. This residual source zone area was determined based on knowledge of past site activities, observations inside the building and soil gas data screening conducted prior to finalizing the layout of the pilot study area.

A UIC permit application was submitted in October 2006 to NC DENR and approved in late April 2007. Monitoring and injection well installations, oxidant injection, and performance monitoring activities commenced in April 2007. Baseline and performance groundwater sampling was conducted in accordance with the UIC permit. Injection events were conducted in June and July 2007, and the last two performance groundwater sampling events were conducted in January 2008 and January 2009. The UIC permit is currently scheduled to expire on May 29, 2009.

Groundwater Sampling Activities and Results

Consistent with the recommendations in the March 20, 2008 pilot study summary report, groundwater sampling was conducted on February 4 through February 6, 2009. Groundwater samples were collected from the performance monitoring well network in accordance with the UIC permit. The performance monitoring wells included MW-02, MW-05, MW-05A, MW-06, MW-07, MW-08, MW-09, MW-29, MW-101, MW-102, IW-01, and IW-02. Additional site wells were also sampled during the February 2009 sampling event. These wells included monitoring wells MW-04, MW-13, MW-14, MW-18, MW-20, MW-23, MW-24, MW-26R, MW-28A and recovery wells RW-01 and RW-04. Surface water samples were also collected during the 2009 sampling event. The monitoring well, recovery well, and surface water sampling locations are shown on Plate 1, Attachment 1.

Groundwater samples collected from the performance monitoring well network were sampled for analysis of VOCs, Resource Conservation and Recovery Act (RCRA) 8 metals plus mercury, and sulfate (consistent with analytical methods stipulated in the UIC permit). The remaining site wells and surface water locations were sampled for analysis of tetrachloroethene (PCE), trichloroethene (TCE), 1,2-dichloroethene (1,2-DCE) and vinyl chloride. In addition to the groundwater samples, field parameters (dissolved oxygen [DO], oxidation reduction potential [ORP], specific conductivity, pH, and temperature) were also measured.

A summary of constituents of interest, namely chlorinated VOCs PCE, TCE, *cis*-1,2-DCE and vinyl chloride, in the groundwater samples collected during baseline (before initiation of pilot activities) and performance sampling events is summarized on Table 1 (Attachment 2). A summary of all constituents detected in the groundwater samples collected during baseline and performance sampling events is summarized in Table 2 (Attachment 2).

Summary

At this time, no additional injection activities are planned at the site. Evaluation of the groundwater data will continue. Should additional injections be planned, a modification and extension of the current UIC permit will be submitted for review and approval.

The next groundwater sampling event is not schedule until January 2010.

This site may transition into the Inactive Hazardous Waste Sites Branch during 2009. At this time, SKF has not signed an Administrative Agreement.

If you have any questions or need additional information, do not hesitate to contact me at 864.234.9462.

Sincerely,

RMT North Carolina, Inc.

Michael Parker

Michael B. Parker, P.E.
Senior Client Service Manager

Attachments

cc: C. William McGlocklin, SKF USA Inc., Norristown, PA
William Clarke, Roberts & Stevens, Asheville, NC
Leanne Campbell, Blue Ridge Motion Pictures, Asheville, NC
Central Files

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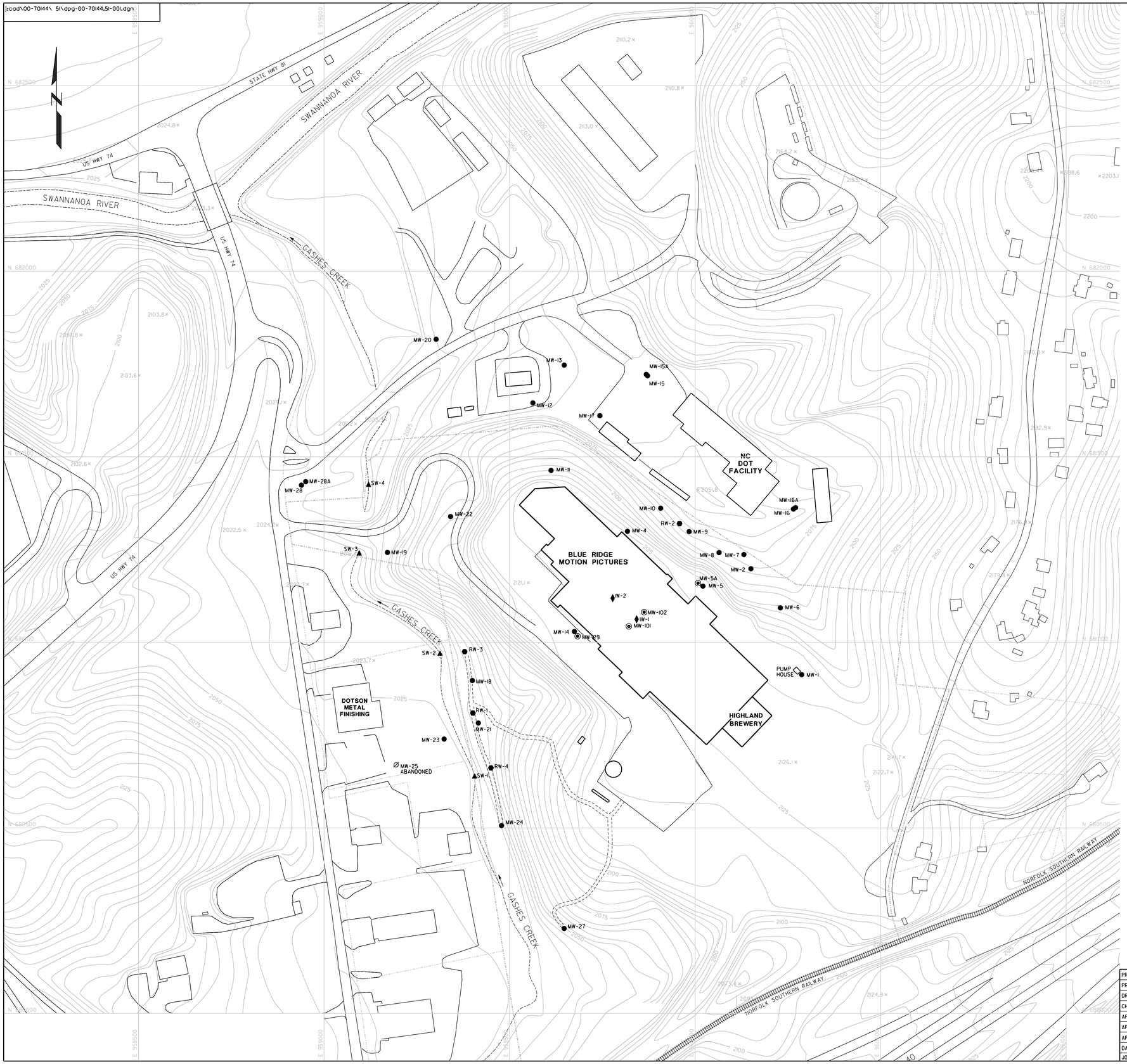
Attachment 1
Plate 1



LEGEND

IW-1	APPROXIMATE LOCATION OF INJECTION WELL (NOT SURVEYED)
MW-101	APPROXIMATE LOCATION OF NEW MONITORING WELL (NOT SURVEYED)
SW-1	SURFACE WATER SAMPLING LOCATION.
MW-6	MONITORING WELL
MW-25	ABANDONED MONITORING WELL
RW-1	RECOVERY WELL
	PROPERTY LINE - OTHER
900	TOPOGRAPHIC CONTOUR

NOTES: 1. REMEDIATION SYSTEM STARTUP MARCH 4, 1998.

2. LOCATIONS OF MW-5A AND MW-24 ARE APPROXIMATE.

NOTE:
DIGITIZED BASE MAP PROVIDED BY THE CITY OF ASHEVILLE, NORTH CAROLINA NOVEMBER, 1993. THE LOCATIONS OF THE STORM SEWER LINES WERE INCLUDED AS PART OF THE BASE MAP.

0 100 200
SCALE: 1"=100'

PROJECT MGR:	M.B. PARKER
PREPARED BY:	B.C. BARNES
DRAWN BY:	AJH STEADMAN
CHECKED BY:	
APPROVED BY:	
APPROVED BY:	
APPROVED BY:	
DATE:	MARCH 2009
JOB NO:	70144.51

RMT

Patewood Plaza One, Suite 100
30 Patewood Drive
Greenville, South Carolina
864-281-0030

DATA POINT LOCATION MAP

GIRMES SITE, FORMERLY SKF USA
ASHEVILLE, NORTH CAROLINA

SCALE		PLATE NO.
AS NOTED		1

Attachment 2
Tables

Table 1
Summary of Constituents Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

		LOCATION/SAMPLE DATE																						
		BASELINE	PERFORMANCE				BASELINE	PERFORMANCE		BASELINE	PERFORMANCE				BASELINE	PERFORMANCE				BASELINE	PERFORMANCE			
PARAMETER[1]	NC2L[2]	MW-02 05/16/07	MW-02 07/05/07	MW-02 08/30/07	MW-02 01/23/08	MW-02 02/06/09	MW-04 05/17/07	MW-04 01/22/08	MW-04 02/05/09	MW-05 05/17/07	MW-05 07/03/07	MW-05 08/29/07	MW-05 01/22/08	MW-05 02/05/09	MW-05A 05/17/07	MW-05A 07/03/07	MW-05A 08/29/07	MW-05A 01/22/08	MW-05A 02/05/09	MW-06 05/18/07	MW-06 07/05/07	MW-06 08/29/07	MW-06 01/23/08	MW-06 02/06/09
Volatile Organics																								
Acetone	0.7	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	NA	NA	<0.025	<1.2	<0.5	<0.5	**0.0287 J**	<0.025	<1.2	<1.25	<1.25	<1.25	<0.025	<0.025	<0.025	<0.025	<0.025
Benzene	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	0.00056	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	0.00443	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane	--	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	NA	NA	<0.001	<0.05	<0.1	<0.1	<0.05	<0.001	<0.05	<0.25	<0.25	<0.25	<0.001	<0.001	<0.005	<0.005	<0.005
2-Butanone	4.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.25	<0.1	<0.1	<0.05	<0.005	<0.25	<0.25	<0.25	<0.25	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	2.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0076**	NA	NA	**0.0017**	<0.05	<0.02	<0.02	**0.0016 J**	**0.0017**	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Chloromethane	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	**0.001**	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<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	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	**0.0011**	**0.0029**	**0.0024**	**0.11**	**0.0791**	**0.195**	**0.25**	**0.39**	**0.234**	**0.212**	**0.129**	**0.15**	**0.18**	**0.203**	**0.155**	**0.15**	<0.001	<0.001	<0.001	<0.001	<0.001
trans -1,2-Dichloroethene	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0078**	**0.0038**	**0.0232**	**0.0097**	<0.05	<0.02	<0.02	<0.01	**0.0038**	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethene, total	0.07[3]	NA	NA	NA	NA	NA	NA	NA	**0.218**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	0.00056	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
2-Hexanone	--	NA	NA	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<0.1	<0.1	<0.05	NA	NA	<0.25	<0.25	<0.25	NA	NA	<0.005	<0.005	<0.005
Methylcyclohexane	--	NA	NA	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA	<0.2	<0.2	<0.1	NA	NA	<0.5	<0.5	<0.5	NA	NA	<0.01	<0.01	<0.01
Methyl tert-butyl ether	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Methylene chloride	0.0046	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	NA	NA	<0.002	<0.1	<0.04	<0.04	**0.0219**	<0.002	<0.1	<0.1	<0.1	**0.0556 J**	<0.002	<0.002	<0.002	<0.002	<0.002
1,1,2,2-Tetrachloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.0028	**0.011**	**0.011 j**	**0.0152**	**0.0528**	**0.0391**	**0.22**	**0.25**	**0.161**	**3.5**	**4.4 j**	**2.63**	**2.26**	**0.985**	**7.6**	**8.1 j**	**9.6**	**7.37**	**4.86**	<0.001	<0.001 uj	<0.001	<0.001	<0.001
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0015**	**0.0013 J**	**0.0032**	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Metals																								
Arsenic, dissolved	--	NA	NA	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<0.005	<0.005	**0.0062**	NA	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005
Arsenic, total	0.05	<0.005	<0.005	<0.005	<0.005	**0.003 J**	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	**0.0037 J**	<0.005	<0.005	<0.005	<0.005	**0.004 J**	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium, dissolved	--	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001
Cadmium, total	0.00175	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium, dissolved	--	NA	NA	<0.005	**0.0015 J**	<0.005	NA	NA	NA	NA	NA	**0.0071**	**0.0041 J**	**0.0018 J**	NA	NA	<0.005	**0.0027 J**	**0.00049 J**	NA	NA	**0.0108**	**0.012**	**0.0097**
Chromium, total	0.05	<0.005	<0.005	<0.005	**0.0022 J**	<0.005	<0.005	NA	NA	<0.005	**0.0066**	**0.0058**	**0.0119**	**0.0148**	<0.005	**0.0055**	<0.005	**0.0067**	**0.00093 J**	<0.005	**0.0065**	**0.0083**	**0.0098**	**0.0121**
Copper, dissolved	--	NA	NA	<0.005	<0.0024 Ju	**0.0011 J**	NA	NA	NA	NA	NA	<0.005	<0.005	**0.0013 J**	NA	NA	<0.005	<0.00036 J	**0.00062 J**	NA	NA	<0.005	**0.00069 J**	<0.005
Copper, total	1	**0.043 j**	<0.002 uj	<0.005	<0.0017 Ju	**0.0061**	**0.044 j**	NA	NA	**0.042 j**	<0.002 uj	<0.005	<0.002 Ju	**0.0013 J**	**0.045 j**	**0.0024 j**	<0.005	<0.001 Ju	**0.00074 J**	**0.056 j**	**0.0085 j**	<0.005	**0.0057**	**0.0012 J**
Iron, dissolved	--	<0.05	<0.05 uj	**0.459**	<0.05	<0.05	<0.05	NA	NA	**0.19**	<0.05	**0.691**	**0.019 J**	**0.31**	<0.05	<0.05	**0.291 j**	<0.05	<0.05	<0.05	<0.05 uj	**1.7**	**0.0144 J**	<0.05
Iron, total	0.3	<0.05	**0.14 j**	**0.329**	**0.0598**	**0.0372 J**	**0.27**	NA	NA	**0.067**	**0.16 j**	**0.527**	**1.74**	**0.898**	<0.05	**0.27 j**	**0.127**	**0.282**	**0.0255 J**	**0.18**	**3.1 j**	**1.31**	**0.549**	**0.701**
Lead, dissolved	--	NA	NA	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005
Lead, total	0.015	**0.0093 j**	<0.005	<0.005	<0.005	<0.005	**0.0087 j**	NA	NA	**0.0082 j**	<0.005	<0.005	<0.005	<0.005	**0.0092 j**	<0.005	**0.005**	<0.005	<0.005	**0.015 j**	<0.005	<0.005	<0.005	<0.005
Mercury	0.00105	NA	NA	<0.0002	<0.0002	<0.0002	**0.00032**	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	**0.00025**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver, dissolved	--	<0.0002	<0.0002	<0.005	<0.005	**0.00018 J**	NA	NA	NA	NA	NA	<0.005	<0.005	**0.00028 J**	NA	NA	<0.005	<0.005	**0.00035 J**	NA	NA	<0.005	<0.005	<0.005
Silver, total	0.0175	<0.005	<0.005	<0.005	<0.005	**0.00018 J**	<0.005	NA	NA	<0.005	<0.005	<0.005	**0.0001 J**	**0.00028 J**	<0.005	<0.005	<0.005	**0.00019 J**	**0.00025 J**	<0.005	<0.005	<0.005	<0.005	**0.0002 J**
Sodium, dissolved	--	**6.5**	**10 j-**	**9.65**	**7.59**	**7.07 j-**	**18**	NA	NA	**12**	**17 j-**	**15.7**	**11.5**	**14 j-**	**8.9**	**13 j-**	**11.6**	**8.47**	**9.86 j-**	**1.4**	**2.2 j-**	<5	**1.49 J**	**1.99 Jj-**
Sodium, total		**9.1**	**11 j+**	**10.1**	**9.04**	**7.35**	**22**	NA	NA	**14**	**16 j+**	**15.6**	**16.6**	**15.7**	**10**	**12 j+**	**11.4**	**11.8**	**11.8**	**1.6**	**4.3 j+**	<5	**1.82 J**	**1.81 J**
Wet Chemistry																								
Sulfate	250	**39.**	**35.**	**38.8**	**34.8**	**27.5**	**36**	NA	NA	**12**	**12**	**10.8**	**12**	**8.9**	**20**	**20**	**20.8**	**22.8**	**24.8**	<5.0	<5.0	<5.0	<5.0	<5.0
Field Parameters																								
Conductance, specific (µS/cm)	--	178	161	197	169	146	445	435	367	311	282	290	303	277	284	260	279	287	282	NA	41	43	NA	NA
DO (mg/L)	--	10.16	5.68	6.66	4.36	4.35	8.49	1.94	4.75	8.4	2.32	2.13	1.42	3.67	8.01	3.29	2.70	3.01	2.70	NA	7.71	8.50	NA	NA
ORP (mV)	--	337	269.1	420.0	184.9	172.3	240	55.0	93	337	580.1	188.0	105.6	123.1	232	242.2	178.3	94.9	104.6	NA	275.8	219.5	NA	NA
pH (s.u.)	6.5-8.5	5.37	5.24	7.17	5.73	5.51	5.98	5.99	6.19	5.88	5.05	6.03	5.78	6.00	6.11	5.58	6.23	6.47	6.10	NA	4.78	6.50	NA	NA
Temperature (°C)	--	13.39	13.54	13.46	13.63	13.15	16.74	16.59	17.98	17.06	16.85	15.31	16.59	18.07	18.89	18.02	15.53	16.88	17.87	NA	15.05	13.86	NA	NA
Turbidity (ntu)	--	2.35	2.94	13.8	0.88	2.18	7.32	26.5	NA	0.99	1.46	28.7	26.2	23.7	1.49	1.26	2.79	2.48	1.2	NA	NA	NA	NA	NA

(1) Analytical results are reported in milligrams per liter (mg/L) unless otherwise noted. Only parameters detected in at least one sample at a concentration above the reporting limit are included in this summary table.

(2) North Carolina Ground Water Quality Standards; NCAC Title 15A subchapter 2L, December 1, 2005.

(3) Based on the value for *cis* -1,2-Dichloroethene.

< Concentration less than the Quantitation Limit.

J Estimated concentrationabove the adjusted method detectionlimit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

j+ Concentration considered an estimate biased high based on data validation.

u Laboratory reported detection not validated during data validation process.

NA Not analyzed.

Bolding indicates constituent detection.

Shading indicates sample concentration exceeds NC2L.

Table 1
Summary of Constituents Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

		LOCATION/SAMPLE DATE																					
		BASELINE	PERFORMANCE							BASELINE	PERFORMANCE					BASELINE	PERFORMANCE				BASELINE	PERFORMANCE	
PARAMETER[1]	NC2L[2]	MW-07 05/16/07	MW-07 07/05/07	MW-07 (DU-07301) 07/05/07	MW-07 08/30/07	MW-07 01/23/08	MW-07 (DU-08102) 01/23/08	MW-07 2/6/2009	MW-07 (DU-09101) 2/6/2009	MW-08 5/16/2007	MW-08 07/05/07	MW-08 08/31/07	MW-08 (DU-07302) 08/31/07	MW-08 01/23/08	MW-08 02/06/09	MW-09 05/16/07	MW-09 07/05/07	MW-09 08/31/07	MW-09 01/23/08	MW-09 02/06/09	MW-13 05/16/07	MW-13 01/25/08	MW-13 02/06/09
Volatile Organics																							
Acetone	0.7	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.125	<0.5	**0.0154 J**	<0.025	NA	NA
Benzene	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
Bromodichloromethane	0.00056	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.00026 J**	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
Bromoform	0.00443	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
Bromomethane	--	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.02	<0.025	<0.1	<0.025	<0.001	NA	NA
2-Butanone	4.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.025	<0.1	<0.025	<0.005	NA	NA
Chlorobenzene	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
Chloroethane	2.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
Chloroform	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.007**	**0.0056**	**0.0036**	**0.0041**	**0.0013**	**0.0038**	**0.0011**	<0.02	<0.005	<0.02	**0.00073 J**	<0.001	NA	NA
Chloromethane	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
1,1-Dichloroethane	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
1,1-Dichloroethene	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
1,2-Dichloroethane		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.16**	**0.15**	**0.232**	**0.166**	**0.0755**	<0.001	<0.001	<0.001
trans -1,2-Dichloroethene	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.014**	<0.02	**0.0254**	**0.0171 J**	**0.0071**	<0.001	<0.001	<0.001
1,2-Dichloroethene, total	0.07[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	<0.001
Dibromochloromethane	0.00056	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
2-Hexanone	--	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.025	<0.1	<0.025	NA	NA	NA
Methylcyclohexane	--	NA	NA	NA	<0.01	<0.01	<0.01	<0.01	<0.01	NA	NA	<0.01	<0.01	<0.01	<0.01	NA	NA	<0.05	<0.2	<0.05	NA	NA	NA
Methyl tert-butyl ether	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
Methylene chloride	0.0046	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.04	<0.01	<0.04	<0.0111 u	<0.002	NA	NA
1,1,2,2-Tetrachloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	NA	NA
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	<0.001	<0.001	<0.001
Trichloroethene	0.0028	<0.001	<0.001 uj	**0.0024 j**	**0.0015**	**0.0013**	**0.0013**	**0.00097 J**	**0.00071 J**	<0.001	<0.001 uj	<0.001	**0.001**	**0.0036**	**0.0028**	**4.2**	**3.1 j**	**4.1**	**3.28**	**0.985**	<0.001	<0.001	<0.001
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005	**0.0036**	<0.001	**0.00078 J**
Metals																							
Arsenic, dissolved	--	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	NA	NA	NA
Arsenic, total	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0027 J**	**0.0042 J**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0046 J**	<0.005	<0.005	<0.005	<0.005	**0.0042 J**	<0.005	NA	NA
Cadmium, dissolved	--	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA
Cadmium, total	0.00175	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA
Chromium, dissolved	--	NA	NA	NA	<0.005	**0.0015 J**	**0.0019 J**	<0.005	<0.005	NA	NA	<0.005	<0.005	**0.001 J**	**0.00059 J**	NA	NA	**0.0225**	**0.0031 J**	<0.005	NA	NA	NA
Chromium, total	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.00091 J**	**0.0006 J**	<0.005	<0.005	<0.005	<0.005	**0.005**	<0.005	<0.005	0.012	**0.0233**	**0.00094 J**	**0.0033 J**	<0.005	NA	NA
Copper, dissolved	--	NA	NA	NA	<0.005	<0.0013 Ju	<0.002 Ju	<0.005	**0.00033 J**	NA	NA	<0.005	<0.005	**0.0011 J**	<0.005	NA	NA	**0.0092**	**0.0363**	<0.005	NA	NA	NA
Copper, total	1	**0.047 j**	<0.002 uj	**0.0031 j**	<0.005	<0.001 Ju	<0.00066 Ju	<0.005	**0.00049 J**	**0.045 j**	<0.002 uj	<0.005	<0.005	<0.005	<0.005	**0.043 j**	**0.011 j**	**0.223**	**0.0413**	**0.002 J**	**0.042 j**	NA	NA
Iron, dissolved	--	<0.05	<0.05 uj	<0.05 uj	**1.77**	**0.0177 J**	**0.0285 J**	<0.05	<0.05	<0.05	<0.05 uj	<0.05	**0.113**	**0.0176 J**	<0.05	<0.05	<0.05 uj	**15.2**	<0.05	<0.05	**7.5**	NA	NA
Iron, total	0.3	**0.27**	**0.57 j**	**0.25 j**	**1.68**	**0.184**	**0.175**	**0.122**	**0.113**	<0.05	**0.05 j**	<0.05	<0.05	**0.0488 J**	<0.05	**0.62**	**7.1 j**	**15.7**	**1.07**	**2.16**	**38**	NA	NA
Lead, dissolved	--	NA	NA	**NA**	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	**0.0112**	<0.005	<0.005	NA	NA	NA
Lead, total	0.015	**0.0099 j**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0096 j**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.01 j**	<0.005	**0.0145**	<0.005	<0.005	**0.0051 j**	NA	NA
Mercury	0.00105	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA
Silver, dissolved	--	NA	NA	NA	<0.005	<0.005	<0.005	**0.00011 J**	<0.005	NA	NA	<0.005	<0.005	**0.00017 J**	**0.0003 J**	NA	NA	<0.005	<0.005	**0.00047 J**		NA	NA
Silver, total	0.0175	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.00019 J**	**0.00018 J**	<0.005	<0.005	<0.005	<0.005	**0.00024 J**	**0.00023 J**	<0.005	<0.005	<0.005	<0.005	**0.00053 J**	<0.005	NA	NA
Sodium, dissolved	--	**6.3**	**9.1 j-**	**9.2 j-**	**8.96**	**7.56**	**7.78**	**7.74 j-**	**7.91 j-**	**7.4**	**12 j-**	**12.6**	**12.5**	**15.4**	**15.9 j-**	**15**	**20 j-**	**21.5**	**25.9 j**	**20.8 j-**	**15**	NA	NA
Sodium, total		**8**	**9.6 j+**	**11 j+**	**9.63**	**9.3**	**9.1**	**9.12**	**8.66**	**9.9**	**12 j+**	**13**	**12.3**	**17.8**	**17.4**	**18**	**21 j+**	**23**	**18.1 j**	**25.1**	**20**	NA	NA
Wet Chemistry																							
Sulfate	250	**7**	**7**	**6.7**	**7.4**	**8.3**	**8.4**	**8.3**	**12.4**	**23**	**32**	**39.8**	**40.6**	**112**	**116**	**20**	**21**	**23.3**	**27.1**	**17.5**	**9.7**	NA	NA
Field Parameters																							
Conductance, specific (µS/cm)	--	86	77	NA	95	84	NA	84	NA	217	211	231	NA	440	444	409	374	417	408	399	760	614	528
DO (mg/L)	--	9.23	2.86	NA	5.16	2.97	NA	3.10	NA	12.24	6.91	7.83	NA	4.99	2.92	8.6	1.04	1.19	2.76	2.72	5.96	NA	NA
ORP (mV)	--	310	244.5	NA	387.0	221.9	NA	161.7	NA	319	165.8	287.0	NA	165.6	92.0	323	-281.6	275.0	193.7	85.6	-122	NA	NA
pH (s.u.)	6.5-8.5	5.38	5.19	NA	6.48	5.41	NA	5.48	NA	6.38	6.30	6.40	NA	6.44	6.42	6.04	11.11	6.20	6.19	6.15	6.45	6.68	6.51
Temperature (°C)	--	12.86	13.33	NA	12.92	13.53	NA	12.86	NA	12.34	13.04	12.84	NA	13.18	12.64	13.9	14.30	13.30	13.01	12.25	13.61	11.9	19.1
Turbidity (ntu)	--	6.64	4.13	NA	22.6	4.62	NA	4.31	NA	0.61	0.50	2.73	NA	0.31	1.47	36.3	187	278	29.3	58.7	0.97	72.8	NA

(1) Analytical results are reported in milligrams per liter (mg/L) unless otherwise noted. Only parameters detected in at least one sample at a concentration above the reporting limit are included in this summary table.

(2) North Carolina Ground Water Quality Standards; NCAC Title 15A subchapter 2L, December 1, 2005.

(3) Based on the value for *cis* -1,2-Dichloroethene.

< - Concentration less than the Quantitation Limit.

J - Estimated concentrationabove the adjusted method detectionlimit and below the adjusted reporting limit.

j - Concentration considered an estimate based on data validation.

j+ - Concentration considered an estimate biased high based on data validation.

u - Laboratory reported detection not validated during data validation process.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates sample concentration exceeds NC2L.

Table 1
Summary of Constituents Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

		LOCATION/SAMPLE DATE																								
		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE			BASELINE	PERFORMANCE			BASELINE	PERFORMANCE			
PARAMETER[1]	NC2L[2]	MW-19 06/04/07	MW-19 01/25/08	MW-19 02/06/09	MW-20 05/16/07	MW-20 01/25/08	MW-20 02/06/09	MW-23 05/16/07	MW-23 01/25/08	MW-23 02/06/09	MW-24 05/16/07	MW-24 01/25/08	MW-24 02/06/09	MW-26R 05/16/07	MW-26R 01/25/08	MW-26R 02/06/09	(DU-09102) MW-26R 02/06/09	MW-28A 05/18/07	(DU-07201) MW-28A 05/18/07	MW-28A 01/25/08	MW-28A 02/06/09	MW-29 05/17/07	MW-29 07/03/07	MW-29 08/29/07	MW-29 01/23/08	MW-29 02/05/09
Volatile Organics																										
Acetone	0.7	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	<0.025	<0.025	NA	NA	<0.025	<0.05	<0.125	<0.0062 Ju	<0.0034 Ju
Benzene	0.001	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	**0.00028 J**	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
Bromodichloromethane	0.00056	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
Bromoform	0.00443	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	**0.0019**	**0.00059 J**
Bromomethane	--	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.005	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.025	<0.005	<0.005
2-Butanone	4.2	<0.005	NA	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.01	<0.025	<0.005	<0.005
Chlorobenzene	0.05	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
Chloroethane	2.8	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
Chloroform	0.07	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	**0.00018 J**
Chloromethane	0.0026	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
1,1-Dichloroethane	0.07	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	**0.003**	NA	NA	**0.0043**	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
1,1-Dichloroethene	0.007	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	r
1,2-Dichloroethane		<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
cis -1,2-Dichloroethene	0.07	<0.001	**0.0022**	**0.0026**	**0.0047**	**0.0039**	**0.0034**	<0.001	**0.00027 J**	**0.00021 J**	<0.001	<0.001	<0.001	**0.056**	**0.0377**	**0.0211**	**0.0221**	**0.0017**	**0.0018**	**0.0021**	**0.0023**	**0.0078**	**0.008**	**0.013**	**0.0024**	**0.00041 J**
trans -1,2-Dichloroethene	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0017**	<0.002	<0.005	<0.001	<0.001
1,2-Dichloroethene, total	0.07[3]	NA	**0.0022**	**0.0026**	NA	**0.0041**	**0.0035**	NA	<0.001	<0.001	NA	<0.001	<0.001	NA	**0.0384**	**0.0214**	NA	NA	NA	**0.0021**	**0.0023**	NA	NA	NA	NA	NA
Dibromochloromethane	0.00056	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
2-Hexanone	--	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	NA	<0.025	<0.005	<0.005
Methylcyclohexane	--	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA	NA	NA	<0.05	<0.01	<0.01
Methyl tert-butyl ether	0.2	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	**0.00024 J**	<0.001
Methylene chloride	0.0046	<0.002	NA	NA	<0.002	NA	NA	<0.002	NA	NA	<0.002	NA	NA	<0.002	NA	NA	<0.002	<0.002	<0.002	NA	NA	<0.002	<0.004	<0.01	<0.002	<0.002
1,1,2,2-Tetrachloroethane	--	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.002	<0.005	<0.001	<0.001
Tetrachloroethene	0.0007	<0.001	**0.00066 J**	**0.0014**	<0.001	<0.001	<0.001	**0.0021**	**0.007**	**0.006**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0021**	**0.0021**	**0.0127**	**0.0139**	<0.001	<0.002	<0.005	<0.001	<0.001
Trichloroethene	0.0028	**0.016**	**0.0634**	**0.07**	**0.0054**	**0.003**	**0.0026**	**0.0012**	**0.0017**	**0.0014**	**0.0015**	**0.00081 J**	<0.001	**0.0022**	<0.001	<0.001	<0.001	**0.0044**	**0.0047**	**0.0074**	**0.0078**	**0.44**	**0.29 j**	**0.438**	**0.0859**	**0.0093**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0085**	**0.0159**	**0.0166**	**0.016**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.001	<0.001
Metals																										
Arsenic, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005
Arsenic, total	0.05	NA	NA	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	NA	NA	NA	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	**0.0069**
Cadmium, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001
Cadmium, total	0.00175	NA	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	<0.001	NA	NA	NA	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0593**	**0.0082**	**0.0501**
Chromium, total	0.05	NA	NA	NA	**0.094**	NA	NA	**0.0059**	NA	NA	<0.005	NA	NA	<0.005	NA	NA	NA	<0.005	<0.005	NA	NA	**0.014**	**0.34**	**0.0412**	**0.0697**	**0.139**
Copper, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0208**	**0.101**	**0.0278**
Copper, total	1	NA	NA	NA	**0.04 j**	NA	NA	**0.043 j**	NA	NA	**0.044 j**	NA	NA	**0.044 j**	NA	NA	NA	**0.052 j**	**0.032 j**	NA	NA	**0.04 j**	**0.034 j**	**0.0212**	**0.11**	**0.0835**
Iron, dissolved	--	NA	NA	NA	**48**	NA	NA	**0.18**	NA	NA	**0.055**	NA	NA	**21**	NA	NA	NA	**2.6**	**2.7**	NA	NA	<0.05	**1.9**	**8.47**	<0.05	<0.05
Iron, total	0.3	NA	NA	NA	**56**	NA	NA	<0.05	NA	NA	<0.05	NA	NA	**48**	NA	NA	NA	**2.9**	**2.8**	NA	NA	**2.8**	**8.8 j**	**5.78**	**6.49**	**7.79**
Lead, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0104**	<0.005	<0.005
Lead, total	0.015	NA	NA	NA	<0.005	NA	NA	**0.0092 j**	NA	NA	**0.0092 j**	NA	NA	<0.005	NA	NA	NA	**0.012 j**	**0.0079 j**	NA	NA	**0.007 j**	<0.005	**0.01**	**0.0091**	<0.005
Mercury	0.00105	NA	NA	NA	<0.0002	NA	NA	<0.0002	NA	NA	<0.0002	NA	NA	<0.0002	NA	NA	NA	<0.0002	<0.0002	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver, dissolved	--	NA	NA	NA		NA	NA		NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005	**0.0006 J**
Silver, total	0.0175	NA	NA	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	NA	NA	NA	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	**0.00072 J**
Sodium, dissolved	--	NA	NA	NA	70	NA	NA	7.7	NA	NA	**6.8**	NA	NA	**31**	NA	NA	NA	**12**	**13**	NA	NA	**12**	**18 j-**	**16.1**	**17.5**	**28.9 j-**
Sodium, total		NA	NA	NA	77	NA	NA	9.9	NA	NA	**8.5**	NA	NA	**39**	NA	NA	NA	**14**	**14**	NA	NA	**16**	**17 j+**	**14.7**	**22.4**	**22.9**
Wet Chemistry																										
Sulfate	250	NA	NA	NA	<5.0	NA	NA	**19**	NA	NA	**31**	NA	NA	**10**	NA	NA	NA	5.5	5.6	NA	NA	**20**	**19**	**21.2**	**60**	**113**
Field Parameters																										
Conductance, specific (µS/cm)	--	182	211	215	2230	1337	2090	355	347	346	247	231	221	911	884	945	NA	312	NA	256	240	503	458	470	847	775
DO (mg/L)	--	14.16	NA	NA	7.62	NA	NA	5.74	NA	1.04	8.94	NA	3.12	5.42	NA	NA	NA	5.49	NA	NA	NA	17.4	3.99	3.25	2.65	4.35
ORP (mV)	--	369	NA	NA	38	NA	NA	80	NA	88.1	194	NA	76.3	-96	NA	NA	NA	82	NA	NA	NA	208	264.9	230.1	234.4	252.1
pH (s.u.)	6.5-8.5	5.57	6.15	6.05	5.66	5.39	5.79	6.4	6.64	6.32	6.27	6.54	6.39	6.21	6.30	6.30	NA	6.08	NA	6.40	6.34	6.24	5.96	6.17	6.32	6.31
Temperature (°C)	--	13.69	11.9	18.1	14.9	13.7	20.4	14.23	12.1	15.32	13.82	12.5	14.01	16.49	15.3	20.3	NA	13.98	NA	13.1	19.3	19.3	18.43	16.77	20.80	20.36
Turbidity (ntu)	--	NA	444	NA	4.29	603	NA	0.19	8.49	0.57	0.48	48.2	0.98	7.49	254	NA	NA	1.15	NA	8.62	NA	107	152	156	188	133

[1] Analytical results are reported in milligrams per liter (mg/L) unless otherwise noted. Only parameters detected in at least one sample at a concentration above the reporting limit are included in this summary table.

[2] North Carolina Ground Water Quality Standards; NCAC Title 15A subchapter 2L, December 1, 2005.

[3] Based on the value for *cis* -1,2-Dichloroethene.

< - Concentration less than the Quantitation Limit.

J - Estimated concentrationabove the adjusted method detectionlimit and below the adjusted reporting limit.

j - Concentration considered an estimate based on data validation.

j+ - Concentration considered an estimate biased high based on data validation.

u - Laboratory reported detection not validated during data validation process.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates sample concentration exceeds NC2L.

Table 1
Summary of Constituents Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

		LOCATION/SAMPLE DATE																								
		BASELINE	PERFORMANCE						BASELINE	PERFORMANCE					BASELINE	PERFORMANCE					BASELINE	PERFORMANCE				
PARAMETER[1]	NC2L[2]	MW-101 05/18/07	MW-101 06/04/07	MW-101 07/03/07	MW-101 08/30/07	MW-101 01/22/08	(DU-08101) MW-101 01/23/08	MW-101 02/04/09	MW-102 05/18/07	MW-102 06/04/07	MW-102 07/03/07	MW-102 08/30/07	MW-102 01/22/08	MW-102 02/04/09	IW-01 05/18/07	IW-01 06/04/07	IW-01 07/05/07	IW-01 08/30/07	IW-01 01/22/08	IW-01 02/04/09	IW-02 05/18/07	IW-02 06/04/07	IW-02 07/05/07	IW-02 08/30/07	IW-02 01/22/08	IW-02 02/04/09
Volatile Organics																										
Acetone	0.7	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.05	<0.05	<0.5	<0.5	<0.025	**0.11**	<0.025	<0.025	**<0.0038 Ju**	**0.0036 J**	<0.025	<0.25	**0.07**	**0.0295**	<0.0172 Ju	**0.0098 J**
Benzene	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	0.00056	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.001**	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	**0.00067 J**	**0.00022 J**
Bromoform	0.00443	<0.001	<0.001	<0.001	<0.001	**0.0025 j**	**0.0017 j**	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	**0.0024**	<0.001	**0.0031**	<0.001
Bromomethane	--	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.002	<0.002	<0.01	<0.1	<0.1	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.01	<0.001	<0.005	<0.005	**0.0013 J**
2-Butanone	4.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.1	<0.1	<0.005	**0.23**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.61**	**0.15**	<0.005	<0.005	<0.005
Chlorobenzene	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	**0.00024 J**	<0.001
Chloroethane	2.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	**0.0023**	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	**0.0014**	<0.001
Chloroform	0.07	**0.0032**	**0.002**	**0.0015**	<0.001	**0.00032 J**	**0.00031 J**	**0.00023 J**	**0.0053**	**0.0032**	**0.0025**	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	**0.0012**	**0.00034 J**	**0.00018 J**	**0.004**	<0.01	**0.0012**	<0.001	**0.0036**	**0.0036**
Chloromethane	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	**0.0031**	<0.001	<0.001	<0.001	<0.01	<0.001	**0.002**	**0.0029**	<0.001
1,1-Dichloroethane	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0017**	<0.01	<0.001	<0.001	**0.00068 J**	**0.00074 J**
1,1-Dichloroethene	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0029**	<0.01	<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	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	**0.00017 J**
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.00044 J**	**0.0011**	**0.0083**	**0.009**	**0.0112**	**0.023**	**0.0447**	**0.0014 j+**	**0.0011**	<0.001	<0.001	**0.00063 J**	**0.002**	**0.8**	**0.87**	<0.001	<0.001	<0.001	**0.0705**
trans -1,2-Dichloroethene	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.19**	**0.2**	<0.001	<0.001	<0.001	**0.0066**
1,2-Dichloroethene, total	0.07[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	0.00056	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	**0.0013**	<0.001
2-Hexanone	--	NA	<0.005	NA	<0.005	<0.005	<0.005	<0.005	NA	<0.01	NA	<0.01	<0.1	<0.1	NA	<0.005	NA	<0.005	**0.0011 J**	**0.0109**	NA	<0.05	NA	<0.005	<0.005	**0.011**
Methylcyclohexane	--	NA	<0.002	NA	<0.01	<0.01	<0.01	<0.01	NA	<0.004	NA	<0.02	<0.2	<0.2	NA	**0.0021**	NA	<0.01	<0.01	<0.01	NA	<0.02	NA	<0.01	<0.01	<0.01
Methyl tert-butyl ether	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
Methylene chloride	0.0046	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.04	**0.026 J**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	<0.002	<0.002
1,1,2,2-Tetrachloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	**0.00057 J**	<0.001
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.0028	**0.038**	**0.043**	**0.039 j**	**0.0266**	**0.016**	**0.0167**	**0.0188**	**0.26**	**0.93**	**0.96 j**	**1.28**	**2.23**	**2.03**	**0.11**	**0.18**	<0.001	<0.001	**0.128**	**0.361**	**0.53**	**0.63**	<0.001	<0.001	<0.001	**0.0909**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.011**	**0.012**	<0.001	<0.001	<0.001	<0.001
Metals																										
Arsenic, dissolved	--	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	<0.005	<0.005	**0.0251**	NA	NA	NA	<0.005	<0.005	<0.005	NA	NA	NA	**0.008**	**0.0523**	<0.005
Arsenic, total	0.05	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	**0.0044 J**	<0.005	NA	<0.005	<0.005	<0.005	**0.004 J**	<0.005	NA	**0.0089**	<0.005	**0.0645**	**0.0091**
Cadmium, dissolved	--	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	<0.001	**0.0041**	**0.00072 J**
Cadmium, total	0.00175	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	NA	**0.006**	<0.001	**0.0033**	**0.0015**
Chromium, dissolved	--	NA	NA	NA	**0.0087**	**0.0358**	**0.036**	**0.0441**	NA	NA	NA	<0.005	**0.0028 J**	**0.0052**	NA	NA	NA	**0.611**	**0.223**	**0.098**	NA	NA	NA	**0.533**	**0.331**	**0.241**
Chromium, total	0.05	<0.005	NA	**0.014**	**0.0057**	**0.0363**	**0.0388**	**0.0504**	<0.005	NA	**0.021**	<0.005	**0.0015 J**	**0.0096**	<0.005	NA	**0.52**	**0.62**	**0.235**	**0.114**	<0.005	NA	**0.4**	**0.532**	**0.375**	**0.333**
Copper, dissolved	--	NA	NA	NA	**0.102**	**0.071**	**0.0916**	**0.0214**	NA	NA	NA	<0.005	<0.005	**0.0014 J**	NA	NA	NA	**0.873**	**0.00031 J**	**0.00089 J**	NA	NA	NA	**0.688**	**14.6**	**0.146**
Copper, total	1	**0.031 j**	NA	**0.014 j**	**0.0961**	**0.105**	**0.121**	**0.0267**	**0.033 j**	NA	**0.0022 j**	<0.005	<0.0013 Ju	**0.0036 J**	**0.031 j**	NA	**1.8**	**0.809**	**0.0063**	**0.0311**	**0.032 j**	NA	**32**	**0.641**	**14.1**	**0.814**
Iron, dissolved	--	**0.15**	NA	<0.05	**0.297**	<0.05	<0.05	<0.05	<0.05	NA	<0.05	**0.224**	<0.05	**1.31**	<0.05	NA	<0.05	**0.37**	<0.05	**0.0477 J**	<0.05	NA	**0.083**	**2.33**	**0.379**	<0.05
Iron, total	0.3	**0.47**	NA	**0.22 j**	**0.203**	**0.103**	**0.118**	**0.0531**	**0.17**	NA	**0.97 j**	**0.22**	**0.134**	**1.16**	<0.05	NA	**0.14**	**0.35**	**0.117**	**0.824**	**0.28**	NA	**1.9**	**3.18**	**28.5**	**9.84**
Lead, dissolved	--	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	<0.005	<0.005	<0.005	NA	NA	NA	<0.005	<0.005	<0.005	NA	NA	NA	**0.013**	**0.136**	<0.005
Lead, total	0.015	**0.0071 j**	NA	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0077 j**	NA	<0.005	<0.005	<0.005	**0.0042 J**	**0.0073 j**	NA	<0.005	<0.005	<0.005	<0.005	**0.0072 j**	NA	**0.48**	**0.0134**	**0.114**	**0.0315**
Mercury	0.00105	<0.0002	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	<0.0002	**0.00038**	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	**0.00039**	<0.0002	**0.00029**	**0.00022**
Silver, dissolved	--		NA	NA	<0.005	<0.005	<0.005	**0.00032 J**	NA	NA	NA	<0.005	**0.00018 J**	**0.00038 J**	NA	NA	NA	<0.005	<0.005	**0.00016 J**		NA	NA	<0.005	<0.005	**0.0003 J**
Silver, total	0.0175	<0.005	NA	<0.005	<0.005	<0.005	<0.005	**0.00033 J**	<0.005	NA	<0.005	<0.005	**0.00023 J**	**0.00051 J**	<0.005	NA	<0.005	<0.005	<0.005	**0.00027 J**	<0.005	NA	<0.005	<0.005	<0.005	**0.00092 J**
Sodium, dissolved	--	**9.4**	NA	**13 j-**	**14.8**	**13.1**	**14**	**14.5 j-**	**29**	NA	**35 j-**	**32.2**	**21.9**	**24.8 j-**	**12**	NA	**5.4 j-**	<5	**83.5**	**80.8 j-**	**17**	NA	<1 j-	<5	**0.394 J**	**769 j-**
Sodium, total		**10**	NA	**12 j+**	**13.3**	**17.2**	**18.3**	**14.2**	**32**	NA	**33 j+**	**29.8**	NA	**24.8**	**13**	NA	**5.1 j+**	**15**	**67.8**	**89**	**21**	NA	<1	<5	**0.0222 J**	**389**
Wet Chemistry																										
Sulfate	250	**17**	NA	**28**	**32.8**	**48.4**	**48.7**	**41.8**	**49**	NA	**52**	**52.8**	**51.9**	**37.3**	**29**	NA	**340**	**415**	**106**	**49**	**26**	NA	**940**	**4280**	**91.9**	**591**
Field Parameters																										
Conductance, specific (µS/cm)	--	249	243	272	456	554	NA	371	643	612	565	622	581	438	392	363	10980	17460	1951	665	467	437	23300	28960	11060	2551
DO (mg/L)	--	7.66	13.96	4.83	4.98	3.64	NA	4.02	6.94	13.61	4.22	4.68	3.18	4.06	7.7	15.39	4.87	2.94	6.44	6.91	7.69	13.11	10.54	12.77	6.17	3.38
ORP (mV)	--	86	100	247.3	249.0	244.5	NA	219.4	177	262	200.6	190.1	50.0	135.6	182	252	376.9	305.1	39.6	90.3	178	217	464.7	365.2	313.1	244.8
pH (s.u.)	6.5-8.5	6.18	6.11	5.53	6.29	6.13	NA	6.59	6.07	6.01	5.95	6.15	6.15	6.37	6.05	5.99	8.79	8.99	9.46	8.44	5.99	5.96	8.09	9.33	6.52	7.21
Temperature (°C)	--	19.37	18.73	19.16	17.67	19.58	NA	18.90	19.95	18.81	19.14	17.63	19.44	19.11	19.29	18.37	19.34	17.70	19.89	19.62	19.82	19.78	20.71	17.37	18.67	17.28
Turbidity (ntu)	--	1.4	NA	4.24	8.54	2.28	NA	3.98	4.7	NA	13.2	10.7	5.83	12.2	1.4	NA	3.78	10.3	2.79	6.87	9.32	NA	35.8	62.9	80.0	63.9

[1] Analytical results are reported in milligrams per liter (mg/L) unless otherwise noted. Only parameters detected in at least one sample at a concentration above the reporting limit are included in this summary table.

[2] North Carolina Ground Water Quality Standards; NCAC Title 15A subchapter 2L, December 1, 2005.

[3] Based on the value for *cis* -1,2-Dichloroethene.

< - Concentration less than the Quantitation Limit.

J - Estimated concentrationabove the adjusted method detectionlimit and below the adjusted reporting limit.

j - Concentration considered an estimate based on data validation.

j+ - Concentration considered an estimate biased high based on data validation.

u - Laboratory reported detection not validated during data validation process.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates sample concentration exceeds NC2L.

Table 1
Summary of Constituents Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

		LOCATION/SAMPLE DATE									
		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE		PERFORMANCE			
PARAMETER[1]	NC2L[2]	RW-01 01/21/08	RW-01 02/05/09	RW-01 05/17/07	RW-04 05/17/07	RW-04 01/21/08	RW-04 02/05/09	SW-01 02/05/09	SW-02 02/05/09	SW-03 02/05/09	SW-04 02/05/09
Volatile Organics											
Acetone	0.7	NA	NA	<0.025	<0.025	NA	NA	NA	NA	NA	NA
Benzene	0.001	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.00056	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Bromoform	0.00443	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Bromomethane	--	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
2-Butanone	4.2	NA	NA	<0.005	<0.005	NA	NA	NA	NA	NA	NA
Chlorobenzene	0.05	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Chloroethane	2.8	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Chloroform	0.07	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Chloromethane	0.0026	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.07	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.007	NA	NA	**0.0011**	<0.001	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane		NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	0.07	0.021	**0.0118**	**0.022**	**0.0034**	**0.0022**	**0.0016**	<0.001	<0.001	<0.001	<0.001
trans -1,2-Dichloroethene	0.1	0.0031 J	<0.002	**0.0015**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethene, total	0.07[3]	NA	**0.0127**	NA	NA	NA	**0.0019**	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane	0.00056	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
2-Hexanone	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.2	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Methylene chloride	0.0046	NA	NA	<0.002	<0.002	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	--	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.0007	**0.051**	**0.0331**	**0.054**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.0028	**0.955**	**0.353**	**0.82**	**0.2**	**0.131**	**0.0854**	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	0.000015	<0.005	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Metals											
Arsenic, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic, total	0.05	NA	NA	<0.005	<0.005	NA	NA	NA	NA	NA	NA
Cadmium, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium, total	0.00175	NA	NA	<0.001	<0.001	NA	NA	NA	NA	NA	NA
Chromium, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, total	0.05	NA	NA	<0.005	<0.005	NA	NA	NA	NA	NA	NA
Copper, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper, total	1	NA	NA	**0.043 j**	**0.045 j**	NA	NA	NA	NA	NA	NA
Iron, dissolved	--	NA	NA	**0.31**	<0.05	NA	NA	NA	NA	NA	NA
Iron, total	0.3	NA	NA	<0.05	**0.15**	NA	NA	NA	NA	NA	NA
Lead, dissolved	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead, total	0.015	NA	NA	**0.0092 j**	**0.009 j**	NA	NA	NA	NA	NA	NA
Mercury	0.00105	NA	NA	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA
Silver, dissolved	--	NA	NA	NA		NA	NA	NA	NA	NA	NA
Silver, total	0.0175	NA	NA	<0.005	<0.005	NA	NA	NA	NA	NA	NA
Sodium, dissolved	--	NA	NA	**8.1**	**6.5**	NA	NA	NA	NA	NA	NA
Sodium, total		NA	NA	**10**	**8.7**	NA	NA	NA	NA	NA	NA
Wet Chemistry											
Sulfate	250	**22.7**	**36.7**	**18**	**16**	**17.8**	**21.1**	NA	NA	NA	NA
Field Parameters											
Conductance, specific (µS/cm)	--	365	370	343	310	311	304	126.0	131.8	128.1	143.7
DO (mg/L)	--	NA	NA	12.96	13.05	NA	NA	NA	NA	NA	NA
ORP (mV)	--	NA	NA	213	194	NA	NA	NA	NA	NA	NA
pH (s.u.)	6.5-8.5	6.61	6.91	6.4	6.38	6.80	6.89	7.43	7.46	7.56	7.34
Temperature (°C)	--	12.8	16.3	13.77	13.74	12.2	17.0	6.8	7.0	6.8	7.6
Turbidity (ntu)	--	NA	NA	0.16	0.18	NA	NA	NA	NA	NA	NA

[1] Analytical results are reported in milligrams per liter (mg/L) unless otherwise noted. Only parameters detected in at least one sample at a concentration above the reporting limit are included in this summary table.
[2] North Carolina Ground Water Quality Standards; NCAC Title 15A subchapter 2L, December 1, 2005.
[3] Based on the value for *cis* -1,2-Dichloroethene.
< - Concentration less than the Quantitation Limit.
J - Estimated concentrationabove the adjusted method detectionlimit and below the adjusted reporting limit.
j - Concentration considered an estimate based on data validation.
j+ - Concentration considered an estimate biased high based on data validation.
u - Laboratory reported detection not validated during data validation process.
NA - Not analyzed.
Bolding indicates constituent detection.
Shading indicates sample concentration exceeds NC2L.

Table 2
Summary of Constituents of Interest Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE							
		BASELINE	PERFORMANCE				BASELINE	PERFORMANCE	
		MW-02	MW-02	MW-02	MW-02	MW-02	MW-04	MW-04	MW-04
		05/16/07	07/05/07	08/30/07	01/23/08	02/06/09	05/17/07	01/22/08	02/05/09
Volatile Organics									
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	**0.0011**	**0.0029**	**0.0024**	**0.11**	**0.0791**	**0.195**
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001
Trichloroethene	0.0028	**0.011**	**0.011 j**	**0.0152**	**0.0528**	**0.0391**	**0.22**	**0.25**	**0.161**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0015**	**0.0013 J**	**0.0032**
Wet Chemistry									
Sulfate	250	**39**	**35**	**38.8**	**34.8**	**27.5**	**36**	NA	NA

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE									
		BASELINE	PERFORMANCE				BASELINE	PERFORMANCE			
		MW-05	MW-05	MW-05	MW-05	MW-05	MW-05A	MW-05A	MW-05A	MW-05A	MW-05A
		05/17/07	07/03/07	08/29/07	01/22/08	02/05/09	05/17/07	07/03/07	08/29/07	01/22/08	02/05/09
Volatile Organics											
cis -1,2-Dichloroethene	0.07	**0.25**	**0.39**	**0.234**	**0.212**	**0.129**	**0.15**	**0.18**	**0.203**	**0.155**	**0.15**
Tetrachloroethene	0.0007	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05
Trichloroethene	0.0028	**3.5**	**4.4 j**	**2.63**	**2.26**	**0.985**	**7.6**	**8.1 j**	**9.6**	**7.37**	**4.86**
Vinyl chloride	0.000015	<0.001	<0.05	<0.02	<0.02	<0.01	<0.001	<0.05	<0.05	<0.05	<0.05
Wet Chemistry											
Sulfate	250	**12**	**12**	**10.8**	**12**	**8.9**	**20**	**20**	**20.8**	**22.8**	**24.8**

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE								
		BASELINE	PERFORMANCE				BASELINE	PERFORMANCE		
		MW-06	MW-06	MW-06	MW-06	MW-06	MW-07	MW-07	MW-07	MW-07
		05/18/07	07/05/07	08/29/07	01/23/08	02/06/09	05/16/07	07/05/07	01/23/08	02/06/09
Volatile Organics										
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.0028	<0.001	<0.001 uj	<0.001	<0.001	<0.001	<0.001	**0.0024 j**	**0.0013**	**0.00097 J**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Wet Chemistry										
Sulfate	250	**<5.0**	**<5.0**	<5.0	<5.0	<5.0	**7**	**7**	**8.3**	**12.4**

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE									
		BASELINE	PERFORMANCE				BASELINE	PERFORMANCE			
		MW-08	MW-08	MW-08	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09
		05/16/07	07/05/07	08/31/07	01/23/08	02/06/09	05/16/07	07/05/07	08/31/07	01/23/08	02/06/09
Volatile Organics											
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	**0.16**	**0.15**	**0.232**	**0.166**	**0.0755**
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005
Trichloroethene	0.0028	<0.001	<0.001 uj	<0.001	**0.0036**	**0.0028**	**4.2**	**3.1 j**	**4.1**	**3.28**	**0.985**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.005	<0.02	<0.005
Wet Chemistry											
Sulfate	250	**23**	**32**	**39.8**	**112**	**116**	**20**	**21**	**23.3**	**27.1**	**17.5**

Table 2
Summary of Constituents of Interest Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE								
		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE	
		MW-13	MW-13	MW-13	MW-19	MW-19	MW-19	MW-20	MW-20	MW-20
		05/16/07	01/25/08	02/06/09	06/04/07	01/25/08	02/06/09	05/16/07	01/25/08	02/06/09
Volatile Organics										
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	<0.001	<0.001	**0.0022**	**0.0026**	**0.0047**	**0.0039**	**0.0034**
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	**0.00066 J**	**0.0014**	<0.001	<0.001	<0.001
Trichloroethene	0.0028	<0.001	<0.001	<0.001	**0.016**	**0.0634**	**0.07**	**0.0054**	**0.003**	**0.0026**
Vinyl chloride	0.000015	**0.0036**	<0.001	**0.00078 J**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Wet Chemistry										
Sulfate	250	**9.7**	NA	NA	NA	NA	NA	<5.0	NA	NA

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE								
		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE	
		MW-23	MW-23	MW-23	MW-24	MW-24	MW-24	MW-26R	MW-26R	MW-26R
		05/16/07	01/25/08	02/06/09	05/16/07	01/25/08	02/06/09	05/16/07	01/25/08	02/06/09
Volatile Organics										
cis -1,2-Dichloroethene	0.07	<0.001	**0.00027 J**	**0.00021 J**	<0.001	<0.001	<0.001	**0.056**	**0.0377**	**0.0221**
Tetrachloroethene	0.0007	**0.0021**	**0.007**	**0.006**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.0028	**0.0012**	**0.0017**	**0.0014**	**0.0015**	**0.00081 J**	<0.001	**0.0022**	<0.001	<0.001
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0085**	**0.0159**	**0.0166**
Wet Chemistry										
Sulfate	250	**19**	NA	NA	**31**	NA	NA	**10**	NA	NA

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE								
		BASELINE	PERFORMANCE			BASELINE	PERFORMANCE			
		MW-28A	MW-28A	MW-28A	MW-28A	MW-29	MW-29	MW-29	MW-29	MW-29
		05/18/07	05/18/07	01/25/08	02/06/09	05/17/07	07/03/07	08/29/07	01/23/08	02/05/09
Volatile Organics										
cis -1,2-Dichloroethene	0.07	**0.0017**	**0.0018**	**0.0017**	**0.0023**	**0.0078**	**0.008**	**0.013**	**0.0024**	**0.00041 J**
Tetrachloroethene	0.0007	**0.0021**	**0.0021**	**0.0127**	**0.0139**	<0.001	<0.002	<0.005	<0.001	<0.001
Trichloroethene	0.0028	**0.0044**	**0.0047**	**0.0074**	**0.0078**	**0.44**	**0.29 j**	**0.438**	**0.0859**	**0.0093**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.001	<0.001
Wet Chemistry										
Sulfate	250	**5.5**	**5.6**	NA	NA	**20**	**19**	**21.2**	**60**	**113**

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE											
		BASELINE	PERFORMANCE					BASELINE	PERFORMANCE				
		MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
		05/18/07	06/04/07	07/03/07	08/30/07	01/22/08	02/04/09	05/18/07	06/04/07	07/03/07	08/30/07	01/22/08	02/04/09
Volatile Organics													
cis -1,2-Dichloroethene	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	**0.00044 J**	**0.0011**	**0.0083**	**0.009**	**0.0112**	**0.023**	**0.0447**
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02
Trichloroethene	0.0028	**0.038**	**0.043**	**0.039 j**	**0.0266**	**0.016**	**0.0188**	**0.26**	**0.93**	**0.96 j**	**1.28**	**2.23**	**2.03**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.02	<0.02
Wet Chemistry													
Sulfate	250	**17**	NA	**28**	**32.8**	**48.4**	**41.8**	**49**	NA	**52**	**52.8**	**51.9**	**37.3**

Table 2
Summary of Constituents of Interest Detected in Groundwater During Pilot Study
Former Girmes Site, Asheville, North Carolina

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE											
		BASELINE	PERFORMANCE					BASELINE	PERFORMANCE				
		IW-01	IW-01	IW-01	IW-01	IW-01	IW-01	IW-02	IW-02	IW-02	IW-02	IW-02	IW-02
		05/18/07	06/04/07	07/05/07	08/30/07	01/22/08	02/04/09	05/18/07	06/04/07	07/05/07	08/30/07	01/22/08	02/04/09
Volatile Organics													
cis -1,2-Dichloroethene	0.07	**0.0014 j+**	**0.0011**	<0.001	<0.001	**0.00063 J**	**0.002**	**0.8**	**0.87**	<0.001	<0.001	<0.001	**0.0705**
Tetrachloroethene	0.0007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.0028	**0.11**	**0.18**	<0.001	<0.001	**0.128**	**0.361**	**0.53**	**0.63**	<0.001	<0.001	<0.001	**0.0909**
Vinyl chloride	0.000015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.011**	**0.012**	<0.001	<0.001	<0.001	<0.001
Wet Chemistry													
Sulfate	250	**29**	NA	**340**	**415**	**106**	**49.0**	**26**	NA	**940**	**4280**	**91.9**	**591**

PARAMETER[1]	NC2L[2]	LOCATION/SAMPLE DATE					
		BASELINE	PERFORMANCE		BASELINE	PERFORMANCE	
		RW-01	RW-01	RW-01	RW-04	RW-04	RW-04
		05/17/07	01/21/08	02/05/09	05/17/07	01/21/08	02/05/09
Volatile Organics							
cis -1,2-Dichloroethene	0.07	**0.022**	**0.021**	**0.0118**	**0.0034**	**0.0022**	**0.0016**
Tetrachloroethene	0.0007	**0.054**	**0.051**	**0.0331**	<0.001	<0.001	<0.001
Trichloroethene	0.0028	**0.82**	**0.955**	**0.353**	**0.2**	**0.131**	**0.0854**
Vinyl chloride	0.000015	<0.001	<0.005	<0.002	<0.001	<0.001	<0.001
Wet Chemistry							
Sulfate	250	**18**	**22.7**	**36.7**	**17.8**	**16**	**21.1**

MW-07 and MW-26R - Used concentrations from duplicates

(1) Analytical results are reported in milligrams per liter (mg/L) unless otherwise noted. Only parameters detected in at least one sample at a concentration above the reporting limit are included in this summary table.

(2) North Carolina Ground Water Quality Standards; NCAC Title 15A subchapter 2L, December 1, 2005.

< Concentration less than the Quantitation Limit.

J Estimated concentrationabove the adjusted method detectionlimit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

j+ Concentration considered an estimate biased high based on data validation.

u Laboratory reported detection not validated during data validation process.

NA Not analyzed.

Bolding indicates constituent detection.

Shading indicates sample concentration exceeds NC2L.

RMT

Technical Memorandum

Date: June 23, 2010

To: Bill McGlocklin, SKF USA Inc.

cc: Brit Barnes, Travis Tarbet, Mark Miesfeldt—RMT, Inc.
Billy Clarke, Roberts and Stevens, P.A.

From: Mike Parker/Beth Rowan

Project No.: 03404.53.007

Subject: Summary of May 2010 Sampling Results, Former Girmes Site, Asheville, NC

A focused set of groundwater, surface water, and pore water samples were collected at the Former Girmes site in Asheville, NC, on May 6, 2010. These samples were collected to confirm constituent concentrations observed in groundwater and pore water samples collected in February 2010, and confirm that site-related constituents are not impacting surface water at concentrations above surface water quality standards and that operation of the groundwater recovery system is not required to protect the surface water pathway. This memo summarizes the analytical results from the May 2010 sampling event and compares VOC concentrations observed in groundwater samples with historical VOC concentrations for the wells sampled.

Sample Locations

Pore water samples were collected at locations PW-10, PW-11, and PW-12 (see figure 1). These are the same locations where site related VOCs were detected during the February 2010 pore water sampling. Surface water samples were also collected from Gashes Creek at locations adjacent to these three pore water sampling locations; the surface water sampling locations are identified as SW-03 (adjacent to PW-10), SW-04 (adjacent to PW-11), and SW-07 (adjacent to PW-12). Additionally, groundwater samples were collected from monitoring wells MW-11, MW-22, MW-28, and MW-28A for comparison to historical concentrations. Sample locations are illustrated on Figure 1.

Sampling Results

Analytical results are summarized in Table 1. Constituent concentrations reported in the May 2010 pore water samples at PW-10 and PW-11 are slightly lower than concentrations observed in February 2010. *Cis*-1,2-dichloroethene (DCE) was not detected at PW-10 in May (it was detected at an estimated concentration of 0.00029 mg/L in February); DCE was detected at PW-11 at a concentration of 0.0013 mg/L in May, compared to a concentration of 0.0023 in February. DCE, tetrachloroethene (PCE) and trichloroethene (TCE) were detected at PW-12 in the May 2010 samples; these are the same constituents detected in the samples collected in February 2010 at this location. Concentrations of DCE and TCE observed at PW-12 in May (0.010 and 0.0134 mg/L, respectively) are slightly higher than concentrations of DCE and TCE observed in February 2010 (0.0033 and 0.0031 mg/L, respectively). However, the

concentration of TCE observed in May (0.0775 mg/L) is over twice as much as the concentration observed in February (0.0263 mg/L).

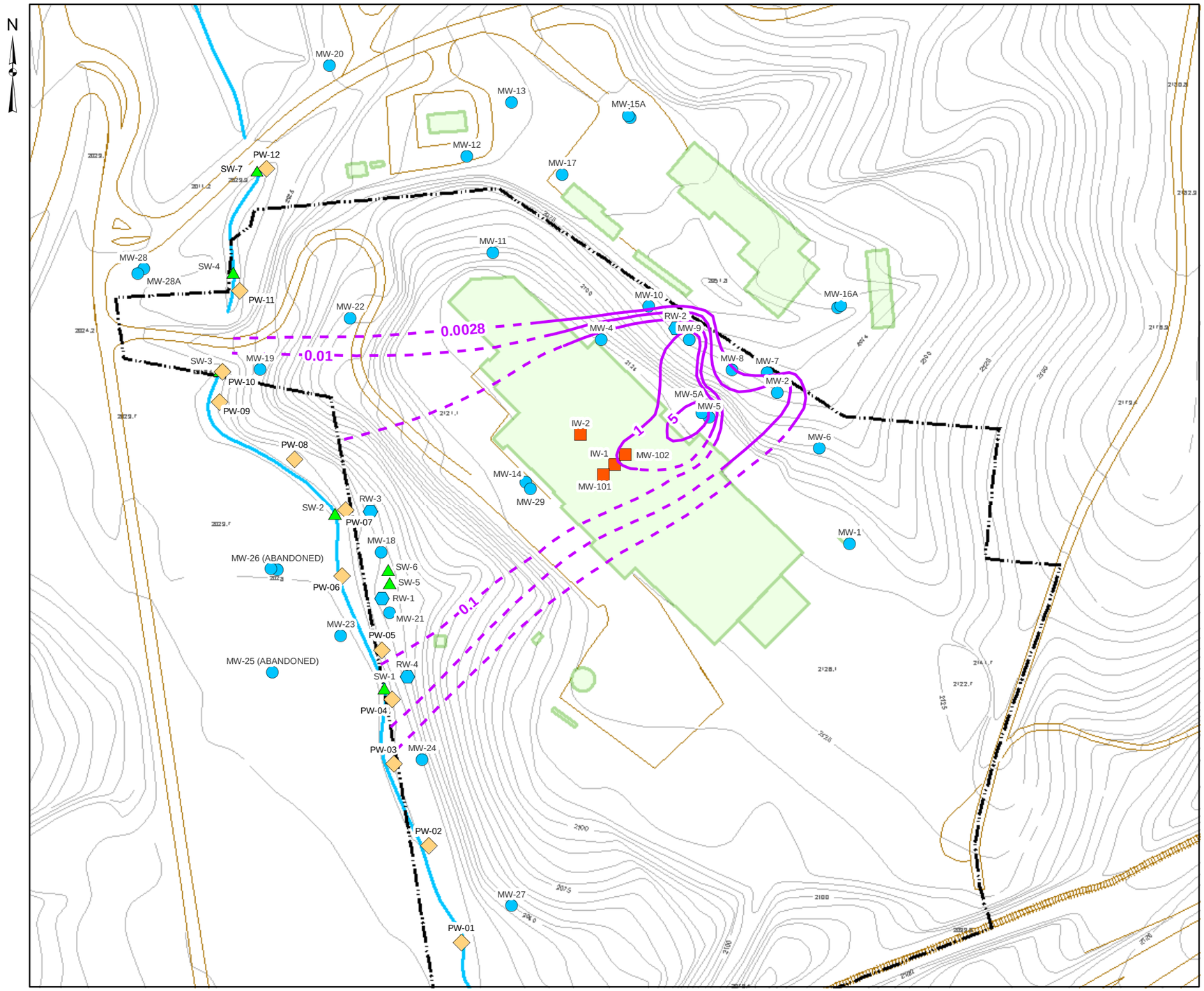
Despite the increase in constituent concentrations of the pore water sample at PW-12, surface water analytical results confirm that site-related VOCs are not impacting the surface water of Gashes Creek. Analyzed constituents were not detected at SW-3 and SW-4. The only detected constituent was DCE, detected at SW-7 at an estimated concentration of 0.00028 mg/L. While the potential for VOC discharge exists, physical attenuation processes such as dilution and volatilization have reduced the levels to below detection.

Analytical results for VOCs at MW-11, MW-22, and MW-28 are consistent with historical results – trace concentrations of TCE (in May 2010, an estimated concentration) are found only at MW-11 (Figure 2), with VOCs not detected at MW-22 and MW-28. At MW-28A, observed concentrations of DCE are consistent with historical values, which range from 0.0017 mg/L to 0.0033 mg/; TCE concentrations are also consistent with recent concentrations observed at this well (Figure 3). However, the concentration of PCE at MW-28A (0.0357 mg/L) is the highest concentration reported for this well (Figure 4), with the historical high concentration reported at 0.022 mg/L. RMT continues to believe that the PCE impact at MW-28A is not the result of any activities that occurred at the Former Girmes Site.

Conclusions/Recommendations

Analytical results from pore water, surface water, and groundwater sampling conducted in May 2010 at the Former Girmes Site confirm that site-related constituents are not impacting surface water in Gashes Creek and that operation of the groundwater recovery system is not required to this remedial objective. Though some constituents are detected in groundwater or pore water samples at concentrations above North Carolina 2L standards, surface water samples confirm that either the constituents are not detected in surface water or the surface water quality standards are not exceeded.

RMT recommends that a follow-up sampling event of the pore water, surface water, and select wells be conducted during the 4th quarter 2010.



LEGEND

Pore Water Sampling Locations

Pore Water Sample Location

Distribution of TCE June 2009

Concentration (ppm), dashed where inferred

Well Locations

Injection Well & Performance Monitoring Well Location

Monitoring Well Location

Recovery Well Location

Surface Water Sampling Location

0 200 400

Feet

FORMER GIRMES SITE (SKF USA INC)
ASHEVILLE, NC

SAMPLING LOCATIONS
MAY 2010

DRAWN BY: BCB	SCALE AS NOTED	PROJECT NO.:
CHECKED BY:		DATE:
APPROVED BY:		FIGURE NO.: 1

RMT
Patewood Plaza One, Suite 100
30 Patewood Drive
Greenville, SC 29615-3535
Phone: 864-281-0030
FAX: 864-281-0288

Map Document: (C:\Program Files\ArcGIS\Bin\Templates\RMT_NewLogo_Oct2007\11x17 Landscape_Patewood.mxt)
10/24/2007 -- 8:30:49 AM

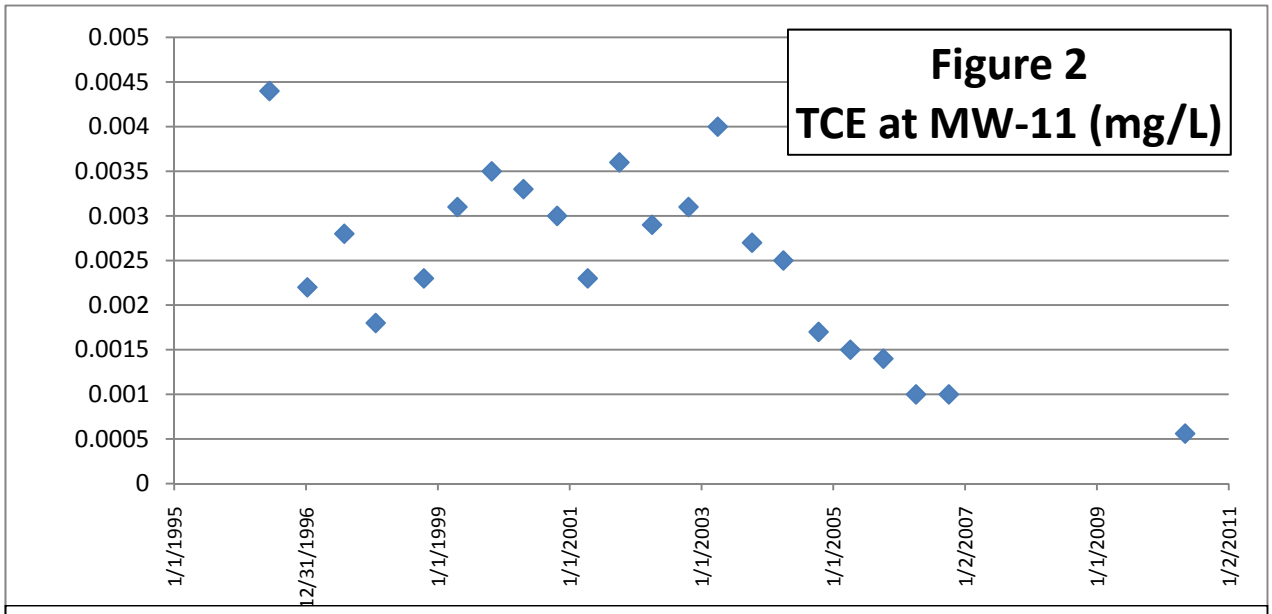


Figure 2
TCE at MW-11 (mg/L)
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
1/1/1995
12/31/1996
1/1/1999
1/1/2001
1/1/2003
1/1/2005
1/2/2007
1/1/2009
1/2/2011

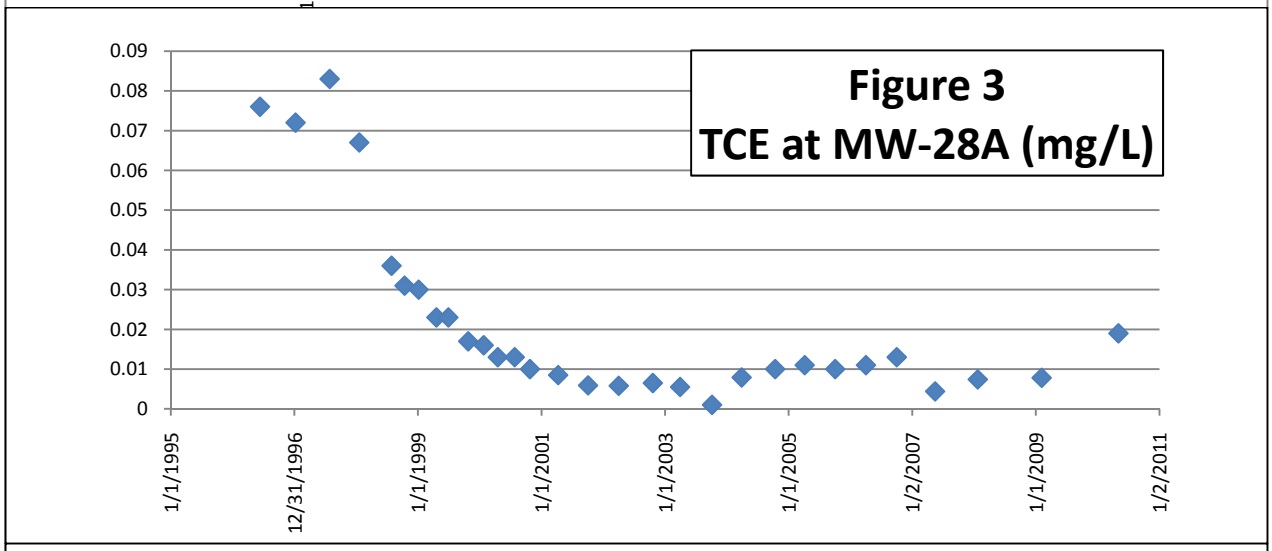


Figure 3
TCE at MW-28A (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
1/1/1995
12/31/1996
1/1/1999
1/1/2001
1/1/2003
1/1/2005
1/2/2007
1/1/2009
1/2/2011

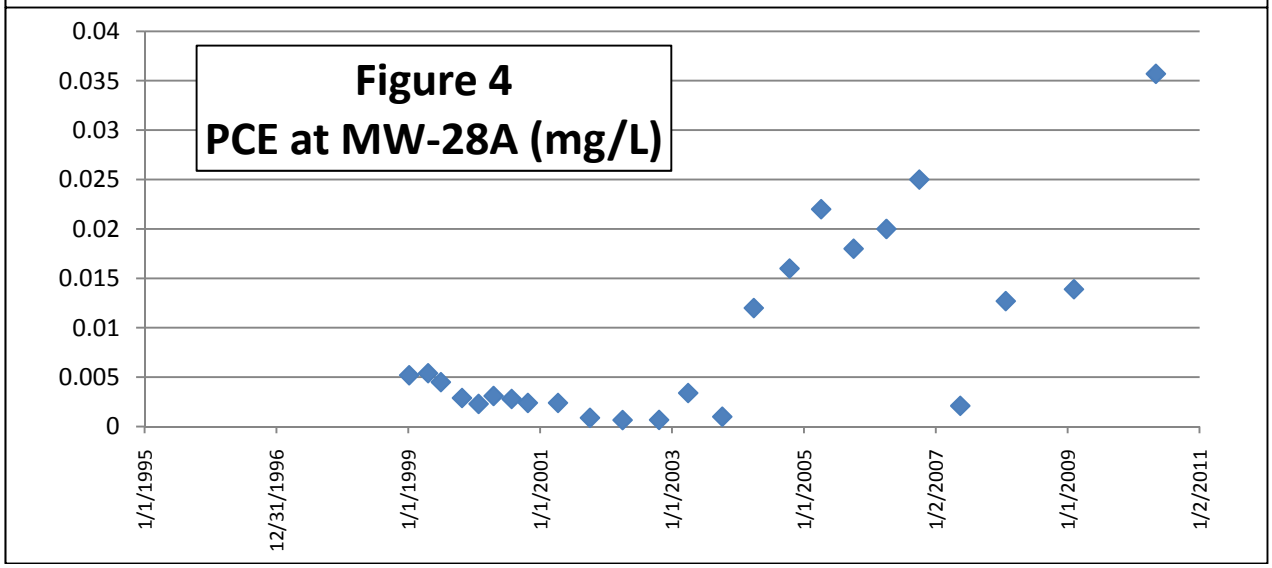


Figure 4
PCE at MW-28A (mg/L)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
1/1/1995
12/31/1996
1/1/1999
1/1/2001
1/1/2003
1/1/2005
1/2/2007
1/1/2009
1/2/2011

Table 1
Summary of Analytical Results
May 2010 Sampling

PARAMETER	SAMPLE ID AND SAMPLE DATE									
	PW-10 5/6/2010	SW-03 5/6/2010	PW-11 5/6/2010	SW-04 5/6/2010	PW-12 5/6/2010	SW-07 5/6/2010	MW-11 5/6/2010	MW-22 5/6/2010	MW-28 5/6/2010	MW-28A 5/6/2010
Volatile Organic Compounds										
1,2-Dichloroethene, total	<0.001	<0.001	**0.0013**	<0.001	**0.010**	<0.001	<0.001	<0.001	<0.001	**0.0058**
cis-1,2-Dichloroethene	<0.001	<0.001	**0.0013**	<0.001	**0.010**	**0.00028J**	<0.001	<0.001	<0.001	**0.0058**
Tetrachloroethene	<0.001	<0.001	<0.001	<0.001	**0.0134**	<0.001	<0.001	<0.001	<0.001	**0.0357**
trans-1,2-Dichloroethene	<0.001	<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	**0.0775**	<0.001	**0.00056J**	<0.001	<0.001	**0.019**
Vinyl chloride	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Field Parameters										
Conductance, specific	0.086	0.085	0.096	0.087	0.31	0.089	0.322	0.267	0.262	0.205
Dissolved Oxygen	3.75	NA	5.79	NA	1.11	NA	7.25	1	0.76	0.32
ORP	23	NA	62.6	NA	196.2	NA	132.7	192.7	107.2	60.1
pH	6.34	6.76	6.24	6.79	5.65	6.29	6.21	4.96	5.63	6.01
Temperature (^{o}C)	17.86	19.48	17.2	17.57	16.45	17.68	18.5	17.33	14.39	15.72
Turbidity (ntu)	5.74	NA	7.24	NA	0.34	NA	18.9	3.76	28.7	17