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November 10, 2008

Mr. Ervin Lane
Hydrogeologist, Groundwater Compliance Unit
Solid Waste Section, Division of Waste Management
North Carolina Department of Environment and Natural Resources
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Re: Watauga County Landfill, Permit #95-02
Assessment Monitoring Program
DAA Job No. 6520-39

Dear Mr. Lane:

Please find enclosed a report presenting the results of the semiannual Assessment Monitoring event conducted at the Watauga County Landfill on September 8-9, 2008. The report discusses sampling procedures, analytical results and overall conclusions of the monitoring event. The report concludes with a natural attenuation demonstration update incorporating the September 2008 data set and current guidance on developing a monitored natural attenuation remedial proposal.

An Environmental Data Form is attached. Electronic data files, as required by NCDENR Solid Waste Section's "New Guidelines for Electronic Submittal of Environmental Monitoring Data," are included on CD in Appendix E. A report copy in electronic form is also included on the CD in Appendix E.

In addition to the complete electronic analytical data tables, notification tables of groundwater or surface water values that attain or exceed reporting limits, and notification tables of groundwater or surface water values that exceed NC 2L groundwater standards or NC 2B surface water standards, are also included as noted on the attached Solid Waste Environmental Data Form. The required electronic data tables are provided in the EDD folder on the CD in Appendix E. Hard copies of the notification files are attached. Note that no surface water values exceeded NC 2B surface water standards based on human health (organism only) criteria.

The format and naming convention for the data submissions are as specified by the electronic submittal guidelines. Note that these data files provide unvalidated results. Validated results are discussed the report narrative [Section 4.0 (Data Validation) and Section 5.0 (Results)] and are summarized in the Monitoring Result Tables 2A-2B.

The next semiannual event is scheduled for March 2009. If you should have questions or comments concerning the report or the next event, please do not hesitate to contact me.

Sincerely,
DRAPER ADEN ASSOCIATES

Jeffrey E. Smith
Project Geologist

Attachments: MONITORING REPORT

cc: Mr. Robert Nelson, Watauga County Manager (with enclosure)
Mr. James Potter, Watauga County Landfill Manager (with enclosure)
Mr. Michael Lawless, P.G., Groundwater Project Manager, DAA

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Jeffrey Smith Phone: 540-552-0444

E-mail: jsmith@daa.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
WATAUGA COUNTY LANDFILL	336 LANDFILL ROAD BOONE, NC 28607	95-02	0500	SEPTEMBER 8-9. 2008

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☐ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☒ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Jeffrey Smith	Senior Project Geologist	540-552-0444
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

Signature 11/10/2008 Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:

Revised 01/2007

Closed Watauga County Landfill - September 8-9, 2008 Assessment Monitoring Event
Groundwater and Surface Water Monitoring Data that Equal or Exceed Reporting Limits

FACILITY #	WELL ID #	CAS Number	SWS ID #	PARAMETER	RESULT	UNITS	Q.	METHOD	MDL	SWSL	D. F.	COLLECT DATE	ANALYSIS DATE
95-02	9502-MW10	67-64-1	3	Acetone	2.4	UG/L	J	8260B	1.2	2.5	1	9/9/2008	9/15/2008
95-02	9502-MW10	75-34-3	75	1,1-Dichloroethane	13	UG/L		8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW10	75-35-4	77	1,1-Dichloroethene	20	UG/L		8260B	0.63	3.1	1	9/9/2008	9/16/2008
95-02	9502-MW10	75-09-2	140	Methylene chloride	0.11	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW10	127-18-4	192	Tetrachloroethene	3	UG/L		8260B	0.11	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW10	71-55-6	200	1,1,1-Trichloroethane	91	UG/L		8260B	0.1	0.5	6	9/9/2008	9/15/2008
95-02	9502-MW10	79-01-6	201	Trichloroethene	0.19	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW11	67-64-1	3	Acetone	1.3	UG/L	J	8260B	1.2	2.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	71-43-2	16	Benzene	0.29	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	108-90-7	39	Chlorobenzene	0.36	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	75-00-3	41	Chloroethane	7.3	UG/L		8260B	0.13	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	95-50-1	69	1,2-Dichlorobenzene	0.14	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	106-46-7	71	1,4-Dichlorobenzene	3.2	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	75-34-3	75	1,1-Dichloroethane	21	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	107-06-2	76	1,2-Dichloroethane	0.51	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	75-35-4	77	1,1-Dichloroethene	0.3	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	156-59-2	78	cis-1,2-Dichloroethene	37	UG/L		8260B	0.1	0.5	2.5	9/9/2008	9/16/2008
95-02	9502-MW11	156-60-5	79	trans-1,2-Dichloroethene	0.57	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	78-87-5	82	1,2-Dichloropropane	0.61	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	75-09-2	140	Methylene chloride	0.35	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	127-18-4	192	Tetrachloroethene	1.7	UG/L		8260B	0.11	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	79-01-6	201	Trichloroethene	2.7	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW11	75-01-4	211	Vinyl chloride	2.6	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	71-43-2	16	Benzene	0.36	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	108-90-7	39	Chlorobenzene	0.36	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	75-00-3	41	Chloroethane	8.1	UG/L		8260B	0.13	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	67-66-3	44	Chloroform	1.2	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	95-50-1	69	1,2-Dichlorobenzene	0.21	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	106-46-7	71	1,4-Dichlorobenzene	3.4	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	75-34-3	75	1,1-Dichloroethane	24	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	107-06-2	76	1,2-Dichloroethane	0.71	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	75-35-4	77	1,1-Dichloroethene	0.35	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	156-59-2	78	cis-1,2-Dichloroethene	52	UG/L		8260B	0.1	0.5	3.6	9/9/2008	9/16/2008
95-02	9502-MW12	156-60-5	79	trans-1,2-Dichloroethene	0.68	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	78-87-5	82	1,2-Dichloropropane	0.8	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	75-09-2	140	Methylene chloride	0.43	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	127-18-4	192	Tetrachloroethene	2.7	UG/L		8260B	0.11	0.5	1	9/9/2008	9/16/2008

Closed Watauga County Landfill - September 8-9, 2008 Assessment Monitoring Event
Groundwater and Surface Water Monitoring Data that Equal or Exceed Reporting Limits

FACILITY #	WELL ID #	CAS Number	SWS ID #	PARAMETER	RESULT	UNITS	Q.	METHOD	MDL	SWSL	D. F.	COLLECT DATE	ANALYSIS DATE
95-02	9502-MW12	79-01-6	201	Trichloroethene	4.7	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW12	75-01-4	211	Vinyl chloride	3	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW15	75-34-3	75	1,1-Dichloroethane	0.26	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW15	71-55-6	200	1,1,1-Trichloroethane	0.93	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW17	75-00-3	41	Chloroethane	0.88	UG/L		8260B	0.13	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW17	75-34-3	75	1,1-Dichloroethane	2.9	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW17	156-59-2	78	cis-1,2-Dichloroethene	7	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW17	127-18-4	192	Tetrachloroethene	3.9	UG/L		8260B	0.11	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW17	79-01-6	201	Trichloroethene	1.3	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW19	67-64-1	3	Acetone	2.1	UG/L	J	8260B	1.2	2.5	1	9/9/2008	9/16/2008
95-02	9502-MW19	75-15-0	35	Carbon disulfide	0.22	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW19	75-09-2	140	Methylene chloride	0.1	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/16/2008
95-02	9502-MW2	75-34-3	75	1,1-Dichloroethane	42	UG/L		8260B	1.7	8.3	16.7	9/8/2008	9/16/2008
95-02	9502-MW2	75-35-4	77	1,1-Dichloroethene	61	UG/L		8260B	1.7	8.3	16.7	9/8/2008	9/16/2008
95-02	9502-MW2	75-09-2	140	Methylene chloride	2.1	UG/L	J	8260B	1.7	8.3	16.7	9/8/2008	9/16/2008
95-02	9502-MW2	127-18-4	192	Tetrachloroethene	3.5	UG/L	J	8260B	1.8	8.3	16.7	9/8/2008	9/16/2008
95-02	9502-MW2	71-55-6	200	1,1,1-Trichloroethane	310	UG/L		8260B	1.7	8.3	16.7	9/8/2008	9/16/2008
95-02	9502-MW3	67-64-1	3	Acetone	4.6	UG/L	J	8260B	2.9	6.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	75-00-3	41	Chloroethane	1.2	UG/L	J	8260B	0.33	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	75-34-3	75	1,1-Dichloroethane	12	UG/L		8260B	0.25	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	156-59-2	78	cis-1,2-Dichloroethene	34	UG/L		8260B	0.25	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	156-60-5	79	trans-1,2-Dichloroethene	0.37	UG/L	J	8260B	0.25	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	78-87-5	82	1,2-Dichloropropane	0.4	UG/L	J	8260B	0.25	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	75-09-2	140	Methylene chloride	0.89	UG/L	J	8260B	0.25	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	91-20-3	148	Naphthalene	0.57	UG/L	J	8260B	0.25	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	127-18-4	192	Tetrachloroethene	1.2	UG/L	J	8260B	0.28	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW3	79-01-6	201	Trichloroethene	3.4	UG/L		8260B	0.25	1.3	2	9/9/2008	9/16/2008
95-02	9502-MW8	67-64-1	3	Acetone	2.6	UG/L		8260B	1.2	2.5	1	9/9/2008	9/15/2008
95-02	9502-MW8	106-46-7	71	1,4-Dichlorobenzene	0.13	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW8	75-34-3	75	1,1-Dichloroethane	0.39	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW8	156-59-2	78	cis-1,2-Dichloroethene	0.22	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW8	79-01-6	201	Trichloroethene	0.41	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-MW9	71-43-2	16	Benzene	3.1	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	108-90-7	39	Chlorobenzene	0.52	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	75-00-3	41	Chloroethane	4.9	UG/L		8260B	0.13	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	106-46-7	71	1,4-Dichlorobenzene	1.9	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	75-71-8	74	Dichlorodifluoromethane	0.58	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008

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FACILITY #	WELL ID #	CAS Number	SWS ID #	PARAMETER	RESULT	UNITS	Q.	METHOD	MDL	SWSL	D. F.	COLLECT DATE	ANALYSIS DATE
95-02	9502-MW9	75-34-3	75	1,1-Dichloroethane	15	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	156-59-2	78	cis-1,2-Dichloroethene	9.4	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	156-60-5	79	trans-1,2-Dichloroethene	0.38	UG/L	J	8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	78-87-5	82	1,2-Dichloropropane	0.23	UG/L	J	8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	75-09-2	140	Methylene chloride	0.27	UG/L	J	8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	127-18-4	192	Tetrachloroethene	1.3	UG/L		8260B	0.11	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	79-01-6	201	Trichloroethene	1.6	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-MW9	75-01-4	211	Vinyl chloride	1.4	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008
95-02	9502-S2	75-00-3	41	Chloroethane	6	UG/L	J	OLM04-	0.45	10	1	9/8/2008	9/17/2008
95-02	9502-S2	106-46-7	71	1,4-Dichlorobenzene	3	UG/L	J	OLM04-	0.4	10	1	9/8/2008	9/17/2008
95-02	9502-S4	156-59-2	78	cis-1,2-Dichloroethene	3	UG/L	J	OLM04-	0.4	10	1	9/8/2008	9/17/2008
95-02	9502-S5	75-71-8	74	Dichlorodifluoromethane	2	UG/L	J	OLM04-	0.4	10	1	9/8/2008	9/17/2008
95-02	TRIP BLANK	67-64-1	3	Acetone	1.3	UG/L	J	8260B	1.2	2.5	1	9/9/2008	9/15/2008
95-02	TRIP BLANK	75-09-2	140	Methylene chloride	2	UG/L	J	OLM04-	0.58	10	1	9/5/2008	9/17/2008
95-02	TRIP BLANK	91-20-3	148	Naphthalene	0.1	UG/L	J	8260B	0.1	0.5	1	9/9/2008	9/15/2008
95-02	9502-RES16	156-59-2	78	cis-1,2-Dichloroethene	0.5	ug/l		524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES2	75-00-3	41	Chloroethane	0.7	ug/l		524.2	0.2	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES2	75-71-8	74	Dichlorodifluoromethane	0.4	ug/l	J	524.2	0.2	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES2	75-34-3	75	1,1-Dichloroethane	4.8	ug/l		524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES2	75-35-4	77	1,1-Dichloroethene	0.3	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES2	156-59-2	78	cis-1,2-Dichloroethene	0.8	ug/l		524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES2	79-01-6	201	Trichloroethene	0.2	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	71-43-2	16	Benzene	0.5	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	108-90-7	39	Chlorobenzene	0.2	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	75-00-3	41	Chloroethane	11	ug/l		524.2	0.2	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	106-46-7	71	1,4-Dichlorobenzene	1.3	ug/l		524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	75-71-8	74	Dichlorodifluoromethane	1	ug/l		524.2	0.2	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	75-34-3	75	1,1-Dichloroethane	30	ug/l		524.2	1	5	10	9/9/2008	9/17/2008
95-02	9502-RES5	75-35-4	77	1,1-Dichloroethene	1.5	ug/l		524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	156-59-2	78	cis-1,2-Dichloroethene	6	ug/l		524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	156-60-5	79	trans-1,2-Dichloroethene	0.2	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	78-87-5	82	1,2-Dichloropropane	0.2	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	75-09-2	140	Methylene chloride	1.4	ug/l		524.2	0.3	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	127-18-4	192	Tetrachloroethene	0.4	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	79-01-6	201	Trichloroethene	1	ug/l		524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	75-01-4	211	Vinyl chloride	0.5	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008
95-02	9502-RES5	135-98-8	362	sec-Butylbenzene	0.1	ug/l	J	524.2	0.1	0.5	1	9/9/2008	9/17/2008

Closed Watauga County Landfill - September 8-9, 2008
Groundwater Water Monitoring Data that Exceed NC 2L Standards.

FACILITY #	WELL ID #	CAS Number	SWS ID #	PARAMETER	RESULT	UNITS	Q.	METHOD	MDL	SWSL	D. F.	COLLECT DATE	ANALYSIS DATE	2L stnd
95-02	9502-MW10	75-35-4	77	1,1-Dichloroethene	20	UG/L		8260B	0.63	3.1	1	9/9/2008	9/16/2008	7
95-02	9502-MW10	127-18-4	192	Tetrachloroethene	3	UG/L		8260B	0.11	0.5	1	9/9/2008	9/15/2008	0.7
95-02	9502-MW11	106-46-7	71	1,4-Dichlorobenzene	3.2	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	1.4
95-02	9502-MW11	107-06-2	76	1,2-Dichloroethane	0.51	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	0.38
95-02	9502-MW11	78-87-5	82	1,2-Dichloropropane	0.61	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	0.51
95-02	9502-MW11	127-18-4	192	Tetrachloroethene	1.7	UG/L		8260B	0.11	0.5	1	9/9/2008	9/16/2008	0.7
95-02	9502-MW11	75-01-4	211	Vinyl chloride	2.6	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	0.015
95-02	9502-MW12	106-46-7	71	1,4-Dichlorobenzene	3.4	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	1.4
95-02	9502-MW12	107-06-2	76	1,2-Dichloroethane	0.71	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	0.38
95-02	9502-MW12	78-87-5	82	1,2-Dichloropropane	0.8	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	0.51
95-02	9502-MW12	127-18-4	192	Tetrachloroethene	2.7	UG/L		8260B	0.11	0.5	1	9/9/2008	9/16/2008	0.7
95-02	9502-MW12	79-01-6	201	Trichloroethene	4.7	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	2.8
95-02	9502-MW12	75-01-4	211	Vinyl chloride	3	UG/L		8260B	0.1	0.5	1	9/9/2008	9/16/2008	0.015
95-02	9502-MW17	127-18-4	192	Tetrachloroethene	3.9	UG/L		8260B	0.11	0.5	1	9/9/2008	9/16/2008	0.7
95-02	9502-MW2	75-35-4	77	1,1-Dichloroethene	61	UG/L		8260B	1.7	8.3	16.7	9/8/2008	9/16/2008	7
95-02	9502-MW2	127-18-4	192	Tetrachloroethene	3.5	UG/L	J	8260B	1.8	8.3	16.7	9/8/2008	9/16/2008	0.7
95-02	9502-MW2	71-55-6	200	1,1,1-Trichloroethane	310	UG/L		8260B	1.7	8.3	16.7	9/8/2008	9/16/2008	200
95-02	9502-MW3	127-18-4	192	Tetrachloroethene	1.2	UG/L	J	8260B	0.28	1.3	2	9/9/2008	9/16/2008	0.7
95-02	9502-MW3	79-01-6	201	Trichloroethene	3.4	UG/L		8260B	0.25	1.3	2	9/9/2008	9/16/2008	2.8
95-02	9502-MW9	71-43-2	16	Benzene	3.1	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008	1
95-02	9502-MW9	106-46-7	71	1,4-Dichlorobenzene	1.9	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008	1.4
95-02	9502-MW9	127-18-4	192	Tetrachloroethene	1.3	UG/L		8260B	0.11	0.5	1	9/8/2008	9/15/2008	0.7
95-02	9502-MW9	75-01-4	211	Vinyl chloride	1.4	UG/L		8260B	0.1	0.5	1	9/8/2008	9/15/2008	0.015
95-02	9502-RES5	75-01-4	211	Vinyl chloride	0.5	UG/L		524.2	0.1	0.5	1	9/9/2008	9/17/2008	0.015

Groundwater and Surface Water Assessment Monitoring Results Report September 8-9, 2008 Event

Watauga County Landfill
Watauga County, North Carolina
NCDENR Permit No. 95-02

Prepared for:

Watauga County Board of Commissioners

and

North Carolina Department of Environment and Natural Resources
Division of Solid Waste Management
Solid Waste Section

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DAA Job No. 6520-39

November 10, 2008

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Conclusions presented by DAA do not reflect variations in subsurface groundwater quality that might exist between or beyond sampling points or between specific sample collections events. DAA shall incur no liability resulting from information supplied by others.

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Report copy on CD including:

NCEDD (Electronic Data Deliverables)
EDDs – All Data
EDDs – Detections Only
EDDs – Detections above 2L or 2B Standards
Laboratory Analytical Summary Data Sheets,
Data Validation Summary Reports, and
Laboratory QA/QC Reports.

EXECUTIVE SUMMARY

This report presents the results of the second semiannual 2008 Assessment monitoring groundwater and surface water sampling event at the Watauga County Landfill, NCDENR Permit No. 95-02, Watauga County, North Carolina, conducted on September 8-9, 2008 by Draper Aden Associates. Assessment monitoring was conducted in accordance with the Watauga County Landfill Assessment Plan (DAA, Sept. 3, 1993) and subsequent monitoring program revisions as approved by the NCDENR.

In June 1998, the NCDENR approved the following monitoring program revisions:

1) the initiation of monitoring a smaller set of the core monitoring wells for semiannual monitoring and a larger set for annual monitoring,
2) annual rather than semiannual analysis for target metals, and
3) withdrawal of select non-impacted monitoring wells from routine groundwater monitoring.

The September 2008 event incorporated the larger set of the core monitoring wells.

A remedial cap was installed at the facility in the fall of 1996. The remedial cap focuses on source containment as an immediate remedial action, as established by the EPA's presumptive remedy directive (EPA 540-F-93-035, September 1993). Additional risk assessment activities address exposure pathways outside the source area. These activities include the extension of public water along the Route 421 alignment north of the facility and to select residences located south of the facility. These response actions for exposure pathways outside the source area are being combined with the presumptive remedy to develop a comprehensive site response. Source containment, implemented through a remedial cap, supplemented by risk assessment, institutional controls, natural attenuation, and continuing assessment investigation comprise the broad package of remedial actions currently being conducted at the site.

The northern edge of the occurrence of assessment target parameters in the groundwater continues to be approximated by the Route 421 bypass. South of the bypass, these parameters are concentrated between the southern saddle, located between the landfill and the Rocky Mountain Heights Subdivision, and the west and north drainages below the landfill. Significant decreases in target parameter concentrations, as well as reductions in the extent of impact, continue to be observed in impacted groundwater and surface water across the site.

Monitoring results continue to demonstrate the extent of impact is retreating and concentrations within the impacted area are diminishing. A general reduction trend from more highly chlorinated compounds (i.e., PCE, TCE, and 1,1,1-TCA) to less chlorinated compounds (i.e., cis-1,2-DCE, 1,1-DCA and CA) is observed.

In August 1999, the NCDENR requested that Watauga County present an updated site conceptual model. The initial site conceptual model was presented in the Assessment Plan, dated September 3, 1993. Specifics of the site conceptual model (i.e., geologic maps, potentiometric

maps, cross-sections, boring logs, etc.) have been refined in subsequent investigation reports (i.e., the Assessment Activity Report, dated July 1994; the Remedial Investigation and Alternatives Report, dated January 1996; and multiple semiannual monitoring event reports). The site conceptual model was revisited in the July 1999 Monitoring Event Report, dated January 5, 2000. The updated site conceptual model clearly demonstrated the reductions in extent and concentration of impact observed across the site.

The site conceptual model is refined as additional data is collected. This updated site model, presented graphically with both concentration trend graphs and chronological delineation maps, illustrated the significant reductions in the extent and concentration of impact that have occurred across the site. Comparisons of relative concentrations over time demonstrate the role of reductive reactions in the natural attenuation processes active across the site. Although North Carolina Groundwater Protection Standards continue to be exceeded at the property boundary, the concentration, extent, and total mass of impact at the site is declining.

The natural attenuation demonstration is also refined as additional data is collected. Natural attenuation proceeds due to a wide variety of processes (i.e., advection, adsorption, biological degradation, chemical degradation, dispersion and volatilization). All of these attenuation processes can contribute to reducing toxicity, mobility or volume to levels protective of human health and the ecosystem. The natural attenuation demonstration update emphasized the combination of decreasing constituent concentrations and lack of plume migration, which provide evidence for the natural attenuation of groundwater impact at the site. Geochemical and organic changes within the groundwater that support biological and chemical degradation of impacts at the site were also characterized.

The natural attenuation demonstration illustrated how initial degradation of the more highly chlorinated solvents at the site (i.e., PCE, TCE, and 1,1,1-TCA) is driven by reductive dechlorination. The demonstration further illustrated how the daughter products of this process (i.e., cis-1,2-DCE, 1,1-DCA, CA, vinyl chloride, etc.) are further degraded by aerobic oxidation.

In order to provide the data necessary to demonstrate specific conditions affecting both reductive dechlorination and aerobic degradation at the site, the wells were sampled semiannually for several key geochemical MNA indicator parameters from February 2000 to July 2003. Relationships were established for these geochemical parameters (oxygen, total residual chlorine, total organic carbon, methane, nitrate, sulfate, etc.) that demonstrated the chemical dynamics at work to reduce the extent and concentration of impact. Select field MNA indicator parameters are currently sampled semiannually, during sampling of the larger core well set.

Graphical tests for evaluating plume stability and behavior that have been established for evaluating the performance of natural attenuation are presented at the conclusion of this report. These graphical tests use the site historical data to display statistically significant plume stabilization and a loss of plume mass over time. The combination of decreasing constituent concentrations and the lack of plume migration provide reasonable evidence for natural attenuation of impact at the site.

1.0 INTRODUCTION

This report presents the results of the second semiannual 2008 Assessment monitoring groundwater and surface water sampling event, conducted at the Watauga County Landfill, NCDENR Permit No. 95-02, Watauga County, North Carolina, on September 8-9, 2008 by Draper Aden Associates. The report discusses sampling procedures, analytical results, and overall conclusions of the monitoring event. Tables and figures are provided in Appendix A. A summary of analytical results is presented in Tables 2A, 2B, and 2C. Groundwater elevation measurements are provided in Table 4. Background analytical results are provided in Tables 5A-C and Table 6. The Groundwater and Surface Water Monitoring Program site map is provided as Figure 1. The potentiometric surface, inferred from data obtained on September 8, 2008, is provided as Figure 2.

NCDENR Guidance, dated October 27, 2006, and updated through October 16, 2007, provides guidelines for electronic submittal of environmental monitoring data. The guidelines require that in lieu of a cover letter, a Solid Waste Environmental Monitoring Data Form be submitted with all environmental data reports. Notification tables are also required of 1) concentrations that exceed NC 2L groundwater standards and 2B surface water standards, and 2) concentrations that exceed reporting limits. The Guidance also encourages the electronic submittal (CD-ROM) of the entire report, including narrative text, figures, tables, and data (Appendix E).

Appendix E contains electronic concentration data files conforming to the format required by NCDENR electronic submittal guidelines. Note that these data files provide un-validated results. Validated results are discussed the report narrative [Section 4.0 (Data Validation) and Section 5.0 (Results)] and are summarized in the Monitoring Result Tables 2A, 2B, and 2C.

Appendix E also contains copies of the laboratory summary data sheets, as well as all associated laboratory data, with data validation summaries and completed Quality Assurance/Quality Control (QA/QC) criteria forms used to validate the data.

The report narrative concludes with a discussion of the natural attenuation indicator sampling results, and the relative distribution of target parameter concentrations. An updated review of concentration and distribution trends is also provided.

Assessment monitoring is conducted in accordance with the Watauga County Landfill Assessment Plan (DAA, September 3, 1993) and monitoring program revisions as detailed in the Remedial Investigation and Alternatives Report (DAA, January 12, 1996) and subsequent monitoring event reports. Appendix I of the Assessment Plan, The Groundwater and Surface Water Monitoring Program, details the schedule and procedures to be implemented for collecting groundwater and surface water samples, analyzing the samples for specified parameters, and evaluating and reporting data. The current monitoring schedule is summarized in Table 1.

1.1 Groundwater Monitoring Well Network

Nineteen groundwater monitoring wells (MW-1 through MW-19) have been installed at the Watauga County Landfill. Monitoring well locations are shown on the Groundwater and Surface Water Monitoring Program site map (Figure 1). As noted on Figure 2, MW-6 and MW-16 were abandoned subsequent to the second semiannual assessment monitoring event (April 1996). Abandonment of MW-6 was necessary to permit construction of the landfill cap and abandonment of MW-16 was necessary to permit construction of the 421 bypass. Abandonment of MW-7 was completed in October 2002 to permit the extension of transfer station access routes.

In order to maximize the effectiveness and efficiency of the groundwater monitoring program, the assessment well network is stratified into two groups of "core" and "boundary" wells. Core assessment wells are selected based on each well's ability to monitor and characterize migration of potential impacts. Boundary assessment wells are selected based on each well's ability to monitor and characterize the limits of the horizontal and vertical extent of impact.

In July 1995, after the first semiannual assessment event (fifth assessment event), NCDENR approved the withdrawal of non-impacted boundary wells from the routine compliance monitoring program on the condition that the boundary wells be rotated in and out of routine monitoring on a regular basis. The boundary wells were sampled again during 1997-1998. NCDENR subsequently approved withdrawal of select non-impacted boundary wells from routine groundwater monitoring. The wells were not sampled during 1999-2000. In February 2001 and February 2002, the six non-impacted boundary wells were sampled and analyzed for the target organic and other natural attenuation indicator parameters. The data collected from these wells continue to indicate that they are not impacted. Future monitoring of these wells will continue to be based on an annual review of temporal contaminant distribution trends and other site characterization needs.

In June 1998, NCDENR approved the initiation of monitoring a smaller set of the core monitoring well network for semiannual monitoring and a larger set for annual monitoring. The subset of the existing twelve core well network approved for semiannual monitoring includes the following six wells: MW-2, MW-3, MW-8, MW-9, MW-12 and MW-17. In 1998, the groundwater at these six monitoring points exceeded the EPA MCL for one or more organic target parameters.

The current stratification of the assessment monitoring well network is as follows:

CORE WELLS	BOUNDARY WELLS
MW-1	MW-4
MW-2*	MW-5
MW-3*	MW-13
MW-6 (abandoned 1996)	MW-14
MW-7 (abandoned 10/02)	MW-16 (abandoned 1996)
MW-8*	MW-18
MW-9*	

MW-10
MW-11
MW-12*
MW-15
MW-17*
MW-19
* - core-subset well

The core wells were sampled in September 2008; the core well subset was sampled in September 2008.

1.2 Surface Water Sampling

The goal of the surface water monitoring system at Watauga County Landfill is to provide representative surface water samples for assessing the water quality downgradient of the waste disposal area. Six surface water monitoring points serve to meet this objective.

- (S-1) The last of the series of sediment ponds is sampled to assess the quality of the surface water originating from the landfill before the water discharges into the stream.

- (S-2) The spring capture outfall located adjacent to the last of the series of sediment ponds is sampled to provide a representative sample for assessing the quality of the water originating from the spring capture system located beneath the fill area.

- (S-3) The stream is sampled at the landfill property boundary (approximately 600 feet below the last sediment pond) to assess the water quality of the stream below the waste disposal area. No sampling location is available upstream of the waste disposal area since the stream originates immediately below and adjacent to the disposal area.

- (S-4) The stream located below the Bolick site is sampled approximately 30 feet below the landfill property boundary to assess the water quality of the surface water below the Bolick site. This sampling location is chosen instead of the sediment pond located on the Bolick site to provide a sample that is more representative of the potential influence of groundwater from the soil aquifer.

- (S-5) A seep, located below the waste disposal area and directly above the sediment pond, was observed flowing during the first quarter background event (June 1994). This seep is sampled in addition to the four originally proposed surface water sampling locations.

- (S-6) An additional surface water monitoring point, located approximately 800 feet below the existing surface water monitoring point S-4, was added subsequent to the first semiannual sampling event (July 1995). This monitoring point is sampled to assess the persistence of surface water impacts observed at S-4 further downgradient along this drainage.

A reconnaissance of the landfill is conducted concurrent with the sampling event to document the presence or absence of leachate production. No leachate production has been observed during the sampling events since the initiation of monitoring in 1994. Leachate generated in the waste drains via the spring capture outfall (S-2) and groundwater flow paths.

1.3 Sampling and Analysis Schedule

1.3.1 Groundwater

During the first year of Assessment groundwater monitoring (1994-1995) four quarterly background sampling events were conducted on each groundwater monitoring well. Semiannual sampling is currently conducted. The most recent semiannual monitoring event was conducted on September 8-9, 2008. The groundwater Assessment monitoring schedule is outlined in Table 1.

Monitoring Parameters

The analytical scans performed on each monitoring well during the first year of assessment background monitoring were designed to analyze for all the target parameters detected and tentatively confirmed as a result of the initial comprehensive sampling event performed on the previously existing well network MW-1 through MW-7 (March 1993). The initial analytical list was comprised of the complete EPA Appendix II List of Hazardous Inorganic and Organic Parameters (40 CFR, Part 258) required for Assessment Monitoring under the NCDENR requirements for Municipal Solid Waste Landfills (15A NCAC 13B Section .1600). A summary results table of the initial March 1993 sampling event is contained in Appendix C of this report and the results are detailed in Sections II and III of the Assessment Plan (DAA, September 3, 1993).

The complete EPA Appendix II analysis was repeated on the network of core wells during the first semiannual event (July 1995). Additional parameters detected, and verified through Quality Assurance / Quality Control (QA/QC) validation procedures as being present, that were not identified in prior Assessment monitoring events, were added to the assessment target parameter list. Target parameters not detected during all five previous assessment monitoring program events, and verified through QA/QC validation procedures as not being present, were deleted from the assessment target parameter list. As required, amendments to the existing target parameter list were evaluated and approved by the NCDENR, prior to implementation. For amended target parameters, it was proposed that four independent samples be collected and analyzed for those additional parameters during the following four semiannual sampling events to establish background.

Revisions to the target inorganic parameter list involved adding four metal parameters (chromium, cobalt, nickel, and vanadium) and deleting two other metal parameters (cadmium and mercury). The presence of cadmium and mercury in the groundwater at the site was not supported by the analytical results of all four assessment background or the first semiannual monitoring events. Chromium, cobalt, nickel, and vanadium were observed in three or more wells, although also at levels far below EPA MCL and NC 2L groundwater standards (NCSs), as a result of the comprehensive EPA Appendix II analytical scan performed during the first semiannual event.

As a result of four successive assessment sampling events, all the assessment target metal parameters (including chromium, cobalt, nickel, and vanadium) were observed at levels far below EPA MCL and NCSs. Subsequent to the January 1998 Assessment monitoring event NCDENR approved completing target metal analysis annually rather than semiannually. Metals were analyzed on the September 2008 event.

Past target organic parameter list revisions involved deleting trans-1,3-dichloropropene. The analytical results of the four background monitoring events and the first semiannual assessment sampling event confirmed the absence of trans-1,3-dichloropropene in the groundwater and surface waters at the site. Thus, per the decision criteria outlined in the Assessment Plan, trans-1,3-dichloropropene was removed from the target parameter list. Due to repeated detection, five constituents (chlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, trans-1,2-dichloroethene, and 1,2-dichloropropane) were added to the target list in 2001.

As approved by NCDENR, monitoring of additional EPA Appendix II parameters that have not been confirmed in any of monitoring wells to date is no longer required.

Analytical Methods

During the first year of background Assessment Monitoring (1994-1995), analyses of the core wells utilized EPA Contract Laboratory Program – Statements of Work (CLP-SOW) for all four quarterly events. Organic analyses of the boundary wells alternated between CLP and Low Level Risk Assessment (LLRA) analytical methods for each quarterly event. Metal analyses of all monitoring wells utilized CLP methods on all events. Since completing the first year of quarterly background sampling (April 1995), the core wells have been monitored on a semiannual basis. The first semiannual assessment monitoring event analyzed for the EPA Appendix II List of Hazardous Inorganic and Organic Parameters (40 CFR Part 258), utilizing LLRA analytical methods for organic parameters and CLP analytical methods for metal parameters.

Monitoring continues to be conducted on a semiannual basis for the organic target parameters detected as a result of the complete EPA Appendix II analysis. Monitoring is conducted on an annual basis for the metal target parameters. Reevaluation of the site network and monitoring scheme is conducted after review of the results of each sampling event. The monitoring program continues to follow a two-tiered analytical approach utilizing both EPA CLP-SOW analytical methods and LLRA screening by EPA-SW846 analytical methods. The CLP-SOW are utilized to generate high-level quality data with documented QA/QC protocols. The LLRA methods (EPA-SW-846) are utilized for risk assessment screening to preliminarily identify low levels of parameters that may be present. The assessment monitoring schedule alternates between CLP and LLRA analytical methods for groundwater organic analyses each semiannual event. The analysis schedule provides an outline of analytical methodology designated for each event (Table 1).

Note that the assessment program has completed semiannual monitoring of natural attenuation indicator field parameters from February 2000 through 2008. The groundwater sampling

program for these geochemical and organic indicator parameters are discussed further at the conclusion of this report.

1.3.2 Surface Water

Surface water monitoring has been conducted on a semiannual basis since the initiation of the Assessment Plan monitoring program. The analytical scans that are performed on the surface water samples utilize CLP SOW and are designed to analyze for all target parameters detected as a result of the comprehensive Appendix II analysis. The surface water assessment monitoring schedule is also outlined in Table 1.

2.0 GROUNDWATER AND SURFACE WATER SAMPLING FIELD PROCEDURES

Groundwater and surface water samples were collected according to the Watauga County Landfill Groundwater and Surface Water Monitoring Plan (DAA, September 3, 1993). Field notes, contained in Appendix B, document sample collection procedures.

2.1 Well Purging and Sample Collection

Dedicated stainless steel and TEFLON electrical submersible pumps were permanently installed in the monitoring well network subsequent to the first Assessment event in 1994. Draper Aden Associates' environmental technicians used the dedicated pumps to purge and collect groundwater samples from the well network during the September 2008 sampling event. All non-dedicated equipment was decontaminated between sampling of each monitoring well.

A minimum of three well casing volumes of groundwater was removed from each monitoring well prior to sample collection. Well casing volumes were calculated from measurements of depth to water, and total well depth taken prior to purging. Stabilization of field analyses for pH and specific conductivity were used to verify that stagnant water within the well as removed during purging, and that groundwater representative of the near-aquifer was being sampled. Field notes summarize and document well purging calculations and results (Appendix B).

2.2 Field Meter Equipment and Calibration

Field measurements of pH, specific conductivity, oxidation/reduction potential (ORP), dissolved oxygen (DO) and temperature, were analyzed at each well by completing multiple measurements during purging utilizing a flow through cell.

A YSI model 650 pH/conductivity/ORP/DO/temperature meter was used for the field measurement of these parameters. The meter was calibrated in the field using laboratory-grade buffers for pH, and KCl solution for specific conductivity. Field notes contained in Appendix B document field pH and specific conductivity meter calibration methods for the sampling event.

2.3 Quality Control Blank Samples

Trip blanks were utilized as part of the assessment monitoring program. Trip blanks were prepared by the analyzing laboratory to accompany the sample kits at all times. The trip blanks employed sample containers and volumes identical in physical and chemical integrity to the samples used for actual sample collection. The trip blank was analyzed for all parameters included in the sampling event. The trip blank served as a control on sample kit preparation, analysis in the laboratory, and sample kit transportation.

Field blanks were not collected, due to the use of dedicated purging/sampling equipment.

2.4 Sample Containers and Shipment

Groundwater samples were collected in U.S. EPA approved containers prepared and supplied by the analyzing laboratory. Where applicable, the analyzing laboratory prepared organic sample containers with hydrochloric acid (HCl) prior to sample collection. Total metal samples were preserved in the field using nitric acid supplied by the analyzing laboratory. All samples were placed on ice in a cooler at approximately 4°C immediately after collection. A chain of custody seal was placed on each sample and each cooler to verify samples were not disturbed during transport. The coolers were shipped to the analyzing laboratory by overnight courier service.

2.5 Chain of Custody Documentation

Chain of Custody (COC) documentation and analysis requests are contained with the comprehensive laboratory report. Laboratory analytical data summery sheets are found in Appendix E. COC forms provided by the analyzing laboratory or developed by Draper Aden Associates were used to document the custody of the samples from the time they were collected in the field to the time the custody of the samples was relinquished by Draper Aden personnel. Relinquishing custody of the samples was accomplished by shipping through an overnight carrier service.

The information recorded in the COC included sampling location, sampling points, number of samples, type of sampling containers, sample preservation procedures, matrix spike samples, if any, blanks accompanying the samples, date and time of sample collection, and the date and time custody was relinquished. These COC forms were sent with the samples to the analyzing laboratory. Analysis request forms, with lists of required analytes for the different analytical methods to be used, were also attached along with the COC forms.

3.0. LABORATORY ANALYSIS

3.1 List of Laboratories

Lancaster Laboratories of Lancaster, Pennsylvania performed volatile organic analyses by EPA Method 524.2 on all private well samples.

CompuChem Environmental Corporation, a division of Liberty Analytical Corporation of Cary, North Carolina, performed inorganic analyses on all monitoring well samples and volatile organic analyses on all surface water samples by EPA CLP-SOW, and volatile organic analyses on all monitoring well samples by EPA SW-846 8260B (25 ml purge).

3.2 Analytical Methods

All CLP analytical techniques used were in accordance with the procedures listed in the CLP-SOW Organics OLMO4.3 and CLP-SOW Inorganics ICP Method ILM04.1.

All SW-846 analytical techniques used were in accordance with the procedures listed in the U.S. EPA document Test Methods for Evaluating Solid Waste - Physical/Chemical Methods, SW-846 (latest edition).

3.3 Data Quality Objectives

Quality Assurance Objectives for Measurements

Data quality objectives (DQO) are established to ensure that the data collected throughout is sufficient and of adequate quality for the intended use. Overall DQO included the following:

- Precision - A measurement of the reproducibility of measurements compared to their average value. Precision is measured by the use of splits, replicate samples, or co-located samples and field audit samples.
- Accuracy - This measures the bias in a measurement system by comparing a measured value to a true or standard value. Accuracy is measured by the use of standards, spiked samples, and field audit samples.
- Representativeness - This is the degree to which a sample represents the characteristic of the population being measured. Representativeness is controlled by defining sample collection protocols and adhering to them throughout the evaluation.
- Completeness - This is the ratio of validated data points to the total samples collected. Completeness is achieved through duplicate sampling and resampling, when necessary.
- Comparability - This is the confidence that one data set can be compared to another. Comparability is achieved through the use of standard methods to control the precision and accuracy of the data sets to be compared by use of field audit samples.

The CLP-SOWs are utilized to generate a high level quality data with documented QA/QC protocols. The SW-846 methods are utilized to generate organic data for risk assessment to preliminary identify low levels of analytes that may be present. Estimated CLP SOW results are similarly provided for preliminary assessment purposes only. Estimated data is not intended for use in determining regulatory compliance issues.

Internal Quality Control

i. **Field Quality Control -** Field QC procedures are summarized in Section 2.0.

ii. **Analytical Quality Control** - Analytical QC procedures for CLP analytical techniques are guided by adherence to CLP deliverables. All QC data and records generated by the laboratory were examined for adherence to method requirements by Draper Aden Associates. A laboratory QC report generally consists of the following components:

- spikes
- blanks
- duplicates
- raw data
- surrogate parameters
- instrument adjustment
- calibration
- quantification
- chromatograms
- additional QC requirements (organic and inorganic)

For this project, QC reports are provided with the target parameter analytical results for all sampling events.

4.0. DATA VALIDATION

The CLP analyses were performed in adherence to the relevant CLP-SOW. Results of the CLP-SOW analyses were summarized and reported by the analyzing laboratory in standard CLP reporting format. SW-846 analyses were performed in adherence to relevant SW-846 method requirements and guidance. Draper Aden Associates conducted data validation of each data set. The results from each sampling event were evaluated in association with corresponding QA/QC information provided by the analyzing laboratory.

4.1 Laboratory Reporting Qualifiers

Two different types of qualifiers were associated with laboratory analyses and data validation: **laboratory reporting qualifiers** and **data validation qualifiers**. The laboratory used **laboratory reporting qualifiers** to flag sample results with reference to relevant QA/QC criteria. Laboratory reporting qualifiers were unique to the analyzing laboratory and are defined in the laboratory data package. In addition to the laboratory reporting qualifiers, project specifications required the laboratory performing the analytical services to utilize the following additional data qualifiers and definitions:

Qualifiers

D - Denotes the sample was diluted to obtain the result.
S - Method of Standard Additions was utilized to obtain the result.
E - Laboratory recoveries fell outside EPA control limits. Results are approximate.
TI - The laboratory tentatively identified the parameter.

Definitions

CRDL	Contract Required Detection Limit (associated with CLP-inorganics only).
IDL	Instrument Detection Limit (Associated with CLP-inorganics only). Inorganic Data qualified with a "U" refers to IDL.
CRQL	Contract Required Quantitation Limit (associated with CLP organics only). Organic Data qualified with a "U", refer to CRQL.

4.2 Data Validation Qualifiers

Data validation was completed using guidance from the "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", (Document 1) USEPA, February, 1993. Data Validation was performed on the results presented in the laboratory analysis report, and the validated results were flagged, where required, using the appropriate CLP data validation qualifiers. Definitions of the nationally recognized data validation qualifiers used by Draper Aden Associates in the validation process and for the reported results are presented below.

Organic Data Validation Qualifiers

U - The parameter was analyzed for, but was not detected (the numerical value associated with the data validation qualifier is the reported sample LOQ for organics and the reported sample IDL for inorganics).
J - The parameter was positively identified; the associated numerical value is the approximate concentration of the parameter in the sample.
N - The analysis indicates the presence of a parameter for which there is presumptive evidence to make a "tentative identification".
NJ - The analysis indicates the presence of a parameter that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ - The parameter was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the parameter in the sample.
R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the parameter cannot be verified.

Inorganic Data Validation Qualifiers

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is the sample detection limit.
J - The associated value is an estimated quantity.
R - The data are unusable. (Note: Parameter may not be present)

UJ - The material was analyzed for, but was not detected. The associated result is an estimate and may be inaccurate or imprecise.

4.3 Organic Data Review

CLP Volatile Organic Data Review

Draper Aden Associates performed a limited manual review of the analytical results for sixteen target analytes which included benzene, chlorobenzene; 1,4-dichlorobenzene; chloroethane, dichlorodifluoromethane; 1,1-dichloroethane; 1,2-dichloroethane; 1,1-dichloroethylene; cis-1,2-dichloroethylene; trans-1,2-dichloroethylene; 1,2-dichloropropane, tetrachloroethylene; 1,1,1-trichloroethane, trichloroethylene, methylene chloride, vinyl chloride. The following information and attached table summarize the data validation results.

CompuChem performed the GC/MS analysis and submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the analytical results. The original certificate of analysis was received September 23, 2008. The revised certificate of analysis was received electronically on October 24, 2008.

The evaluation of CompuChem's compliance with the method was based on a limited review of the following items: QC deliverables package, case narrative, technical holding time and preservation requirements, instrument performance check, instrument calibrations, blank analysis, system monitoring recoveries, matrix spike/matrix spike duplicate (MS/MSD) analysis, internal standard requirements, laboratory control samples (LCS), and confirmation of detected analytes. Review of transcriptions from raw data to summary sheets was performed. Specific representative calculations were not performed except where noted. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

CompuChem received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Technical holding time and preservation criteria were met.

The certificate of analysis was revised to reflect the correct target analyte list. The certificate of analysis was revised to include chlorobenzene; 1,4-dichlorobenzene; 1,2-dichloroethane, 1,2-dichloropropane and tentatively identified compounds (TICs).

The certificate of analysis presented data which were of acceptable quality. Holding time, preservation, BFB tuning, initial and continuing calibration, blank, system (surrogate) monitoring, MS/MSD, internal standard and LCS requirements were met, except where noted below. No transcription errors were noted. Deviations from specific QA/QC criteria that were identified during the data review process are summarized below.

1,1-Dichloroethene exceeded initial calibration requirements and calibration verification requirements and results for 1,1-dichloroethene were qualified as estimated, "UJ" to note that the quantitation limit is estimated due to the observed QC deficiency. Several target analytes were detected below the contract required quantitation limit (CRQL) in sample S-2, S-4 and S-5. Except where noted above, results remain as reported by the laboratory. No other target analytes were detected in any sample.

SW-846 Volatile Organic Data Review

Draper Aden Associates performed a limited review of the analytical results for 62 volatile organic parameters analyzed according to USEPA SW-846 Method 8260B. CompuChem performed the SW-846 analysis and submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the analytical results. The laboratory revised the deliverables package to include the method detection limit study.

The evaluation of CompuChem's compliance with Method 8260B and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, instrument performance (tune) check, instrument calibrations, blank analysis, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, and internal standard requirements. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

CompuChem received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Technical holding time and preservation criteria were met.

The original certificate of analysis for Method 8260B was received on September 23, 2008. The certificate of analysis was complete and no data was rejected. The data set demonstrated the laboratory's ability to achieve the reported limit of quantitation, as supported by the initial calibration data and laboratory method detection limit (MDL) study.

QC history documentation was provided. Instrument performance check (tuning) criteria, initial calibration, calibration verification, blanks, surrogates, MS/MSD, internal standard and LCS requirements were met, except where noted below. Deviations from specific QA/QC criteria that were identified during the data review process are summarized below.

Holding time requirements were met. Sample preservation criteria were met with the exception of acrolein. Acrolein analysis was performed on samples preserved at pH < 2 instead of pH 4-5 and all acrolein results were qualified as estimated.

Initial calibration criteria were met except for select analytes that exceeded initial calibration %RSD requirements. See attached table for sample results that were qualified as estimated due to the %RSD exceeding 15% and the use of the average response factor for quantitation. Continuing calibration verification criteria were met except for select analytes that exceeded the continuing calibration verification requirements. See attached table for sample results that were qualified as estimated. The remaining calibration requirements were met.

Acetone was reported in the trip blank (1.4 µg/l) and in the method blank (1.9 µg/l), methylene chloride was reported in the method blanks (0.1-0.11 µg/l) and naphthalene was reported in the trip blank (0.1 µg/l) and in the method blank (0.18 µg/l). Detected results less than the LOQ or less than five times the blank contamination concentration for these three analytes were attributed to the laboratory contamination and validated as "U."

Chloroethane recovered low in the MSD and all results for chloroethane were qualified as "UJ" to note that the quantitation limit is estimated due to the observed QC deficiency.

Based on historical data, MW-2 and MW-3 were analyzed initially in dilution. Samples MW-10, MW-11 and MW-12 required dilutions and re-analysis to obtain the reported sample result for 1,1,1-trichloroethane (MW-10) and cis-1,2-dichloroethene (MW-11 and MW-12).

Target analytes detected at or above the method detection limit and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table. Target analytes reported by the laboratory as detected less than the corresponding LOQs are validated and qualified as "J" to note that the reported concentration should be considered estimated.

Target analytes detected greater than the LOQ remain as reported by the laboratory, unless noted. Except where noted above, all other sample results were validated and reported as "U" to note the target analyte was analyze for, but not detected at or above the LOQ. No results were rejected based on the data validation criteria.

5.0 DISCUSSION OF RESULTS

Tables 2A-B (Appendix A) provide a summary of the target analytical results obtained from the September 2008 sampling event. A review of concentration trends (Tables 5A-C) indicates significant decreases in target parameter concentrations have occurred in both the groundwater and surface water across the site since the remedial cap was installed in the fall of 1996. Target parameter delineation maps provided in the July 1999 and August 2002 event reports illustrated these decreases in terms of the site conceptual model.

Draper Aden Associates validated the results according to the discussion provided in Sections 3.0 and 4.0 of this report. Tables 2A-B list for each parameter, as applicable, an MCL established by the USEPA and NC 2L groundwater standard, the CRQL/LOQ, and the analytical

method. Estimated analytical results are provided for preliminary assessment purpose only and are not intended for use in determining regulatory compliance issues.

5.1 Assessment Monitoring Results

Target Organic Parameters

The analytical results for the sixteen target organic parameters detected during the September 2008 Assessment sampling event are summarized in Tables 2A and 2B. Eleven core monitoring wells and five surface water locations were analyzed on this event. The results are individually discussed for each target parameter below.

Benzene. Benzene was detected above the LOQ at one well (MW-9) at a concentration of 3.1 µg/l, above the NC 2L standard of 1 µg/l. Note that benzene concentrations, historically detected above the EPA MCL at only one other monitoring well, MW-8, have been below the EPA MCL at MW-8 since 1997. In fact, benzene has not been detected at MW-8 since 2001.

Benzene was not detected in any of the surface water samples.

Chloroethane. The daughter product chloroethane was detected above the LOQ at four wells (MW-3, MW-9, MW-12, and MW-17). All concentrations were less than 10 ug/l, several orders of magnitude below the NC 2L groundwater standard of 2800 µg/l. No EPA MCL has been established for chloroethane.

Chloroethane was detected at one surface water location (S-2), estimated at 6 µg/l, considerably below the NC 2B surface water standard of 860 µg/l.

Dichlorodifluoromethane. Dichlorodifluoromethane was detected at one well (MW-9) at a concentration of 0.58 µg/l, which is several orders of magnitude below the NC 2L groundwater standard of 1400 µg/l. No EPA MCL has been established for dichlorodifluoromethane.

Dichlorodifluoromethane was not detected in any of the surface water samples.

1,1-Dichloroethane (1,1-DCA). The daughter product 1,1-DCA is the most commonly detected target parameter at the site. 1,1-DCA was detected above the LOQ at all core wells except MW-1 and MW-19. All 1,1-DCA concentrations were below the NC 2L groundwater standard of 70 µg/l. No EPA MCL has been established for1,1-DCA.

1,1-DCA was not detected in any of the surface water samples.

1,1-Dichloroethene (1,1-DCE). 1,1-DCE was detected at four wells (MW-2, MW-10, MW-11, and MW-12). 1,1-DCE concentrations at MW-2 and MW-10 of 61 µg/l and 20 µg/l, respectively, exceeded the EPA MCL and NC 2L groundwater standard of 7 µg/l. 1,1-DCE

concentrations at MW-11 and MW-12 were estimated below the LOQ of 0.5 µg/l. Note that after decreasing between 1994 and 2002, 1,1-DCE concentrations at MW-2 have fluctuated considerably, increasing significantly between 2002 and 2005, decreasing in 2006 and April 2007, increasing again in September 2007 and March 2008, then decreasing again in September 2008. In general, concentration trends for 1,1-DCE are decreasing.

1,1-DCE was not detected in any of the surface water samples.

cis-1,2-Dichloroethene (cis-1,2-DCE). The daughter product cis-1,2-DCE was detected at six wells (MW-3, MW-8, MW-9, MW-11, MW-12, and MW-17). All cis-1,2-DCE concentrations were below the EPA MCL and NC 2L groundwater standard of 70 µg/l.

Cis-1,2-DCE concentrations in the west drainage, historically detected above the EPA MCL and NC 2L groundwater standard, have generally decreased to levels below the MCL and NC Standard.

Cis-1,2-DCE detected at one surface water location (S-4), estimated at 3 µg/l, at a concentration several orders of magnitude below NC 2B surface water standards.

Tetrachloroethene (PCE). PCE was detected at seven wells (MW-2, MW-3, MW-8, MW-9, MW-11, MW-12, and MW-17). Concentrations did not exceed the EPA MCL for PCE of 5 µg/l, but were above the lower NC 2L groundwater standard of 0.7 µg/l at all seven wells.

Note that PCE concentrations, historically detected above the EPA MCL, have generally decreased to levels below the EPA MCL.

PCE was not detected in any of the surface water samples.

Trichloroethene (TCE). TCE was detected at seven wells (excluding MW-1, MW-2, MW-15, and MW-19). Concentrations did not exceed the EPA MCL for TCE of 5 µg/l, but were above the lower NC 2L groundwater standard of 2.8 µg/l at MW-3 and MW-12.

TCE was not detected in any of the surface water samples.

1,1,1-Trichloroethane (1,1,1-TCA). 1,1,1-TCA was detected at two wells (MW-2 and MW-10). 1,1,1-TCA concentrations at MW-2 were above the EPA MCL and NC 2L groundwater standard (i.e., 200 µg/l). Prior to July 2003, 1,1,1-TCA concentrations in MW-2 had decreased to levels below the EPA MCL. Nate that after steadily decreasing between 1994 and 2002, 1,1,1-TCA concentrations at MW-2 have fluctuated considerably, increasing significantly between 2002 and 2005, decreasing in 2006 and April 2007, increasing again in September 2007 and March 2008, then decreasing again in September 2008.

1,1,1-TCA was not detected in any of the surface water samples.

Vinyl Chloride. Vinyl chloride detected at three wells (MW-9, MW-11, and MW-12). Concentrations were above the EPA MCL of 2 µg/l at MW-11 and MW-12, and above the lower NC 2L groundwater standard of 0.015 µg/l at MW-9.

Vinyl chloride was not detected in any of the surface water samples.

Chlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichloroethane, trans-1,2-Dichloroethene, 1,2-Dichloropropane, and Methylene Chloride. Five of the remaining six target parameters, as identified above (excluding methylene chloride), were detected at low concentrations in September 2008. All the concentrations of these remaining five target parameters were below 1 µg/l, except for 1,4-dicholorobenzene concentrations, which remained below 3.5 µg/l.

All of these five remaining target parameters were detected at MW-11 and MW-12. All, except 1,2-dichloroethane, were also detected at MW-9. 1,4-Dichlorobenzene was also detected at MW-8. 1,2-Dichloropropane and trans-1,2-dichloroethene were also detected at MW-3.

Chlorobenzene and trans-1,2-dichloroethene concentrations were below respective NC 2L groundwater standards and EPA MCLs. 1,4-Dichlorobenzene concentrations were considerably below the EPA MCL of 100 µg/l, but concentrations at MW-9, MW-11, and MW-12 at 1,9 µg/l, 3.2 µg/l, and 3.4 µg/l, respectively, were above the NC 2L groundwater standard of 1.4 µg/l. 1,2-Dichloroethane and 1,2-dichloropropane concentrations at MW-11 and MW-12 were above the NC 2L groundwater standards of 0.38 µg/l and 0.51 µg/l, respectively. No EPA MCL has been established for 1,2-dichloroethane. 1,2-Dichloropropane concentrations were below the EPA MCL of 5 µg/l. All trans-1,2-dichloroethene concentrations were considerably below the NC 2L groundwater standard and the EPA MCL of 100 µg/l.

Non-Target Organic Parameters

Two non-target parameters (1,2-dichlorobenzene and chloroform) were detected in groundwater sample MW-12 at estimated and low concentrations of 0.21 µg/l and 1.2 µg/l, respectively, considerably below NC 2L groundwater standards. Two non-target parameters (dichlorofluoromethane and 1,3-dichlorobenzene) and one unknown hydrocarbons were tentatively identified in surface water sample S-2 at low estimated concentrations.

5.2 Potable Well Sampling Results

The initial domestic and commercial use potable well sampling event was developed and conducted by Draper Aden Associates on March 5, 1993 at the direction of Watauga County and approval of State officials to protect public health and welfare. Between 1994 and 2000, the potable water well sampling and analysis program was jointly conducted by the Appalachian District Health Department (ADHD) and the NC State Laboratory of Public Health. Recent potable well sampling events between 2001 and 2008 have been conducted by Draper Aden Associates at the direction of Watauga County and oversight of State officials.

The objective of the potable well sampling and analysis program is to investigate and evaluate the potential influence and associated risks of the landfill on neighboring groundwater resources. Samples collected by the ADHD (prior to 2000) were analyzed for volatile organic compounds by the State Laboratory utilizing EPA Method 502.2. The State laboratory confirmed any detect via mass spectrometry. Samples collected by Draper Aden Associates (after 2000) were analyzed via GC/mass spectrometry utilizing EPA Method 524.2. The EPA Method 524.2 employs automatic confirmation. Potable water well locations with accompanying sampled well reference number can be found on the Site Map (Figure 1). A summary of the analytical results of the potable well testing program collected to date are presented in Appendix D.

The analytical results obtained in 1993 and 1994 indicated organic constituents at concentrations above health-based standards at two of forty-five sampled potable wells neighboring the landfill. These two wells, the Carroll residence well (well reference no. 12) and the Nissan-Mazda Dealership well (well reference no. 4), were replaced by connections to the Town of Boone's public water system in 1995.

To date, sixty-one wells neighboring the landfill have been sampled. At this time, the cause or source of all the organics detected in the potable well sampling program cannot be determined. It should be noted that eight of twenty-one compounds that were detected in the Carroll residence well in 1993 have not been detected in the landfill monitoring well network. The differences in parameter "fingerprints" in groundwater beneath these sites compared to "fingerprints" for landfill wells tends to indicate potential impacts resulting from activities specifically undertaken on these sites and/or immediately around the private well heads and/or components of the well systems.

Between 1995 and 1999, concentrations of target organics in wells located south of the southern saddle steadily diminished to non-detect levels. Despite the absence of target organics in the potable wells located south of the southern saddle, the County and the Town provided public water to nine residences located south of the southern saddle in 2000. Trace levels of target organic compounds were previously detected in the wells serving these residences. The subject wells include well reference numbers 11, 12, 14, 24, 20 and 33. Five residences were located on Green Briar Rd, and four residences were located on Grapevine Circle. Three additional residences constructed in the immediate vicinity of area served by the public water line, and one additional residence that initially declined connection (abandoned well reference no. 24), are connected to public water. Wells that have been replaced with connections to public water are noted on Figure 1. Connections to public water are also indicated on the summary tables (Appendix D).

Eighteen private wells located south of the southern saddle, outside the area current served by public water, were sampled during the September 2008 Assessment Monitoring event.

Ten residential wells located south of the southern saddle were sampled in March 2005. Although a suspected laboratory contaminant (methylene chloride) was detected at one well at an estimated concentration equal to the detection limit of 0.5 µg/l, no other constituents were detected. This well, located at 142 Green Briar Lane (well reference no. 21), was resampled in October 2005

and recently in September 2008, and no constituents were detected. The residence at 142 Green Briar Lane, only seasonally occupied, was not sampled in 2006 and 2007.

As noted above, trace organic levels detected in wells located south of the southern saddle in 1992 and 1993, have diminished to non-detect levels. Between June 1997 and May 2001, trace organic levels, below the minimum detection limit, were only detected in one well located south of the saddle, well reference no. 24. Since 2001, only three trihalomethanes (chloroform, bromodichloromethane and dibromochloromethane) were detected at well reference no. 24, in February and August of 2002, these compounds were not detected in January or July of 2003, or March 2004. Trihalomethanes have not been detected in the groundwater monitoring wells surrounding the landfill and are a known byproduct of well chlorination. Chloroform, in particular, is frequently detected in chlorinated residential wells. The residence at well reference no. 24 initially declined to be connected to public water and was unoccupied for several years until ownership recently changed. The residence at well reference no. 24 was connected to public water and the pump was pulled from the well.

The September 2008 sampling results are comparable to previous results and concentration trends. Review of the analytical results from all the potable well sampling conducted previous to 2001 was performed by the NC Department of Epidemiology. The reviews indicated that the sampled residential well waters are acceptable for all uses due to non-detection of organic analytes. Individual analytical results obtained in September 2008 are discussed below.

September 2008 Sampling

Draper Aden Associates sampled the following two business wells (one no longer in-use) and five residential wells (two potable use and three non-potable use) on September 9, 2008.

2239 Hwy 421 South (well reference no. 1) potable use
2347 Hwy 421 South (well reference no. 2) non-potable use only
BREMCO, 2491 Hwy 421 South (well reference no. 5) no longer in-use
Hollar and Greene Produce, 230 Cabbage Row (well reference no.6)
2711 Hwy 421 South (well reference no. 15) non-potable use only
2737 Hwy 421 South (well reference no. 16) non-potable use only
142 Green Briar Lane (well reference no. 21) potable use

The well samples were analyzed for 59 organic constituents via EPA Method 524.2, by Lancaster Laboratories of Lancaster, Pennsylvania, a NC state-certified lab for Method 524.2.

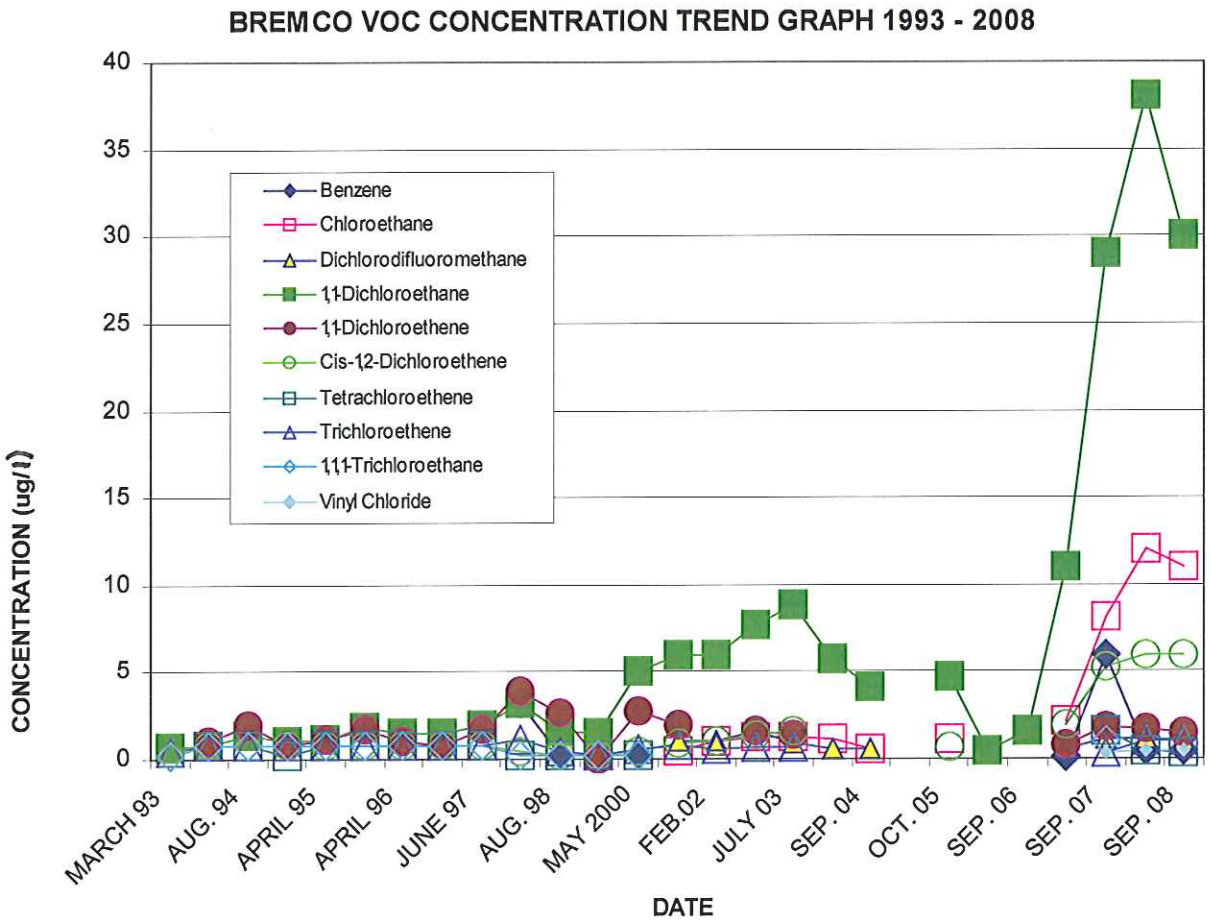
No organic constituents were detected in the two potable use wells or the non-potable use well at 2711 Hwy 421S . Trace concentrations were detected at less than 1.0 µg/l (0.5µg/l) for one constituent (cis-1,2-DCE) at the non-potable use well at 2737 Hwy 421S.

After using bottled water since 1993, BREMCO was connected to public water in 2003. The County arranged for approval for hookup of BREMCO without Town annexation and assisted

with installation of the BREMCO connection. BREMCO, located at 2491 Hwy 421 S, and the residences at 2347 and 2737 Hwy 421 S, were connected to public water in 2003 and 2004. The County covered availability fees, tap on fees, and the connection costs associated with the private residences. In order to complete the connection to the residence at 2711 Hwy 421 S, the County also completed a survey and arranged purchase of an easement across the property at 2737 Hwy 421 S. Several years later, the residence at 2737 also agreed to be connected. The wells at 2711 and 2737 Hwy 421 S have been sampled semiannually since August 2001, after the detection of tetrachloroethene at less than 1.0 µg/l in February 2001; tetrachloroethene has not been detected since.

The well at 2347 Hwy 421 S (well reference no. 2) was not sampled between 2004 and 2006, after the residence was connected to public water. The former residential well is currently used infrequently to water horses. The well was sampled on both semiannual 2007 monitoring events, as well in September 2008. Six organic constituents were detected in September 2008; these same six constituents were also detected in April and September 2007, and September 2008. 1,1-DCA was detected at 4.8 µg/l in September. All the other detected constituents (chloroethane, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-DCE, and dichlorodifluoromethane) were at low concentrations below 1.0 µg/l. All concentrations were below applicable EPA MCL and NC 2L groundwater standards.

As indicated by the following concentration graph, organic concentrations in the BREMCO well are less than 2 µg/l for most of the detected constituents. Only 1,1-DCA, chloroethane, and cis-1,2-DCE concentrations range higher. In September 2008, eight organic constituents were detected at or above the analytical quantitation limit (0.5 µg/l). 1,1-DCA was detected at 30 µg/l; chloroethane and cis-1,2-DCE were detected at 11 µg/l and 6 µg/l, respectively. Methylene chloride and 1,1-DCE were detected at 1.4 µg/l and 1.5 µg/l, respectively; dichlorodifluoromethane was detected at 1.0 µg/l; and 1.4-dichlorobenzene and trichloroethene were both detected at 1.3 µg/l and 1.0 µg/l, respectively. ; and benzene and vinyl chloride were both detected at 0.5 µg/l. Seven other organic constituents were detected at less than 0.5 µg/l (benzene, chlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, tetrachloroethene, trans-1,2-DCE, and vinyl chloride). All concentrations were below applicable EPA MCL drinking water standards, and all concentrations, except the estimated vinyl chloride concentrations, were below applicable NC 2L groundwater standards. The NC 2L for vinyl chloride, at 0.015 ug/l, is considerably below the analytical detection limit; therefore, any detection is above the standard.



After BREMCO was connected to public water in 2003, the pump was pulled. The well continued to be sampled via bailers, although purging several bore volumes of the 400+ ft of water column residing in the well was not feasible. Geophysical and video logging, and straddle packer sampling of the BREMCO well completed in 1998 indicated that a majority of the flow into the well is produced at two distinct intervals at approximately 245 feet and 325 feet in depth, and that routine semiannual sampling completed by the Appalachian Health Department was producing comparable results. Since the BREMCO well has not been used for several years, sampling technicians employed a HydraSleeve™ designed for discrete interval sampling on the September 2007, March 2008, and September 2008 events, in an attempt to sample fresh water coming in at the 245 and 325 ft intervals discussed above.

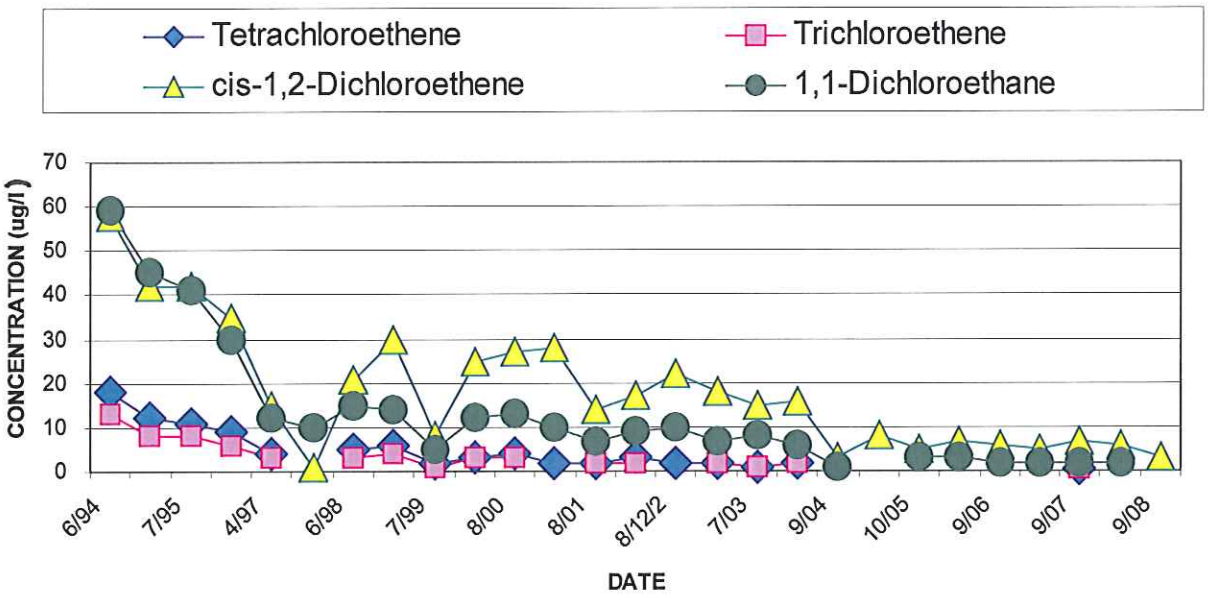
5.3 Distribution Trend Evaluation

Monitoring results indicate significant reductions in the extent and concentration of impact have occurred across the site. Although the northern edge of the occurrence of assessment target constituents in the groundwater continues to primarily exist within the right-of-way for the Route 421 bypass, reductions of concentrations and extent are observed to the south. South of the bypass, the detection of assessment target constituents continues to be concentrated between the saddle, located between the landfill and the Rocky Mountain Heights Subdivision, and the west and north drainages below the landfill.

West Drainage - In September 2008, fourteen target constituents (no dichlorodifluoromethane or 1,1,1,-TCA) were detected in the west drainage; all thirteen were detected at MW-11 and MW-12, eight at MW-3; five at MW-17; and four at MW-8. Vinyl chloride was detected above the EPA MCL at MW-11 and MW-12. PCE was detected above the NC 2L standard of 0.7 µg/l at MW-3, MW-11, MW-12, and MW-17. TCE was detected above the NC 2L standard of 2.8 µg/l at MW-3 and MW-12.

Historically, four constituents are typically detected at the west drainage surface water sampling point S-4 (PCE, TCE, cis-1,2-DCE and 1,1-DCA). No organic parameters are detected at location S-6, located approximately 800 feet downstream from S-2. Prior to September 2004, these four organic constituents were consistently detected at S-4. Since 2004, only 1,1-DCA and cis-1,2-DCE have been detected at S-4. As indicated in the following trend graph, concentrations have decreased significantly since 1994.

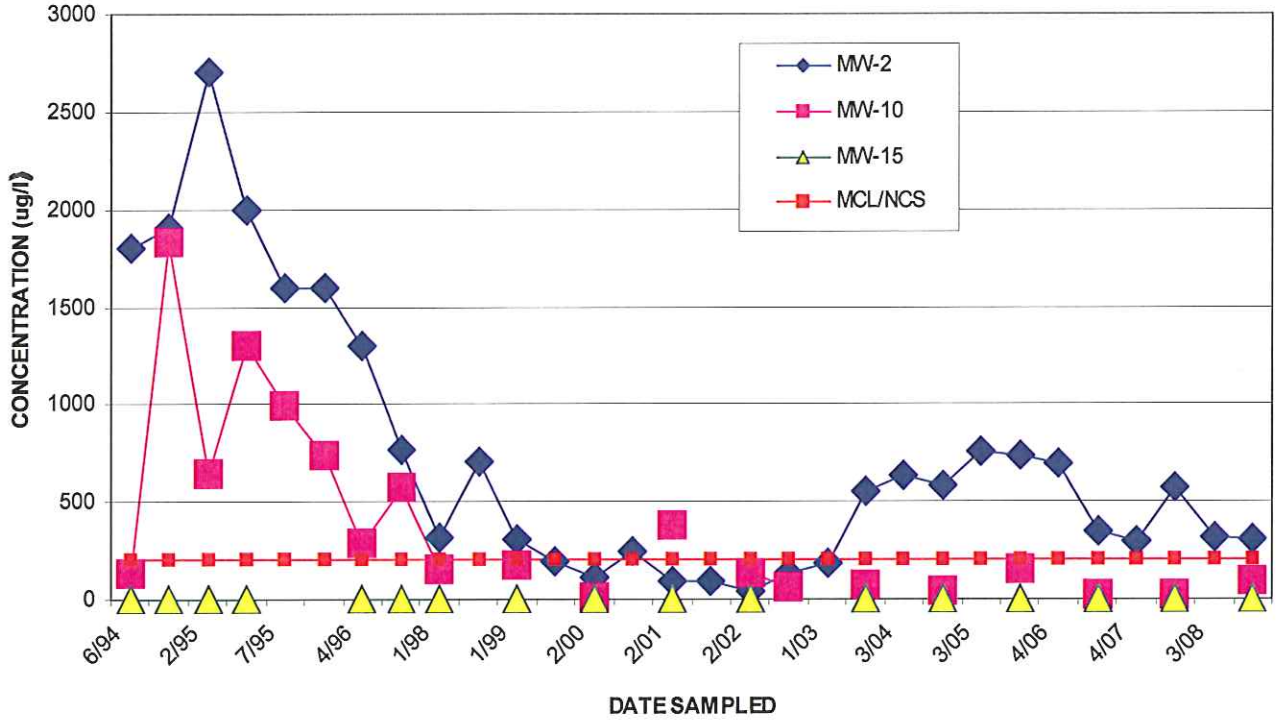
S-4 VOC CONCENTRATION TRENDS 1994-2008



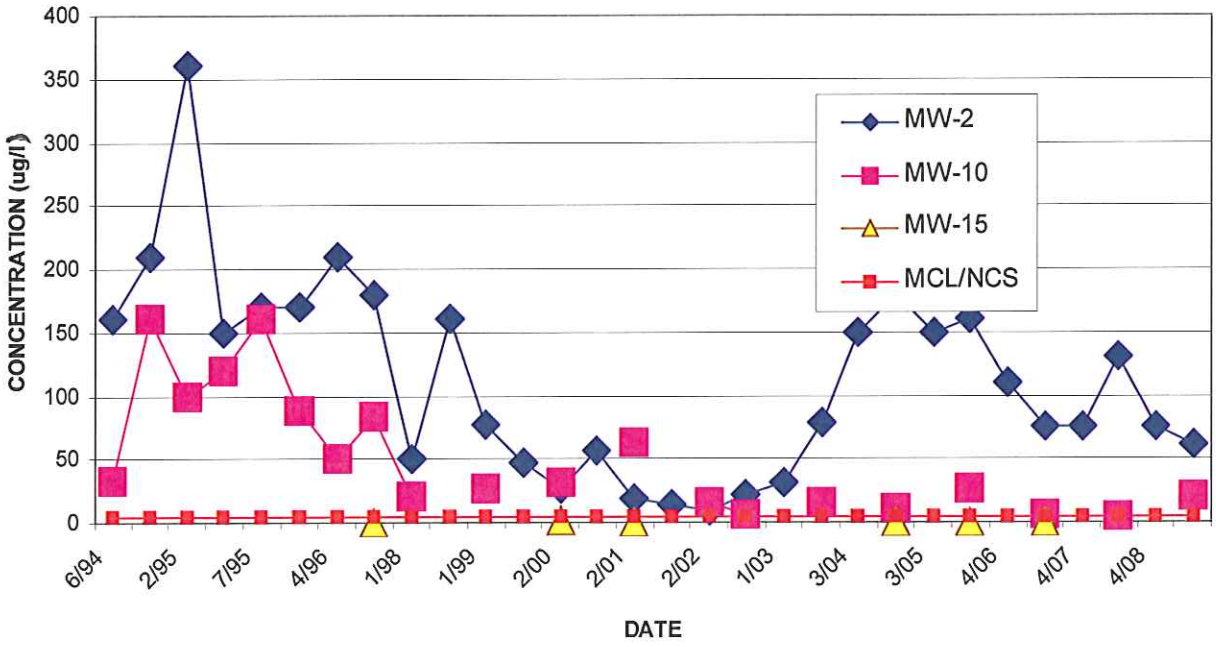
North Drainage - In the north drainage, the detection of organic constituents is confined to the bedrock aquifer. Historically, a total of four organic constituents (1,1-DCA, 1,1-DCE, 1,1,1-TCA and PCE) are typically detected in the north drainage at bedrock wells MW-2 and MW-10. These same four constituents were detected at MW-2 in September 2008.

Elevated concentrations of 1,1-DCE and 1,1,1-TCA historically observed at MW-2 indicate preferential migration to deeper fracture zones within the bedrock in the north drainage. The concentration of three constituents, 1,1-DCE, 1,1,1-TCA and PCE, historically exceeded their respective EPA MCLs in both MW-2 and MW-10. As noted by the following concentration trend graphs, between 1998 and 2000, the concentrations of 1,1,1-TCA and PCE decreased to levels below their respective EPA MCLs in the north drainage. Note that after steadily decreasing from 1995 to 2002, 1,1-DCE and 1,1,1-TCA concentrations increased in 2004 and 2005. 1,1-DCE and 1,1,1-TCA have been above the EPA MCL at MW-2 since 2004. PCE was also estimated at concentrations above the EPA MCL at MW-2 in September 2007.

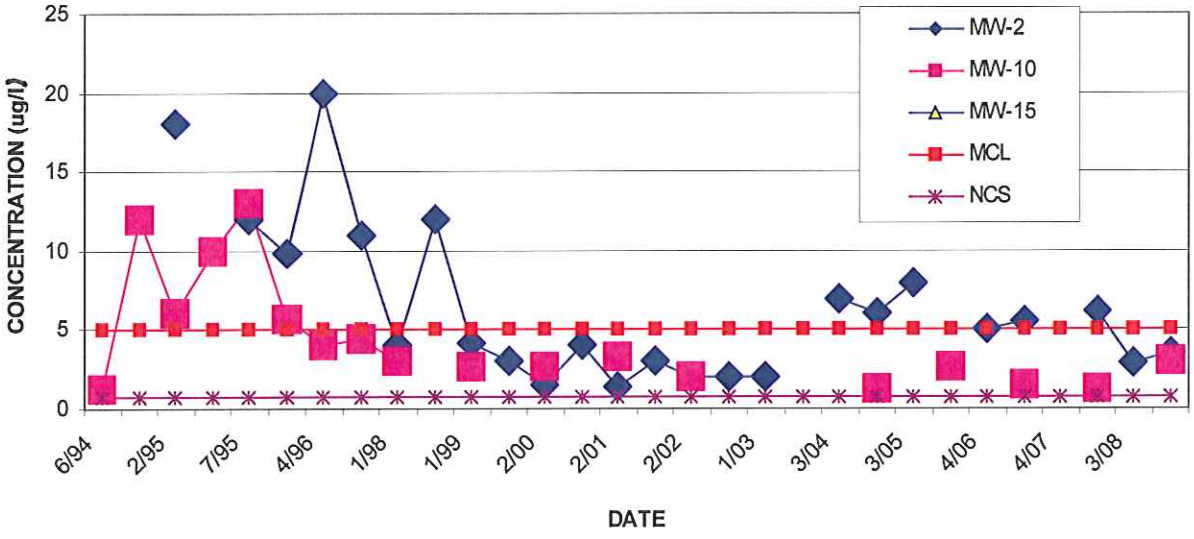
1,1,1-TRICHLOROETHANE CONCENTRATION TREND GRAPH
NORTH DRAINAGE
1994-2008



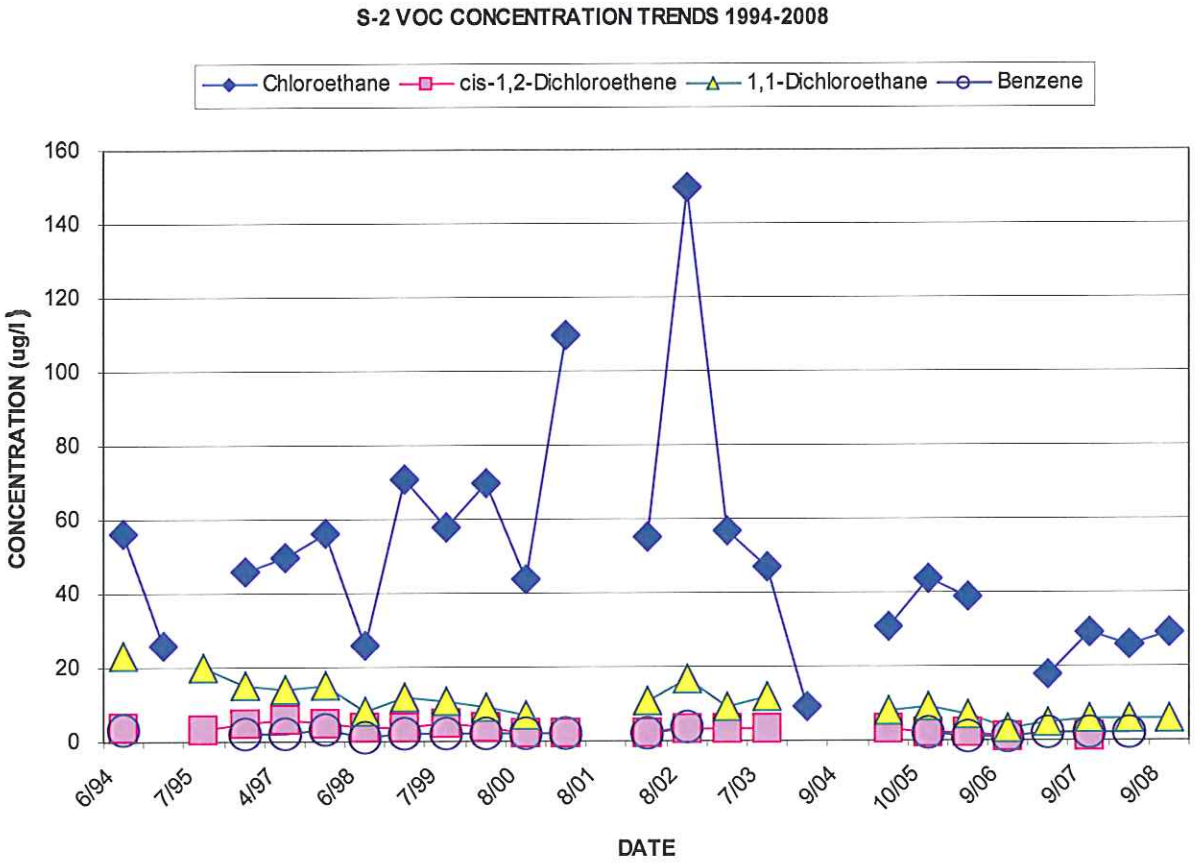
1,1-DICHLOROETHENE CONCENTRATION TREND GRAPH
NORTH DRAINAGE
1994-2008



TETRACHLOROETHENE CONCENTRATION TREND GRAPH
NORTH DRAINAGE
1994-2008



The following trend graph illustrates the concentrations of four organic constituents detected at the landfill spring capture outfall, S-2, located in the north drainage, since 1994.



Historically, four or five target organic constituents were typically detected at the landfill spring capture outfall, S-2, located in the north drainage. No organic parameters are detected at location S-3, located approximately 600 feet downstream from S-2. The concentrations are both currently and historically below NC surface water quality standards.

Downgradient of the northern drainage, groundwater within the bedrock aquifer system flows into the central Rocky Branch watershed aquifer and is apparently significantly diluted. The low-level detection of 1,1,1-TCA at MW-15 indicates that groundwater flow continues to follow the northern drainage orientation before reaching the apex of the watershed at Rocky Branch. 1,1-TCA was detected at 0.93 µg/l at MW-15 in September 2008.

Southern Saddle - Several organic compounds detected in MW-9, located along the southern saddle between the landfill and the Rocky Mountain Heights subdivision, particularly methylene chloride, have been historically observed at markedly different concentrations than the levels of the organic compounds detected in the remainder of the monitoring well network. In 1993, the abandoned Carroll residence well (reference no. 12), located approximately 100 feet from MW-9, was impacted by many of the same organic compounds. It should be noted that eight (8) of

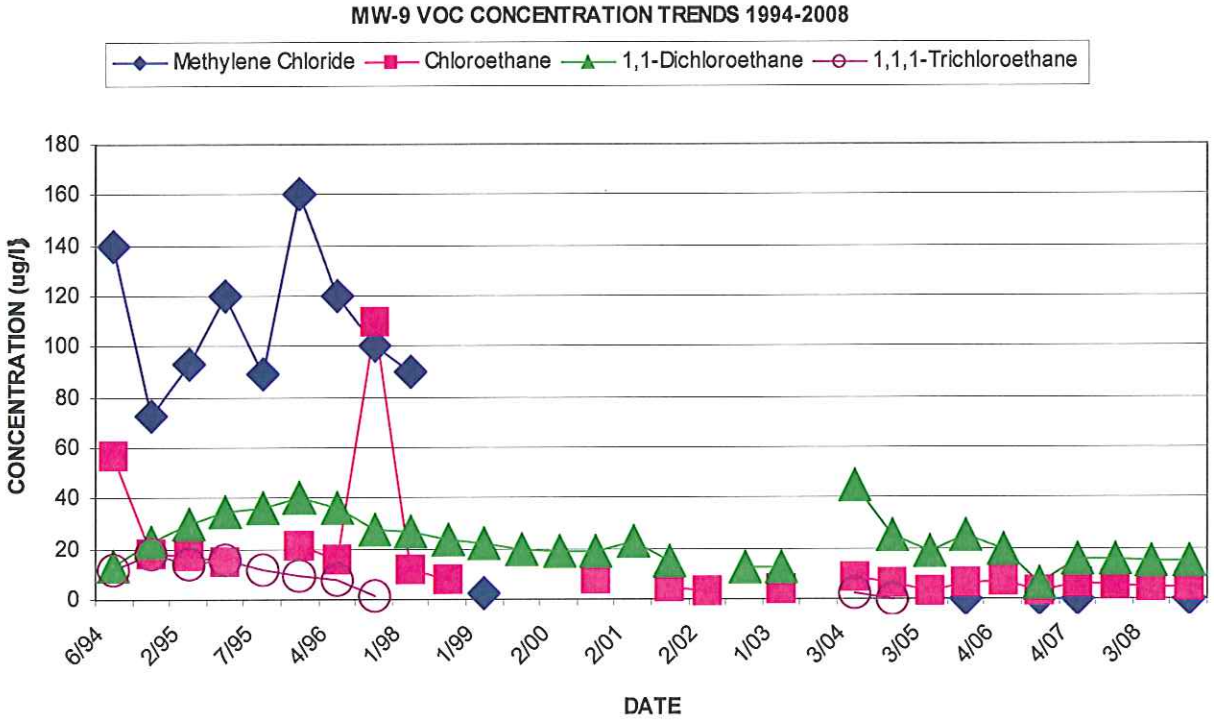
twenty-one (21) compounds detected in the Carroll residence well in 1993 were not detected in the landfill monitoring well network (including MW-9). The cause or source of the organics detected in the Carroll well was not established, although differences in the constituents detected in the Carroll well compared to other landfill wells (including MW-9) indicates impact resulting from a source other than the landfill.

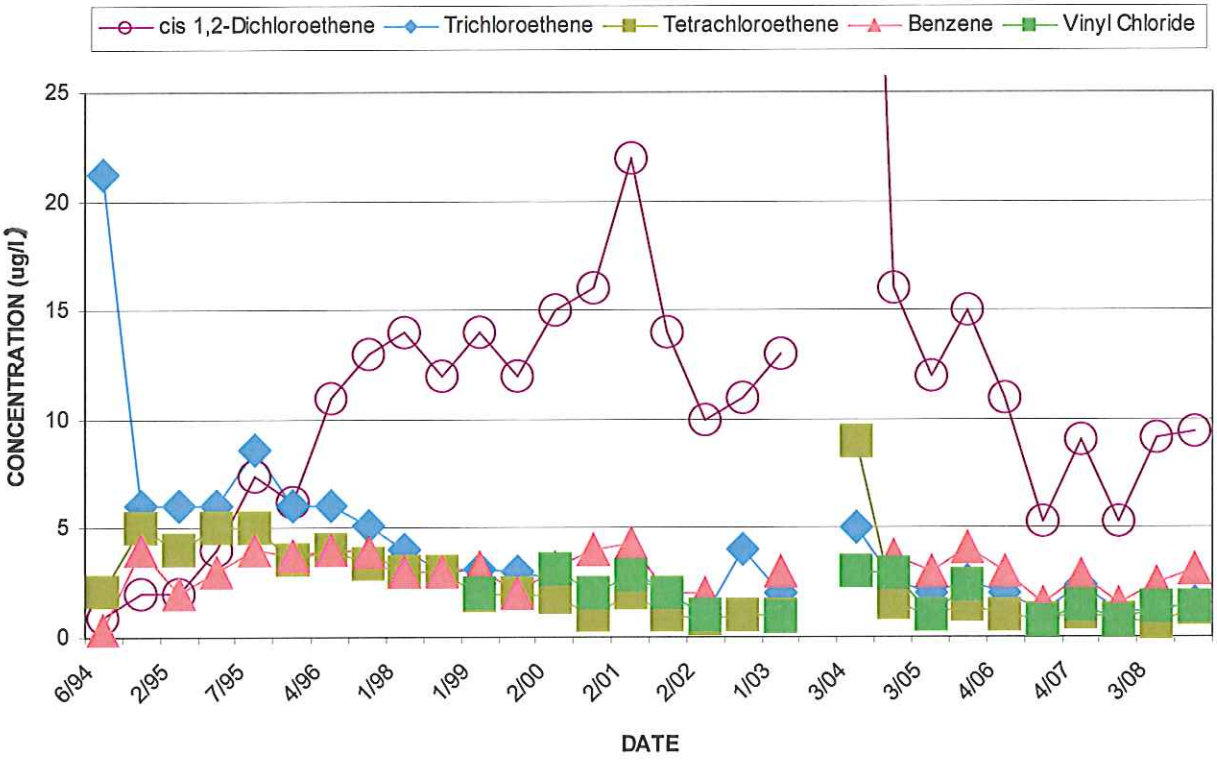
Trace levels of the same organic constituents detected in both the Carroll well and the landfill monitoring well network have also been previously detected in several other potable wells located south of the saddle. The frequency of detection of these trace levels has declined significantly between 1993 and 1999. Since June 1997, landfill related trace organic levels have only been detected in one well located south of the saddle (well reference no. 24). Only trace levels of the daughter product 1,1-DCA have been detected in well reference no. 24 since 1998, on only two of nine events, in 1999 and 2001. No landfill related trace organic levels have been detected in well reference no. 24 on six semiannual sampling events conducted since 2001. The residence at well reference no. 24, unoccupied between 2005 and 2007; was re-occupied and connected to public water in 2008.

In addition to the eighteen residential wells located south of the southern saddle sampled in September 2008, ten residential wells, located just outside the area current served by public water, were sampled in March 2005. As discussed further below, although a suspected laboratory contaminant (methylene chloride) was detected at one well (well ref. no. 21) at an estimated concentration equal to the detection limit of 0.5 µg/l, no other constituents were detected in any well located south of the southern saddle. Well reference no. 21, currently only seasonably occupied, was re-sampled in October 2005 and September 2008, and no organic constituents were detected.

As indicated by the following graphs, concentrations of target organic constituents have generally experienced declines at MW-9. Methylene chloride and TCE concentrations, which historically exceeded their respective EPA MCLs at MW-9, have decreased to levels below their respective EPA MCLs since 1998. Prior to the April 2006 and 2007 detections (below 1.0 µg/l), methylene chloride was last detected at MW-9 in January 1999. 1,1-dichloroethene was last detected at a concentration equal to the EPA MCL and NC 2L groundwater standard of 7 µg/l in August 2002, and tetrachloroethene and vinyl chloride were last detected above respective NC 2L groundwater standard of 0.7 and 0.015 µg/l in September 2004.

Although no organic constituents were detected at MW-9 in July 2003, the concentrations of several organic constituents (1,1-DCA, cis-1,2-DCE, and PCE) were at the highest levels recorded at MW-9 in March 2004. Three constituents (PCE, TCE, and VC) were at or above the EPA MCL and/or NC 2L groundwater standard. In October 2005, only VC was above the EPA MCL, and benzene and PCE were above the NCS, at MW-9. In April 2006, April 2007, September 2007, and September 2007, although no constituents were above the EPA MCL at MW-9, four constituents (benzene, 1,4-dichlorobenzene, PCE, and VC) were above the NCS. In September 2006, three constituents (benzene, PCE, and VC) were above the NC standard, and in September 2008, two constituents (benzene and VC) were above the NC standard.


MW-9 VOC CONCENTRATION TRENDS 1994-2008
Methylene Chloride
Chloroethane
1,1-Dichloroethane
1,1,1-Trichloroethane
CONCENTRATION (ug/l)
180
160
140
120
100
80
60
40
20
0
6/94
2/95
7/95
4/96
1/98
1/99
2/00
2/01
2/02
1/03
3/04
3/05
4/06
4/07
3/08
DATE


cis 1,2-Dichloroethene
Trichloroethene
Tetrachloroethene
Benzene
Vinyl Chloride
CONCENTRATION (ug/l)
25
20
15
10
5
0
6/94
2/95
7/95
4/96
1/98
1/99
2/00
2/01
2/02
1/03
3/04
3/05
4/06
4/07
3/08
DATE

5.4 MNA Implementation

Site-specific sampling provides historical data for indirect evidence of the natural attenuation processes at the site and the rate of reduction of impact. Although NC 2L groundwater protection standards continue to be exceeded at the site, the site conceptual model supports that contention that natural attenuation processes are successfully reducing the concentration, extent, and total mass of impact.

When compelling evidence has been presented to warrant selection of MNA as component of the remedial response, performance monitoring is initiated. MNA performance monitoring should evaluate the following:

- Physical and chemical changes in aquifer conditions,
- Physical changes in plume characteristics, and
- Chemical changes in the plume.

The performance monitoring network at Watauga County Landfill currently consists of sixteen monitoring wells screened at various select points of the impacted portion of the aquifer as well as upgradient, sidegradient, and downgradient of impacted groundwater. Three additional monitoring wells have been abandoned. The semiannual monitoring program, initiated in 1994, has demonstrated a capability for evaluating these physical and chemical aquifer and plume characteristics. The potable well monitoring program, involving greater than 50 private wells in the vicinity of the site to date, provides additional performance monitoring capabilities. The current semiannual monitoring program at the site should continue to enable the evaluation of these physical and chemical changes.

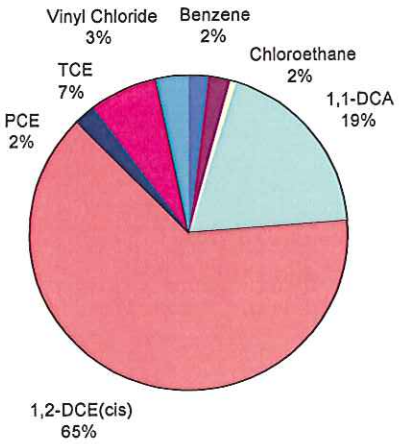
The collection of performance monitoring data will enable a determination of efficacy of the MNA remedial option. As demonstrated by the following evaluations of relative concentration trends and plume stability and behavior, ongoing monitoring confirms that constituent concentrations continue to trend as expected.

5.5 Relative Concentration Trend Evaluation

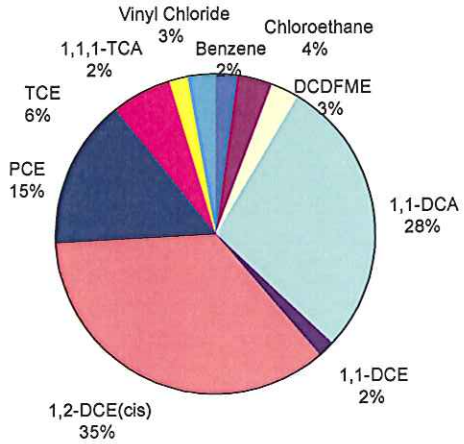
The comparisons of relative concentrations over time demonstrate the role of reductive reactions in the natural attenuation processes active across the site. PCE and TCE are common industrial solvents; 1,1-DCA and cis-1,2-DCE are not. When 1,1-DCA and cis-1,2-DCE are detected in groundwater, they are typically generated from the breakdown of PCE and TCE. Often this degradation process begins prior to placement of the solvent source. The reduction of PCE and TCE is a major factor in the shift in relative concentrations at the site to cis-1,2-DCE and 1,1-DCA. Although cis-1,2-DCE can be reduced to vinyl chloride in sulfate-reducing and methanogenic conditions, these reactions are much slower than the preceding reduction of TCE to cis-1,2-DCE. Note that further degradation can also be promoted via aerobic oxidation by cometabolism and therefore is favored in an aerobic zone.

The following relative concentration pie charts presentation was adapted from the SCR Update, dated January 2000. The pie charts illustrate the shift from parent to daughter products, as well as the shift from ethenes to ethanes, that has occurred in the west drainage since 1995. As shown below by the 1995 relative concentration pie charts for MW-6 and MW-8, the ethenes (PCE, TCE, 1,2-DCE) predominated in the upper portion of the west drainage prior to closure.

MW-6 (1995)

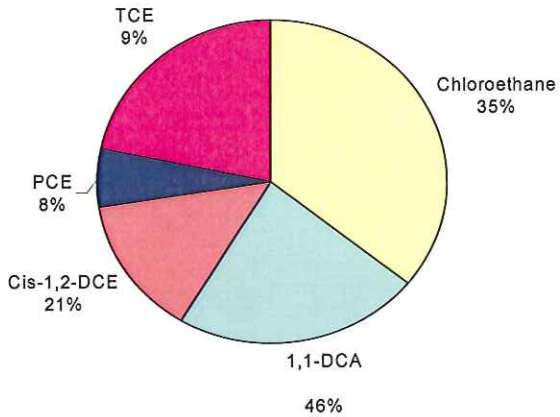


MW-8 (1995)



As shown below, the chlorinated ethanes, 1,1-DCA and chloroethane, were predominant in September 2007. This shift from ethenes to ethanes illustrates the role of reductive reactions in the natural attenuation processes active in the area adjacent to the waste. No constituents were detected above 0.5 µg/l in 2008.

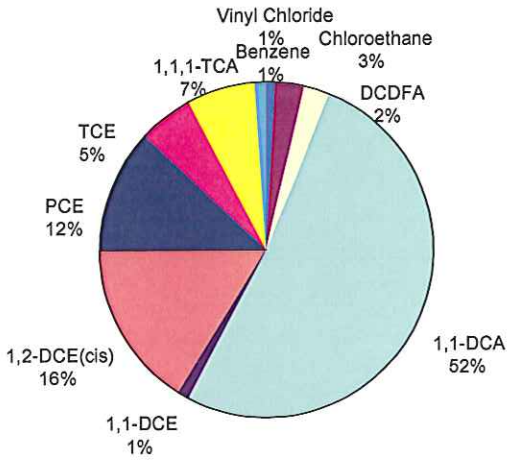
MW-8
SEPTEMBER 2007



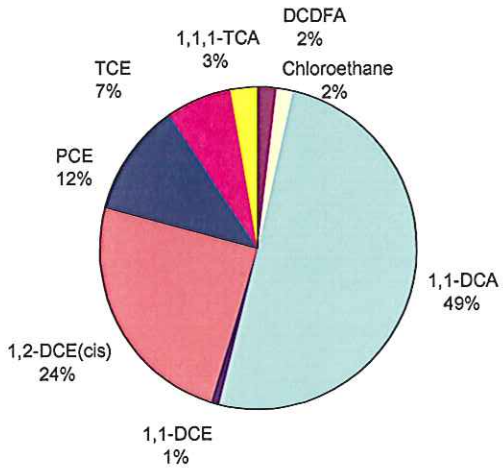
Of course, significant decreases in total organic detections and concentrations have also occurred across the site, as illustrated in the graphs in Section 5.6. In fact, only one organic constituent was detected at MW-8 in September 2008, estimated below 0.5 µg/l.

As shown below by the 1995 relative concentration pie charts for MW-3 and MW-17, 1,1-DCA was prevalent downgradient along the west drainage in 1995. Note that the ethenes continued to persist in this area along the property boundary.

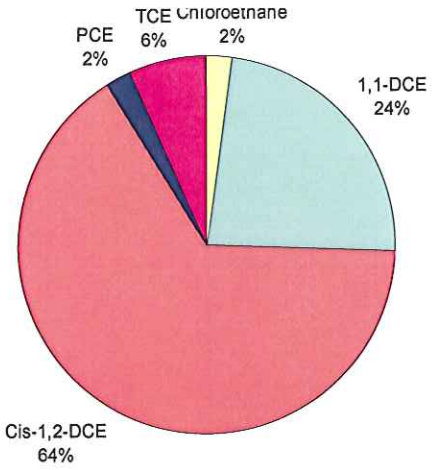
MW-3 (1995)



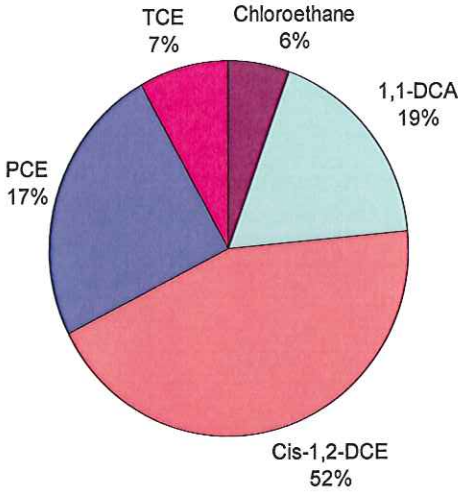
MW-17 (1995)



As shown below by the relative concentration pie charts for MW-3 and MW-17 in September 2008, a shift in relative concentrations from 1,1-DCA to cis-1,2-DCE has occurred



MW-3
SEPTEMBER 2008



MW-17
SEPTEMBER 2008

since 1995. A primary daughter product of the anaerobic degradation of the more highly chlorinated ethenes is cis-1,2-DCE. The increased presence of cis-1,2-DCE is the result of reductive processes naturally attenuating the organic parameters at this location. Note that although the shift in relative concentrations from 1,1-DCA to cis-1,2-DCE suggests that the system at this location is not degrading cis-1,2-DCE as efficiently, significant decreases in the concentrations both ethenes and ethanes are observed across the site, including this location.

Dechlorination is more rapid for highly chlorinated compounds than for compounds that are less chlorinated. The accumulation of cis-1,2-DCE may be attributed to the slower rates of DCE halorespiration when compared with TCE or PCE. Although many researchers have commented that reductive chlorination will result in the accumulation of vinyl chloride, at many sites, including the subject site, vinyl chloride accumulation is much lower than cis-1,2-DCE. This may occur because the vinyl chloride can migrate to zones that support direct oxidation of vinyl chloride, either aerobically and/or anaerobically (Wiedemeier et al., 1999).

1,1,1-TCA, which occurred at elevated concentrations in the north drainage in 1996, also appears to have been reduced by anaerobic degradation. Under anaerobic conditions, 1,1,1-TCA is known to degrade abiotically to 1,1-DCE and biotically to 1,1-DCA (EPA, 1992). 1,1,1-TCA is transformed to 1,1-DCE via dehydrohalogenation, 1,1 DCE is then reductively dehalogenated to vinyl chloride. The vinyl chloride is then either reductively dehalogenated to ethene or consumed as a substrate in an aerobic reaction and converted to carbon dioxide.

Both abiotic and biotic anaerobic reduction mechanisms appear to be contributing to the 1,1-DCE and 1,1-DCA currently found in the north drainage. 1,1-DCA appears to be the most widespread solid waste constituent at the site. Although not determined to be a health hazard, 1,1-DCA is reported as a fairly recalcitrant compound, with a low degradation rate in an anaerobic zone and an even lower degradation rate in an aerobic zone. This persistence contributes to the prevalence of 1,1-DCA at the site.

The indicator data currently being collected will further investigate the role of these natural attenuation reactions within various locations of the aquifer system. Although the ongoing collection of data should continue to demonstrate the natural attenuation processes active across the site, the collection of data relating to redox conditions will assist further characterization of the aerobic/anaerobic systems existing at the site. Information concerning other factors that may also limit degradation, including nutrient limitations, substrate availability, toxicity, pH, etc. can also assist in characterizing the state of the aerobic/anaerobic systems existing at the site.

5.6 Site Conceptual Model Refinement

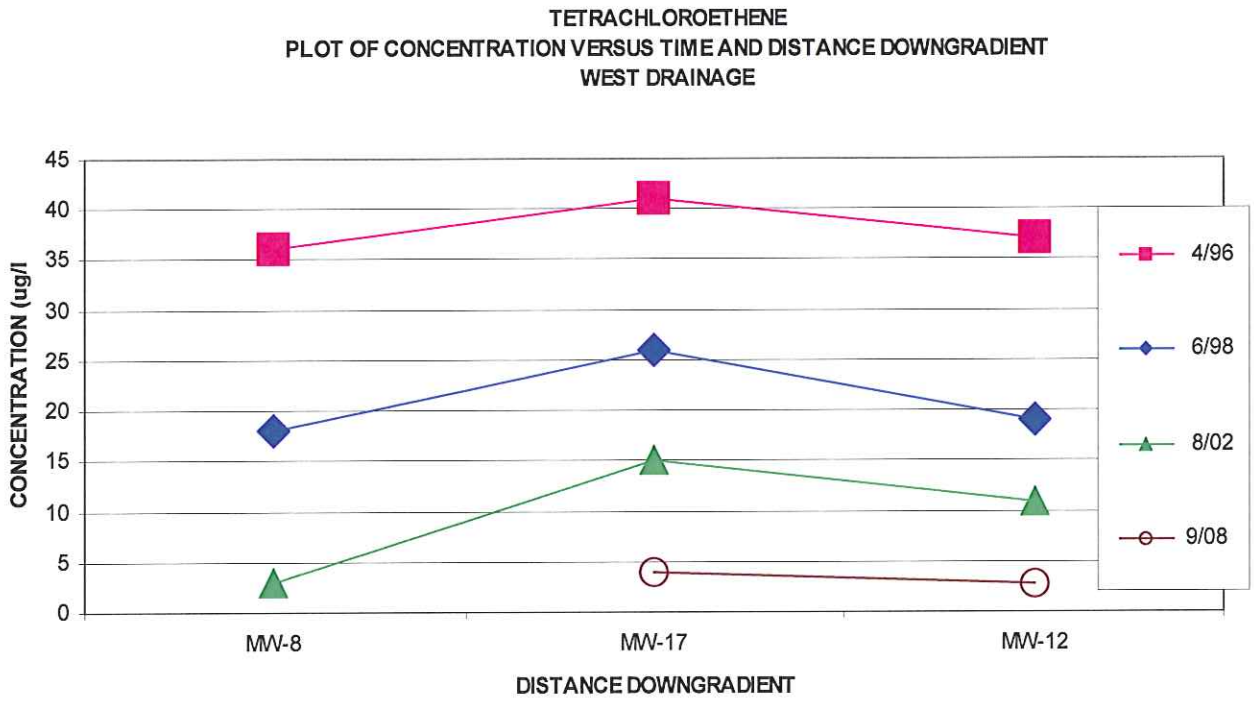
MNA guidance recommends that parent and daughter product contour maps and cross-sections be prepared to allow interpretation of the data and the distribution and relative transport and degradation rates of constituents in the subsurface. Site Conceptual Model Updates provided in 2000 and 2002, presented both the past and current extent of parent and daughter products.

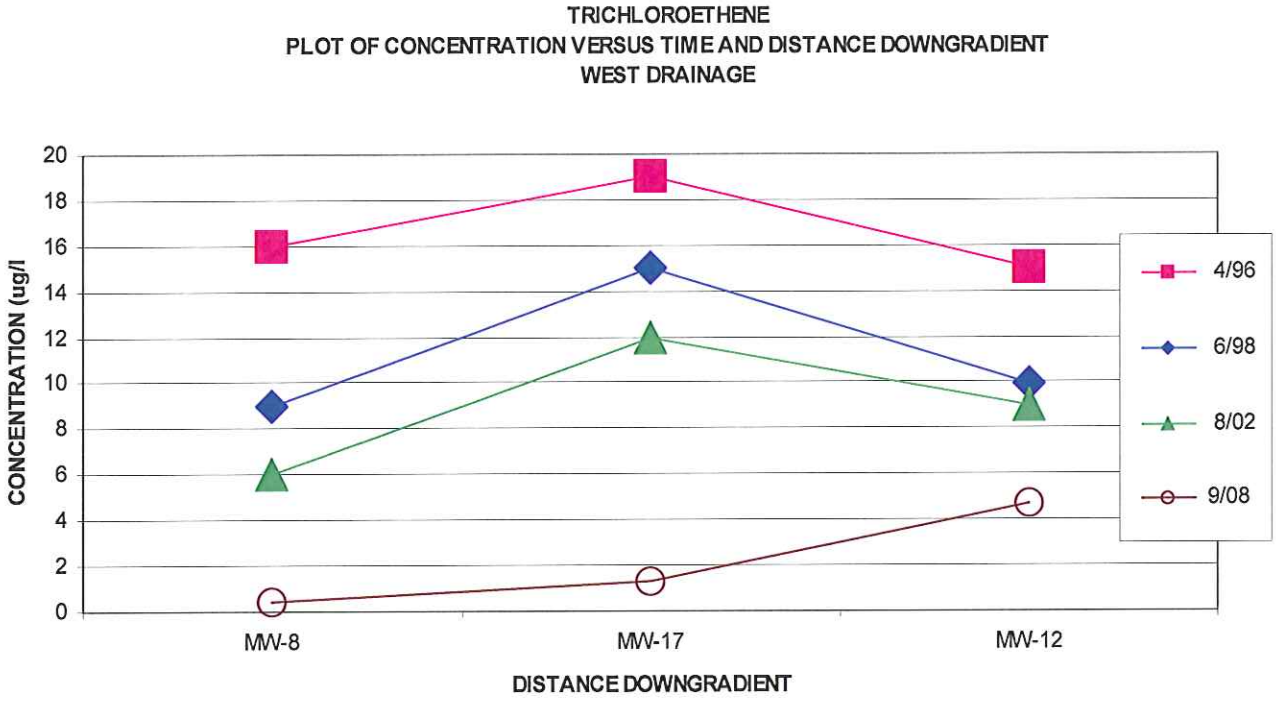
Comparisons of past and current, parent and daughter product concentrations and extent were presented graphically in the SCM with both trend graphs and chronological vertical and horizontal contour maps. Comparisons of relative concentrations over time were presented graphically with pie charts to illustrate the role of reductive reactions in natural attenuation processes across the site.

MNA guidance also recommends that contour maps be prepared for the natural attentuation indicator parameters as well. The SCM and subsequent monitoring event reports have included MNA indicator delineation maps. These delineation maps are provided to illustrate map indicator trends and chemical reactions influencing natural attenuation processes at the site. Updated indicator contour maps for data obtained in August 2002, involving the complete well network, was provided in the August 2002 Monitoring Event Report.

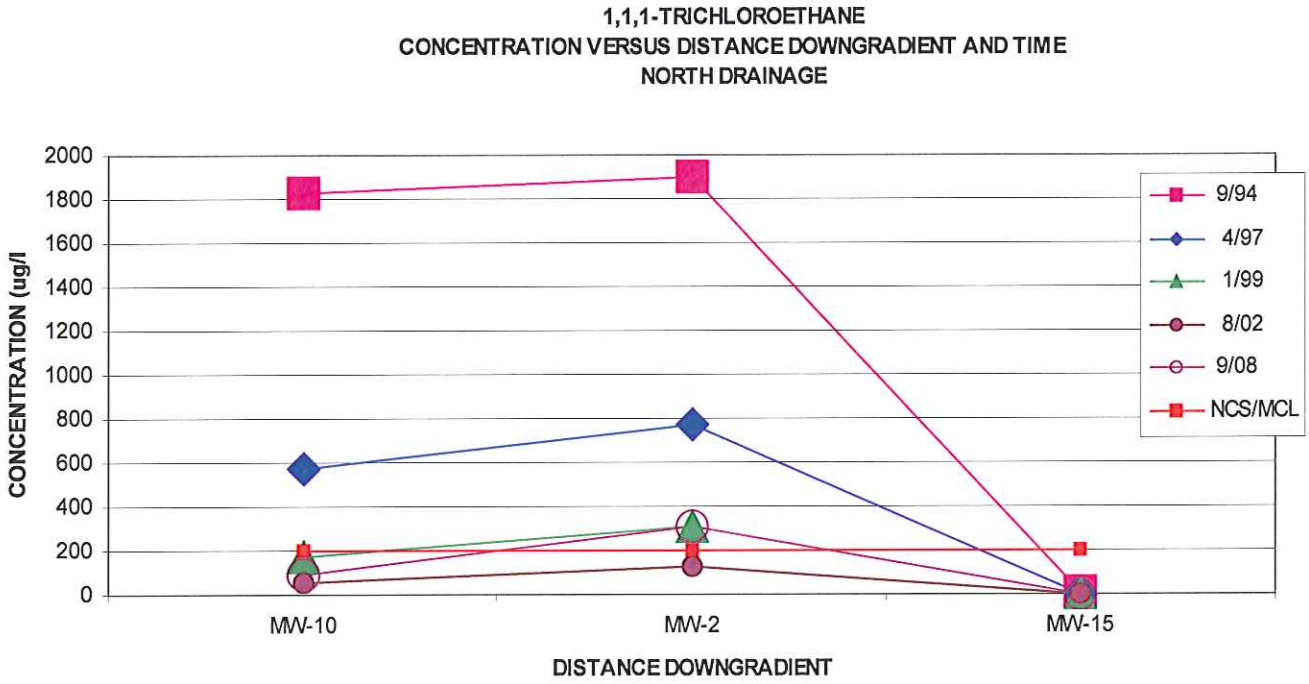
Graphical tests for evaluating plume stability and behavior have been established for evaluating the performance of natural attenuation (US AFCEE, 2000). These graphical tests are most successful at demonstrating natural attenuation is occurring at a site when the historical data is shown to display a statistically significant plume stabilization and/or loss of constituent mass over time. The graphical techniques for evaluating plume stability include 1) preparing isopleth maps of constituent concentration over time 2) plotting constituent concentrations versus time for individual wells, and 3) plotting constituent concentrations versus distance downgradient for several wells along the groundwater flow path over several events. Items 1 and 2 were evaluated extensively in the SCM and are revisited in this report. Item 3, plots of constituent concentrations versus distance downgradient, are provided below for the constituents PCE, TCE, 1,1,1-TCA and 1,1-DCE.

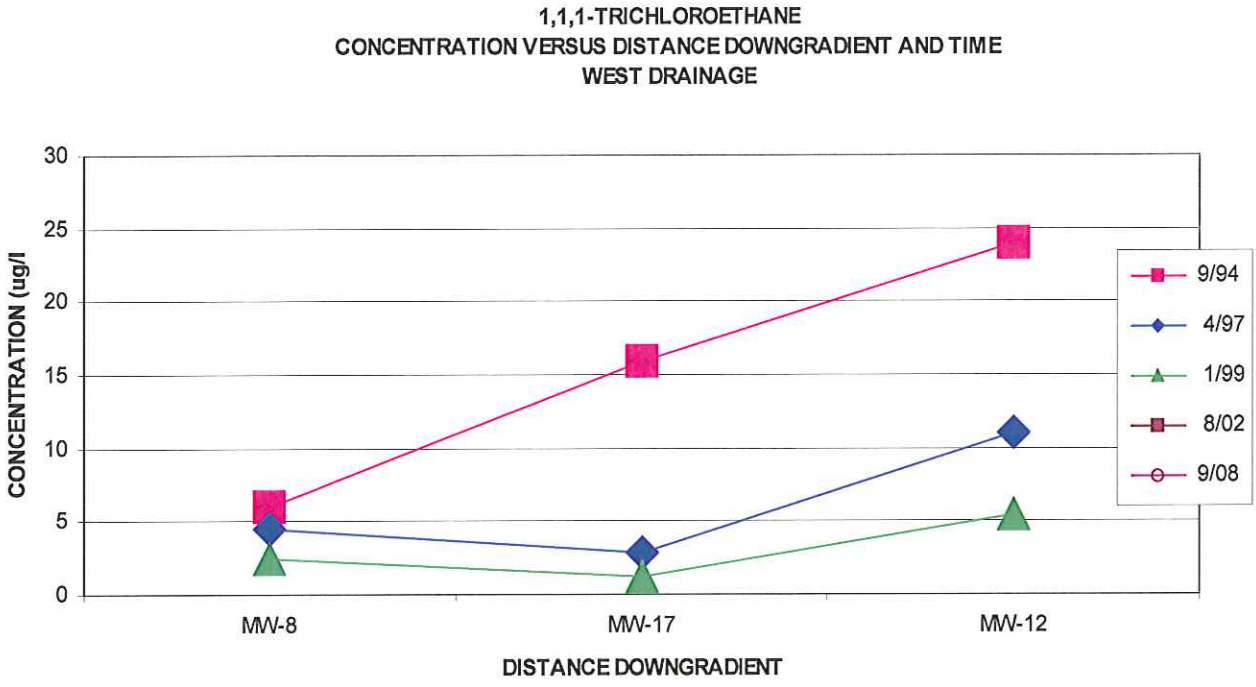
Note that the historical data for the parent constituents PCE and TCE is shown to display a statistically significant loss of constituent mass over time in the west drainage.





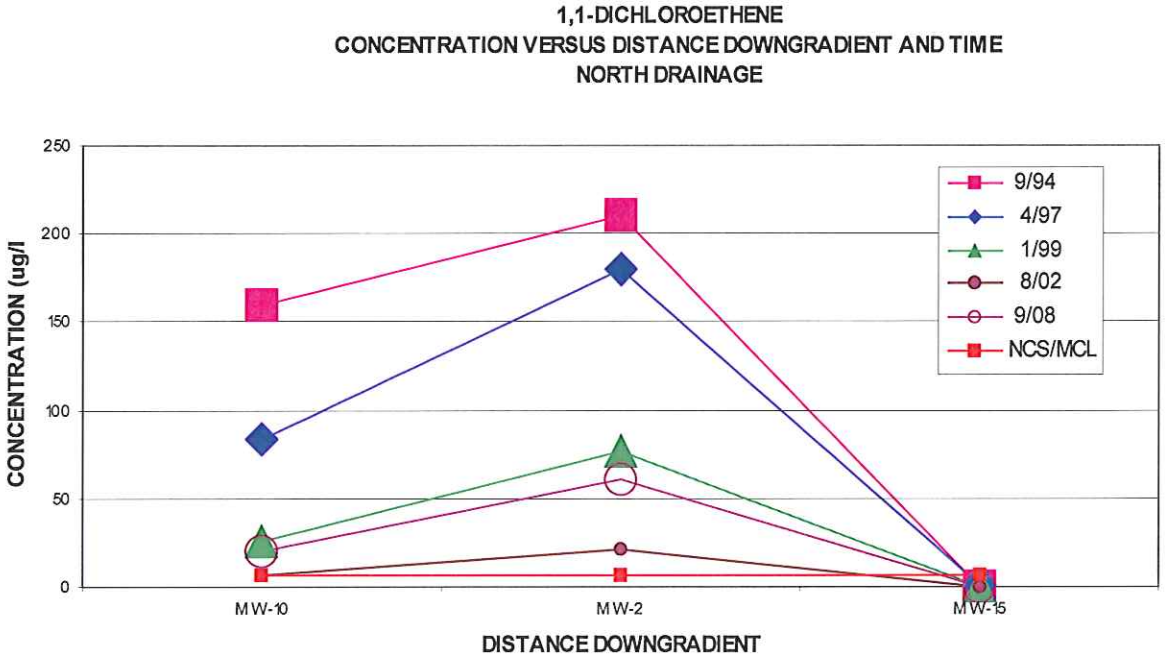
Plots of constituent concentrations versus distance downgradient are provided below for the parent constituent 1,1,1-TCA along the north and west drainage.

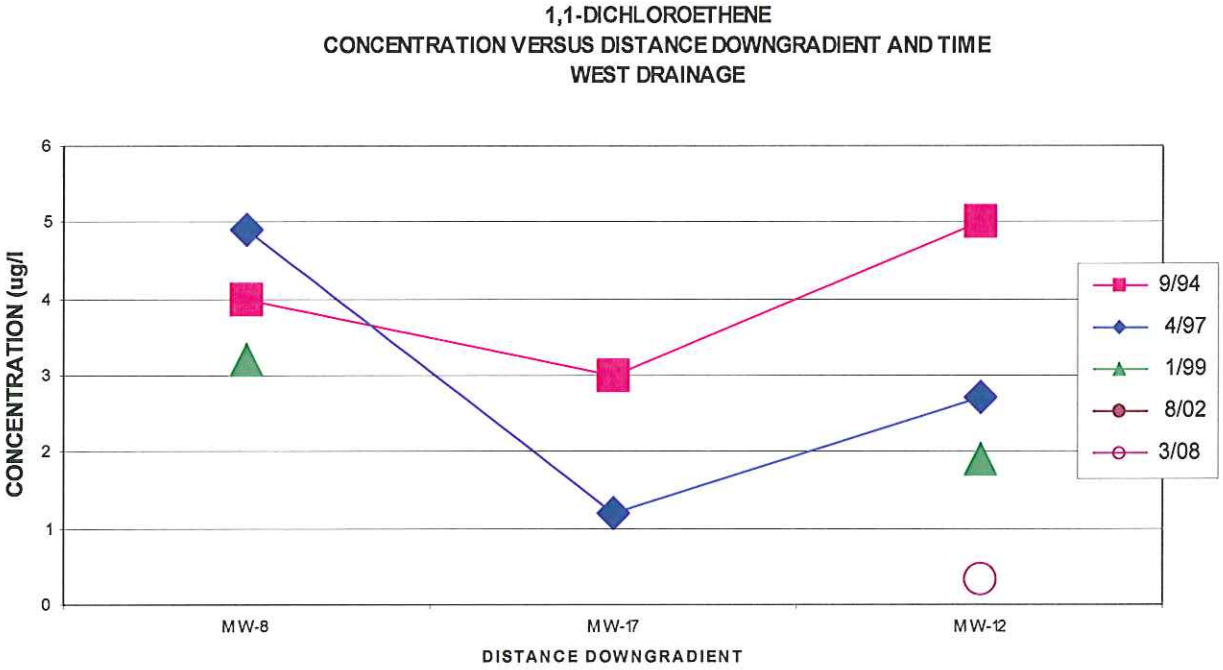




Note that although the historical data for 1,1,1-TCA is shown to display a statistically

significant loss of constituent mass over time in the west drainage, in the north drainage, the data reverses trend. Plots of constituent concentrations versus distance downgradient provided below for 1,1-DCE along the north and west drainage reflect similar trends.





Note that similar to 1,1,1-TCA concentration trends, although 1,1-DCE historical data is shown to display a statistically significant loss of constituent mass over time in the west drainage, recent data reverses trend in the north drainage.

Although 1,1,1-TCA and 1,1-DCE concentrations in the north drainage were observed to increase between 2003 and 2004, and elevated concentrations were observed at the southern saddle in 2004, these increases appear to not be indicative of a permanent trend reversal. 1,1-DCE concentrations decreased in the north drainage in 2005 and 2006, and lower concentrations were again observed at the southern saddle in 2005 and 2006. The combination of decreasing constituent concentrations and the lack of constituent migration, as shown by the plots presented above, provide reasonable evidence for natural attenuation and constituent mass destruction (US AFCEE, 2000). The chemical and geochemical data discussed in the August 2002 Monitoring Event Report is used to show that loss of constituent mass is the result of intrinsic bioremediation (EPA, 1988).

6.0 CONCLUSIONS

6. 1 Next Assessment Monitoring Event

The next assessment monitoring event is scheduled for March 2009. The monitoring event will comply with the following monitoring program schedule:

- Semiannual monitoring of the core monitoring well subset,
- Semiannual surface water monitoring,
- Annual analysis for target metals, and
- No sampling of select non-impacted assessment monitoring wells.

6.2 Ongoing Investigation

In response to NCDENR concerns over continued exceedences of North Carolina Groundwater Quality Standards at the facility property lines, additional risk management and investigative efforts will continue. To address risk, the potable well sampling will continue. The County also proposes to continue the sampling for select field MNA indicator parameters on the next event. As noted above, sampling will incorporate field MNA indicator analysis at all core monitoring wells. These ongoing investigative efforts should provide the data necessary to confirm natural attenuation processes active at the site and provide the information necessary to manage risk.

Source containment, implemented through a remedial cap, supplemented by risk assessment, institutional controls, natural attenuation, and continuing assessment investigation comprise the broad package of remedial actions currently being conducted at the site. The deep, low flow conditions indicated by the BREMCO investigation preclude the use of active or invasive remedial activities along the plume boundary, whereas source containment and natural attenuation appear to be effective solutions to observed environmental impact. Target and

indicator parameter concentration and distribution trends indicate natural attenuation is effective across the site. Migration of detectable concentrations of the target parameters beyond the current plume boundary is not anticipated. In fact, reduction of the plume boundary is indicated.

Assessment data collected to date currently provides over ten years of evidence indicating plume attenuation. Ongoing monitoring will provide the temporal data necessary to comprehensively assess constituent transportation, migration, and fate trends. As plume attenuation continues to be observed at the site, source controls will reduce leachate production, and thus reduce plume migration. Natural attenuation processes will gradually lower plume concentrations and should provide for a continuously diminished plume boundary.

Ongoing natural attenuation indicator monitoring should enable the identification of conditions affecting reductive dechlorination and aerobic degradation processes existing at impacted locations across the site. The identification of favorable and/or unfavorable site conditions that can either promote or limit active natural attenuation processes may enable the relaxation of factors impeding intrinsic reduction and oxidation reactions at the site. An increased understanding of these site dynamics may enable the promotion of reduction/oxidation conditions that favor degradation.

LIST OF ACRONYMS

Acronyms and Terms

ADHD	Appalachian District Health Department
BREMCO	Blue Ridge Electric Membership Company
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
COC	Chain of Custody
CRQL	Contract Required Quantitation Limit
CVAA	Cold Vapor Atomic Absorption
DAA	Draper Aden Associates
DQO	Data Quality Objectives
EPA	Environmental Protection Agency
EQL	Estimated Quantitation Limit
GC	Gas Chromatography
GC/MS	Gas Chromatography with Mass Spectrometry
GFAA	Graphite Furnace Atomic Absorption
GMP	Groundwater Monitoring Program
IDL	Instrument Detection Level (IDL)
ICP	Inductively Coupled Plasma
LLRA	Low Level Risk Assessment
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
MW	Monitoring Well
NCDENR	North Carolina Department of Environment and Natural Resources
NCS	North Carolina groundwater standard
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance / Quality Control
SOW	Statements of Work
SW-846	USEPA Solid Waste document 846
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

Units of Measure

µ	micron (10^{-6} meters)
ml	milliliter (0.001 liter)
l	liter
µg/l	microgram per liter (equivalent to parts per billion - ppb)
µS/cm	microsiemens per centimeter
^{o}C	degrees Celsius

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Wiedemeier, Todd H., Rifai, Hanadi S., Newell, Charles J., and Wilson, John T., 1999, Natural Attenuation of Fuels and Chlorinated Solvents in the Subsurface, John Wiley and Sons, Inc.

List of Watauga County Landfill Assessment documents prepared by Draper Aden Associates

"Geotechnical and Hydrogeologic Investigation of the Bolick Site at the Watauga County Landfill," dated March 1, 1993. DAA JN 6520-02

30 pages text, 6 tables, 9 figures and 6 appendices.

Purpose: Results of the Bolick Site geotechnical and hydrogeological investigation conducted by DAA between August 1992 and February 1993.

"Watauga County Landfill Permit No. 95-02 Assessment Plan," dated September 3, 1993. DAA JN 6520-13

110 pages text, 11 tables, 11 figures and 4 appendices (SAP and HASP included as separate).

Purpose: Assessment Plan drafted pursuant to July 1993 Watauga Co./NCDEHNR Consent Agreement.

"Watauga County Landfill Permit No. 95-02 Assessment Plan Activity Report," dated July 29, 1994. DAA JN 6520-14

55 pages text, 5 tables, 6 figures and 7 appendices (as separate).

Purpose: Initial Assessment Plan field activities (well installation, aquifer testing, lab procurement, etc.).

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, Initial Background Data Set, First Quarter Event," dated November 2, 1994. DAA JN 6520-20

Vol. I (34 pages text, 6 tables, 2 figures and 4 appendices), Vol. II (data documentation, 3 books).

Purpose: Results of first Assessment monitoring event sampled on June 20-23, 1994.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, Initial Background Data Set, Second Quarter Event," dated February 17, 1995. DAA JN 6520-20

Vol. I (36 pages text, 10 tables, 2 figures and 4 appendices), Vol. II (data documentation, 3 books).

Purpose: Results of second Assessment monitoring event sampled on September 27-30, 1994.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, Initial Background Data Set, Third Quarter Event," dated August 3, 1995. DAA JN 6520-20

Vol. I (39 pages text, 12 tables, 2 figures and 4 appendices), Vol. II (data documentation, 3 books).

Purpose: Results of third Assessment monitoring event sampled on February 6-10, 1995.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, Initial Background Data Set, Fourth Quarter Event," dated October 10, 1995. DAA JN 6520-20

Vol. I (38 pages text, 12 tables, 2 figures and 4 appendices), Vol. II (data documentation, 3 books).

Purpose: Results of fourth Assessment monitoring event sampled on April 11-13, 1995.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, First Semiannual Event," dated January 12, 1996. DAA JN 6520-21

Vol. I (52 pages text, 13 tables, 2 figures and 4 appendices), Vol. II (data documentation, 9 books).

Purpose: Results of fifth Assessment monitoring event sampled on July 10-13, 1995.

"Watauga County Landfill Permit No. 95-02 Remedial Investigation and Alternatives Report," dated January 2, 1996. DAA JN 6520-18

94 pages text, 15 tables, 5 figures and 7 appendices (4 appendices included as separate).

Purpose: Summary of assessment and remedial investigation activities performed to date, including remedial alternative review and proposed immediate remedial action responses appropriate at this time.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, Second Semiannual Event," dated June 3, 1996. DAA JN 6520-21

Vol. I (39 pages text, 11 tables, 2 figures and 4 appendices), Vol. II (data documentation, 3 books).

Purpose: Results of sixth Assessment monitoring event sampled on April 9-10, 1996.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results,
April 8-9, 1997 Event," dated June 19, 1997. DAA JN 6520-21

40 pages text, 12 tables, 2 figures and 5 appendices, Appendix E (data documentation) on CD-ROM.

Purpose: Results of seventh Assessment monitoring event sampled on April 8-9, 1997.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, January 14-15, 1998 Event," dated May 6, 1998. DAA JN 6520-21

34 pages text, 14 tables, 2 figures and 5 appendices, Appendix E (data documentation) on CD-ROM.

Purpose: Results of eighth Assessment monitoring event sampled on January 14-15, 1998.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, June 23-24, 1998 Event," dated September 10, 1998. DAA JN 6520-21

26 pages text, 14 tables, 2 figures and 5 appendices, Appendix E (data documentation) as separate Book.

Purpose: Results of ninth Assessment monitoring event sampled on June 23-24, 1998.

"Blue Ridge Electric Membership Company October 1988 Potable Well Testing Report of Investigation," dated March 1, 1999. DAA JN 6520-24

20 pages text, 3 tables, 4 figures and 4 appendices.

Purpose: Results of October 1998 investigation of the BREMCO well.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, January 11-12, 1999 Event," dated April 19, 1999. DAA JN 6520-21

29 pages text, 13 tables, 2 figures and 5 appendices, Appendix E (data documentation) as separate Book

Purpose: Results of tenth Assessment monitoring event sampled on January 11-12, 1999.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, July 12-13, 1999 Event, Including Site Conceptual Model Update", dated January 5, 2000. DAA JN 6520-21

54 pages text, 14 tables, 2 figures and 5 appendices, Appendix F includes 34 plume delineation maps

Purpose: Results of eleventh Assessment monitoring event sampled on July 12-13, 1999, including updated site conceptual model.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, February 1-3, 2000 Event," dated May 9, 2000. DAA JN 6520-21

25 pages text, 14 tables, 2 figures and 7 appendices

Purpose: Results of twelfth Assessment monitoring event sampled on February 1-3, 2000, including first sampling event incorporating MNA indicator parameters.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, August 8-9, 2000 Event," dated September 25, 2000. DAA JN 6520-37

23 pages text, 14 tables, 2 figures and 6 appendices

Purpose: Results of thirteenth Assessment monitoring event sampled on August 8-9, 2000, including second sampling event incorporating MNA indicator parameters.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, February 1-3, 2001 Event," dated June 20, 2001. DAA JN 6520-37

25 pages text, 13 tables, 2 figures and 6 appendices

Purpose: Results of fourteenth Assessment monitoring event sampled on February 1-3, 2001, including third sampling event incorporating natural attenuation indicator parameters.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, August 7-8, 2001 Event," dated October 26, 2001. DAA JN 6520-39

29 pages text, 14 tables, 2 figures and 6 appendices

Purpose: Results of fifteenth Assessment monitoring event sampled on August 7-8, 2001, including natural attenuation demonstration.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, February 11-14, 2002 Event," dated April 11, 2002. DAA JN 6520-39

56 pages text, 14 tables, 2 figures and 7 appendices

Purpose: Results of sixteenth Assessment monitoring event sampled on February 11-14, 2002, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, August 12-14, 2002 Event," dated November 18, 2002. DAA JN 6520-39

57 pages text, 13 tables, 2 figures and 5 appendices

Purpose: Results of seventeenth Assessment monitoring event sampled on August 12-14, 2002, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, January 21-22, 2003 Event," dated March 10, 2003. DAA JN 6520-39

32 pages text, 13 tables, 2 figures and 5 appendices

Purpose: Results of eighteenth Assessment monitoring event sampled on January 21-22, 2003, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, July 14-15, 2003 Event," dated October 22, 2003. DAA JN 6520-39

31 pages text, 12 tables, 2 figures and 5 appendices

Purpose: Results of nineteenth Assessment monitoring event sampled on July 14-15, 2003, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, March 16-17, 2004 Event," dated May 17, 2004. DAA JN 6520-39

34 pages text, 12 tables, 2 figures and 5 appendices

Purpose: Results of twentieth Assessment monitoring event sampled on March 16-17, 2004, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, September 29-30, 2004 Event," dated Dec. 13, 2004. DAA JN 6520-39

34 pages text, 11 tables, 2 figures and 5 appendices

Purpose: Results of twenty-first Assessment monitoring event sampled on September 29-30, 2004, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, March 30-31, 2005 Event," dated May 25, 2005. DAA JN 6520-39

34 pages text, 11 tables, 2 figures and 5 appendices

Purpose: Results of twenty-second Assessment monitoring event sampled on March 30-31, 2005, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, October 3-4, 2005 Event," dated January 5, 2006. DAA JN 6520-39

33 pages text, 10 tables, 2 figures and 5 appendices

Purpose: Results of twenty-third Assessment monitoring event sampled on October 3-4, 2005, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, April 4-5, 2006 Event," dated June 9, 2006. DAA JN 6520-39

32 pages text, 11 tables, 2 figures and 5 appendices

Purpose: Results of twenty-fourth Assessment monitoring event sampled on April 4-5, 2006, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, September 27-28, 2006 Event," dated Dec. 12, 2006. DAA JN 6520-39

34 pages text, 10 tables, 2 figures and 5 appendices

Purpose: Results of twenty-fifth Assessment monitoring event sampled on September 27-28, 2007, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, April 2-3, 2007 Event," dated June 25, 2007. DAA JN 6520-39

36 pages text, 11 tables, 2 figures and 5 appendices

Purpose: Results of twenty-sixth Assessment monitoring event sampled on April 2-3, 2007, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, September 18-19, 2007 Event," dated Nov. 12, 2007. DAA JN 6520-39

36 pages text, 10 tables, 2 figures and 5 appendices

Purpose: Results of twenty-seventh Assessment monitoring event sampled on September 18-19, 2007, including natural attenuation demonstration update.

"Watauga County Landfill Permit No. 95-02 Groundwater and Surface Water Assessment Monitoring Results, March 10-12, 2008 Event," dated June 18, 2008. DAA JN 6520-39

38 pages text, 11 tables, 2 figures and 5 appendices

Purpose: Results of twenty-eighth Assessment monitoring event sampled on March 10-12, 2008, including natural attenuation demonstration update.

APPENDIX A

TABLES AND FIGURES

Table 1

Watauga County Landfill
Groundwater and Surface Water
Assessment Monitoring Schedule

GROUNDWATER MONITORING	1st Year (94/95) Quarterly Sampling Events				Subsequent Semiannual Sampling Events*	
"CORE" ASSESSMENT WELLS						
Target Parameter Monitoring Parameters*	CLP Methods	CLP Methods	CLP Methods	CLP Methods	Low Level Risk Assessment Screening Methods	CLP Methods
"BOUNDARY" ASSESSMENT WELLS***						
Target Parameter Monitoring Parameters*	LLRA Methods	CLP Methods	LLRA Methods	CLP Methods	LLRA Methods	-
SURFACE WATER MONITORING						
Target Parameter Monitoring Parameters*	CLP Methods	-	CLP Methods	-	CLP Methods	CLP Methods

CLP - EPA Contract Laboratory Program Methods
LLRA - Low Level Risk Assessment Screening Methods (EPA SW-846)

* - Semiannual analysis for target organics; annual analysis for target metals (approved June 1998).
** - Semiannual monitoring of a subset of the core monitoring well network (MW-2, MW-3, MW-6, MW-9, MW-12 and MW-17); the groundwater at these six monitoring points has historically exceeded the EPA MCL for one or more organic target parameters. Annual monitoring of the existing twelve core monitoring well network (approved June 1998).
*** - Monitoring frequency of non-impacted wells based on annual review of temporal contaminant distribution trends and MNA demonstration requirements.

Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1

Table 2A
September 8-9, 2008
Semiannual Monitoring Event
Organic Parameter Analytical Results
Core Groundwater Monitoring Wells

11/03/08

Parameters	MW-1		MW-2		MW-3		MW-8		MW-9		MW-10		MW-11		MW-12		MW-15		MW-17		MW-19		NCS	MCL
Benzene	0.50	U	8.3	U	0.50	U	0.50	U	**3.1**		0.50	U	0.29	J	0.36	J	0.50	U	0.50	U	0.50	U	**1**	**5**
Chlorobenzene	0.50	U	8.3	U	0.50	U	0.50	U	0.52		0.50	U	0.36	J	0.36	J	0.50	U	0.50	U	0.50	U	**50**	**100**
1,4-Dichlorobenzene	0.50	U	8.3	U	0.50	U	0.13	J	**1.9**		0.50	U	**3.2**		**3.4**		0.50	U	0.50	U	0.50	U	**1.4**	**100**
Chloroethane	0.50	U	8.3	U	1.2	J	0.50	U	4.9		0.50	U	7.3		9.4		0.50	U	0.88		0.50	U	**2800**	-
Dichlorodifluoromethane	0.50	U	8.3	U	0.50	U	0.50	U	0.58		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	**1400**	-
1,1-Dichloroethane	0.50	U	**42**		12		0.39	J	15		13		21		24		0.26	J	2.9		0.50	U	**70**	-
1,1-Dichloroethene	0.50	U	**61**		0.50	U	0.50	U	0.50	U	**20**		0.3	J	0.35	J	0.50	U	0.50	U	0.50	U	**7**	**7**
1,2-Dichloroethane	0.50	U	8.3	U	0.50	U	0.50	U	0.50	U	0.50	U	**0.51**		**0.71**		0.50	U	0.50	U	0.50	U	**0.38**	-
1,2-Dichloropropane	0.50	U	8.3	U	0.4	J	0.50	U	0.23	J	0.50	U	**0.61**		**0.8**		0.50	U	0.50	U	0.50	U	**0.51**	**5**
Cis-1,2-Dichloroethene	0.50	U	8.3	U	34		0.22	J	9.4		0.50	U	37		52		0.50	U	7		0.50	U	**70**	**70**
Trans-1,2-Dichloroethene	0.50	U	8.3	U	0.37	J	0.50	U	0.38	J	0.50	U	0.57		0.68		0.50	U	0.50	U	0.50	U	**100**	**100**
Methylene Chloride	0.50	U	8.3	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	**4.6**	**5**
Tetrachloroethene	0.50	U	**3.5**	J	**1.2**	J	0.50	U	**1.3**		**3**		**1.7**		**2.7**		0.50	U	**3.9**		0.50	U	**0.7**	**5**
Trichloroethene	0.50	U	8.3	U	**3.4**		0.41	J	1.6		0.19	J	2.7		**4.7**		0.50	U	1.3		0.50	U	**2.8**	**5**
1,1,1-Trichloroethane	0.50	U	**310**	J	0.50	U	0.50	U	0.50	U	91		0.50	U	0.50	U	0.93		0.50	U	0.50	U	**200**	**200**
Vinyl Chloride	0.50	U	8.3	U	0.50	U	0.50	U	**1.4**		0.50	U	**2.6**		**3**		0.50	U	0.50	U	0.50	U	**0.015**	**2**

Notes:

All concentrations are in ug/l.

U Denotes not detected (the associated numerical value is the Limit of Quantitation).

J Denotes an estimated value.

Shading denotes parameter results that exceed U.S. EPA MCLs.

Bold denotes parameter results that exceed NC Groundwater Quality '2L' Standard.

Organic parameters were analyzed in accordance with EPA SW-846 Method 8260 (25 ml purge).

NCS Denotes North Carolina Groundwater Quality Standard (T15A: 02L .0200)

MCL Denotes EPA Maximum Contaminant Level (EPA 822-R-94-001)

- Denotes Not Established.

Watauga County Landfill
Watauga County, North Carolina

Table 2B
September 8-9, 2008

11/03/08

Semiannual Monitoring Event
Organic Parameter Analytical Results
Surface Water Monitoring Locations

Parameters	Results ug/L(ppb)												WQS (ug/L)	MCL (ug/L)
	S-1		S-2		S-3		S-4		S-5		S-6			
Benzene	10	U	10	U	10	U	10	U	10	U	10	U	71.4	5
Chlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	21000	100
1,4-Dichlorobenzene	10	U	3	J	10	U	10	U	10	U	10	U	488	100
Chloroethane	10	U	6	J	10	U	10	U	10	U	10	U	860	-
Dichlorodifluoromethane	10	U	10	U	10	U	10	U	2	J	10	U	77000	-
1,1-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U	19500	-
1,1-Dichloroethene	10	U	10	U	10	U	10	U	10	U	10	U	19000	7
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U	99	-
1,2-Dichloropropane	10	U	10	U	10	U	10	U	10	U	10	U	39	5
Cis-1,2-Dichloroethene	10	U	10	U	10	U	3	J	10	U	10	U	13000	70
Trans-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U	10	U	27000	100
Methylene Chloride	10	U	10	U	10	U	10	U	10	U	10	U	1600	5
Tetrachloroethene	10	U	10	U	10	U	10	U	10	U	10	U	8.85	5
Trichloroethene	10	U	10	U	10	U	10	U	10	U	10	U	92.4	5
1,1,1-Trichloroethane	10	U	10	U	10	U	10	U	10	U	10	U	2460	200
Vinyl Chloride	10	U	10	U	10	U	10	U	10	U	10	U	525	2

Notes:

WQS Denotes North Carolina Class (Organism Only) Surface Water Quality Standard (T15A: 02B .0200)

MCL Denotes EPA Maximum Contaminant Level for drinking water.

U Denotes not detected (the associated numerical value is the Contract Required Quantitation Limit).

J Denotes an estimated value.

- Denotes Not Established.

Watauga County Landfill
Watauga County, North Carolina

Table 3
September 8-9, 2008
Semi-Annual Assessment Monitoring Event
Detected Non-Target Organic Parameters

Parameter	S-2		MW-11		MW-12		MW-19	
Carbon disulfide	-		0.5	U	0.5	U	0.5	U
Chloromethane	-		0.5	U	0.5	U	0.22	J
1,2-Dichlorobenzene	-		0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	9	NJ	0.5	U	0.5	U	0.5	U
Dichlorofluoromethane	16	NJ	-		-		-	
Unknown hydrocarbon	6	J	-		-		-	

Notes:

All concentrations are in ug/l.

J Denotes an estimated value.

N Denotes tenatively identified.

U Denotes not detected (the associated numerical value is the Limit of Quantitation).

Organic parameters were analyzed in accordance with EPA SW-846 Method 8260 (25 ml purge).

Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1

TABLE 4
GROUNDWATER LEVEL DATA
MONITORING WELLS

03-Nov-08

	REFERENCE ELEVATION									
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10
GROUND	3339.03	3151.24	3182.25	3150.06	3263.81	3262.55	3270.56	3235.39	3356.65	3202.18
MEASURING POINT	3341.80	3152.94	3183.12	3152.52	3267.69	3266.04	3273.53	3239.77	3359.23	3203.87
DATE	STATIC WATER LEVEL									
6/20/94	38.00	7.88	18.43	13.48	NM	44.12	23.03	17.68	59.35	8.18
9/27/94	39.69	7.51	17.42	10.45	NM	43.99	30.73	17.38	57.79	8.09
2/6/95	37.57	5.58	16.20	8.18	50.39	42.85	45.88	15.41	59.54	7.73
4/11/95	37.94	6.46	16.85	9.22	48.95	42.81	49.11	16.05	59.30	7.90
7/10/95	41.20	6.60	17.43	8.94	50.29	43.73	48.98	17.42	80.17	7.91
4/9/96	38.71	5.85	7.01	8.40	49.87	42.87	44.32	16.80	61.28	7.67
4/8/97	38.30	5.59	16.35	NM	NM	ABANDON	40.50	17.43	62.47	7.67
1/13/98	43.71	7.00	17.51	8.54	55.46	ABANDON	44.18	20.32	63.56	8.25
6/23/98	36.84	5.94	14.01	7.98	46.82	ABANDON	43.07	16.92	62.15	7.32
1/11/99	44.56	7.66	18.87	8.85	55.11	ABANDON	37.89	22.83	64.39	8.68
7/12/99	42.87	6.78	15.16	8.18	53.26	ABANDON	45.79	19.92	64.05	8.25
2/1/00	44.10	7.62	17.05	9.12	56.08	ABANDON	41.25	21.40	64.41	8.41
8/8/00	42.37	7.42	17.28	9.02	52.96	ABANDON	45.65	21.25	63.70	8.54
2/12/01	46.80	8.05	18.92	9.10	58.67	ABANDON	42.72	24.27	64.60	9.13
8/7/01	NM	7.16	14.65	NM	NM	ABANDON	NM	19.53	63.94	NM
2/11/02	44.79	6.92	16.25	8.00	58.41	ABANDON	44.11	22.75	63.99	8.65
8/12/02	44.66	9.14	18.63	10.99	57.04	ABANDON	47.34	bent	64.24	9.36
1/21/03	NM	6.72	14.60	NM	NM	ABANDON	ABANDON	bent	64.24	NM
7/14/03	39.41	5.25	13.89	6.78	47.93	ABANDON	ABANDON	bent	62.39	7.47
3/16/04	40.57	4.66	15.01	6.04	51.37	ABANDON	ABANDON	bent	63.04	7.66
9/30/04	39.75	3.11	13.50	NM	NM	ABANDON	ABANDON	bent	62.44	7.49
3/30/05	39.74	3.85	14.23	5.35	50.10	ABANDON	ABANDON	bent	62.99	7.30
10/03/05	NM	6.13	17.81	NM	NM	ABANDON	ABANDON	bent	64.49	7.85
4/3/06	NM	5.20	16.80	6.36	NM	ABANDON	ABANDON	bent	64.13	7.69
9/27/06	41.13	5.45	15.60	NM	NM	ABANDON	ABANDON	bent	64.38	8.02
4/3/07	NM	4.69	15.54	NM	NM	ABANDON	ABANDON	bent	63.82	NM
9/18/07	42.70	7.04	20.90	NM	NM	ABANDON	ABANDON	bent	65.25	8.81
3/10/08	NM	5.40	15.97	NM	NM	ABANDON	ABANDON	8.82	64.56	NM
9/8/08	42.76	6.89	19.83	NM	NM	ABANDON	ABANDON	29.49	64.61	8.71
DATE	GROUNDWATER ELEVATION									
6/20/94	3303.80	3145.06	3164.69	3139.04	NM	3221.92	3250.50	3222.09	3299.88	3195.69
9/27/94	3302.11	3145.43	3165.70	3142.07	NM	3222.05	3242.80	3222.39	3301.44	3195.78
2/6/95	3304.23	3147.36	3166.92	3144.34	3217.30	3223.19	3227.65	3224.36	3299.69	3196.14
4/11/95	3303.86	3146.48	3166.27	3143.30	3218.74	3223.23	3224.42	3223.72	3299.93	3195.97
7/10/95	3300.60	3146.34	3165.69	3143.58	3217.40	3222.31	3224.55	3222.35	3279.06	3195.96
4/9/96	3303.09	3147.09	3176.11	3144.12	3217.82	3223.17	3229.21	3222.97	3297.95	3196.20
4/8/97	3303.50	3147.35	3166.77	NM	NM	ABANDON	3233.03	3222.34	3296.76	3196.20
1/13/98	3298.09	3145.94	3165.61	3143.98	3212.23	ABANDON	3229.35	3219.45	3295.67	3195.62
6/23/98	3304.96	3147.00	3169.11	3144.54	3220.87	ABANDON	3230.46	3222.85	3297.08	3196.55
1/11/99	3297.24	3145.28	3164.25	3143.67	3212.58	ABANDON	3235.64	3216.94	3294.84	3195.19
7/12/99	3298.93	3146.16	3167.96	3144.34	3214.43	ABANDON	3227.74	3219.85	3295.18	3195.62
2/1/00	3297.70	3145.32	3166.07	3143.40	3211.61	ABANDON	3232.28	3218.37	3294.82	3195.46
8/8/00	3299.43	3145.52	3165.84	3143.50	3214.73	ABANDON	3227.88	3218.52	3295.53	3195.33
2/12/01	3295.00	3144.89	3164.20	3143.42	3209.02	ABANDON	3230.81	3215.50	3294.63	3194.74
8/7/01	NM	3145.78	3168.47	NM	NM	ABANDON	NM	3220.24	3295.29	NM
2/11/02	3297.01	3146.02	3166.87	3144.52	3209.28	ABANDON	3229.42	3217.02	3295.24	3195.22
8/12/02	3297.14	3143.80	3164.49	3141.53	3210.65	ABANDON	3226.19	bent	3294.99	3194.51
1/21/03	NM	3146.22	3168.52	NM	NM	ABANDON	ABANDON	bent	3294.99	NM
7/14/03	3302.39	3147.69	3169.23	3145.74	3219.76	ABANDON	ABANDON	bent	3296.84	3196.40
3/16/04	3301.23	3148.28	3168.11	3146.48	3216.32	ABANDON	ABANDON	bent	3296.19	3196.21
9/30/04	3302.05	3149.83	3169.62	NM	NM	ABANDON	ABANDON	bent	3296.79	3194.52
3/30/05	3302.06	3149.09	3168.89	3147.17	3217.59	ABANDON	ABANDON	bent	3296.24	3196.57
10/03/05	NM	3146.81	3165.31	NM	NM	ABANDON	ABANDON	bent	3294.74	3196.02
4/3/06	NM	3147.74	3166.32	3146.16	NM	ABANDON	ABANDON	bent	3295.10	3196.18
9/27/06	3300.67	3147.49	3167.52	NM	NM	ABANDON	ABANDON	bent	3294.85	3195.85
4/3/07	NM	3148.25	3167.58	NM	NM	ABANDON	ABANDON	bent	3295.41	NM
9/18/07	3299.10	3145.90	3162.22	NM	NM	ABANDON	ABANDON	bent	3293.98	3195.06
3/10/08	NM	3147.54	3167.15	NM	NM	ABANDON	ABANDON	3230.95	3294.67	NM
9/8/08	3299.04	3146.05	3163.29	NM	NM	ABANDON	ABANDON	3210.28	3294.62	3195.16

1) ALL MEASUREMENTS IN FEET.
2) ALL ELEVATIONS REFERENCE MEAN SEA LEVEL.
3) MEASURING POINT (M.P.) IS FROM THE TOP OF WELL CASING.
4) NM - NOT MEASURED

Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1

TABLE 4
GROUNDWATER LEVEL DATA
MONITORING WELLS

03-Nov-08

	REFERENCE ELEVATION								
	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19
GROUND	3156.44	3156.82	3117.39	3117	3117.15	3141.42	3181.14	3117.12	3125
MEASURING POINT	3159.6	3159.15	3119.72	3120	3120.65	3142.72	3183.62	3119.63	3140
DATE	STATIC WATER LEVEL								
6/20/94	13.35	11.04	19.66	7.94	11.92	5.32	17.93	17.93	-
9/27/94	13.22	10.78	19.57	7.89	11.82	5.68	17.83	17.86	-
2/6/95	13.22	10.61	19.39	7.52	11.55	4.61	17.05	17.58	-
4/11/95	13.00	10.58	19.53	7.75	11.87	5.11	17.48	17.65	-
7/10/95	12.53	10.48	19.62	7.74	11.96	4.54	18.11	17.94	-
4/9/96	12.73	10.38	19.56	7.59	11.85	4.67	17.78	17.81	-
4/8/97	12.28	9.48	NM	NM	11.91	ABANDON	17.17	NM	4.85
1/13/98	12.48	9.65	19.75	7.44	11.74	ABANDON	18.60	18.32	10.21
6/23/98	11.82	9.11	NM	7.49	11.79	ABANDON	14.83	17.53	2.67
1/11/99	12.41	9.46	20.05	7.19	11.79	ABANDON	19.84	18.56	9.34
7/12/99	11.37	8.75	19.64	NM	NM	ABANDON	17.08	18.10	9.75
2/1/00	12.38	9.18	20.31	7.72	12.18	ABANDON	17.77	18.77	11.90
8/8/00	11.79	8.94	20.60	7.45	11.9	ABANDON	17.86	17.63	NM
2/12/01	12.40	9.23	20.03	7.68	12.09	ABANDON	19.21	18.23	24.45
8/7/01	NM	8.77	NM	NM	NM	ABANDON	15.47	NM	NM
2/11/02	12.03	8.86	19.81	7.42	11.85	ABANDON	17.10	18.05	24.65
8/12/02	12.16	9.17	20.11	8.23	12.54	ABANDON	20.04	18.27	25.09
1/21/03	NM	8.65	NM	NM	NM	ABANDON	15.44	NM	NM
7/14/03	11.09	8.27	18.85	7.24	11.41	ABANDON	14.86	16.96	16.98
3/16/04	12.82	9.24	19.28	7.16	11.43	ABANDON	15.79	17.29	NM
9/30/04	12.06	8.65	NM	NM	10.79	ABANDON	15.27	NM	NM
3/30/05	13.22	10.02	NM	6.51	11.01	ABANDON	15.12	NM	NM
10/03/05	14.51	10.94	NM	NM	11.95	ABANDON	18.53	NM	13.37
4/4/06	14.01	10.65	NM	NM	11.84	ABANDON	17.55	NM	14.42
9/27/06	13.83	10.54	NM	NM	11.54	ABANDON	16.41	NM	15.21
4/4/07	NM	10.50	NM	NM	NM	ABANDON	16.23	NM	14.42
9/18/07	14.77	11.50	NM	NM	11.95	ABANDON	20.16	NM	16.13
3/10/08	NM	10.63	NM	NM	NM	ABANDON	16.55	NM	14.42
9/8/08	14.15	11.21	NM	NM	11.89	ABANDON	20.13	NM	19.16
DATE	GROUNDWATER ELEVATION								
6/20/94	3146.25	3148.11	3100.06	3112.06	3108.73	3137.40	3165.69	3101.70	-
9/27/94	3146.38	3148.37	3100.15	3112.11	3108.83	3137.04	3165.79	3101.77	-
2/6/95	3146.38	3148.54	3100.33	3112.48	3109.10	3138.11	3166.57	3102.05	-
4/11/95	3146.60	3148.57	3100.19	3112.25	3108.78	3137.61	3166.14	3101.98	-
7/10/95	3147.07	3148.67	3100.10	3112.26	3108.69	3138.18	3165.51	3101.69	-
4/9/96	3146.87	3148.77	3100.16	3112.41	3108.80	3138.05	3165.84	3101.82	-
4/8/97	3147.32	3149.67	NM	NM	3108.74	ABANDON	3166.45	NM	3120.15
1/13/98	3147.12	3149.50	3099.97	3112.56	3108.91	ABANDON	3165.02	3101.31	3114.79
6/23/98	3147.78	3150.04	NM	3112.51	3108.86	ABANDON	3168.79	3102.10	3122.33
1/11/99	3147.19	3149.69	3099.67	3112.81	3108.86	ABANDON	3163.78	3101.07	3115.66
7/12/99	3148.23	3150.40	3100.08	NM	NM	ABANDON	3166.54	3101.53	3115.25
2/1/00	3147.22	3149.97	3099.41	3112.28	3108.47	ABANDON	3165.85	3100.86	3113.10
8/8/00	3147.81	3150.21	3099.12	3112.55	3108.75	ABANDON	3165.76	3102.00	NM
2/12/01	3147.20	3149.92	3099.69	3112.32	3108.56	ABANDON	3164.41	3101.40	3115.55
8/7/01	NM	3150.38	NM	NM	NM	ABANDON	3168.15	NM	NM
2/11/02	3147.57	3150.29	3099.91	3112.58	3108.80	ABANDON	3166.52	3101.58	3115.35
8/12/02	3147.44	3149.98	3099.61	3111.77	3108.11	ABANDON	3163.58	3101.36	3114.91
1/21/03	NM,	3150.50	NM	NM	NM	ABANDON	3168.18	NM	NM
7/14/03	3148.51	3150.88	3100.87	3112.76	3109.24	ABANDON	3168.76	3102.67	3123.02
3/16/04	3146.78	3149.91	3100.44	3112.84	3109.22	ABANDON	3167.83	3102.34	NM
9/30/04	3147.54	3150.50	NM	NM	3109.86	ABANDON	3168.35	NM	NM
3/30/05	3146.38	3149.13	NM	3113.49	3109.64	ABANDON	3168.50	NM	NM
10/03/05	3145.09	3148.21	NM	NM	3108.70	ABANDON	3165.09	NM	3126.63
4/4/06	3145.59	3148.50	NM	NM	3108.81	ABANDON	3166.07	NM	3125.58
9/27/06	3145.77	3148.61	NM	NM	3109.11	ABANDON	3167.21	NM	3124.79
4/4/07	NM	3148.65	NM	NM	NM	ABANDON	3167.39	NM	NM
9/18/07	3144.83	3147.65	NM	NM	3108.70	ABANDON	3163.46	NM	3123.87
3/10/08	NM	3148.52	NM	NM	NM	ABANDON	3167.07	NM	NM
9/8/08	3145.45	3147.94	NM	NM	3108.76	ABANDON	3163.49	NM	3120.84

1) ALL MEASUREMENTS IN FEET.
2) ALL ELEVATIONS REFERENCE MEAN SEA LEVEL.
3) MEASURING POINT (M.P.) IS FROM THE TOP OF WELL CASING.
4) NM - NOT MEASURED

P:\06\500\06520\06520-39\Reports\2008 tables\[XLS - 08 0917 - NCDENR - TABLE4 - JES.xlsx]TABLE4

Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5A

Background Assessment Organic Target Parameter Analytical Results
1994-2007
Core Groundwater Monitoring Wells

Parameter	Event	Results ug/l (ppb)																										Analysis Type
		MW-1		MW-2		MW-3		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-15		MW-17				
Organics																												
Benzene	6/20/94	10	U	120	U	10	U	9	J	0.42	J	0.72	J	0.4	J	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U			CLP/8021
	9/27/94	10	U	9	J	2	J	12	J	3	J	5	J	4	J	10	U	10	U	10	U	10	U	2	J			CLP
MCL= 5 ug/l	2/06/95	10	U	150	U	2	J	12	J	3.6		5	J	2	J	50	U	10	U	10	U	1	U	10	U			CLP
NCS = 1 ug/l	4/11/95	10	U	200	U	1	J	10	J	3	J	6	J	3	J	71	U	10	U	10	U	10	U	10	U			CLP
	7/10/95	2	U	2	U	2.3		14		2.2		6.2		4		2	U	2	U	2	U	10	U	2	U			8021
	7/10/95	5	U	5	U	2.6	J	13		2.7	J	5.5		3.8	J	5	U	5	U	5	U	-		5	U			8260
	4/10/96	1	J	91	U	2	J	11	J	5	J	5		4	J	23	U	10	U	1	J	10	U	10	U			CLP
	4/8/97	1	U	100	U	2		-		4.8		2.3		3.9		100	U	1	U	1.4		1	U	1				8021
	1/15/98	10	U	20	U	3	J	-		2	J	2	J	3	J	14	U	10	U	2	J	10	U	2	J			CLP
	6/23/98	-		25	UJ	1	J	-		-		3	J	3	J	-		-		2	J	-		2	J			CLP
	1/12/99	1	U	1	U	3.6		-		2.4		2		3.2		1	U	1	U	2.5		1	U	1.4				8021B
	7/12/99	-		10	U	2	J	-		-		1	J	2	J	-		-		10	U	-		2	J			CLP
	2/1/00	1	U	1	U	2.5		-		2.3		1.6		3.2		1	U	1.4		2.2		1	U	2.4				8021B
	8/8/00	-		10	U	4	J	-		-		2	J	4	J	-		-		2	J	-		1	J			CLP
	2/12-14/01	1	U	1	U	3.9		-		2.3		1.3		4.3		1	U	1.8		2.8		1	U	5				8021B
	8/7-8/01	-		10	U	1	J	-		-		1	J	2	J	-		-		2	J	-		4	J			CLP
	2/11-14/02	0.5	U	0.5	U	3	U	-		1		0.5	U	2		0.5	U	1		2		0.5	U	3				8260B
	8/12-14/02	0.5	U	10	U	3	J	-		1	U	10	U	10	U	1	U	0.5	U	10	U	0.5	U	2	J			CLP/8260B
	1/21-22/03	-		10	U	0.8	J	-		-		-		3	J	-		-		2	J	-		3	J			CLP
	7/14-15/03	1	U	17	U	4	U	-		-		1	U	1	U	4.2	U	1	UJ	1	U	1	UJ	1	U			8260B
	3/16-17/04	-		10	U	10	U	-		-		10	U	10	U	-		-		10	U	-		10	U			CLP
	9/29-30/04	0.5	U	0.5	U	0.46	J	-		-		0.5	U	3.8	J	0.84	U	0.33	J	0.68		0.5	U	0.22	J			8260B
	3/30-31/05	-		67	U	10	U	-		-		10	U	10	U	-		-		10	U	-		10	U			CLP
	10/3-4/05	-		25	U	0.62		-		-		0.5	U	4.1		0.5	U	0.29	J	0.61		0.5	U	0.5	U			8260B
	4/4-5/06	-		10	U	10	U	-		-		10	U	3	J	-		-		10	U	-		10	U			CLP
	9/27-28/06	0.50	U	0.50	U	2.5	U	-		-		0.50	U	1.6		0.50	U	0.27	J	0.36	J	0.50	U	0.50	U			8260B
	4/2-3/07	-		13	U	10	U	-		-		0.50	U	2.8		-		-		2.5	U	-		0.50	U			8260B
	9/18-19/07	0.50	U	0.50	U	0.34	J	-		-		0.50	U	3.1		0.50	U	0.31	J	0.38	J	0.50	U	0.50	U			8260B
Chloroethane	6/20/94	10	U	120	U	6	J	8	J	7.33	J	9.44		56.78	J	9.29	U	1.16	J	20.23		9.29	U	28.21				CLP/8021
	9/27/94	10	U	170	U	8	J	10	J	16		7	J	18		10	U	10	U	5	J	10	U	7	J			CLP
no MCL or NCS established	2/06/95	10	U	150	U	7	J	11	J	28		7	J	17		50	U	10	U	4	J	1	U	5	J			CLP
	4/11/95	10	U	200	U	6	J	8	J	16		7	J	15		71	U	10	U	2	J	10	U	4	J			CLP
	7/10/95	2	U	2	U	10	U	15	U	9.2		10	U	20	U	2	U	2	U	5	U	10	U	5	U			8021
	7/10/95	5	U	5	U	8.7		16		22		9.3		21		5	U	5	U	6.4		-		4.9	J			8260
	4/10/96	10	U	91	U	8	J	14	J	41		10	J	16		23	U	10	U	5	J	10	U	5	J			CLP
	4/8/97	1	U	1	U	46		-		58		38		110		1	U	12		40		1	U	30				8021
	1/15/98	10	U	20	U	10		-		19		12		12		20		10	U	5	J	10	U	9	J			CLP
	6/23/98	-		25	UJ	5	J	-		-		11	J	8	J	-		-		5	J	-		6	J			CLP
	1/12/99	2	U	2	U	100	U	-		43		40	U	60	U	2	U	25		50	U	2	U	40	U			8021B
	7/12/99	-		10	U	8	J	-		-		10	U	10	U	-		-		10	U	-		7	J			CLP
	2/1/00	2	U	2	U	40	U	-		34	J	40	U	40	U	2	U	28	J	50	U	2	U	40	U			8021B
	8/8/00	-		10	U	13		-		-		16		8	J	-		-		7	J	-		7	J			CLP
	2/12-14/01	2	U	2	U	60	U	-		44	J	40	U	40	U	2	U	34	J	40	U	2	U	60	U			8021B
	8/7-8/01	-		10	UJ	6	J	-		-		28	J	5	J	-		-		8	J	-		14	J			CLP
	2/11-14/02	0.5	U	0.5	U	8		-		23		4		3		0.5	U	7		8		0.5	U	10				8260B
	8/12-14/02	0.5	U	10	U	21		-		18		38		10	U	1	U	0.5	U	17		0.5	U	17				CLP/8260B
	1/21-22/03	-		10	U	4	J	-		-		-		4	J	-		-		4	J	-		7	J			CLP
	7/14-15/03	1	U	17	U	4		-		-		1	U	1	U	4.2	U	5.6	J	1	U	1	UJ	2.9	J			8260B
	3/16-17/04	-		10	U	20		-		-		17		9	J	-		-		10	U	-		10	U			CLP
	9/29-30/04	0.5	U	0.44	J	7.8	J	-		-		0.5	U	6.3	J	0.84	U	6.6	J	6.2		0.5	U	5.3	J			8260B
	3/30-31/05	-		67	U	10	U	-		-		10	U	3	J	-		-		10	U	-		10	U			CLP
	10/3-4/05	-		25	U	10		-		-		0.5	U	6.6		0.5	U	7		9.7		0.5	U	0.89	J			8260B
	4/4-5/06	-		10	U	11		-		-		11		7	J	-		-		12		-		10	U			CLP
	9/27-28/06	0.50	U	0.39	J	8.7		-		-		0.50	U	2.9		0.50	U	7.5	J	4.9		0.50	U	0.71				8260B
	4/2-3/07	-		13	U	11		-		-		1.5		6.5		-		-		12		-		0.50	U			8260B
	9/18-19/07	0.50	U	0.39	J	7.8		-		-		1.2		5.8		0.50	U	8.7		9.4		0.50	U	0.7				8260B

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Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5A

Background Assessment Organic Target Parameter Analytical Results
1994-2007
Core Groundwater Monitoring Wells

Parameter	Event	Results ug/l(ppb)																								Analysis Type
		MW-1		MW-2		MW-3		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-15		MW-17		
Dichlorodifluoromethane	6/20/94	10	U	120	U	7	J	25	U	46.64	U	2.26	J	13.92	J	46.64	U	1.88	J	9.83	J	46.64	U	1.44	J	CLP/8021
	9/27/94	10	U	10	J	4	J	25	U	10	U	2	J	9	J	10	U	10	U	4	J	10	U	4	J	CLP
no MCL established	2/06/95	10	U	150	U	10	U	25	U	1	U	14		27		50	U	2	J	10	U	1	U	12		CLP
NCS = 0.19 ug/l	4/11/95	10	U	200	U	10	U	25	U	10	U	7	J	9	J	71	U	10	U	4	J	10	UJ	3	J	CLP
	7/10/95	2	UJ	2	UJ	6.9	J	2	UJ	2	UJ	16	J	2	UJ	2	UJ	2	UJ	5.7	J	10	U	5.3	J	8021
	7/10/95	5	U	5	U	7.2		2.2	J	5	U	6.7		2.8	J	5	U	1.7	J	4	J	-		4.2	J	8260
	4/10/96	10	U	91	U	10	U	25	U	10	U	10	U	10	U	23	U	10	U	10	U	10	U	10	U	CLP
	4/8/97	1	U	1	U	6.4		-		1	U	17		11		1	U	3		10		1	U	1	U	8021
	1/15/98	10	U	20	U	11		-		10	U	12		10	U	14	U	10	U	10	U	10	U	10	U	CLP
	6/23/98	-		25	UJ	3	J	-		-		10	UJ	10	UJ	-		-		3	J	-		10	UJ	CLP
	1/12/99	1	U	1	U	1	U	-		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	8021B
	7/12/99	-		10	U	10	U	-		-		10	U	10	U	-		-		10	U	-		10	U	CLP
	2/1/00	1	U	1	U	3		-		1.3		8.1		3.7		1	U	3		4.8		1	U	3.9		8021B
	8/8/00	-		10	U	3	J	-		-		2	J	1	J	-		-		3	J	-		1	J	CLP
	2/12-14/01	1	U	1	U	3.9		-		1	U	1	U	6.6		1	U	3		2.8		1	U	2.5		8021B
	8/7-8/01	-		10	UJ	3	J	-		-		8	J	4	J	-		-		7	J	-		9	J	CLP
	2/11-14/02	0.5	U	0.5	U	4		-		2		0.5	U	1		0.5	U	3		4		0.5	U	6		8260B
	8/12-14/02	0.5	UJ	10	U	10	U	-		1	U	10	U	10	U	1	U	0.5	UJ	10	U	0.5	UJ	10	U	CLP/8260B
	1/21-22/03	-		10	U	10	U	-		-		-		0.5	J	-		-		0.9	J	-		0.9	J	CLP
	7/14-15/03	1	U	17	U	4	U	-		-		1	U	1	U	4.2	U	1	UJ	1	U	1	UJ	1	U	8260B
	3/16-17/04	-		10	U	10	U	-		-		10	U	3	J	-		-		10	U	-		3	J	CLP
	9/29-30/04	0.5	U	0.15	J	0.5	U	-		-		0.5	U	3.3	J	0.84	U	0.76	J	1.1		0.5	U	0.6	J	8260B
	3/30-31/05	-		67	UJ	10	UJ	-		-		10	UJ	0.8	J	-		-		10	UJ	-		10	U	CLP
	10/3-4/05	-		25	U	3.2		-		-		0.5	UJ	1.2	J	0.5	UJ	1	UJ	0.31	J	0.5	UJ	0.18	J	8260B
	4/4-5/06	-		10	U	10	U	-		-		10	U	2	J	-		-		10	U	-		10	U	CLP
	9/27-28/06	0.50	U	0.50	U	2.5	U	-		-		0.50	U	0.44	J	0.50	U	0.50	U	1.6	U	0.50	U	0.50	U	8260B
	4/2-3/07	-		13	U	10	U	-		-		0.50	U	0.7	J	-		-		2.5	U	-		0.50	U	8260B
	9/18-19/07	0.50	U	0.50	U	2.5	U	-		-		0.50	U	0.73		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	8260B
1,1-Dichloroethane	6/20/94	10	U	75	J	160		97		10.42	J	35.33	J	13.63	J	28.62	J	25.23	J	82.77	J	0.26	J	105.03	J	CLP/8021
	9/27/94	10	U	110	J	200		110		1	J	70		23		84		27		130		10	U	230		CLP
no MCL established	2/06/95	10	U	160		180		140		2.9		74		30		37	J	28		120		1	U	170		CLP
NCS = 700 ug/l	4/11/95	10	U	98	J	130		94		4	J	58		35		67	J	18		77		10	U	130		CLP
	7/10/95	2	U	81		130		100	J	4.8		60	J	36		58	J	22		100		10	U	102	J	8021
	7/10/95	5	U	94		160		130		6.8		71		40		55		26		120		-		130		8260
	4/10/96	10	U	130		150		120		5	J	80		36		22	J	26		120		10	U	130		CLP
	4/8/97	1	U	84		90		-		9.4		52		28		27		26		82		1	U	76		8021
	1/15/98	10	U	29		97		-		13		55		27		11	J	30		82		10	U	88		CLP
	6/23/98	-		100	J	67	J	-		-		48	J	24	J	-		-		66	J	-		10	UJ	CLP
	1/12/99	1	U	36		92		-		13		35		22		16		27		70		1	U	65		8021B
	7/12/99	-		24		72		-		-		47		20		-		-		10	U	-		71		CLP
	2/1/00	1	U	12		78		-		14		37		19		15		37		74		0.86	J	90		8021B
	8/8/00	-		28		73		-		-		33		19		-		-		58		-		59		CLP
	2/12-14/01	1	U	11		100		-		12		1	U	23		27		34		70		0.56	J	95		8021B
	8/7-8/01	-		8	J	32		-		-		46		15		-		-		47		-		81		CLP
	2/11-14/02	0.5	U	5		51		-		12		16		0.5	U	10		38		61		0.5	U	85		8260B
	8/12-14/02	0.5	U	14		58		-		16		42		13		7		0.5	U	47		0.5	U	53		CLP/8260B
	1/21-22/03	-		18		29		-		-		-		13		-		-		42		-		59		CLP
	7/14-15/03	1	U	53		28		-		-		1	U	1	U	8.2		30	J	1	U	1	UJ	11		8260B
	3/16-17/04	-		100		33		-		-		36		45		-		-		18		-		21		CLP
	9/29-30/04	0.5	U	92	J	29	J	-		-		0.17	J	25	J	7.4	J	24	J	34	J	0.32	J	15	J	8260B
	3/30-31/05	-		110		28		-		-		10	U	19		-		-		32		-		7	J	CLP
	10/3-4/05	-		110		30		-		-		0.21	J	25		21		21		33		0.19	J	6.4	J	8260B
	4/4-5/06	-		85		38		-		-		11		20		-		-		34		-		5	J	CLP
	9/27-28/06	0.50	U	46		17		-		-		0.50	U	6.3		3.3		21		20		0.50	U	3.2		8260B
	4/2-3/07	-		67	J	38		-		-		1.1	J	16	J	-		-		33	J	-		5	J	8260B
	9/18-19/07	0.50	U	74		24		-		-		0.76		16		4.5		28		32		0.11	J	3.8		8260B

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Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5A

Background Assessment Organic Target Parameter Analytical Results
1994-2007
Core Groundwater Monitoring Wells

Parameter	Event	Results ug/l(ppb)																										Analysis Type
		MW-1		MW-2	.	MW-3		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-15		MW-17		
1,1-Dichloroethene	6/20/94	10	U	160		5	J	25	U	9.75	U	0.3	J	9.75	U	32.29		9.75	U	1.15	J	9.75	U	1.09	J	CLP/8021
	9/27/94	10	U	210		6	J	25	U	10	U	4	J	10	U	160		10	U	5	J	10	U	3	J	CLP
MCL= 7 ug/l	2/06/95	10	U	360		6	J	25	U	1	U	6	J	10	U	100		10	U	4	J	1	U	3	J	CLP
NCS = 7 ug/l	4/11/95	10	U	150	J	3	J	25	U	10	U	3	J	10	U	120		10	U	2	J	10	U	1	J	CLP
	7/10/95	2	U	170		4		2	U	2	U	5.7		2	U	160	J	0.86	J	3.9		10	U	1.8	J	8021
	7/10/95	5	U	170	J	3.7	J	1.3	J	5	U	4.1	J	5	U	88		5	U	3.6	J	-		1.6	J	8260
	4/10/96	10	U	210		3	J	25	U	10	U	6	J	10	U	51		10	U	3	J	10	U	2	J	CLP
	4/8/97	1	U	180		1.9		-		1	U	4.9		0.54	J	84		1.1		2.7		0.77	J	1.2		8021
	1/15/98	10	U	50		2	J	-		10	U	3	J	10	U	20		10	U	2	J	10	U	1	J	CLP
	6/23/98	-		160	J	10	UJ	-		-		2	J	10	UJ	-		-		2	J	-		1	J	CLP
	1/12/99	1	U	77		1.9		-		1	U	3.2		1	U	26		1.2		1.9		1	U	1	U	8021B
	7/12/99	-		47		1	J	-		-		2	J	10	U	-		-		10	U	-		10	U	CLP
	2/1/00	1	U	26		1.2		-		1	U	2.4		1	U	31		1.4		1.6		0.96	J	1.2		8021B
	8/8/00	-		56		1	J	-		-		2	J	10	U	-		-		1	J	-		10	U	CLP
	2/12-14/01	1	U	19		1.3		-		1	U	1	U	1	U	63		1.2		1.3		0.61	J	1.4		8021B
	8/7-8/01	-		14		10	U	-		-		2	J	10	U	-		-		10	U	-		0.8	J	CLP
	2/11-14/02	0.5	U	9		3	U	-		0.8		0.8		12		16		0.8		0.9		0.5	U	0.8		8260B
	8/12-14/02	0.5	U	22		10	U	-		1	U	10	U	10	U	7		0.5	U	10	U	0.5	U	10	U	CLP/8260B
	1/21-22/03	-		32		0.3	J	-		-		-		10	U	-		-		0.8	J	-		0.8	J	CLP
	7/14-15/03	1	U	79		4	U	-		-		1	U	1	U	15		1	UJ	1	U	1	UJ	1	UJ	8260B
	3/16-17/04	-		150		10	U	-		-		1	J	10	U	-		-		10	U	-		10	U	CLP
	9/29-30/04	0.5	U	180	J	0.5	U	-		-		0.48	J	0.28	J	11		0.86	J	1.4		0.43	J	0.32	J	8260B
	3/30-31/05	-		150		10	U	-		-		10	U	10	U	-		-		10	U	-		10	U	CLP
	10/3-4/05	-		160		0.52		-		-		0.5	U	0.5	U	26		0.6	J	0.7		0.2	J	0.5	U	8260B
	4/4-5/06	-		110		10	U	-		-		10	U	10	U	-		-		10	U	-		10	U	CLP
	9/27-28/06	0.50	U	75		2.5	U	-		-		0.50	U	0.50	U	5.9		0.45	J	0.36	J	0.27	J	0.50	U	8260B
	4/2-3/07	-		75		10	U	-		-		0.50	U	0.50	U	-		-		2,5	U	-		0.50	U	8260B
	9/18-19/07	0.50	U	130		0.26	J	-		-		0.50	U	0.50	U	4.2		0.46	J	0.52		0.50	U	0.50	U	8260B
cis 1,2-Dichloroethene(2)	6/20/94	10	U	120	U	37		330		0.97	J	28.9		0.95	J	9.49	U	5.05	J	28.13		9.49	U	60.79	J	CLP/8021
	9/27/94	10	U	170	U	61		380		3	J	93		2	J	10	U	8	J	47		10	U	120		CLP
MCL= 70 ug/l	2/06/95	10	U	150	U	54		370		7.2		91		2	J	50	U	8	J	37		1	U	80		CLP
NCS = 70 ug/l	4/11/95	10	U	200	U	44		330		9	J	100		4	J	71	U	6	J	30		10	U	70		CLP
	7/10/95	2	U	2	U	65		440	J	4.4		110	J	7.4		2	U	11		37		10	U	72	J	8021
	7/10/95	5	U	5	U	50		430		7.9		89		6.2		5	U	7.6		42		-		63		8260
	4/10/96	10	U	91	U	64		420		6	J	78		11		23	U	11		54		10	U	87		CLP
	4/8/97	1	U	1	U	58		-		4.4		34		13		1	U	17		60		1	U	100		8021
	1/15/98	10	U	20	U	62		-		11		29		14		14	U	18		56		10	U	87		CLP
	6/23/98	-		25	UJ	50	J	-		-		43	J	12	J	-		-		52	J	-		79	J	CLP
	1/12/99	1	U	1	U	90		-		7.1		20		14		1	U	19		63		1	U	89		8021B
	7/12/99	-		10	U	69		-		-		21		12		-		-		10	U	-		88		CLP
	2/1/00	1	U	1	U	97		-		5.6		13		15		1	U	39		77		1	U	120		8021B
	8/8/00	-		10	U	120		-		-		13		16		-		-		69		-		90		CLP
	2/12-14/01	1	U	1	U	170		-		3.8		1	U	22		1	U	52		97		1	U	160		8021B
	8/7-8/01	-		10	U	59		-		-		13		14		-		-		83		-		180		CLP
	2/11-14/02	0.5	U	0.5	U	89		-		6		6		10		0.5	U	50		86		0.5	U	160		8260B
	8/12-14/02	0.5	U	10	U	110		-		5		9	J	11		1	U	0.5	U	75		0.5	U	110		CLP/8260B
	1/21-22/03	-		10	U	62		-		-		-		13		-		-		80		-		150		CLP
	7/14-15/03	1	U	17	U	66		-		-		1	U	1	U	4.2	U	35	J	1	U	U	UJ	21		8260B
	3/16-17/04	-		10	U	11		-		-		17		59		-		-		10		-		48		CLP
	9/29-30/04	0.16	J	0.37	J	64	J	-		-		0.5	U	16	J	0.84	U	25	J	61	J	0.16	J	37		8260B
	3/30-31/05	-		67	U	82		-		-		10	U	12		-		-		63		-		17		CLP
	10/3-4/05	-		25	U	73		-		-		0.27	J	15		0.5	U	24		56		0.5	U	13	J	8260B
	4/4-5/06	-		10	U	98		-		-		6	J	11		-		-		61		-		11		CLP
	9/27-28/06	0.50	U	0.25	J	59		-		-		0.50	U	5.3		0.50	U	18		43		0.50	U	11		8260B
	4/2-3/07	-		13	U	98		-		-		1.1		9.1		-		-		59		-		11		8260B
	9/18-19/07	0.50	U	0.25	J	75		-		-		0.47	J	11		0.50	U	39		69		0.50	U	9		8260B

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Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5A
Background Assessment Organic Target Parameter Analytical Results
1994-2007
Core Groundwater Monitoring Wells

Parameter	Event	Results ug/l(ppb)																										Analysis Type
		MW-1		MW-2		MW-3		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-15		MW-17		
Methylene Chloride	6/20/94	8	J	120	U	6	J	11	J	36.2	UJ	36.2	UJ	140.1	J	36.2	UJ	36.2	UJ	8.58	J	36.2	UJ	36.2	UJ	CLP/8021
	9/27/94	10	U	490		14	U	25	U	10	U	4	J	73		180		10	U	28	U	10	U	58	U	CLP
MCL= 5 ug/l	2/06/95	10	U	150	U	10	U	25	U	1.5		10	U	93		50	U	10	U	10	U	1	U	10	U	CLP
NCS = 5 ug/l	4/11/95	10	U	200	U	10	U	25	U	10	U	10	U	120		71	U	10	U	10	U	10	U	10	U	CLP
	7/10/95	2	U	2	U	2.4		1.2	J	2	U	4.7		89		2	U	2.9		3.3		10	U	2.2		8021
	7/10/95	5	U	5	U	5	U	5	U	5	U	5	U	160		5	U	5	U	5.9	U	-		5	U	8260
	4/10/96	10	U	91	U	10	U	25	U	10	U	10	U	120		23	U	10	U	10	U	10	U	10	U	CLP
	4/8/97	1	U	1	U	0.71	J	-		1.4		1.6		100		1	U	0.7	J	1.1		0.656	J	0.63	J	8021
	1/15/98	1	J	20	U	2	J	-		2	J	3	J	90		4	J	1	J	2	J	1	J	2	J	CLP
	6/23/98	-		25	UJ	10	UJ	-		-		10	UJ	10	UJ	-		-		10	UJ	-		10	UJ	CLP
	1/12/99	1	U	1	U	1	U	-		1	U	1.8		2.3		1	U	1	U	1	U	1	U	1	U	8021B
	7/12/99	-		10	UJ	10	UJ	-		-		10	UJ	10	UJ	-		-		10	UJ	-		10	UJ	CLP
	2/1/00	1	J	1	U	0.76	J	-		0.7	J	1.5		1	U	1	U	1		0.82	J	1	U	0.98	J	8021B
	8/8/00	-		10	UJ	10	UJ	-		-		10	UJ	10	UJ	-		-		10	UJ	-		10	UJ	CLP
	2/12-14/01	1	J	1	U	0.71	J	-		0.7	J	1	U	1	U	1	U	0.93	J	0.54	J	1	U	1.4		8021B
	8/7-8/01	-		2	J	2	J	-		-		3	J	10	U	-		-		10	U	-		10	U	CLP
	2/11-14/02	0.5	U	0.5	U	3	U	-		0.5	U	0.5	U	0.5	U	0.5	U	0.7	J	0.5	J	0.5	U	0.8	J	8260B
	8/12-14/02	0.5	UJ	10	U	10	U	-		1	UJ	10	U	10	U	1	UJ	0.5	UJ	10	U	0.5	UJ	10	U	CLP/8260B
	1/21-22/03	-		10	U	10	U	-		-		-		10	U	-		-		10	U	-		10	U	CLP
	7/14-15/03	1	U	17	U	4	U	-		-		1	U	1	U	4.2	U	1	UJ	1	U	1	UJ	1	U	8260B
	3/16-17/04	-		10	U	10	U	-		-		-		10	U	-		-		10	U	-		10	U	CLP
	9/29-30/04	0.5	U	0.65	U	0.88	U	-		-		0.5	U	0.5	U	0.5	U	0.55	U	0.5	U	0.5	U	0.5	U	8260B
	3/30-31/05	-		67	U	10	U	-		-		10	U	10	U	-		-		10	U	-		10	U	CLP
	10/3-4/05	-		25	U	0.66		-		-		0.5	U	0.31	J	0.5	U	0.38	J	0.76		0.5	U	0.5	U	8260B
	4/4-5/06	-		10	U	10	U	-		-		10	U	10	U	-		-		10	U	-		10	U	CLP
	9/27-28/06	0.50	U	0.43	J	0.68	J	-		-		0.50	U	0.31	J	0.50	U	0.39	J	0.53	J	0.50	U	0.50	U	8260B
	4/2-3/07	-		3.3	J	10	U	-		-		0.50	U	0.3	J	-		-		1.3	J	-		0.50	U	8260B
	9/18-19/07	0.50	U	0.49	J	0.48	J	-		-		0.50	U	0.50	U	0.1	J	0.49	J	0.64		0.50	U	0.1	J	8260B
Tetrachloroethene	6/20/94	10	U	120	U	44		6	J	0.88	J	7.55	J	2.15	J	1.3	J	7.47	J	22.78		7.84	U	37.43		CLP/8021
	9/27/94	10	U	170	U	53		26		10	U	33		5	J	12	J	9	J	36		10	U	64		CLP
MCL= 5 ug/l	2/06/95	10	U	18	J	46		33		1	U	31		4	J	6	J	8	J	32		1	U	48		CLP
NCS = 0.7 ug/l	4/11/95	10	U	200	U	33		13	J	10	U	33		5	J	10	J	7	J	28		10	U	41		CLP
	7/10/95	2	U	12		31		13		2	U	42	J	5		13		10		27		10	U	40		8021
	7/10/95	5	U	9.9		37		14		5	U	38		3.6	J	5.7		8.1		31		-		30		8260
	4/10/96	10	U	20	J	46		10	J	10	U	36		4	J	4	J	12		37		10	U	41		CLP
	4/8/97	1	U	11		21		-		1	U	13		3.4		4.4		11		23		1	U	21		8021
	1/15/98	10	U	4	J	21		-		10	U	11		3	J	3	J	10		25		10	U	28		CLP
	6/23/98	-		12	J	16	J	-		-		18	J	3	J	-		-		19	J	-		26	J	CLP
	1/12/99	1	U	4.2		19		-		1	U	7.6		1.9		2.6		7		13		1	U	16		8021B
	7/12/99	-		3	J	19		-		-		8	J	2	J	-		-		10	U	-		29	J	CLP
	2/1/00	1	U	1.5		15		-		1	U	5.4		1.8		2.7		8.4		14		1	U	21		8021B
	8/8/00	-		4	J	24		-		-		7	J	1	J	-		-		14		-		16		CLP
	2/12-14/01	1	U	1.4		20		-		1	U	1	U	2		3.3		8		12		1	U	23		8021B
	8/7-8/01	-		3	J	9	J	-		-		5	J	1	J	-		-		11		-		25		CLP
	2/11-14/02	0.5	U	2		12		-		0.5	U	5		0.8		2		6		10		0.5	U	16		8260B
	8/12-14/02	0.5	U	2	J	14		-		1	U	3	J	1	J	1	U	0.5	U	11		0.5	U	15		CLP/8260B
	1/21-22/03	-		2	J	7	J	-		-		-		1	J	-		-		10		-		17		CLP
	7/14-15/03	1	U	17	U	4.4		-		-		1	U	1	U	4.2	U	5	J	1	U	1	UJ	2.3		8260B
	3/16-17/04	-		7	J	3	J	-		-		4	J	9	J	-		-		8	J	-		10		CLP
	9/29-30/04	0.5	U	6	J	5.2	J	-		-		0.65	J	1.6	J	1.3		3.1	J	5.9		0.5	U	5	J	8260B
	3/30-31/05	-		8	J	5	J	-		-		10	U	1	J	-		-		5	J	-		3	J	CLP
	10/3-4/05	-		25	U	5.9		-		-		0.53		1.5		2.6		3.4		5		0.5	U	5.1	J	8260B
	4/4-5/06	-		5	J	6	J	-		-		2	J	1	J	-		-		5	J	-		3	J	CLP
	9/27-28/06	0.50	U	5.6	J	5.4		-		-		0.50	U	0.85		1.5		2.7		3.1		0.50	U	1.6		8260B
	4/2-3/07	-		13	U	6	J	-		-		0.4	J	1.1	J	-		-		4.0	J	-		3	J	8260B
	9/18-19/07	0.50	U	6.2		2.7		-		-		0.19	J	1.4		1.3		2.7		3.9		0.50	U	2.2		8260B

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Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5A

Background Assessment Organic Target Parameter Analytical Results

1994-2007

Core Groundwater Monitoring Wells

Parameter	Event	Results ug/l(ppb)																										Analysis Type
		MW-1		MW-2		MW-3		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-15		MW-17			
Trichloroethene	6/20/94	10	U	120	U	16		21	J	21.2	U	21.2	U	21.2	U	21.2	U	21.2	U	5.74	J	21.2	U	15.7	J			CLP/8021
	9/27/94	10	U	170	U	23		71		10	U	15		6	J	10	U	3	J	14		10	U	34				CLP
MCL= 5 ug/l	2/06/95	10	U	150	U	19		88		2.5	U	14		6	J	50	U	3	J	13		2.5	U	24				CLP
NCS = 2.8 ug/l	4/11/95	10	U	200	U	12		53		1	J	13		6	J	71	U	2	J	10		10	U	19				CLP
	7/10/95	2	U	1.2	J	20		67	J	1.6	J	28		8.6		2	U	5.8		16		10	U	21	J			8021
	7/10/95	5	U	5	U	16		47		1.2	J	15		6		5	U	3.1	J	13		-		17				8260
	4/10/96	10	U	91	U	21		28		10	U	16		6	J	23	U	4	J	15		10	U	19				CLP
	4/8/97	1	U	1.9		12		-		53	U	11		5.1		1.2		6		14		1	U	16				8021
	1/15/98	10	U	20	U	11		-		1	J	8	J	4	J	14	U	5	J	12		10	U	16				CLP
	6/23/98	-		25	UJ	8	J	-		-		9	J	3	J	-		-		10	J	-		15	J			CLP
	1/12/99	1	U	1	U	14		-		1	U	6.9		3.1		1	U	5		9.5		1	U	13				8021B
	7/12/99	-		3	J	10		-		-		10		3	J	-		-		10	U	-		15				CLP
	2/1/00	1	U	1	U	11		-		1	J	6.3		2.7		1	U	6.6		10		1	U	17				8021B
	8/8/00	-		10	U	12	J	-		-		10	U	10	U	-		-		10	U	-		11	J			CLP
	2/12-14/01	1	U	1	U	13		-		0.8	J	1	U	3.1		0.59	J	6.6		8.7		1	U	16				8021B
	8/7-8/01	-		10	U	5	J	-		-		6	J	2	J	-		-		7	J	-		15				CLP
	2/11-14/02	0.5	U	0.5	U	7		-		0.6		3		1		0.5	U	4		6		0.5	U	9				8260B
	8/12-14/02	0.5	U	10	U	12		-		1	U	6	J	4	J	1	U	0.5	U	9	J	0.5	U	12				CLP/8260B
	1/21-22/03	-		0.3	J	5	J	-		-		-		2	J	-		-		8	J	-		12				CLP
	7/14-15/03	1	U	17	U	4	U	-		-		2.1	J	1	U	4.2	U	3.5	J	1	U	1	UJ	1.5				8260B
	3/16-17/04	-		10	U	4	J	-		-		6	J	5	J	-		-		4	J	-		6	J			CLP
	9/29-30/04	0.5	U	0.97	J	4.6	J	-		-		1.1	J	2.6	J	0.84	U	3.2	J	4.7		0.5	U	4.6	J			8260B
	3/30-31/05	-		11	J	7	J	-		-		2	J	2	J	-		-		5	J	-		2	J			CLP
	10/3-4/05	-		25	U	5.5		-		-		2.2		2.6		0.21	J	2.5		5.3		0.5	U	2.1	J			8260B
	4/4-5/06	-		10	U	5	J	-		-		2	J	2	J	-		-		4	J	-		1	J			CLP
	9/27-28/06	0.50	U	0.73	J	5.4	J	-		-		0.39	J	1.2	J	0.21	J	2.7	J	3.1	J	0.50	U	1.6	J			8260B
	4/2-3/07	-		13	U	5	J	-		-		0.4	J	1.4		-		-		2.9		-		1	J			8260B
	9/18-19/07	0.50	U	0.63	J	5.6	J	-		-		0.73		1.7		0.50	U	2.8		4.6		0.50	U	1.2	J			8260B
1,1,1-Trichloroethane	6/20/94	10	U	1800		31		25	U	30.11	U	2.42	J	11.89	J	130.14	J	4.83	J	16.79	J	0.08	J	13.39	J			CLP/8021
	9/27/94	10	U	1900		35		25	U	10	U	6	J	18		1830		5	J	24		5	J	16				CLP
MCL= 200 ug/l	2/06/95	10	U	2700		31		25	U	1	U	6	J	14		650		5	J	18		2.5		14				CLP
NCS = 200 ug/l	4/11/95	10	U	2000		21		25	U	10	U	5	J	16		1300		5	J	17		3	J	10				CLP
	7/10/95	2	U	1600		26		2	U	2	U	6		12		990		5.9		17		10	U	7.8				8021
	7/10/95	5	U	1600		21		5	U	5	U	4.9	J	9.8		740		4.8	J	16		-		7				8260
	4/10/96	10	U	1300		21		25	U	10	U	8	J	8	J	290		6	J	15		4	J	7	J			CLP
	4/8/97	1	U	770		8.2		-		1	U	4.5		1.5		570		6.1		11		4.1		2.9				8021
	1/15/98	10	U	320		7	J	-		10	U	4	J	10	U	150		7	J	9	J	5	J	3	J			CLP
	6/23/98	-		710	J	3	J	-		-		3	J	10	UJ	-		-		6	J	-		3	J			CLP
	1/12/99	1	U	310		4.7		-		1	U	2.5		1	U	170		6.3		5.4		3.4		1.2				8021B
	7/12/99	-		190		3	J	-		-		2	J	10	U	-		-		10	U	-		1	J			CLP
	2/1/00	1	U	110		2.8		-		1.7		1	U	180	J	6		3.9		3.9		1.7		1.7				8021B
	8/8/00	-		250	J	3	J	-		-		2	J	10	U	-		-		10	U	-		1	J			CLP
	2/12-14/01	1	U	89		3.4		-		1	U	1	U	1	U	380		1	U	2.5		2.4		2.8				8021B
	8/7-8/01	-		89		1	J	-		-		10	U	10	U	-		-		2	J	-		2	J			CLP
	2/11-14/02	0.5	U	41		3	U	-		0.5	U	0.5	U	0.5	U	130		3		2		1		2				8260B
	8/12-14/02	0.5	U	130		10	U	-		1	U	10	U	10	U	58		0.5	U	10	U	0.5	U	10	U			CLP/8260B
	1/21-22/03	-		180		1	J	-		-		-		10	U	-		-		2	J	-		1	J			CLP
	7/14-15/03	1	U	550		4	U	-		-		1	U	1	U	70		3.3	J	1	U	1.1	J	1	U			8260B
	3/16-17/04	-		630		10	U	-		-		10	U	3	J	-		-		10	U	-		10	U			CLP
	9/29-30/04	0.5	U	580	J	0.5	U	-		-		0.95	J	0.37	J	40		3.2	J	2.1		1.2		0.33	J			8260B
	3/30-31/05	-		760	U	10	U	-		-		10	U	10	U	-		-		10	U	-		10	U			CLP
	10/3-4/05	-		740		0.5	U	-		-		0.5	U	0.5	U	150		1	U	1.4		0.86		0.5	U			8260B
	4/4-5/06	-		700		10	U	-		-		10	U	10	U	-		-		1	J	-		10	U			CLP
	9/27-28/06	0.50	U	350	J	2.5	U	-		-		0.50	U	0.50	U	25	J	1.2		1.4		0.59	J	0.50	U			8260B
	4/2-3/07	-		300		10	U	-		-		0.50	U	0.50	U	-		-		2.5	U	-		0.50	U			8260B
	9/18-19/07	0.50	U	570		0.50	U	-		-		0.50	U	0.50	U	25		0.56		1.4		0.64		0.50	U			8260B

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Watauga County Landfill
Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5A

Background Assessment Organic Target Parameter Analytical Results
1994-2007
Core Groundwater Monitoring Wells

Parameter	Event	Results ug/l(ppb)																										Analysis Type
		MW-1		MW-2		MW-3		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-15		MW-17			
Vinyl Chloride	6/20/94	10	U	120	U	10	U	10	J	6.6	UJ	6.6	UJ	6.6	UJ	6.6	UJ	6.6	UJ	6.6	UJ	6.6	UJ	6.6	UJ			CLP/8021
	9/27/94	10	U	170	U	3	J	10	J	10	U	5	J	10	U	10	U	10	U	10	U	10	U	14	U			CLP
MCL= 2 ug/l	2/06/95	10	U	150	U	2	J	20	J	3.6		6	J	10	U	50	U	10	U	10	U	1	U	10	U			CLP
NCS = 0.15 ug/l	4/11/95	10	U	200	U	10	U	10	J	2	J	6	J	10	UJ	71	U	10	U	10	UJ	10	UJ	10	U			CLP
	7/10/95	2	U	2	U	2.9	J	12	J	2	U	11	J	2	U	2	U	2	U	2.3		10	U	0.94	J			8021
	7/10/95	5	U	5	U	3.1	J	23		5	U	7.2		5	U	5	U	5	U	5	U	-		5	U			8260
	4/10/96	10	U	91	U	2	J	14	J	10	U	5	J	10	U	23	U	10	U	10	U	10	U	10	U			CLP
	4/8/97	1	U	1	U	0.98		-		1	U	3	J	1	U	1	U	2.8	J	1	U	1	U	4	J			8021
	1/15/98	10	U	20	U	10	U	-		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U			CLP
	6/23/98	-		25	UJ	10	UJ	-		-		2	J	10	UJ	-		-		2	J	-		2	J			CLP
	1/12/99	1	U	1	U	5		-		1	U	1.8		2		1	U	1	U	2.8		1	U	3.1				8021B
	7/12/99	-		10	U	2	J	-		-		10	U	10	U	-		-		10	U	-		2	J			CLP
	2/1/00	1	U	1	U	4.2		-		0.75	J	1.7		3.1		1	U	2.4		3.8		1	U	5.5				8021B
	8/8/00	-		10	U	5	J	-		-		10	U	2	J	-		-		2	J	-		2	J			CLP
	2/12-14/01	1	U	1	U	6.6	J	-		1	U	1	U	2.8	J	1	U	2.9	J	3.9	J	1	U	8	J			8021B
	8/7-8/01	-		10	U	10	U	-		-		10	U	2	J	-		-		3	J	-		8	J			CLP
	2/11-14/02	0.5	U	0.5	U	4		-		2		0.5	U	1		0.5	U	3		4		0.5	U	6				8060B
	8/12-14/02	0.5	U	10	U	5	J	-		2	J	10	U	10	U	1	U	0.5	U	3	J	0.5	U	4	J			CLP/8260B
	1/21-22/03	-		10	U	0.9	J	-		-		-		0.9	J	-		-		2	J	-		4	J			CLP
	7/14-15/03	1	U	17	U	4	U	-		-		1	U	1	U	4.2	U	1.8	J	1	U	1	UJ	1.2				8060B
	3/16-17/04	-		10	U	10	U	-		-		10	U	3	J	-		-		10	U	-		10	U			CLP
	9/29-30/04	0.5	U	1.3	J	4.7	J	-		-		0.5	U	2.9	J	0.84	U	3.1	J	3.3		0.5	U	2.4	J			8260B
	3/30-31/05	-		67	U	10	U	-		-		10	U	10	U	-		-		10	U	-		10	U			CLP
	10/3-4/05	-		25	UJ	5.8	J	-		-		0.5	UJ	2.4	J	0.5	UJ	3.4	J	4.3	J	0.5	UJ	0.25	J			8260B
	4/4-5/06	-		10	U	8	J	-		-		10	U	10	U	-		-		5	J	-		10	U			CLP
	9/27-28/06	0.50	U	0.48	J	3.6		-		-		0.50	U	0.76		0.50	U	2.8		2.6		0.50	U	0.50	U			8260B
	4/2-3/07	-		13	U	1.2	J	-		-		0.50	U	1.5		-		-		3.4		-		0.50	U			8260B
	9/18-19/07	0.50	U	0.41	J	3.2		-		-		0.50	U	1.3		0.50	U	3.1		4		0.50	U	0.50	U			8260B

TABLE 5A NOTES:

U Denotes not detected (the associated numerical value is the CRQL/LOQ).
J Denotes an estimated value
CRQL Contract Required Quantification Limit (CLP Methods)
LOQ Limit of Quantitation (SW-846 Methods)
- Denotes Not Avaliable or Not Sampled
Shading - denotes Parameter results that exceed U.S. EPA Maximum Contaminant Levels.

NCS Denotes North Carolina Groundwater Quality Standard (T15A: 02L .0200)
MCL Denotes EPA Maximum Contaminant Level (EPA 822-R-94-001)

ANALYSIS TYPE:

1) Organic parameters were analyzed utilizing CLP Statement of Work OLMO1.9(3/90), SW-846 Method #8260 and/or #8021, as noted.
2) For the 6/94 event, monitoring wells MW-8, MW-9, MW-10, MW-11, MW-12, MW-15 and MW-17, SW-846 anlytical method #8021 analysis was performed.
For the 8//02 event, monitoring wells MW-1, MW-10, MW-11, and MW-15, SW-846 analytical method #8260b, 25 ml purge analysis was performed.
Other monitoring locations were analyzed using CLP analytical methods.

j:\6520-21\CORRESP\REPORTS\TABLE5A3.XLS

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Table 5B

06/12/08

Watauga County, North Carolina

Background Assessment Organic Target Parameter Analytical Results

Upgradient Well: MW-1

Boundary Groundwater Monitoring Wells

Parameter Results ug/l (ppb)	Event	MW-4		MW-5		MW-13		MW-14		MW-15		MW-16		MW-18		Analysis Type	NCS (ug/L)	MCL (ug/L)
Benzene	6/20/94	10	U	-		5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	8021	1	5
	9/27/94	2	J	-		10	U	10	U	10	U	2	J	1	J	CLP	1	5
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	1	5
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	1	5
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	1	5
	4/10/96	-		-		-		-		10	U	-		-		CLP	1	5
	4/8/97	-		-		-		-		1	U	-		-		8021	1	5
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	1	5
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	1	5
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	1	5
	8/12-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	1	5
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	1	5
										-		-						
Chloroethane	6/20/94	10	U	-		9.29	U	9.29	U	9.29	U	9.29	U	9.29	U	8021	2800	-
	9/27/94	18		-		10	U	10	U	10	U	10	U	10	U	CLP	2800	-
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	2800	-
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	2800	-
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	2800	-
	4/10/96	-		-		-		-		10	U	-		-		CLP	2800	-
	4/8/97	-		-		-		-		1	U	-		-		8021	2800	-
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	2800	-
	2/12-14/01	2	U	2	U	2	U	2	U	2	U	-		2	U	8021	2800	-
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	2800	-
	8/12-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	2800	-
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	2800	-
Dichlorodifluoromethane	6/20/94	10	U	-		46.64	U	46.64	U	46.64	U	46.64	U	46.64	U	8021	1400	-
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	1400	-
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	1400	-
	4/11/95	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	CLP	1400	-
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	1400	-
	4/10/96	-		-		-		-		10	U	-		-		CLP	1400	-
	4/8/97	-		-		-		-		1	U	-		-		8021	1400	-
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	1400	-
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	1400	-
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	1400	-
	8/12-14/02	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	8260B	1400	-
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	1400	-
1,1-Dichloroethane	6/20/94	10	U	-		0.99	J	43.1	U	0.26	J	43.1	U	43.1	U	8021	700	-
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	700	-
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	700	-
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	700	-
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	700	-
	4/10/96	-		-		-		-		10	U	-		-		CLP	700	-
	4/8/97	-		-		-		-		1	U	-		-		8021	700	-
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	700	-
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	700	-
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	700	-
	8/12-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	700	-
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	700	-

Table 5B

Watauga County, North Carolina — Background Assessment Organic Target Parameter Analytical Results

Upgradient Well: MW-1 — Boundary Groundwater Monitoring Wells

Parameter Results ug/l (ppb)	Event	MW-4		MW-5		MW-13		MW-14		MW-15		MW-16		MW-18		Analysis Type	NCS (ug/L)	MCL (ug/L)
1,1-Dichloroethene	6/20/94	10	U	-		9.75	U	9.75	U	9.75	U	9.75	U	9.75	U	8021	7	7
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	7	7
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	7	7
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	7	7
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	7	7
	4/10/96	-		-		-		-		10	U	-		-		CLP	7	7
	4/8/97	-		-		-		-		0.77	J	-		-		8021	7	7
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	7	7
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	7	7
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	7	7
	8/12-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	7	7
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	7	7
cis-1,2-Dichloroethene (3)	6/20/94	10	U	-		9.49	U	9.49	U	9.49	U	9.49	U	9.49	U	8021	70	70
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	70	70
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	70	70
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	70	70
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	70	70
	4/10/96	-		-		-		-		10	U	-		-		CLP	70	70
	4/8/97	-		-		-		-		1	U	-		-		8021	70	70
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	70	70
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	70	70
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	70	70
	8/12-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	70	70
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	70	70
trans-1,3-Dichloropropene	6/20/94	10	U	-		24.49	U	24.49	U	24.49	U	24.49	U	24.49	U	8021	-	-
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	-	-
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	-	-
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	-	-
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	-	-
Methylene Chloride	6/20/94	10	U	-		36.2	UJ	36.2	UJ	36.2	UJ	36.2	UJ	36.2	U	8021	5	5
	9/27/94	13	U	-		10	U	10	U	10	U	33		23		CLP	5	5
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	5	5
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	5	5
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	5	5
	4/10/96	-		-		-		-		10	U	-		-		CLP	5	5
	4/8/97	-		-		-		-		0.656	J	-		-		8021	5	5
	1/15/98	-		-		-		-		1	J	-		-		CLP	5	5
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	5	5
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	5	5
	8/12-14/02	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	8260B	5	5
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	5	5
Tetrachloroethene	6/20/94	10	U	-		7.84	U	0.24	J	7.84	U	7.84	U	7.84	U	8021	0.7	5
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	0.7	5
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	0.7	5
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	0.7	5
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	0.7	5
	4/10/96	-		-		-		-		10	U	-		-		CLP	0.7	5
	4/8/97	-		-		-		-		1	U	-		-		8021	0.7	5
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	0.7	5
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	0.7	5
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	0.7	5
	8/12-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	0.7	5
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	0.7	5

Table 5B

Watauga County, North Carolina — Background Assessment Organic Target Parameter Analytical Results

Upgradient Well: MW-1 — Boundary Groundwater Monitoring Wells

Parameter Results ug/l (ppb)	Event	MW-4		MW-5		MW-13		MW-14		MW-15		MW-16		MW-18		Analysis Type	NCS (ug/L)	MCL (ug/L)
Trichloroethene	6/20/94	10	U	-		21.2	U	21.2	U	21.2	U	21.2	U	21.2	U	8021	2.8	5
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	2.8	5
	2/06/95	10	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	8021	2.8	5
	4/11/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	CLP	2.8	5
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	2.8	5
	4/10/96	-		-		-		-		10	U	-		-		CLP	2.8	5
	4/8/97	-		-		-		-		1	U	-		-		8021	2.8	5
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	2.8	5
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	2.8	5
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	2.8	5
	8/12-14/02	0.5	U	0.5	U	0.5	U	1	J	0.5	U	0.5	U	0.5	U	8260B	2.8	5
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	2.8	5
1,1,1-Trichloroethane	6/20/94	10	U	-		30.11	U	30.11	U	0.08	J	30.11	U	30.11	U	8021	200	200
	9/27/94	10	U	-		10	U	10	U	5	J	10	U	10	U	CLP	200	200
	2/06/95	10	U	1	U	1	U	1	U	2.5		1	U	1	U	8021	200	200
	4/11/95	10	U	10	U	10	U	1	J	3	J	10	U	10	U	CLP	200	200
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	200	200
	4/10/96	-		-		-		-		4	J	-		-		CLP	200	200
	4/8/97	-		-		-		-		4.1		-		-		8021	200	200
	1/15/98	10	U	10	U	10	U	10	U	5	J	-		10	U	CLP	200	200
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	200	200
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	200	200
	8/12-14/02	0.5	U	0.5	U	0.5	U	1		0.5	U	0.5	U	0.5	U	8260B	200	200
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	200	200
Vinyl Chloride	6/20/94	10	U	-		6.6	UJ	6.6		6.6	UJ	6.6	UJ	6.6	U	8021	0.015	2
	9/27/94	10	U	-		10	U	10	U	10	U	10	U	10	U	CLP	0.015	2
	2/06/95	10	U	1	U	1	U	1	U	1	U	1	U	1	U	8021	0.015	2
	4/11/95	10	UJ	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	CLP	0.015	2
	7/10/95	10	U	10	U	10	U	10	U	10	U	10	U	10	U	8021	0.015	2
	4/10/96	-		-		-		-		10	U	-		-		CLP	0.015	2
	4/8/97	-		-		-		-		1	U	-		-		8021	0.015	2
	1/15/98	10	U	10	U	10	U	10	U	10	U	-		10	U	CLP	0.015	2
	2/12-14/01	1	U	1	U	1	U	1	U	1	U	-		1	U	8021	0.015	2
	2/11-14/02	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	8260B	0.015	2
	8/12-14/02	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	8260B	0.015	2
	9/27-28/06	0.5	U	0.5	U	0.5	U	0.5	U	-		-		0.5	U	8260B	0.015	2

TABLE 5B NOTES:

U Denotes not detected above Instrument Detection Level (IDL) for Inorganics and not detected above CRQL/LOQ for Organics.

J Denotes an estimated value

CRQL Contract Required Quantification Limit (CLP Methods)

LOQ Limit of Quantitation (SW-846 Methods)

\- Denotes Not Avaliable or Not Sampled

NCS Denotes North Carolina Groundwater Quality Standard (T15A: 02L .0200)

MCL Denotes EPA Maximum Contaminant Level (EPA 822-R-94-001)

Shading - denotes parameter results that exceed U.S. EPA Maximum Contaminant Levels.

ANALYSIS TYPE NOTES:

1) Organic parameters were analyzed utilizing CLP Statement of Work OLMO3.2, SW-846 Method #8260B and/or #8021, as noted.

2) For CLP, 1,2-Dichloroethene was reported as total concentration; for 8021/8260B concentration was reported for cis-isomer.

Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5C
Background Assessment Organic Target Parameter Analytical Results
Surface Water Sampling Locations

Results ug/l(ppb)

Parameter	Event	S1		S2		S3		S4		S5		S6		L1		Mt. Spring	
ORGANICS																	
Benzene	6/20/94	10	U	3	J	10	U	1	J	10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 71.4 ug/l	2/06/95	10	U	10	U	10	U	10	U	10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	U	10	U	10	U	10	U	10	U	-		-		-	
	4/10/96	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	4/8/97	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	1/15/98	10	U	3	J	10	U	10	U	10	U	10	U	-		-	
	6/23/98	10	UJ	1	J	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	1/12/99	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	7/12/99	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	2/1/00	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	8/8/00	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	2/12-14/01	10	U	2	J	10	U	10	U	10	U	10	UJ	-		-	
	8/7-8/01	10	U	10	U	10	U	10	U	2	J	10	U	-		-	
	2/11-14/02	10	U	2	J	10	U	10	U	10	U	10	UJ	-		-	
	8/12-14/02	DRY		4	J	10	U	10	U	DRY		10	U	-		-	
	1/21-22/03	10	U	2	J	10	U	10	U	10	U	10	UJ	-		-	
	7/14-15/03	10	U	2	J	10	U	10	U	10	U	10	UJ	-		-	
	3/16-17/04	10	U	10	J	10	U	10	U	10	U	10	UJ	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	1	J	10	U	10	U	10	U	NS	U	-		-	
	9/27-28/06	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	4/2-3/07	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	9/18-19/07	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
Chloroethane	6/20/94	10	U	56		10	U	10	U	11		-		-		-	
	9/27/94	-		-		-		-		-		-		13		10	U
WQS = 860 ug/l	2/06/95	10	U	26		10	U	2	J	7	J	-		6	J	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	15		10	U	10	U	4	J	10	U	-		-		-	
	4/10/96	8	J	46		10	U	3	J	5	J	10	U	-		-	
	4/8/97	10	U	50		10	U	1	J	23		10	U	-		-	
	1/15/98	10	U	56		10	U	10	U	10	U	10	U	-		-	
	6/23/98	2	J	26	J	10	UJ	1	J	4	J	10	UJ	-		-	
	1/12/99	10	U	71		10	U	3	J	10	U	10	U	-		-	
	7/12/99	10	U	58		10	U	10	U	10	U	10	U	-		-	
	2/1/00	1	J	70		10	U	2	J	10	U	10	U	-		-	
	8/8/00	5	J	44		10	U	2	J	10	U	10	UJ	-		-	
	2/12-14/01	10	U	110		23		10	U	4	J	10	U	-		-	
	8/7-8/01	10	U	10	U	10	U	10	U	72		10	U	-		-	
	2/11-14/02	10	U	55		23		10	U	10	U	10	U	-		-	
	8/12-14/02	DRY		150	J	10	UJ	10	UJ	DRY		10	UJ	-		-	
	1/21-22/03	10	U	57		10	U	2	J	10	U	10	U	-		-	
	7/14-15/03	10	U	47		10	U	10	U	10	U	10	U	-		-	
	3/16-17/04	10	U	9	J	10	U	10	U	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	31		10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	44		10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	39		10	U	10	U	10	U	NS		-		-	
	9/27-28/06	10	U	10	U	10	U	10	U	3	J	10	U	-		-	
	4/2-3/07	10	U	29		10	U	10	U	10	U	10	U	-		-	
	9/18-19/07	10	U	18		10	U	10	U	10	U	10	U	-		-	

Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5C
Background Assessment Organic Target Parameter Analytical Results
Surface Water Sampling Locations

Results ug/l(ppb)

Parameter	Event	S1		S2		S3		S4		S5		S6		L1		Mt. Spring	
Dichlorodifluoromethane	6/20/94	10	U	4	J	10	U	10	U	10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 570000 ug/l	2/06/95	10	U	10	U	10	U	10	U	10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-		-	
	4/10/96	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/8/97	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	1/15/98	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	6/23/98	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	1/12/99	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/12/99	10	U	17	U	10	U	10	U	10	U	10	U	-		-	
	2/1/00	10	U	10	U	10	U	10	U	10	UJ	10	UJ	-		-	
	8/8/00	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	2/12-14/01	10	U	14		10	U	10	U	10	U	10	U	-		-	
	8/7-8/01	10	UJ	10	UJ	10	UJ	10	UJ	3	J	10	UJ	-		-	
	2/11-14/02	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	-		-	
	8/12-14/02	DRY		10	UJ	10	UJ	10	UJ	DRY		10	UJ	-		-	
	1/21-22/03	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/14-15/03	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	3/16-17/04	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	10/3-4/05	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	4/4-5/06	10	U	10	J	10	J	10	J	4	J	NS		-		-	
	9/27-28/06	10	U	10	U	10	U	10	U	4	J	10	U	-		-	
	4/2-3/07	10	U	0.4	J	10	U	10	U	1	J	10	U	-		-	
	9/18-19/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
1,1-Dichloroethane	6/20/94	1	J	23		10	U	59		2	J	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 42 ug/l	2/06/95	10	U	10	U	10	U	45		10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	6	J	20		10	U	41		2	J	-		-		-	
	4/10/96	3	J	15		10	U	30		2	J	14		-		-	
	4/8/97	10	U	14		10	U	12		10	U	14		-		-	
	1/15/98	10	U	15		10	U	10	U	10	U	10	U	-		-	
	6/23/98	10	UJ	8	J	10	UJ	15	J	10	UJ	10	UJ	-		-	
	1/12/99	10	U	12		10	U	14		10	U	1	J	-		-	
	7/12/99	10	U	11	J	10	U	5	J	10	U	10	U	-		-	
	2/1/00	10	U	9	J	10	U	12		10	U	1	J	-		-	
	8/8/00	3	J	7	J	10	U	13		10	U	1	J	-		-	
	2/12-14/01	10	U	10	U	2	J	10	U	14		1	J	-		-	
	8/7-8/01	10	U	10	U	10	U	7	J	10	J	10	U	-		-	
	2/11-14/02	10	U	11		10	U	9	J	10	U	10	U	-		-	
	8/12-14/02	DRY		17		10	U	10		DRY		10	U	-		-	
	1/21-22/03	10	U	9	J	10	U	7	J	10	U	10	U	-		-	
	7/14-15/03	10	U	12		10	U	8	J	10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	6	J	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	1	J	10	U	DRY		-		-	
	3/30-31/05	10	U	8	J	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	9	J	10	U	3	J	10	U	10	U	-		-	
	4/4-5/06	10	U	7	J	10	U	3	J	10	U	NS		-		-	
	9/27-28/06	10	U	6	J	10	U	2	J	10	U	10	U	-		-	
	4/2-3/07	10	U	5	J	10	U	2	J	10	U	10	U	-		-	
	9/18-19/07	10	U	6	J	10	U	3	J	10	U	10	U	-		-	

Watauga County, North Carolina
Upgradient Well: MW-1
06/12/08

Table 5C
Background Assessment Organic Target Parameter Analytical Results
Surface Water Sampling Locations

Results ug/l(ppb)

Parameter	Event	S1		S2		S3		S4		S5		S6		L1		Mt. Spring	
1,1-Dichloroethene	6/20/94	10	U	10	U	10	U	10	U	10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 3.2 ug/l	2/06/95	10	U	10	U	10	U	10	U	10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	U	10	U	10	U	10	U	10	U	-		-		-	
	4/10/96	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/8/97	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	1/15/98	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	6/23/98	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	1/12/99	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/12/99	10	U	17	U	10	U	10	U	10	U	10	U	-		-	
	2/1/00	10	U	10	U	10	U	10	U	10	U	10	UJ	-		-	
	8/8/00	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	2/12-14/01	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	8/7-8/01	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	2/11-14/02	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	8/12-14/02	DRY		10	U	10	U	10	U	DRY		10	U	-		-	
	1/21-22/03	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/14-15/03	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	10	U	10	U	10	U	10	U	NS		-		-	
	9/27-28/06	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/2-3/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	9/18-19/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
cis-1,2-Dichloroethene(2)	6/20/94	10	U	4	J	10	U	58		10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 140000 ug/l	2/06/95	10	U	10	U	10	U	42		10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	1	J	3	J	10	U	42		10	U	-		-		-	
	4/10/96	10	U	5	J	10	U	35		10	U	16		-		-	
	4/8/97	10	U	6	J	10	U	15		10	U	16		-		-	
	1/15/98	10	U	5	J	10	U	1	J	10	U	10	U	-		-	
	6/23/98	10	UJ	4	J	10	UJ	21	J	10	UJ	10	UJ	-		-	
	1/12/99	10	U	4	J	10	U	30		10	U	2	J	-		-	
	7/12/99	10	U	5	J	10	U	8	J	10	U	10	U	-		-	
	2/1/00	4	J	4	J	10	U	25		10	U	2	J	-		-	
	8/8/00	10	U	2	J	10	U	27		10	U	2	J	-		-	
	2/12-14/01	10	U	2	J	10	U	28		10	U	2	J	-		-	
	8/7-8/01	10	U	10	U	10	U	14		10	U	3	J	-		-	
	2/11-14/02	10	U	2	J	10	U	17		10	U	2	J	-		-	
	8/12-14/02	DRY		3	J	10	U	22		DRY		3	J	-		-	
	1/21-22/03	10	U	3	J	10	U	18		10	U	0.7	J	-		-	
	7/14-15/03	10	U	3	J	10	U	15		10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	16		10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	3	J	10	U	DRY		-		-	
	3/30-31/05	10	U	3	J	10	U	8	J	10	U	DRY		-		-	
	10/3-4/05	10	U	2	J	10	U	5	J	10	U	10	U	-		-	
	4/4-5/06	10	U	2	J	10	U	7	J	10	U	NS		-		-	
	9/27-28/06	10	U	1	J	10	U	6	J	10	U	10	U	-		-	
	4/2-3/07	10	U	1	J	10	U	7	J	10	U	10	U	-		-	
	9/18-19/07	10	U	10	U	10	U	5	J	10	U	10	U	-		-	

Watauga County, North Carolina
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Table 5C
Background Assessment Organic Target Parameter Analytical Results
Surface Water Sampling Locations

Results ug/l(ppb)

Parameter	Event	S1		S2		S3		S4		S5		S6		L1		Mt. Spring	
Methylene Chloride	6/20/94	6	J	9	J	3	J	1	J	8	J	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 1600 ug/l	2/06/95	10	U	2	J	3	J	1	J	10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	U	10	U	10	U	10	U	10	U	-		-		-	
	4/10/96	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/8/97	10	U	3	J	1	J	10	U	10	U	10	U	-		-	
	1/15/98	1	J	4	J	4	J	1	J	2	J	2	J	-		-	
	6/23/98	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	1/12/99	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/12/99	10	U	17	U	10	U	10	U	10	U	10	U	-		-	
	2/1/00	10	U	10	UJ	10	UJ	10	UJ	10	U	10	UJ	-		-	
	8/8/00	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	2/12-14/01	10	U	3	J	10	U	10	U	2	J	10	U	-		-	
	8/7-8/01	10	U	3	J	10	U	10	U	1	J	10	U	-		-	
	2/11-14/02	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	8/12-14/02	DRY		10	U	10	U	10	U	DRY		10	U	-		-	
	1/21-22/03	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/14-15/03	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	1	J	10	U	10	U	10	U	NS		-		-	
	9/27-28/06	2	J	2	J	1	J	10	U	10	U	10	U	-		-	
	4/2-3/07	10	U	1	J	10	U	10	U	10	U	10	U	-		-	
	9/18-19/07	10	U	0.9	J	10	U	10	U	10	U	10	U	-		-	
Tetrachloroethene	6/20/94	10	U	10	U	10	U	18		10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 8.84 ug/l	2/06/95	10	U	10	U	10	U	12		10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	U	10	U	10	U	11		10	U	-		-		-	
	4/10/96	10	U	10	U	10	U	9	J	1	J	4	J	-		-	
	4/8/97	10	U	10	U	10	U	4	J	10	U	4	J	-		-	
	1/15/98	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	6/23/98	10	UJ	10	UJ	10	UJ	5	J	10	UJ	10	UJ	-		-	
	1/12/99	10	U	10	U	10	U	6	J	10	U	10	U	-		-	
	7/12/99	10	U	17	U	10	U	2	J	10	U	10	U	-		-	
	2/1/00	10	U	10	U	10	U	3	J	10	U	10	UJ	-		-	
	8/8/00	10	U	10	U	10	U	4	J	10	U	10	U	-		-	
	2/12-14/01	10	U	10	U	10	U	2	J	10	U	10	U	-		-	
	8/7-8/01	10	U	10	U	10	U	2	J	10	U	10	U	-		-	
	2/11-14/02	10	U	10	U	10	U	3	J	10	U	10	U	-		-	
	8/12-14/02	DRY		10	U	10	U	2	J	DRY		10	U	-		-	
	1/21-22/03	10	U	10	U	10	U	2	J	10	U	10	U	-		-	
	7/14-15/03	10	U	10	U	10	U	1	J	10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	2	J	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	10	U	10	U	10	U	10	U	NS		-		-	
	9/27-28/06	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/2-3/07	10	U	10	U	10	U	0.5	J	10	U	10	U	-		-	
	9/18-19/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	

Watauga County, North Carolina
Upgradient Well: MW-1
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Table 5C
Background Assessment Organic Target Parameter Analytical Results
Surface Water Sampling Locations

Results ug/l(ppb)

Parameter	Event	S1		S2		S3		S4		S5		S6		L1		Mt. Spring	
Trichloroethene	6/20/94	10	U	1	J	10	U	13		10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 92.4 ug/l	2/06/95	10	U	10	U	10	U	8	J	10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	U	1	J	10	U	8	J	10	U	-		-	-	-	-
	4/10/96	10	U	1	J	10	U	6	J	1	J	3	J	-		-	
	4/8/97	10	U	1	J	10	U	3	J	10	U	3	J	-		-	
	1/15/98	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	6/23/98	10	UJ	10	UJ	10	UJ	3	J	10	UJ	10	UJ	-		-	
	1/12/99	10	U	10	U	10	U	4	J	10	U	10	U	-		-	
	7/12/99	10	U	17	U	10	U	1	J	10	U	10	U	-		-	
	2/1/00	10	U	10	U	10	U	3	J	10	U	10	UJ	-		-	
	8/8/00	10	U	10	U	10	U	3	JB	10	U	10	UJ	-		-	
	2/12-14/01	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	8/7-8/01	10	U	10	U	10	U	2	J	10	U	10	U	-		-	
	2/11-14/02	10	U	10	U	10	U	2	J	10	U	10	U	-		-	
	8/12-14/02	DRY		10	U	10	U	10	U	DRY		10	U	-		-	
	1/21-22/03	10	U	0.5	J	10	U	2	J	10	U	10	U	-		-	
	7/14-15/03	10	U	10	U	10	U	1	J	10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	2	J	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	10	U	10	U	10	U	10	U	NS		-		-	
	9/27-28/06	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/2-3/07	10	U	10	U	10	U	0.6	J	10	U	10	U	-		-	
	9/18-19/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
1,1,1-Trichloroethane	6/20/94	10	U	2	J	10	U	3	J	10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 555 ug/l	2/06/95	10	U	10	U	10	U	2	J	10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	U	1	J	10	U	2	J	10	U	-		-		-	
	4/10/96	10	U	10	U	10	U	2	J	2	J	1	J	-		-	
	4/8/97	10	U	10	U	10	U	10	U	10	U	1	J	-		-	
	1/15/98	10	U	10	U	10	U	10	U	2	J	10	U	-		-	
	6/23/98	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	1/12/99	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/12/99	10	U	17	U	10	U	10	U	10	U	10	U	-		-	
	2/1/00	10	U	10	U	10	U	10	U	3	J	10	UJ	-		-	
	8/8/00	10	U	10	U	10	U	10	U	10	U	10	UJ	-		-	
	2/12-14/01	10	U	10	U	10	U	3	J	3	J	10	U	-		-	
	8/7-8/01	10	U	10	U	10	U	10	U	10	U	10	UJ	-		-	
	2/11-14/02	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	8/12-14/02	DRY		10	U	10	U	10	U	DRY		10	U	-		-	
	1/21-22/03	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/14-15/03	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	10	U	5	J	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	10	U	10	U	10	U	10	U	NS		-		-	
	9/27-28/06	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/2-3/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	9/18-19/07	10	U	10	U	10	U	10	U	2	J	10	U	-		-	

Watauga County, North Carolina
Upgradient Well: MW-1
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Table 5C
Background Assessment Organic Target Parameter Analytical Results
Surface Water Sampling Locations

Results ug/l(ppb)

Parameter	Event	S1		S2		S3		S4		S5		S6		L1		Mt. Spring	
Vinyl Chloride	6/20/94	10	U	10	U	10	U	10	U	10	U	-		-		-	
	9/27/94	-		-		-		-		-		-		10	U	10	U
WQS = 525 ug/l	2/06/95	10	U	10	U	10	U	2	J	10	U	-		10	U	-	
	4/11/95	-		-		-		-		-		-		-		-	
	7/10/95	10	U	10	U	10	U	3	J	10	U	-		-		-	
	4/10/96	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/8/97	10	U	2	J	10	U	10	U	10	U	10	U	-		-	
	1/15/98	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	6/23/98	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	-		-	
	1/12/99	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	7/12/99	10	U	17	U	10	U	10	U	10	U	10	U	-		-	
	2/1/00	10	U	10	U	10	U	10	U	10	UJ	10	UJ	-		-	
	8/8/00	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	2/12-14/01	10	U	10	U	10	U	10	U	4	J	10	U	-		-	
	8/7-8/01	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	2/11-14/02	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	8/12-14/02	DRY		10	U	10	U	10	U	DRY		10	U	-		-	
	1/21-22/03	10	U	0.9	J	10	U	10	U	10	U	10	U	-		-	
	7/14-15/03	10	U	1	J	10	U	10	U	10	U	10	U	-		-	
	3/16-17/04	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	9/29-30/04	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	3/30-31/05	10	U	10	U	10	U	10	U	10	U	DRY		-		-	
	10/3-4/05	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/4-5/06	10	U	10	U	10	U	10	U	10	U	NS		-		-	
	9/27-28/06	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	4/2-3/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	
	9/18-19/07	10	U	10	U	10	U	10	U	10	U	10	U	-		-	

TABLE 5B NOTES:

U Denotes not detected (the associated numerical value is the CRQL).

J Denotes an estimated value

CRQL Contract Required Quantification Limit (CLP Methods)

- Denotes Not Avaliable or Not Sampled

WQS Denotes North Carolina Surface Water Quality Standard (T15A: 02B .0200)

Shading Denotes results that exceed North Carolina Surface Water Quality Standard.

ANALYSIS TYPE:

1) Organic parameters were analyzed utilizing CLP Statement of Work OLMO3.2.

2) For CLP analyses, 1,2-Dichloroethene is reported as total concentration.

Watauga County Landfill

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Table 6

Cumulative Detected Non-Target Organic Parameter Analytical Results

Parameter	Event	Results ug/L(ppb) MW-1	MW-2	MW-3	MW-4	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-16	MW-17	MW-18	MW-19	S1	S2	S3	S5	Method	NCS (ug/L)	MCL (ug/L)
Acetone	6/20/94	61																					CLP	700	-
	9/27/94									40 J													CLP	700	-
	4/11/95						15 J																CLP	700	-
	4/8/97																				9 J		CLP	700	-
	10/3-4/05		190 J																				8260B	700	-
Bromomethane	2/6/95						5.8																8021	-	-
	7/10/95			2.4 J																			8260	-	-
2-Butanone	9/27/94						19																CLP	4200	-
	7/10/95						15	4.9 J		31 J						5 J							8021/CLP	4200	-
	4/8/97															3 J							CLP	4200	-
t-bb+tmb+s-bb	6/20/94						44.97 J	8.91 J				0.83											8021	70	-
2-Butyne	2/11-14/02						0.81 NJ									1 J							8260B	-	-
Carbon Tetrachloride	4/11/95				2 J							1 J				2 J							CLP	0.269	5
Chlorodifluoromethane	8/7-8/01							5 NJ															CLP	-	-
	2/11-14/02			1.55 NJ			2.67 NJ		1.88 NJ		2.91 NJ					0.58 NJ							8260B	-	-
Chloroform	10/3-4/05											0.95 J											8260B	70	-
	9/27-28/06											0.92 J											8260B	70	-
Chloromethane	10/3-4/05								0.21 J														8260B	2.6	-
Chlorofluoromethane	6/24/98								10 NJ														CLP	-	-
	8/7-8/01							8 NJ															CLP	-	-
	2/11-14/02			2.67 NJ			1.51 NJ	0.86 NJ	2.11 NJ		2.85 NJ	1.74 NJ											8260B	-	-
	9/27-28/06								1.4 NJ			1.6 NJ											8260B	-	-
Dibromochloromethane	2/6/95													0.6 J									8021	-	80
Dichlorofluoromethane	1/15/98			14 NJ				9 NJ	22 NJ			9 NJ				10 NJ							CLP	-	-
	6/24/98							12 NJ	29 NJ							14 NJ							CLP	-	-
	7/12-13/99			8 NJ				6 NJ	5 NJ							7 NJ				10 NJ			CLP	-	-
	8/8-9/0			15 NJ				6 NJ	5 NJ			10 NJ				5 NJ							CLP	-	-
	87-/8/01								6 NJ							8 NJ							CLP	-	-
	2/11-14/02			4.69 NJ			0.52 NJ	0.79 NJ	2.98 NJ		3.56 NJ	4.98 NJ				3.88 NJ							8260B	-	-
	1/21-22/03											6 NJ				7 NJ							CLP	-	-
	9/27-28/06								2.1 NJ		1.4 NJ	1.4 NJ													
1,2-Dichloropropene	1/15/98																			1 J			CLP	-	-
1,3-Dimethylbenzene	8/7-8/01																					8 NJ	CLP	-	-
Dimethyl sulfide	9/27-28/06																		6.5 NJ						
Ethanol	2/11-14/02											1.88 NJ											8260B	-	-
Ether	1/15/98															7 NJ							CLP	-	-
	6/24/98							12 NJ	6 NJ							10 NJ				7 NJ			CLP	-	-
	1/12/99																			7 NJ			CLP	-	-
	7/12-13/99			18 NJ				12 NJ	22 NJ							12 NJ				14 NJ			CLP	-	-
	2/1-3/00																			5 NJ			CLP	-	-
	8/8/00			10 NJ				6 NJ	5 NJ			5 NJ								5 NJ			CLP	-	-
	8/7-8/01							7 NJ				6 NJ				10 NJ						6 NJ	CLP	-	-
	2/11-14/02			9.64 NJ			5.40 NJ	1.33 NJ	1.94		3.27 NJ	7.02 NJ				6.16 NJ							8260B	-	-
	1/21-22/03											11 NJ				7 NJ				7 NJ			CLP	-	-
	3/16-17/04			13 NJ				5 NJ															CLP	-	-
Ethylbenzene	6/20/94	10																		6			CLP	550	700
	7/10/95																			3 J			CLP	550	700
	4/8/97																			2 J			CLP	550	700
	1/15/98																			2 J			CLP	550	700
	8/8/00																			8 NJ			CLP	550	700
	8/7-8/01																					8 NJ	CLP	550	700
	2/11-14/02																			7 NJ			CLP	550	700
Ethyl Ether	4/4-5/06			6.47 NJ				6.48 NJ				6.47 NJ								6.48 NJ			CLP	-	-
	9/27-28/06			35 NJ					1.7 NJ		5.8 NJ												8260B		
Ethyloxyethene	9/27-28/06											21 NJ											8260B	-	-
Hexane	4/11/95														7 NJ								CLP	-	-
Iodomethane	9/27-28/06			3.3 J								21 NJ				0.48 J							8260B	-	-
2-Methyl-2-pentanone	6/20/94	24																		6			CLP	-	-
Napthylene	6/20/94						0.33 J		0.69 J			0.74 J	7.07 J		0.62 J								8021	21	-
Octamethycyclotetrasiloxane	3/16-17/04																				14 NJ	7 NJ	CLP	-	-
n-Propylbenzene	6/20/94								0.50 J			0.33 J			0.66 J								8021	70	-
Styrene	6/20/94								0.94 J			0.65 J											8021	100	100
1,1,2,2-Tetrachloroethane	6/20/94	2 J																					CLP	-	-
Tetrahydrofuran	2/11-14/02															0.68 NJ							8260B	-	-
1,2,3-Trichlorobenzene	6/20/94											0.32 J	0.47 J										8021	-	-
1,1,2-Trichloro-1,2-ethan	8/8-9/00																						CLP	-	-

Watauga County Landfill

Watauga County, North Carolina

Upgradient Well: MW-1

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Table 6

Cumulative Detected Non-Target Organic Parameter Analytical Results

Parameter	Event	Results ug/L(ppb) MW-1	MW-2	MW-3	MW-4	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-16	MW-17	MW-18	MW-19	S1	S2	S3	S5	Method	NCS (ug/L)	MCL (ug/L)
Trichlorofluoromethane	6/20/94			1.1 J					20.50 J														8021	2100	-
	4/11/95			1.02					200 NJ														CLP	2100	-
	7/10/95			0.15 J																			8260	2100	-
	4/8/97								1.38			1.29											8021	2100	-
	10/3-4/05																						8260B	2100	-
1,3,5-Trimethylbenzene	6/20/94								0.17 J														8021	350	-
Trimethylsilanol	1/15/98			7 NJ																			CLP	-	-
	4/4-5/06							8.75 NJ																	
Toluene	6/20/94	2 J																		7			CLP	1000	1000
	4/11/95				2 J							1 J				4 J							CLP	1000	1000
	7/10/95																			2 J			CLP	1000	1000
	4/8/97																			2 J			CLP	1000	1000
	1/15/98																			2 J			CLP	1000	1000
Xylene (total)	6/20/94	64																		20			CLP	530	#####
	9/27/94						1 J		3 J														CLP	530	#####
	4/11/95								3 J														CLP	530	#####
	7/10/95																		1 J	6 J		2 J	CLP	530	#####
	4/8/97																			6 J			CLP	530	#####
	1/15/98																			6 J			CLP	530	#####
	8/8/00																			8 NJ			CLP	530	#####
o-Xylene	6/20/94						0.83 J																8021	530	#####
	2/6/95						0.6																8021	530	#####
	7/10/95								1.0 J														8260	530	#####
p-xylene	2/11-14/02																			9 NJ			8260B	530	#####
3 Unknown Alkanes	4/11/95										6 NJ												CLP		
	4/11/95										9 NJ												CLP		
	4/11/95										6 NJ												CLP		
2 Unknown Cycloalkanes	4/11/95										12 NJ												CLP		
	4/11/95										28 NJ												CLP		
4 Unknown Hydrocarbons	4/11/95										10 NJ				10 NJ	7 NJ	7 NJ						CLP		
	4/11/95										5 NJ				7 NJ	37 NJ							CLP		
	4/11/95										13 NJ				18 NJ	9 NJ							CLP		
	4/11/95														9 NJ								CLP		
2 Unknown Unsaturated Hydrocarbons	4/11/95										7 NJ												CLP		
	4/11/95						50 NJ				8 NJ												CLP		

former non-target parameter results (current analytical results listed on Table 2A)

Chloroethene	2/11-14/02											1.28 NJ											8260B	860	-
1,4-Dichlorobenzene	7/10/95							1.1 J															8260	1.4	75
	4/8/97						2.6																8021	1.4	75
	1/12/99			2.2																			8021B	1.4	75
trans-1,2-Dichloroethene	6/20/94						1.53 J	2.03 J				1.47 J				1.31							8021	100	100
	2/6/95						2.6																8021	100	100
	7/10/95			1.6 J		5.7	1.6 J	1.4 J															8260	100	100
	1/123/99						2.2																8021B	100	100
	2/1-3/00			0.86 J												0.31 J							8021B	100	100
	8/8-9/00			1 J																			CLP	100	100
1,2,-Dichloroethane	7/10/95			1.8 J												1.8 J							8260	0.38	-
	7/10/95			1.8 J				0.89 J								1.7 J							8021	0.38	-
	4/8/97			1.52				0.89 J				1.09				1.76				1 J			8021/CLP	0.38	-
	1/12/99			2.6																			8021B	0.38	-
1,2-Dichloropropane	2/6/95			1 J	1 J			1 J								1 J							CLP	0.51	5
	2/6/95						1.6 J																8021	0.51	5
	4/11/95							1 J															CLP	0.51	5
	7/10/95			1 J		1 J	1.6 J									2 J							8260	0.51	5
	7/10/95						1.4 J	0.87 J								0.80							8021	0.51	5
	4/8/97			0.689 J			1.4 J	0.87 J				0.66 J				0.97 J							8260	0.51	5
	4/8/97						2.2																8021	0.51	5

Notes:

NCS Denotes North Carolina Groundwater Quality Standard (T15A: 02L .0200).

MCL Denotes EPA Maximum Contaminant Level (EPA 822-R-94-001).

J Denotes an estimated value.

N Denotes tentatively identified.

CLP Denotes parameters were analyzed in accordance with USEPA CLP SOW OLM03.2.

8260B Denotes parameters were analyzed via EPA SW-846 Method 8260B, 25 ml purge.

t-bb+tmb+s-bb: tert-Butylbenzene + 1,2,4-Trimethylbenzene + sec-Butylbenzene

Watauga County Landfill

Watauga County, North Carolina

Upgradient Well: MW-1

Table 7
Indicator Parameter Results
2000-2003

06/12/03

Parameters	Event	Results																	
		MW-1	MW-2	MW-3	MW-4	MW-5	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-17	MW-18	MW-19	LOQ/RL
Dissolved Oxygen (mg/l)	2/1-3/00	7.17	1.58	1.93	-	-	3.10	3.11	5.37	2.59	1.58	2.10	-	-	3.20	1.81	-	5.27	-
	8/8-9/00	-	1.38	2.20	-	-	-	2.18	4.05	-	-	0.03	-	-	-	0.01	-	-	-
	2/12-14/01	6.31	0.34	0.36	6.42	2.5	1.66	0.43	0.76	2.71	0.48	0.19	7.31	5.57	1.72	0.34	5.86	1.98	-
	8/7-8/01	-	2.70	0.22	-	-	-	0.50	0.35	-	-	0.24	-	-	-	0.47	-	-	-
	2/11-14/02	5.76	1.90	1.93	5.39	2.22	2.38	1.52	1.63	3.00	1.10	1.33	5.78	5.01	2.30	2.03	4.90	1.78	-
	8/12-14/02	6.56	1.87	1.59	6.81	2.20	3.97	1.4	1.73	4.60	1.45	1.54	6.18	5.9	3.50	3.00	6.25	1.50	
	1/21-22/03	-	1.91	1.79	-	-	-	-	1.89	-	-	1.93	-	-	-	2.75	-	-	-
Oxidation Reduction Potential	2/1-3/00	47.5	8.1	66.3	-	-	83.2	2.6	29.9	53.4	103.9	69.1	-	-	60.2	82.2	-	43.4	-
ORP (mV)	8/8-9/00	-	38.1	92.2	-	-	-	32.8	48.4	-	-	54.1	-	-	-	24.8	-	-	-
	8/7-8/01	-	30	98.7	-	-	-	46.8	33.7	-	-	112.2	-	-	-	84.7	-	-	-
	2/11-14/02	158	82	148	149	177	-71	31	-9	12	85	112	240	228	139	100	223	-175	-
	8/12-14/02	117	63	63	165	129	33	-0.36	535	90	143	63	198	163	25	46	81	-161	
	1/21-22/03	-	61	132	-	-	-	-	53	-	-	124	-	-	-	55	-	-	-
Total Residual Chlorine (mg/l)	2/1-3/00	0.00	0.10	0.30	-	-	-	0.42	0.00	0.10	0.00	0.02	-	-	0.00	0.38	-	0.24	-
	8/8-9/00	-	0.02	0.21	-	-	-	0.12	0.02	-	-	0.03	-	-	-	0.01	-	-	-
	2/12-14/01	0.00	0.00	0.05	0.00	0.32	0.03	0.18	0.00	0.14	0.05	0.04	0.05	0.00	0.07	0.03	0.00	0.02	-
	8/12-14/02	0.02	0.00	0.07	0.03	0.11	0.02	0.60	0.01	0.12	0.02	0.03	0.08	0.02	0.01	0.02	0.05	0.04	
	2/11-14/02	0.10	0.08	0.00	0.06	0.12	0.01	0.13	0.02	0.08	0.00	0.07	0.10	0.00	0.00	0.03	0.08	0.02	-
pH	2/1-3/00	5.69	7.45	5.53	-	-	6.61	6.37	6.04	6.99	5.66	6.99	-	-	7.40	5.89	-	6.43	-
	8/8-9/00	-	7.05	5.72	-	-	-	6.6	5.23	-	-	4.91	-	-	-	6.07	-	-	-
	2/12-14/01	6.02	7.76	5.85	5.92	5.96	6.72	6.53	6.12	6.67	5.79	6.61	5.54	6.59	7.70	5.90	6.42	6.23	-
	8/7-8/01	-	7.73	5.96	-	-	-	6.86	6.14	-	-	5.98	-	-	-	5.92	-	-	-
	2/11-14/02	6.00	7.68	5.89	6.24	6.18	6.68	6.90	6.03	7.25	5.87	6.14	5.40	6.69	7.78	5.92	6.62	6.23	-
	8/12-14/02	5.86	7.87	5.84	6.26	6.30	6.84	6.90	5.75	7.20	5.78	6.27	5.46	6.88	7.57	5.98	6.55	7.38	
	1/21-22/03	-	7.85	6.09	-	-	-	-	6.31	-	-	6.19	-	-	-	6.07	-	-	-
Conductivity (uS)	2/1-3/00	96.4	287	328	-	-	924	979	394	192	211	352	-	-	179	302	-	84.7	-
	2/12-14/01	113	321	461	56	242	917	1168	533	122.4	295	454	109.6	97.0	172.7	402	105.6	104.5	-
	8/7-8/01	-	207	171	-	-	-	778	313	-	-	302	-	-	-	288	-	-	-
	2/11-14/02	98.5	279	341	47.4	221	823	956	357	128	290	296	135	74.8	138	354	79.5	77.9	-
	1/21-22/03	-	278	307	-	-	-	-	329	-	-	441	-	-	-	4	-	-	-
Alkalinity (mg/l)	8/8-9/00	-	102	88	-	-	-	286	210	-	-	139	-	-	-	122	-	-	10
	2/12-14/01	34	99	111	18	99	444	286	208	54	58	122	ND	36	67	96	24	29	10
	8/7-8/01	-	100	66	-	-	-	300	170	-	-	130	-	-	-	96	-	-	10
	2/11-14/02	34	100	90	22	97	418	133	160	72	69	137	ND	37	65	95	24	22	10
Nitrate (mg/l)	8/8-9/00	-	0.153	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	-	0.05
	8/7-8/01	-	0.85	0.056	-	-	-	ND	ND	-	-	ND	-	-	-	ND	-	-	0.05
	2/11-14/02	2.04	ND	0.134	ND	0.677	ND	0.150	ND	ND	ND	ND	9.51	ND	ND	ND	1.65	1.46	0.05
Total Iron (mg/l)	2/11-14/02	1.360	ND	0.823	ND	17.8	13.3	3.09	0.251	0.304	ND	ND	0.179	ND	0.398	ND	ND	0.877	0.100
Iron 3+ (mg/l)	2/11-14/02	ND	ND	ND	ND	ND	1.84	ND	0.101	ND	ND	ND	ND	ND	ND	0.193	ND	ND	0.100
Sulfate (mg/l)	8/8-9/00	-	7.39	6.03	-	-	-	17.9	ND	-	-	5.58	-	-	-	5.58	-	-	5
	2/12-14/01	ND	6.09	8.3	ND	ND	23.7	20.5	ND	5.74	ND	5.85	ND	ND	ND	5.04	ND	ND	5
	8/7-8/01	-	5.17	5.63	-	-	-	10.3	ND	-	-	5.29	-	-	-	ND	-	-	5
	2/11-14/02	ND	5.59	7.78	ND	ND	35.9	8.69	ND	6.64	ND	6.4	ND	ND	ND	5.49	ND	ND	5
Sulfide (mg/l)	8/8-9/00	-	ND	ND	-	-	-	ND	ND	-	-	ND	-	-	-	ND	-	-	0.5
	2/12-14/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
	8/7-8/01	-	ND	ND	-	-	-	ND	ND	-	-	ND	-	-	-	ND	-	-	0.5
	2/11-14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
Total Organic Carbon (mg/l)	8/8-9/00	-	21.7	79.9	-	-	-	86.1	132	-	-	63.9	-	-	-	74.6	-	-	5
	2/12-14/01	28.1	28.6	110	17.4	60.3	66.4	113	146	18.1	67.5	68	13.2	15.8	19.2	99.3	12.1	14	1
	8/7-8/01	-	7.6	ND	-	-	-	5.1	ND	-	-	ND	-	-	-	ND	-	-	5
	2/11-14/02	ND	ND	ND	ND	7.253	40.6	6.626	6.586	ND	ND	ND	ND	ND	ND	17.3	ND	ND	5
Methane (ug/l)	8/8-9/00	-	ND	2400	-	-	-	1770	4170	-	-	1900	-	-	-	498	-	-	26
	2/12-14/01	ND	ND	2510	ND	ND	14800	602	3480	ND	1120	2300	ND	ND	ND	2790	ND	ND	26
	8/7-8/01	-	ND	676	-	-	-	1760	2510	-	-	2630	-	-	-	2890	-	-	26
	2/11-14/02	ND	ND	1.620	ND	ND	4.060	0.159	1.730	ND	1.370	1.830	ND	ND	ND	2.120	ND	0.052	0.026

Notes: pH, conductivity, ORP and temperature measured in the field with a Myron 6P ultrameter.

total residual chlorine measured in the field with Hach colorimetric meter.

dissolved oxygen measured in the field with YSI 55 DO meter.

alkalinity measured in the laboratory via EPA method 310.1.

sulfate measured in the laboratory via EPA SW-846 method 9038.

sulfide measured in the laboratory via EPA method 376.1.

total organic carbon measured in the laboratory via EPA SW-846 method 9060 modified.

methane measured in the laboratory via GC method RSK175 modified.

total iron analyzed in accordance with EPA SW-826 Method 6010B.

ferric iron (Fe 3+) analyzed in accordance with SM Method 3500 - Fe D

ND denotes not detected above reporting limit.

NA denotes not available.

Watauga County Landfill

Watauga County, North Carolina

Upgradient Well: MW-1

Table 7

Indicator Parameter Results

2000-2008

06/12/08

Parameters	Event	Results																	
		MW-1	MW-2	MW-3	MW-4	MW-5	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-17	MW-18	MW-19	LOQ/RL
Dissolved Oxygen (mg/l)	2/1-3/00	7.17	1.58	1.93	-	-	3.10	3.11	5.37	2.59	1.58	2.10	-	-	3.20	1.81	-	5.27	-
	8/8-9/00	-	1.38	2.20	-	-	-	2.18	4.05	-	-	0.03	-	-	-	0.01	-	-	-
	2/12-14/01	6.31	0.34	0.36	6.42	2.5	1.66	0.43	0.76	2.71	0.48	0.19	7.31	5.57	1.72	0.34	5.86	1.98	-
	8/7-8/01	-	2.70	0.22	-	-	-	0.50	0.35	-	-	0.24	-	-	-	0.47	-	-	-
	2/11-14/02	5.76	1.90	1.93	5.39	2.22	2.38	1.52	1.63	3.00	1.10	1.33	5.78	5.01	2.30	2.03	4.90	1.78	-
	8/12-14/02	6.56	1.87	1.59	6.81	2.20	3.97	1.4	1.73	4.60	1.45	1.54	6.18	5.9	3.50	3.00	6.25	1.50	
	1/21-22/03	-	1.91	1.79	-	-	-	-	1.89	-	-	1.93	-	-	-	2.75	-	-	-
	3/10/2008	-	1.40	0.22	-	-	-	1.66	0.41	-	-	0.28	-	-	-	2.53	-	-	-
Oxidation Reduction Potential ORP (mV)	2/1-3/00	47.5	8	66	-	-	83	3	30	53	104	69	-	-	60	82	-	43.4	-
	8/8-9/00	-	38	92	-	-	-	33	48	-	-	54	-	-	-	25	-	-	-
	8/7-8/01	-	30	99	-	-	-	47	34	-	-	112	-	-	-	85	-	-	-
	2/11-14/02	158	82	148	149	177	-71	31	-9	12	85	112	240	228	139	100	223	-175	-
	8/12-14/02	117	63	63	165	129	33	0	535	90	143	63	198	163	25	46	81	-161	
	1/21-22/03	-	61	132	-	-	-	-	53	-	-	124	-	-	-	55	-	-	-
	9/29-30/04				-	-							-	-			-		-
	3/30-31/05	-			-	-	-	-		-	-		-	-	-		-	-	-
	10/3-5/05				-	-							-	-			-		-
	4/4/2006	-			-	-	-	-		-	-		-	-	-		-	-	-
	9/27-28/06				-	-							-	-			-		-
	4/2/2007	-			-	-	-	-		-	-		-	-	-		-	-	-
	9/18-19/07				-	-							-	-			-		-
	3/10/2008	-	35	193	-	-	-	49	120	-	-	166	-	-	-	155	-	-	-
pH	2/1-3/00	5.69	7.45	5.53	-	-	6.61	6.37	6.04	6.99	5.66	6.99	-	-	7.40	5.89	-	6.43	-
	8/8-9/00	-	7.05	5.72	-	-	-	6.6	5.23	-	-	4.91	-	-	-	6.07	-	-	-
	2/12-14/01	6.02	7.76	5.85	5.92	5.96	6.72	6.53	6.12	6.67	5.79	6.61	5.54	6.59	7.70	5.90	6.42	6.23	-
	8/7-8/01	-	7.73	5.96	-	-	-	6.86	6.14	-	-	5.98	-	-	-	5.92	-	-	-
	2/11-14/02	6.00	7.68	5.89	6.24	6.18	6.68	6.90	6.03	7.25	5.87	6.14	5.40	6.69	7.78	5.92	6.62	6.23	-
	8/12-14/02	5.86	7.87	5.84	6.26	6.30	6.84	6.90	5.75	7.20	5.78	6.27	5.46	6.88	7.57	5.98	6.55	7.38	
	1/21-22/03	-	7.85	6.09	-	-	-	-	6.31	-	-	6.19	-	-	-	6.07	-	-	-
	9/29-30/04				-	-							-	-			-		-
	3/30-31/05	-			-	-	-			-	-		-	-	-		-	-	-
	10/3-5/05				-	-							-	-			-		-
	4/4/2006	-			-	-	-			-	-		-	-	-		-	-	-
	9/27-28/06				-	-							-	-			-		-
	4/2/2007	-			-	-	-			-	-		-	-	-		-	-	-
	9/18-19/07				-	-							-	-			-		-
	3/10/2008	-	7.49	5.67	-	-	-	6.71	5.69	-	-	5.96	-	-	-	5.65	-	-	-
Conductivity (uS)	2/1-3/00	96.4	287	328	-	-	924	979	394	192	211	352	-	-	179	302	-	84.7	-
	2/12-14/01	113	321	461	56	242	917	1168	533	122.4	295	454	109.6	97.0	172.7	402	105.6	104.5	-
	8/7-8/01	-	207	171	-	-	-	778	313	-	-	302	-	-	-	288	-	-	-
	2/11-14/02	98.5	279	341	47.4	221	823	956	357	128	290	296	135	74.8	138	354	79.5	77.9	-
	1/21-22/03	-	278	307	-	-	-	-	329	-	-	441	-	-	-	400	-	-	-
	9/29-30/04				-	-							-	-			-		-
	3/30-31/05	-			-	-	-	-		-	-		-	-	-		-	-	-
	10/3-5/05				-	-							-	-			-		-
	4/4/2006	-			-	-	-	-		-	-		-	-	-		-	-	-
	9/27-28/06				-	-							-	-			-		-
	4/2/2007	-			-	-	-	-		-	-		-	-	-		-	-	-
	9/18-19/07				-	-							-	-			-		-
	3/10/2008	-	228	243	-	-	-	178	313	-	-	426	-	-	-	195	-	-	-
Total Organic Carbon (mg/l)	8/8-9/00	-	21.7	79.9	-	-	-	86.1	132	-	-	63.9	-	-	-	74.6	-	-	5
	2/12-14/01	28.1	28.6	110	17.4	60.3	66.4	113	146	18.1	67.5	68	13.2	15.8	19.2	99.3	12.1	14	1
	8/7-8/01	-	7.6	ND	-	-	-	5.1	ND	-	-	ND	-	-	-	ND	-	-	5
	2/11-14/02	ND	ND	ND	ND	7.253	40.6	6.626	6.586	ND	ND	ND	ND	ND	ND	17.3	ND	ND	5
Methane (ug/l)	8/8-9/00	-	ND	2400	-	-	-	1770	4170	-	-	1900	-	-	-	498	-	-	26
	2/12-14/01	ND	ND	2510	ND	ND	14800	602	3480	ND	1120	2300	ND	ND	ND	2790	ND	ND	26
	8/7-8/01	-	ND	676	-	-	-	1760	2510	-	-	2630	-	-	-	2890	-	-	26
	2/11-14/02	ND	ND	1.620	ND	ND	4.060	0.159	1.730	ND	1.370	1.830	ND	ND	ND	2.120	ND	0.052	0.026

Watauga County Landfill

Watauga County, North Carolina

Upgradient Well: MW-1

Table 7

Indicator Parameter Results

2000-2008

Alkalinity (mg/l)	8/8-9/00	-	102	88	-	-	-	286	210	-	-	139	-	-	-	122	-	-	10
	2/12-14/01	34	99	111	18	99	444	286	208	54	58	122	ND	36	67	96	24	29	10
	8/7-8/01	-	100	66	-	-	-	300	170	-	-	130	-	-	-	96	-	-	10
	2/11-14/02	34	100	90	22	97	418	133	160	72	69	137	ND	37	65	95	24	22	10
Total Residual Chlorine (mg/l)	2/1-3/00	0.00	0.10	0.30	-	-	-	0.42	0.00	0.10	0.00	0.02	-	-	0.00	0.38	-	0.24	-
	8/8-9/00	-	0.02	0.21	-	-	-	0.12	0.02	-	-	0.03	-	-	-	0.01	-	-	-
	2/12-14/01	0.00	0.00	0.05	0.00	0.32	0.03	0.18	0.00	0.14	0.05	0.04	0.05	0.00	0.07	0.03	0.00	0.02	-
	8/12-14/02	0.02	0.00	0.07	0.03	0.11	0.02	0.60	0.01	0.12	0.02	0.03	0.08	0.02	0.01	0.02	0.05	0.04	
	2/11-14/02	0.10	0.08	0.00	0.06	0.12	0.01	0.13	0.02	0.08	0.00	0.07	0.10	0.00	0.00	0.03	0.08	0.02	-
Nitrate (mg/l)	8/8-9/00	-	0.153	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	-	0.05
	8/7-8/01	-	0.85	0.056	-	-	-	ND	ND	-	-	ND	-	-	-	ND	-	-	0.05
	2/11-14/02	2.04	ND	0.134	ND	0.677	ND	0.150	ND	ND	ND	ND	9.51	ND	ND	ND	1.65	1.46	0.05
Total Iron (mg/l)	2/11-14/02	1.360	ND	0.823	ND	17.8	13.3	3.09	0.251	0.304	ND	ND	0.179	ND	0.398	ND	ND	0.877	0.100
Iron 3+ (mg/l)	2/11-14/02	ND	ND	ND	ND	ND	1.84	ND	0.101	ND	ND	ND	ND	ND	ND	0.193	ND	ND	0.100
Sulfate (mg/l)	8/8-9/00	-	7.39	6.03	-	-	-	17.9	ND	-	-	5.58	-	-	-	5.58	-	-	5
	2/12-14/01	ND	6.09	8.3	ND	ND	23.7	20.5	ND	5.74	ND	5.85	ND	ND	ND	5.04	ND	ND	5
	8/7-8/01	-	5.17	5.63	-	-	-	10.3	ND	-	-	5.29	-	-	-	ND	-	-	5
	2/11-14/02	ND	5.59	7.78	ND	ND	35.9	8.69	ND	6.64	ND	6.4	ND	ND	ND	5.49	ND	ND	5
Sulfide (mg/l)	8/8-9/00	-	ND	ND	-	-	-	ND	ND	-	-	ND	-	-	-	ND	-	-	0.5
	2/12-14/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
	8/7-8/01	-	ND	ND	-	-	-	ND	ND	-	-	ND	-	-	-	ND	-	-	0.5
	2/11-14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

Notes: pH, conductivity, ORP and temperature measured in the field with a Myron 6P ultrameter.

total residual chlorine measured in the field with Hach colorimetric meter.

dissolved oxygen measured in the field with YSI 55 DO meter.

alkalinity measured in the laboratory via EPA method 310.1.

sulfate measured in the laboratory via EPA SW-846 method 9038.

sulfide measured in the laboratory via EPA method 376.1.

total organic carbon measured in the laboratory via EPA SW-846 method 9060 modified.

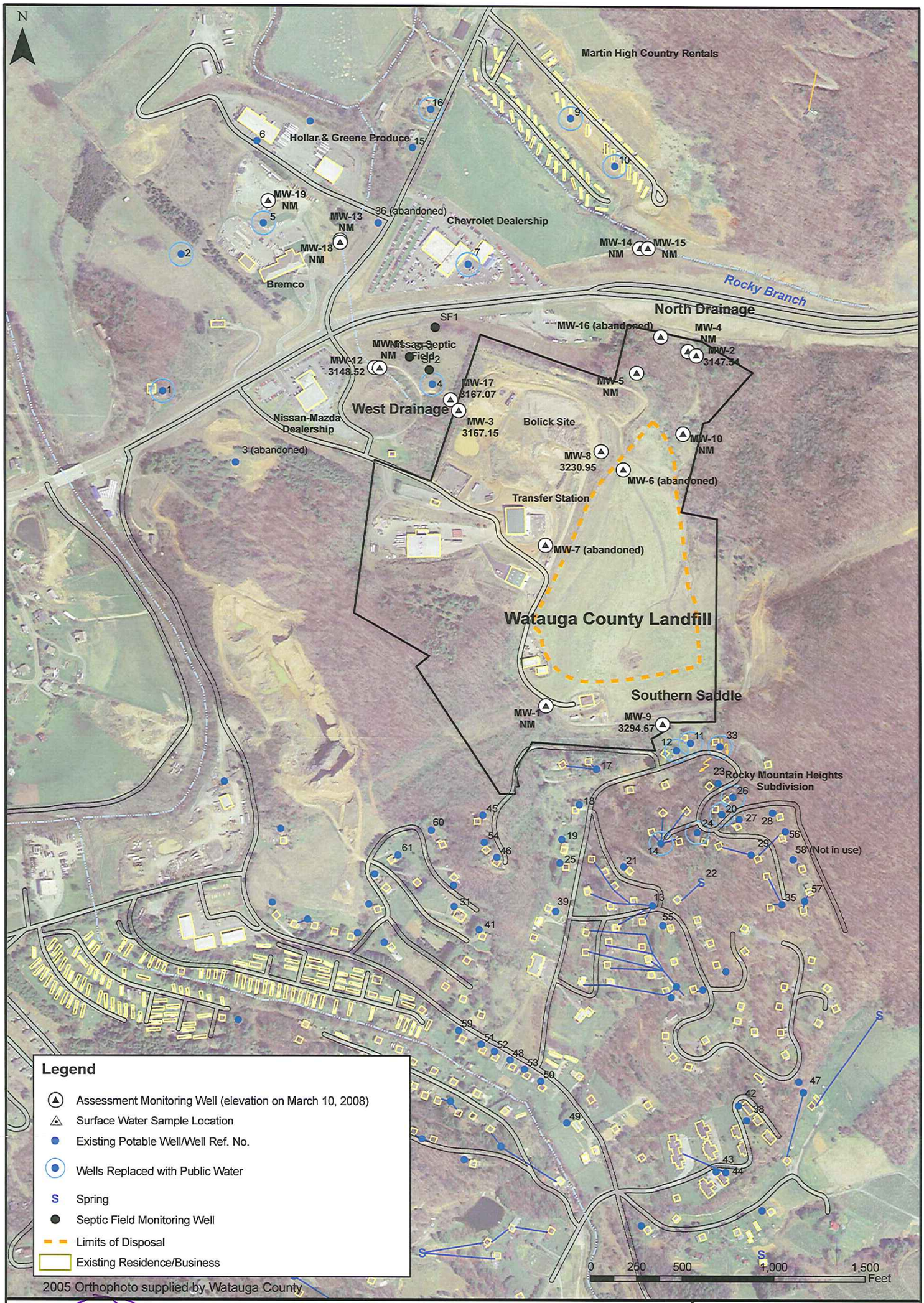
methane measured in the laboratory via GC method RSK175 modified.

total iron analyzed in accordance with EPA SW-826 Method 6010B.

ferric iron (Fe 3+) analyzed in accordance with SM Method 3500 - Fe D

ND denotes not detected above reporting limit.

NA denotes not available.



Ground water & Surface water Monitoring Program Site Map
Watauga County Landfill

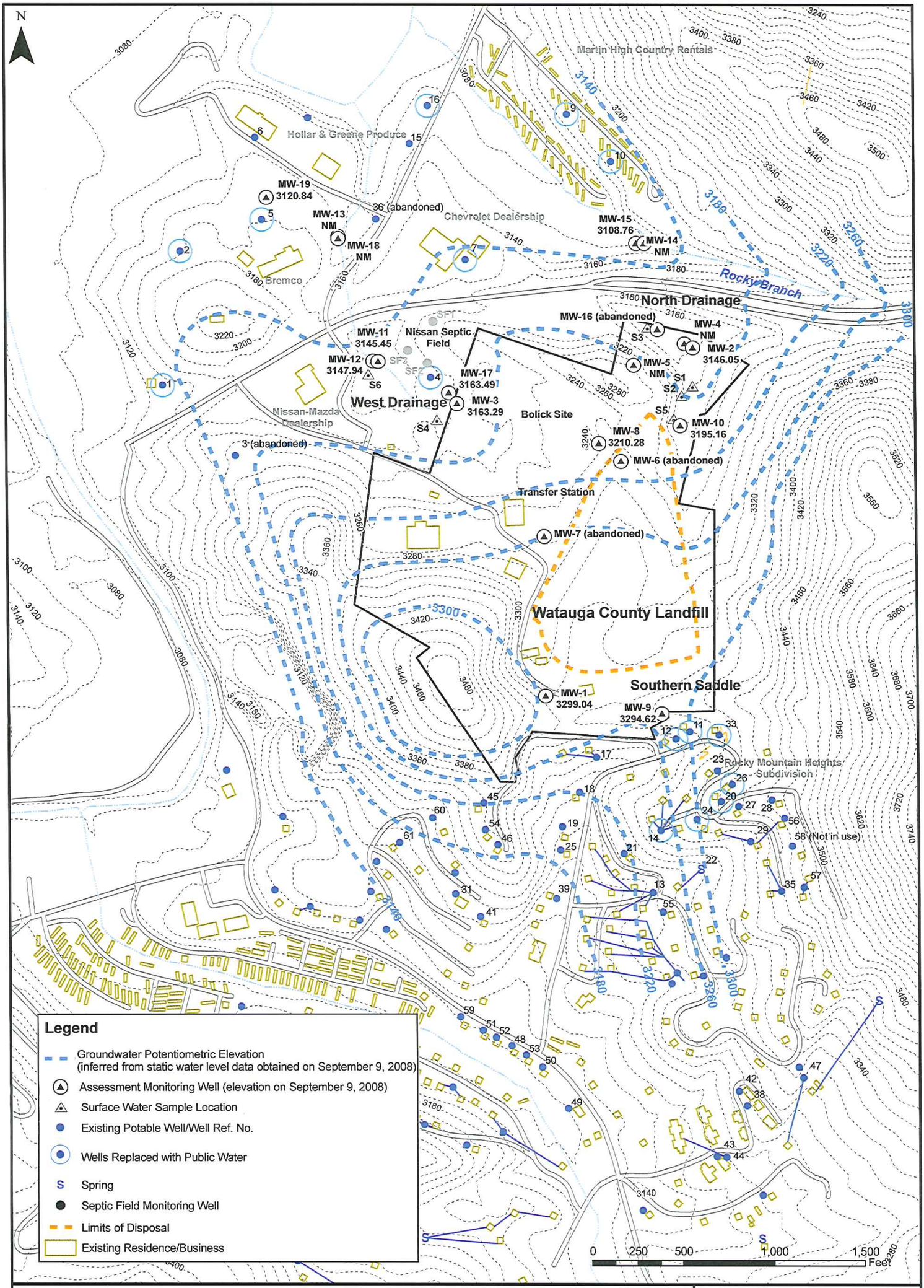
Watauga County, North Carolina

SCALE	1" = 500'
PLAN NO.	6520-39

Draper Aden Associates
Engineering • Surveying • Environmental Services
2206 South Main Street
Blacksburg, VA 24060
540-552-0444 Fax: 540-552-0291
Richmond, VA
Charlottesville, VA
Hampton Roads, VA

DESIGNED	JES
DRAWN	KKD
CHECKED	MDL
DATE	04-28-08

FIGURE
1



Potentiometric Surface Map
Watauga County Landfill

Watauga County, North Carolina

SCALE 1" = 500'

PLAN NO. 6520-39

Draper Aden Associates
Engineering • Surveying • Environmental Services
2206 South Main Street
Blacksburg, VA 24060
540-552-0444 Fax: 540-552-0291
Richmond, VA
Charlottesville, VA
Hampton Roads, VA

DESIGNED	JES
DRAWN	KKD
CHECKED	MDL
DATE	09-17-08

FIGURE 2

APPENDIX B

FIELD NOTES

3/12/08 Watauga Co LF FB#2

6520-39
CJB/DAS

Res 54: Mary Patterson, 828-264-2725 Honey, House bound due to health, please call first. Street address: 5259 Bamboo Rd.

(54)

9/8/08 WATAUGA CO. LF FB#2

6529-39
CJB/JKF

GENERAL NOTES

- WEATHER: Sunny, 70's
- PPE: Eye Protection, Nitrile Gloves
- CALIBRATIONS: YSI 650:

pH: 4.00 = 4.00 7.00 = 7.00 10.00 = 9.97

Conductivity reads 1413 µs in a 1413 µs std.

DO% = 100 %

STATIC WATER LEVEL TABLE

WELL	DTW	NOTES
MW-1	42.76	
MW-2	6.89	
MW-3	19.83	
MW-8	29.49	Steel well cap, hinge is broken
MW-9	64.61	
MW-10	8.71	
MW-11	14.15	
MW-12	11.21	
MW-15	11.89	
MW-17	20.13	
MW-19	19.16	Electrical fitting needs replacing

MW-9

TD = 86.40

DTW = 64.61

Begin Purge: (11:32)

Initial Purge:

21.79 x 0.163 = 3.55 x 3 = 10.66 gallons

Time	Temp (°C)	Cond (µs)	DO (mg/L)	pH	ORP (mV)	Purge Rate (gpm)	Vol (gal)	Desc
(11:34)	14.16	388	7.37	5.62	73.0	0.5	1.0	Clear
(11:39)	14.85	327	6.81	5.53	67.9	0.5	3.5	Clear
(11:46)	14.95	304	7.27	5.56	72.7	0.5	7.0	Clear
(11:54)	14.97	326	6.61	5.61	71.0	0.5	11.0	Clear
(11:54)	Well purged @ ≈ 11.0 gallons.							

(55)

9/8/08 Watauga Co. LF FB#2

6520-39 CJB/KFC

MW-9

Sample Time: (11:55)

Samples Collected: (3) 8260

MW-1

TD: 76.65

DTW: 42.76

33.89 x 0.65 = 22.0 x 3 = 66.1 gallons

Begin Purge: (1208)

Initial Purge: Clear

Time	Temp(°C)	Cond(µS)	DO(mg/L)	pH	ORP(mV)	Purge K (gpm)	Vol(gal)	Desc.
(1209)	11.62	334	7.89	6.95	-46.3	2	2	Clear
(1220)	11.74	93	8.32	6.32	110.4	2	24	Clear
(1231)	11.86	89	9.34	5.64	126.0	2	46	Clear
(1243)	11.91	85	9.57	5.66	141.6	2	68	Sl. Cloudy

(1243) Well purged at ≈ 67 gallons

Sample Time: (1245)

Samples Collected: (3) 8260

MW-10

TD: 10.03 → 8.71

DTW: 61.32 x 0.163 = 10.00 x 3 = 30.00 gallons

Begin Purge: (13:02)

Initial Purge: Clear

Time	Temp(°C)	Cond(µS)	DO(mg/L)	pH	ORP(mV)	Purge K (gpm)	Vol(gal)	Desc.
(13:03)	12.08	143	5.14	6.79	127.8	0.5	0.5	Clear
(13:12)	12.74	114	6.98	6.50	128.5	0.5	5.0	Clear
(13:20)	12.89	121	7.74	6.55	121.7	0.5	9.0	Clear
( )								

(13:20) Well purged at ~~DRY~~ @ 9.0 gallons, will collect samples tomorrow.

~~Sample Time:~~

~~Samples Collected: (3) 8260~~

DRO 09/08/08

9/8/08 WATAUGA CO. LF FB#

6520-39
CJB/KFC

Springs Sample Table

Spring #	Temp(°C)	Cond(µS)	DO(mg/L)	pH	ORP(mV)	Sample Date/Time	Samples Collected
S-1	16.77	319	7.79	7.04	-108.2	09/08/08/(1345)	(3) CLP 8260
S-2	14.48	756	1.75	6.01	-58.4	09/08/08/(1330)	(3) CLP 8260
S-3	16.76	574	7.23	7.55	-45.4	09/08/08/(1355)	(3) CLP 8260
S-4	15.24	200	1.38	5.90	-17.1	09/08/08/(1815)	(3) CLP 8260
S-5	15.00	307	8.49	6.27	-54.2	09/08/08/(1335)	(3) CLP 8260
S-6	13.31	825	1.54	6.16	-91.4	09/08/08/(1800)	(3) CLP 8260

MW-8

TD: 77.50

DTW: 6.89

170.61 x 0.65 = 110.90 x 3 = 332.69 gallons

Begin Purge: (14:18)

Initial Purge: Clear

Time	Temp(°C)	Cond(µS)	DO(mg/L)	pH	ORP(mV)	Purge K (gpm)	Vol(gal)	Desc.
(1420)	11.52	265	3.49	7.42	35.9	3	16	Clear
(1455)	11.69	271	3.57	7.47	14.2	3	111	Clear
(1532)	12.27	268	4.52	7.63	-88.6	3	222	Clear
(1605)	12.30	269	4.22	7.65	-76.4	3	~~333~~ 321 (DRY!)	Clear

(1605) Well purged at ≈ 321 gallons, shut off pump. Water was climbing quickly. Restarted pump at 2 and ran for 8 minutes collected samples.

Sample Time: (16:15)

Samples Collected: (3) 8260

MW-8

TD: 67.00

DTW: 29.49

87.51 x 0.163 = 6.11 x 3 = 18.34 gallons

Begin Purge: (16:34)

Initial Purge: Cloudy

Time	Temp(°C)	Cond(µS)	DO(mg/L)	pH	ORP(mV)	Purge K (gpm)	Vol(gal)	Desc.
(1635)	15.02	273	7.16	6.51	-1.7	0.5	0.5	Cloudy
(1638)	14.28	157	7.44	5.96	-16.9	0.5	2.0	Sl. Cloudy
(1642)	14.93	128	6.36	5.87	-0.3	0.5	4.0	Sl. Cloudy Tannin
(1648)	14.90	142	6.37	6.00	-21.4	0.5	7.0	Clear

(1648) Well purged (DRY!) at ≈ 7.0 gallons, will collect samples tomorrow. suspect mulch pile

09/08/08 Watauga Co. LF FB#2

6520-39 CJB/KFC

MW-19

TD: 69.60 Begin Purge: (17:08)

DTW: 19.16 Initial Purge: Cloudy

50.44 x 0.163 = 8.22 x 3 = 24.67 gallons

Time	Temp(°C)	Cond(µs)	DO(mg/L)	pH	ORP(mV)	Purge(gpm) K	Vol(gal)	Desc.
(17:09)	13.95	58	6.01	6.25	-5.1	1	1	Cloudy
(17:11)	13.86	55	~~4.64~~	6.04	-14.7	1	3	Sl. Cloudy
(17:15)	14.56	54	4.49	6.03	-24.7	1	7	Sl. Cloudy
(17:20)	13.68	58	4.00	5.86	-12.8	1	12	Sl. Cloudy

(17:20) Well purged DRY @ ≈ 12.0 gallons, will return tomorrow to sample.

MW-15

TD: 178.00 Begin Purge: (17:33)

DTW: 11.89 Initial Purge: Clear

166.11 x 0.163 = 27.08 x 3 = 81.23 gallons

TIME	Temp(°C)	Cond(µs)	DO(mg/L)	pH	ORP(mV)	Purge(gpm) K	Vol(gal)	Desc.
(17:35)	11.95	142	4.60	6.98	-21.0	2	4	Clear
(17:40)	12.08	143	2.75	7.56	-144.7	2	14	Clear
(17:42)	—	—	—	—	—	—	38	Clear

(17:42) Well purged DRY @ ≈ 38 gallons. Unable to collect last reading, will collect samples tomorrow.

Res-21: Mr. Findt's property: contact Amanda White (Wachovia Bank @ 828-262-4602(o))

Residence Sample Notes

Res-2: Mr Bolick: 828-964-1190(C), 828-557-1315(H): The residence is on city water, but the well is still operable via frost free spigot. The well is used occassionally to water horses.

Res-1: Mrs. Johnson (Trustee for Mrs. Bolick): 828-964-1211(C): The rental property is on well water. Mail results to Mrs. Linda Johnson at 156 Sunslope Ln, Boone, NC, 28607.

09/09/08 Watauga Co LF FB#:

6520-39 CJB/KFC Occassional light rain

General Notes: Weather - (Rain all night) Partly Cloudy 60-70

PPE: Eye Protection, Nitrile Gloves

Calibrations: Conductivity: YSI 6450 1413µs = 1413µs

pH: 4.0 = 4.0, 7.0 = 7.0, 10.0 = 9.98

DO% = 100%

Residence Sample Table

Residence	Sample Date/Time	Samples Collected
Res 1	09/09/08/(1050)	(3) Voa 524.2
Res 21 Ref	09/09/08/(1020)	(3) Voa 524.2
Hand G (#6)	09/09/08/(1225)	(3) Voa 524.2
Res 15	09/09/08/(1310)	(3) Voa 524.2
Res 16	09/09/08/(1355)	(3) Voa 524.2
TOP (Ref) 35 1485' Bicentennial (#5)	09/09/08/(1150)	(3) Voa 524.2
Res 2	09/09/08/(1040)	(3) Voa 524.2

Residence Notes:

Res 21: Spoke to Amanda White last night, a relative of Mr. Findt's (property owner). She said the property is for sale and she would let us in to sample. Her contact information is: 828-262-4602(o) Wachovia, 336-509-80 Amanda requested the data be mailed to her address: Amanda White, 1325 Ravens Ridge Circle, Boone, NC 2860 I left (DFA) our contact information with her and she said she would forward it to the realtor.

MW-10

Sample Time: (1110)

Samples Collected: (3) 8260

09/09/08 Watauga Co LF FB#2

6520-39 CJB/KFC

MW-8

Sample Time: (1120)

Samples Collected: (3) 8260

MW-19

Sample Time: (1140)

Samples Collected: (3) 8260

MW-15

Sample Time: (1245)

Samples Collected: (3) 8260

MW-17

TD: 94.54 Begin Purge: (1332)

DTW: 20.13 Initial Purge: Clear

74.41 x 0.163 = 12.12 x 3 = 36.39 gallons

Time	Temp(°C)	Cond(µs)	DO(mg/L)	pH	ORP(mV)	Purge (gpm) K	Vol(gal)	Desc
(1333)	12.37	226	9.75	5.52	170.6	2	2	Clear
(1335)	12.70	222	7.92	5.69	159.1	2	6	Clear
(1339)	12.94	222	6.53	5.76	140.0	2	14	Clear

(1339) Well purged (ORP) at ≈ 14.0 gallons, allowed to rest.

Samples Time: (1410), Samples Collected: (3) 8260

MW-3

TD: 39.60 Begin Purge: (1342)

DTW: 19.83 Initial Purge: Sl. Cloudy

19.77 x 0.163 = 3.22 x 3 = 9.67 gallons

Time	Temp(°C)	Cond(µs)	DO(mg/L)	pH	ORP(mV)	Purge (gpm) K	Vol(gal)	Desc.
(1343)	12.41	313	5.86	5.64	169.3	1	1	Sl. Cloudy
(1345)	12.59	318	5.02	5.65	183.8	1	3	Sl. Cloudy
(1349)	12.63	320	4.85	5.68	186.9	1	7	Sl. Cloudy
(1352)	12.63	321	4.90	5.69	190.4	1	10	Sl. Cloudy

(1352) Well purged at ≈ 10.0 gallons.

Sample Time: (1400), Samples Collected: (9) 8260

(60)

09/09/08 Watauga Co LF FB#2

6520-39 CJB/KFC

MW-11

TD: 25.80 Begin Purge: (1415)

DTW: 14.15 Initial Purge: Clear

11.65 x 0.163 = 1.90 x 3 = 5.70 gallons

Time	Temp(°C)	Cond(µs)	DO(mg/L)	pH	ORP(mV)	Purge (gpm) K	Vol(gal)	Desc
(1416)	13.09	377	5.28	5.54	185.1	0.5	0.5	Clear
(1419)	13.10	384	5.50	5.48	198.1	0.5	2.0	Clear
(1423)	13.20	389	5.68	5.48	206.6	0.5	4.0	Clear
(1427)	13.20	390	4.91	5.50	209.8	0.5	6.0	Clear

(1437) Well purged at ≈ 6.0 gallons

Sample Time: (1430)

Samples Collected: (3) 8260

MW-12

TD: 72.75 Begin Purge: (1435)

DTW 11.21 Initial Purge: Clear

61.54 x 0.163 = 10.03 x 3 = 30.09 gallons

Time:	Temp(°C)	Cond(µs)	DO(mg/L)	pH	ORP(mV)	Purge (gpm) K	Vol(gal)	Desc
(1436)	11.94	454	4.60	5.87	184.4	2	2	Clear
(1440)	12.09	455	4.20	5.85	183.6	2	10	Clear
(1445)	12.14	450	3.35 3.25 (DUP)	5.87	189.5	2	20	Clear
(1450)	12.16	451	3.51	5.89	192.1	2	30	Clear

(1451) Well purged at ≈ 32 gallons

Sample Time: (1455)

Samples Collected: (3) 8260

COMPLETED 9-10-08

(61)

APPENDIX C

PREVIOUS LANDFILL GROUNDWATER ORGANIC ANALYSIS SUMMARY TABLE (1990-1993)

ORGANIC CONSTITUENTS DETECTED

December 11, 1990, November 16-18, 1992 and March 3, 1993 SAMPLING EVENTS

Analyte	Date Sampled	Analytical Method	MDL	MW-1	MW-2	MW-3	MW-4	PZ-24	NCS	MCL	TRIP
Trichloroethene	December 11, 1990	SW846 Method 8240	5			9		---	2.8	5	
(TCE)	November 16-18, 1992	SW846 Method 8010	1			23		110	2.8	5	
	March 5, 1993	EPA Method 502.2	0.2	0.4	2.4	18.1	0.7		2.8	5	
	March 5, 1993	SW846 Method 8021	0.2		2.1	15.7	0.8	79.5	2.8	5	
1,1,1-Trichloroethane	December 11, 1990	SW846 Method 8240	5		394	102			200	200	
(1,1,1-TCA)	November 16-18, 1992	SW846 Method 8010	1		980	68	6		200	200	
	March 5, 1993	EPA Method 502.2	0.4		1646	19.0	10.5		200	200	
	March 5, 1993	SW846 Method 8021	0.4		1212	19.0	22.5	1.4	200	200	
Tetrachloroethene	December 11, 1990	SW846 Method 8240	5		7	25			0.7	5	
(PCE)	November 16-18, 1992	SW846 Method 8010	1		5	39		4	0.7	5	
	March 5, 1993	EPA Method 502.2	0.5	0.5	11.2		1.6		0.7	5	
	March 5, 1993	SW846 Method 8021	0.5		11.8	24.9	1.6	12.5	0.7	5	
1,1,-Dichloroethane	December 11, 1990	SW846 Method 8240	5		52	178			700[1]	---	
(1,1-DCA)	November 16-18, 1992	SW846 Method 8010	1		41	250		81	700[1]	---	
	March 5, 1993	EPA Method 502.2	0.7		96	173.3	1.2	77	700[1]	---	
	March 5, 1993	SW846 Method 8021	0.7		82	161	1.1	43.7	700[1]	---	
1,1-Dichloroethene	December 11, 1990	SW846 Method 8240	5		80	7			7	7	
(1,1-DCE)	November 16-18, 1992	SW846 Method 8010	1		110	14			7	7	
	March 5, 1993	EPA Method 502.2	0.7		232	10.3	5.1	0.9	7	7	
	March 5, 1993	SW846 Method 8021 and *(8240)	0.7 *(0.3)		143.6	9	4.5	*	7	7	
cis-1,2-Dichloroethene	March 5, 1993	EPA Method 502.2	0.7	0.7	1.4	36.4		225	70	70	
(cis-1,2-DCE)	March 5, 1993	SW846 Method 8021 and *(8240)	0.7 *(0.7)		1	26.6	*	87.8	70	70	

Note: All Concentrations are in ppb (ug/L) (other footnotes located on page 4)

ORGANIC CONSTITUENTS DETECTED
DECEMBER 11, 1990, NOVEMBER 16-18, 1992 AND MARCH 5, 1993 SAMPLING EVENTS

Analyte	Date Sampled	Analytical Method	MDL	MW-1	MW-2	MW-3	MW-4	PZ-24	NCS	MCL	TRIP
Methylene Chloride	December 11, 1990	SW846 Method 8240	5			23		...	5	5	
	November 16-18, 1992	SW846 Method 8010	1			16		15	5	5	
	March 5, 1993	EPA Method 502.2	0.6		4.2	9.4			5	5	
	March 5, 1993	SW846 Method 8021	0.6						5	5	
Vinyl Chloride	December 11, 1990	SW846 Method 8240	10					...	.015	2	
	November 16-18, 1992	SW846 Method 8010	1			3		12	.015	2	
	March 5, 1993	EPA Method 502.2	0.4			3.4		18.3	.015	2	2.6
	March 5, 1993	SW846 Method 8021 and *(8240)	0.4 *(1.0)			*		*	.015	2	
Dichlorodifluoromethane	December 11, 1990	SW846 8240	5			21		...	0.19	...	
	November 16-18, 1992	SW846 Method 8010	1						0.19	...	
	March 5, 1993	EPA Method 502.2	0.8			11.8		6.9	0.19	...	
	March 5, 1993	SW846 Method 8021 and *(8240)	0.8 *(0.8)			*			0.19	...	
Chloroethane	December 11, 1990	SW846 Method 8240	10					...	...	...	
	November 16-18, 1992	SW846 8010	1			5		8	...	...	
	March 5, 1993	EPA Method 502.2	1.4		2.6				...	...	
	March 5, 1993	SW846 method 8021 and *(8240)	1.4 *(10)			*		*	...	...	
Trans-1,3-Dichloropropene	December 11, 1990	SW846 Method 8240	5			9.1		...	70	100	
	November 16-18, 1992	SW846 Method 8010	1					3	70	100	
	March 5, 1993	EPA Method 502.2	0.7			0.9		5.5	70	100	
	March 5, 1993	SW846 Method 8021 and *(8240)	0.7 *(0.7)			*			70	100	

Note: All Concentrations are in ppb (ug/L) (other footnotes located on page 4)

LANDFILL GROUNDWATER

ORGANIC CONSTITUENTS DETECTED

DECEMBER 11, 1990, NOVEMBER 16-18, 1992 AND MARCH 5, 1993 SAMPLING EVENTS

Analyte	Date Sampled	Analytical Method	MDL	MW-1	MW-2	MW-3	MW-4	PZ-24	NCS	MCL	TRIP
Benzene	December 11, 1990	SW846 Method 8240	5					---	1.0	5	
	March 5, 1993	EPA Method 502.2	0.1			1.5	0.5	6.3	1.0	5	
	March 5, 1993	SW846 Method 8021	0.1			1.3		6.3	1.0	5	
1,4-Dichlorobenzene	November 15-18, 1992	SW846 Method 8010	0.3			0.5			0.19	75	
	March 5, 1993	EPA Method 502.2	0.5		0.8				1.8	75	
	March 5, 1993	SW846 Method 8021	0.5						1.8	75	
Chloroform	December 11, 1990	SW846 Method 8240	5					---	0.19	100	
	November 16-18, 1992	SW846 Method 8010	1				2	1	0.19	100	3
	March 5, 1993	EPA Method 502.2	0.3						0.19	100	
	March 5, 1993	SW846 Method 8021	0.3			0.5			0.19	100	
1,2-Dichloropropane	December 11, 1990	SW846 Method 8240	5					---	0.56	5	
	November 16-18, 1992	SW846 Method 8010	1						0.56	5	
	March 5, 1993	EPA Method 502.2	0.3		0.3	0.3			0.56	5	
	March 5, 1993	SW846 Method 8021 and *(8240)	0.3 *(0.3)			*	*	*	0.56	5	
2,2-Dichloropropane	March 5, 1993	EPA Method 502.2	0.7	0.7	1.4				---	---	
	March 5, 1993	SW846 Method 8021 and *(8240)	0.7 *(0.7)		*	*	*	*	---	---	
1,1-Dichloropropene	March 5, 1993	SW846 Method 8240	0.5	3.8					---	---	
Bis(2-ethylhexyl)phthalate	March 5,1993	SW846 Method 8270	2		20				---	---	
Xylenes, Total	March 5, 1993	SW846 Method 8021	0.4					1	0.4	10	
4,4'-DDD	March 5, 1993	SW846 Method 8080	0.1					0.1	---	---	

GROUNDWATER

ORGANIC CONSTITUENTS DETECTED

DECEMBER 11, 1990, NOVEMBER 16-18, 1992 AND MARCH 5, 1993 SAMPLING EVENTS

Analyte	Date Sampled	Analytical Method	MDL	MW-1	MW-2	MW-3	MW-4	PZ-24	NCS	MCL	TRIP
Bromodichloromethane	December 11, 1990	SW846 Method 8240	5					---	---	100	
	November 16-18, 1992	SW846 Method 8010	1						---	100	
	March 5, 1993	EPA Method 502.2	0.3		0.6				---	100	
Carbon Tetrachloride	December 11, 1990	SW846 Method 8240	5					---	0.3	5	
	November 16-18, 1992	SW846 Method 8010	1						0.3	5	
	March 5, 1993	EPA Method 502.2	0.1			0.2	0.2	0.3	0.3	5	
	March 5, 1993	SW846 Method 8021	0.1						0.3	5	
	March 5, 1993	SW846 Method 8021	0.3						0.38	5	
1,2-Dichloroethane	December 11, 1990	SW846 Method 8240	5					---	0.38	5	
	November 16-18, 1992	SW846 Method 8010	1			1			0.38	5	
	March 5,1993	EPA Method 502.2	0.3		0.3				0.38	5	
	March 5, 1993	SW846 Method 8021 and *(8240)	0.3 *(0.3)		*	*		*	0.38	5	

EPA SW-846 Methods 8011, 8030, 8040, 8090, 8120, 8150, and 8310 were Also Performed on Samples Collected on March 5, 1993, Resulting in No Analytes Detected.

MDL Analytical Method Detection Limit
NCS North Carolina Water Quality Standard (DEHNR: 15A NCAC 2L .0202)
MCL EPA Primary Drinking Water Standard Maximum Contaminant Level

December 11, 1990 Sampling Event - Conducted by Engineering Tectonics and split-sampled with the NCDEHNR Solid Waste Section - Analysis performed by the North Carolina State Laboratory of Public Health.
November 16-18, 1993 and March 5, 1993 Sampling Event - Conducted by Draper Aden Associates - Analysis performed by Central Virginia Laboratories and Consultants, Inc. (CVLC).
EPA Metho 502.2 Co-elutes compounds cis-1,2-Dichloroethene and 2,2-Dichloropropane

denotes estimated result
denotes proposed NCS.
denotes *(method) utilized and analyte not detected

APPENDIX D

POTABLE WELL ORGANIC ANALYSIS SUMMARY TABLE
(1993-2007)

APPENDIX D

POTABLE WELL ORGANIC ANALYSIS SUMMARY TABLE
(1993-2008)

PRIVATE WELL TESTING - WATAUGA COUNTY, NC
RESULTS OF VOLATILE AND SEMIVOLATILE ANALYSIS

CONSTITUENT	MARCH 5, 1993*	MARCH 18, 1993*	MARCH 24, 1993*	JUNE 23, 1993**	JULY 13, 1994**	NCS	MCL
Carroll residence, 491 Green Briar Rd (Well Ref. No. 12) WELL ABANDONED IN 1995							
Benzene	2.1	1.7		1.9		1.0	5
Chloroethane	173.4	74.5		**ND**		2800	---
Chloromethane	**ND**	14.8		**ND**		2.6	---
Dichlorodifluoromethane	30.6	**ND**		**ND**		1400	---
1,1-Dichloroethane	20.9	17.4		**ND**		70	---
1,1-Dichloroethene	4.1	1.5		**ND**		7	7
cis-1,2-Dichloroethene#	1.2	0.9		<1.0		70	70
2,2-Dichloropropane#	1.2	0.9		**ND**		---	---
4-Isopropyltoluene	**ND**	0.2	NS	**ND**	NS	---	---
Isopropylbenzene	0.6	**ND**		**ND**		70	---
Methylene Chloride	**ND**	43.0 (T)		138.2		4.6	5
Styrene	2.8	0.5		**ND**		100	100
Tert-Butyl Methyl Ether	**ND**	**ND**		2.4		200	---
Tetrachloroethene	5.4	4.7		4.2		0.7	5
Toluene	**ND**	0.6 (T)		**ND**		1000	1000
1,1,1-Trichloroethane	19.7	15.7		29.4		200	200
Trichloroethene	7	5.5		7.0		2.8	5
Trichlorofluoromethane	37.1	20.2		**ND**		2100	---
Vinyl Chloride	1.7 (T)	**ND**		**ND**		0.015	2
p and m-Xylene	**ND**	**ND**		<1.0		530	10,000
o-Xylene	**ND**	3.4		2.9		530	10,000
Nissan-Mazda Dealership, 2464 Hwy 421 S (Well Ref. No. 4) WELL ABANDONED IN 1995							
Carbon Tetrachloride	0.2		**ND**		**ND**	0.269	5
Chloroethane	19.1		**ND**		**ND**	2800	---
Dichlorodifluoromethane	8.2		8.7		**ND**	1400	---
1,1-Dichloroethane	98.5		63.1		104.3	70	---
1,2-Dichloroethane	**ND**		0.5		**ND**	0.38	---
1,1-Dichloroethene	5.4		3.7		4.7	7	7
cis-1,2-Dichloroethene#	22.2		13.0		23.7	70	70
1,2-Dichloropropane	0.5		0.3		**ND**	0.51	5
2,2-Dichloropropane#	22.2	NS	13.0	NS	**ND**	---	---
Tetrachloroethene	21.8		28.1		30.9	0.7	5
Toluene	**ND**		0.8(T)		**ND**	1000	1000
1,1,1-Trichloroethane	14.7		19.3		22.9	200	200
Trichloroethene	11.2		9.1		12.6	2.8	5
Trichlorofluoromethane	0.4		**ND**		**ND**	2100	---
o-Xylene	0.4		0.5(T)		**ND**	530	10,000

NOTE: All Concentrations are in ppb (ug/L). (Other footnotes located on page 4)

PRIVATE WELL TESTING
WATAUGA COUNTY, NC
RESULTS OF BREMCO WELL ANALYSIS

CONSTITUENT	3/5/93*	4/6/94**	8/2/94**	12/7/94**	4/26/95**	10/24/95**	4/9/96**	10/9/96**	6/4/97**	2/10/98**	8/17/98**	2/18/99**	5/22/00**	NCS	MCL
Blue Ridge Electric Membership Company (BREMCO), 2491 Hwy 421 S (Well Ref. No. 5) Connected to public water in 2003.															
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2 (J)	trace	trace	trace	1	5
1,1-Dichloroethane	0.7	<1.0	1.4	1.0	1.2	1.8	1.5	1.5	2.0	3.2 (J)	1.6	1.5	5.0	700	---
1,1,1-Trichlorothane	0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	trace	trace	trace	trace	200	200
Trichloroethene	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2 (J)	0.5	trace	0.6	2.8	5
1,1-Dichloroethene	ND	1.0	1.9	<1.0	1.1	1.7	1.0	<1.0	1.7	3.9 (J)	2.6	ND	2.7	7	7
cis-1,2-Dichloroethene	ND	<1.0	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.5 (J)	trace	trace	0.5	70	70
Tetrachloroethene	ND	<1.0	<1.0	trace	<1.0	<1.0	<1.0	<1.0	<1.0	trace	trace	trace	trace	0.7	5
Cloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	trace	ND	70	80
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8	4.6	5
Methyl-t-butyl-ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	trace	200	---
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5 (J)	ND	ND	---	---
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1400	---

CONSTITUENT	8/7/01***	2/11/02***	8/14/02****	1/22/03****	7/15/03****	3/16/04****	9/29/04****	3/30/05^^	10/5/05^^	4/05/06^^	9/27/06^^	4/3/07^^	9/18/07^^	3/11/08^^	9/9/08^^	NCS	MCL
Blue Ridge Electric Membership Company (BREMCO), 2491 Hwy 421 S (Well Ref. No. 5) Connected to public water in 2003.																	
Benzene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	0.1	0.6	0.5	0.5	1	5
sec-Butylbenzene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01(J)	---	---
1,4-Dichlorobenzene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	0.3	0.8	1	1.3	1.4	75
1,1-Dichloroethane	6	6	7.7		8.8	5,7	4.1	ND	4.7	0.5	1.6	11	29	38	30	700	---
1,1,1-Trichlorothane	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	200
Trichloroethene	0.8	0.6	0.72		0.69	ND	ND	ND	ND	ND	ND	ND	1	1	1	2.8	5
1,1-Dichloroethene	2	ND	1.6		1.4	ND	ND	ND	ND	ND	ND	0.8	1.8	1.7	1.5	7	7
cis-1,2-Dichloroethene	0.9	1	1.4		1.6	ND	ND	ND	0.7	ND	ND	1.9	5.3	6	6	70	70
trans-1,2-Dichloroethene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2(J)	0.2(J)	70	70
Tetrachloroethene	ND	ND	ND	NS	0.53	ND	ND	ND	ND	ND	ND	ND	0.4 (J)	0.5 (J)	0.4 (J)	0.7	5
Cloroform	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	80
Methylene Chloride	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	0.4	1.6	1.7	1.4	4.6	5
Methyl-t-butyl-ether	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	---
Tetrahydrofuran	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---
Chloroethane	0.5	1	1.3		1.3	1.1	0.52	ND	1.1	ND	ND	2.2	8.1	12	11	---	---
Dichlorodifluoromethane	1	1	1.6		0.94	0.59	0.58	ND	ND	ND	ND	0.6	1.2	1.2	1	1400	---
Chlorobenzene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	0.1 (J)	0.2 (J)	0.2 (J)	50	100
1,2-Dichloroethane	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	0.2 (J)	0.2 (J)	ND	0.38	---
1,2-Dichloropropane	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	0.2 (J)	0.3 (J)	0.2 (J)	0.51	5
Toluene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	1000	1000
Vinyl Chloride	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	0.4 (J)	0.5	0.5J	0.015	2

NOTE: All Concentrations are in ppb (ug/L)

PRIVATE WELL TESTING
WATAUGA COUNTY, NC
RESULTS OF ANALYSIS

CONSTITUENT	3/93*	4/94**	8/94**	12/94**	4/95**	10/95**	4/96**	10/96**	6/97**	2/98**	8/98**	2/99**	5/00**	8/01***	2/02***	8/02****	1/03****	7/03****	3/04****	9/04****	4/07^^	9/07^^	3/11/08^^	9/9/08^^	NCS	MCL
2347 Hwy 421 S (Well Ref. No. 2) Connected to public water in 2003.																										
tert-Butylbenzene	1.1	ND				ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	---	---
Isopropylbenzene	0.7	ND				ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	---	---
Trichloroethene	0.5	ND				ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			0.2J	ND	ND	0.2J	2.8	5
1,3,5-Trimethylbenzene	0.7	ND	NS	NS	NS	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	---	---
1,1-Dichloroethane	ND	trace				<1.0	trace	<1.0	trace	ND		<1.0	0.6	ND	0.7	0.99	0.53	0.77			3.3	3.7	4.5	4.8	700	---
1,1-Dichloroethene	ND	trace				trace	ND	trace	ND	ND		ND	trace	ND	ND	ND	ND	ND	connected	connected	0.3J	0.3J	0.2J	0.3J	7	7
cis-1,2-Dichloroethene	ND	ND				ND	ND	ND	ND	ND		ND	trace	ND	ND	ND	ND	ND	to public	to public	0.5	0.2J	0.6	0.8	70	70
Dichlorodifluoromethane	ND	ND				ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	water	water	0.3J	0.3J	0.3J	0. 4J	1400	---
Chloroethane	ND	ND				ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			0.3J	0.5J	0.5	0.7	---	---
Methyl Ethyl Ketone	ND	trace				35.3	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	4200	---
Tetrahydrofuran	ND	ND				42.3	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	---	---
Toluene	ND	ND				ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			ND	0.3J	ND	ND	1000	1000
Methylene Chloride	ND	ND				ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND			ND	0.5J	ND	ND	5	5

CONSTITUENT	5/93**	6/23/93**	3/94**	8/94**	12/94**	4/95**	10/95**	5/96**	10/96**	2/98**	8/98**	6/99**	9/00**	5/01**	2/02***	8/02****	1/03****	7/03****	3/04****	9/04****	9/07^^	4/07^^	NCS	MCL
648 Green Briar Rd (Well Ref. No. 24) Declined connection to public water in 2000; unoccuppied in 2005, connected in 2008.																								
Methylene Chloride	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			5	5
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			200	200
Trichloroethene	trace	trace	<1.0	ND	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	2.8	5
Tetrachloroethene	ND	trace	<1.0	ND	trace	trace	<1.0	<1.0	trace	ND	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.7	5
Carbon Tetrachloride	ND	ND	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			0.3	5
1,1-Dichloroethane	ND	ND	<1.0	ND	<1.0	<1.0	trace	<1.0	ND	ND	trace	trace	ND	trace	ND	ND	ND	ND	ND	ND			700	---
Chloroform	ND	ND	trace	ND	ND	trace	trace	ND	ND	ND	trace	ND	ND	ND	37	38	ND	ND	ND	ND			70	80
Bromodichloromethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8	8.0	ND	ND	ND	ND			0.56	80
Dibromochloromethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.81	1.6	ND	ND	ND	ND			-	80
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			-	0.05

CONSTITUENT	3/93*	4/94**	12/94**	2/01**	8/01***	2/02***	8/02****	1/03****	7/03****	3/04****	9/04****	3/05^^	10/05^^	4/06^^	9/06^^	4/07^^	9/07^^	3/11/08^^	9/9/08^^	NCS	MCL
2711 Hwy 421 S (Well Ref. No. 15) Declined connection to public water in 2002, connected in 2006.																					
Benzene	ND	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	5
Toluene	ND	6.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1000	1000
Tetrachloroethene	ND	trace	ND	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	5
Ethylbenzene	ND	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	550	700
p and m - Xylene	ND	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	530	10,000
Styrene	ND	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.14	100
cis-1,2-Dichloroethene	ND	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3J	ND	ND	ND	70	70

CONSTITUENT	3/93*	6/93**	3/94**	10/96**	NCS	MCL
513 Green Briar Rd (Well Ref. No. 11) Connected to public water in 2000.						
Dichlorodifluoromethane	2.5	ND	ND	ND	1400	---
Naphthalene	0.7	ND	ND	ND	21	---
Chloromethane	<9	ND	ND	ND	2.6	---
Methylene Chloride	<0.6	ND	ND	ND	5	5
Chloroform		ND	<1.0	NDT	0.19	80

	3/93*	2/96**	2/02***	8/02****	1/03****	3/04****	10/05^^	4/06^^	4/07^^	9/07^^	3/11/08^^	NCS	MCL
2239 Hwy 421 S (Well Ref. No. 1)													
Total Xylenes	ND	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND	530	10000

NOTE: All Concentrations are in ppb (ug/L)

PRIVATE WELL TESTING
WATAUGA COUNTY, NC
RESULTS OF ANALYSIS

CONSTITUENT	3/23/93**	2/19/01**	8/7/01***	1/11/02**	8/14/02***	1/22/03***	7/15/03***	3/16/04***	9/29/04***	3/30/05^^	10/05/05^^	4/05/05^^	9/27/06^^	4/3/07^^	9/18/07^^	3/11/08^^	9/9/08^^	NCS	MCL
2737 Hwy 421 S (Well Ref. No.16) Connected to public water in 2004.																			
Methyl-t-butyl-ether	ND	<1.0	ND	ND	1.2	1.2	ND	1.5	1.7	ND	ND	ND	ND	ND	ND	ND	ND	200	---
cis-1,2-Dichloroethene	ND	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	70	70
Tetrachloroethene	ND	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	5

CONSTITUENT	3/18/93*	5/11/93**	9/21/93**	11/2/99**	9/6/00**	3/30/05^^	3/11/08^^	NCS	MCL
139,152,163,166 Margot Rd; 151,180 Greenbriar Ln; 306, 344 Greenbriar Rd. Shared Well #1 (8 Houses) (Well Ref. No.13)									
sec-Butylbenzene	0.2	ND	ND	ND	ND	ND	ND	---	---
Carbon Tetrachloride	0.1	ND	ND	ND	ND	ND	ND	0.269	5
Methylene Chloride	1.5	ND	ND	ND	ND	ND	ND	4.6	5
alpha-Chlordane	0.4	ND	ND	ND	ND	ND	ND	0.1	2
gamma-Chlordane	0.3	ND	ND	ND	ND	ND	ND	0.1	2
1,4-Dichlorobenzene	ND	ND	ND	trace	ND	ND	ND	1.4	75
2-Butanone	ND	ND	ND	ND	2.3J	ND	ND	4200	---
Chloroform	ND	ND	ND	trace	ND	ND	ND	70	80

CONSTITUENT	3/5/93**	4/26/95**	4/9/96**	2/10/98**	NCS	MCL
Mack Brown Chevrolet dealership, 2704/2705 Hwy 421 S (Well Ref. No.7) Public water in 2000.						
Chloroform	ND	ND	ND	39.7	70	80
Bromodichloromethane	ND	ND	ND	5	0.56	80
Methyl-t-butyl-ether	ND	24.4	2.5	ND	200	---

CONSTITUENT	3/18/93*	3/30/94**	1/12/95**	0/24/95*	4/9/96**	10/9/96**	6/12/97**	2/10/98**	6/9/99**	NCS	MCL
118, 132, 138, 191 Grapevine Circle, Shared Well #2 (4 Houses) (Well Ref. No.14) Connected to public water in 2000.											
1,4-Dichlorobenzene	0.5	ND	ND	ND	ND	ND	ND	ND	ND	1.4	75
1,1-Dichloroethane	ND	ND	ND	<1.0	<1.0	<1.0	ND	ND	ND	700	---
1,1-Dichloroethene	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	7	7
Tetrachloroethene	ND	ND	ND	trace	ND	trace	ND	ND	ND	0.7	5
1,1,1-Trichoroethane	ND	<1.0	ND	trace	ND	ND	ND	ND	ND	200	200
Chloroform	ND	trace	ND	9.0	ND	ND	ND	ND	ND	70	80
Bromodichloromethane	ND	ND	ND	1.4	ND	ND	ND	ND	ND	0.56	80
Dibromochloromethane	ND	ND	ND	<1.0	ND	ND	ND	ND	ND	---	80
2-Chlorotoluene	ND	ND	ND	1.2	ND	ND	ND	ND	ND	---	---
4-Chlorotoluene	ND	ND	ND	1.0	ND	ND	ND	ND	ND	---	---
Methyl Ethyl Ketone	ND	ND	ND	24.6	ND	ND	ND	ND	ND	4200	---
Tetrahydrofuran	ND	ND	ND	13.4	ND	ND	ND	ND	ND	---	---

CONSTITUENT	3/23/93**	5/20/96**	10/9/96**	6/12/97**	6/9/99**	NCS	MCL
601 Green Briar Rd (Well Ref. No.20) Connected to public water in 2000.							
1,1,1-Trichloroethane	trace	trace	trace	trace	ND	200	200
Methyl-t-butyl-ether	ND	ND	ND	ND	<1.0	200	---
Chloroform	<1.0	<1.0	NDT	ND	<1.0	70	80

CONSTITUENT	10/20/93**	2/21/96**	8/19/98**	2/18/99**	9/6/00**	NCS	MCL
Meadowridge condominiums, Complex 9 (Well Ref. No.38)							
Chloroform	<1.0	ND	ND	ND	ND	70	80
trans-1,2-Dichloroethene	<1.0	ND	ND	ND	ND	70	100
1,1,1-Trichloroethane	trace	ND	ND	ND	ND	200	200
Trichloroethene	trace	ND	ND	ND	ND	2.8	5

CONSTITUENT	5/11/93**	5/20/96**	6/12/97**	2/10/98**	11/2/99**	5/22/00**	2/14/02***	3/11/08^^	NCS	MCL
604 Green Briar Rd (Well Ref. No.23)										
Chloroform	trace	<1.0	<1.0	ND	trace	trace	ND	ND	70	80
Methyl-t-butyl-ether	ND	ND	ND	ND	ND	trace	ND	ND	200	---
Toluene	ND	ND	ND	ND	trace	ND	ND	ND	1000	1000
Ethyl Benzene	ND	ND	ND	ND	trace	ND	ND	ND	550	700
Xylenes	ND	ND	ND	ND	trace	ND	ND	ND	530	10000
1,4-Dichlorobenzene	ND	ND	ND	ND	trace	ND	ND	ND	1.4	75

CONSTITUENT	5/11/93**	11/2/99**	2/11/02***	3/11/08^^	NCS	MCL
313 Green Briar Rd (Well Ref. No.25)						
Tetrahydrofuran	ND	1.2 J	ND	ND	---	---

CONSTITUENT	8/9/93**	10/20/93**	9/21/94**	NCS	MCL
535 Green Briar Rd (Well Ref. No.33) Connected to public water in 2000.					
1,2-Dichloroethane	<1.0	<1.0	ND	0.38	5
Chloroform	<1.0	ND	<1.0	70	80

NOTE: All Concentrations are in ppb (ug/L) (Other footnotes located on page 4)
P:\06\500\06520\06520-39\Reports\2008 tables\[XLS - 08 0221 - NCDENR - POTTAB234 - JES.xls]WTGA3A (pg3)

PRIVATE WELL TESTING - WATAUGA COUNTY, NC
WELLS SHOWING NO DETECTED ORGANIC COMPOUNDS

SAMPLING LOCATION	SAMPLING DATES
Mack Brown rental residence (Well Ref. No.3) **REMOVED**	March 5, 1993*, July 3, 1994** and Feb. 19, 2001
BREMCO residence (36) **REMOVED**	September 21, 1993**
Hollar and Green Produce, 230 Cabbage Rd (Well Ref. No.6)	3/93*,9/98&5/01**, 7/03***,3/05,4/06,4/07,9/07,&3/11/08^^
497/513 Old Hwy 421 S (Well Ref. No.8)	March 5, 1993*
Martin High Country Rentals #1 (9)	March 5, 1993* connected to public water.
Martin High Country Rentals #2 (10)	March 5, 1993* connected to public water.
190 Green Briar Rd (Well Ref. No.30)	August 3, 1993**
253 Green Briar Rd (Well Ref. No.39)	November 16, 1994** and August 7, 2001***
331 Green Briar Rd (Well Ref. No.19)	March 1993*, Oct. 1999**, Feb. 2002***
378 Green Briar Rd (Well Ref. No.18)	March 1993*, Oct. 1996**, Nov. 1999*, 3/05&3/08^^
425 Green Briar Rd (Well Ref. No.17)	3/1993*, 9/1993**, 7/1994**, 10/1999**, 3/05&3/11/08^^
662 Green Briar Rd (Well Ref. No.27)	June 23, 1993**, March 30, 2005 and March 11, 2008^^
690 Green Briar Rd (Well Ref. No.29)	June 23, 1993**, March 30, 2005 and March 11, 2008^^
699 Green Briar Rd (Well Ref. No.26)	June 23, 1993**
732 Green Briar Rd (Well Ref. No.28)	June 23, 1993**
142 Greenbriar Ln (Well Ref. No.21)	3/18/1993*, 5/22/2000**, 3/30/2005^^, 10/5/2005^^ , and 9/9/08^^
110 Greenbriar Ln (Well Ref. No.22)	March 23, 1993* and October 12, 1999**
330 Wild Rose Ln (Well Ref. No.45)	Oct. 1999**, Aug. 2001***, Feb. 2002***, and March 2005^^
378 Wild Rose Ln (Well Ref. No.46)	Feb. 2001**, Aug. 2001***, Feb. 2002***, and March 2005^^
356 Wild Rose Ln (Well Ref. No.54)	February 14, 2002*** and March 30, 2005^^
171 Chipmunk Tr (Well Ref. No.31)	August 3, 1993**
Animal Control Office, 411 Landfill Rd (Well Ref. No.32)	August 3, 1993**
Brook Hollow Trailer Park (Well Ref. No.37)	October 11, 1993**
860 Green Briar Rd (Well Ref. No.34)	October 20, 1993**
182/216 Cane Rd, Shared well #3 (Well Ref. No.35)	October 20, 1993** and March 11, 2008^^
221/219Cane Rd, Shared well #3 (Well Ref. No.57)	March 11, 2008^^
177 Cane Rd, Shared well #3 (Well Ref. No.56)	March 11, 2008^^
220 Margot Rd (Well Ref. No.55)	March 30, 2005^^
191 Sunny Knoll Ln (Well Ref. No.40)	January 12, 1995**
200 Sunny Knoll Ln (Well Ref. No.61)	March 11, 2008^^
315 Sunny Knoll Ln (Well Ref. No.60)	March 11, 2008^^
233 Chipmunk Tr (Well Ref. No.41)	January 12, 1995**
Meadowridge Condominiums (42)	February 16&17, 1998**
Meadowridge Condominiums (43)	February 16&17, 1998**
Meadowridge Condominiums (44)	August 19, 1998**
214/252 Will Cook Rd (Well Ref. No.47)	May 24, 2001**
5259 Bamboo Rd (Well Ref. No.59)	March 2005^^
5233 Bamboo Rd (Well Ref. No.51)	August 7, 2001***
5229 Bamboo Rd (Well Ref. No.52)	August 7, 2001***
5195 Bamboo Rd (Well Ref. No.48)	August 7, 2001***
5177 Bamboo Rd (Well Ref. No.53)	August 7, 2001***
5147 and 5145 Bamboo Rd (Well Ref. No.50)	August 7, 2001***
5111 Bamboo Rd (Well Ref. No. 49)	August 7, 2001***

TABLE NOTES:

The sampled well reference number as presented on the Vicinity Map (Figure 1) is denoted in parentheses following the sampling locations name.

* Laboratory analysis performed by Central Virginia Laboratories and Consultants (CVLC) utilizing EPA Methods 502.2 (Volatiles) and 525.1 (Semi-Volatiles).

** Laboratory Analysis performed by NCDENR Division of Laboratory Services utilizing EPA Method 502.2 (Volatiles).

*** Laboratory Analysis performed by Severn Trent Services utilizing EPA Method 524.2 (Volatiles).

**** Laboratory Analysis performed by Toxikon utilizing EPA Method 524.2 (Volatiles)

^^ Laboratory Analysis performed by Lancaster Lanoratories utilizing EPA Method 524.2 (Volatiles)

NSC - North Carolina Water Quality Standard (DEHNR-15A NCAC 2L.0202)

MCL - EPA Primary Drinking Water Standard Maximum Contaminant Level

ND denotes no compounds detected for entire analytical scan.

NDT denotes compound detected in trip blank at same concentration as well sample.

NS denotes not sampled on that date.

NA denotes compound not analyzed on that date.

(J) denotes estimated result. # denotes compound co-elutes.

(T) denotes found in Trip Blank. trace = < 0.5 ppb (ug/l)

Note that chloroform was detected in the residential wells 17, 18, 19, 22, 26, 30, 40, 45 and 46. Chloroform has not been detected in any of the landfill assessment monitoring wells to date, and is likely a transformation product resulting from the chlorination of the well systems.

Martin High Country Rentals (9 and 10) was connected to public water in 2000.

APPENDIX E

LABORATORY ANALYTICAL DATA SUMMARY SHEETS
AND
ASSOCIATED DATA VALIDATION SUMMARIES

REPORT COPY ON CD INCLUDING:

NCEDD (ELECTRONIC DATA DELIVERABLES)
EDDS – ALL DATA
EDDS – DETECTIONS ONLY
EDDS – DETECTIONS ABOVE 2L OR 2B STANDARDS
LABORATORY ANALYTICAL SUMMARY DATA SHEETS,
DATA VALIDATION SUMMARY REPORTS, AND
LABORATORY QA/QC REPORTS.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: *8260B*								
Acetonitrile	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-1	5	U	U	J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Carbon tetrachloride	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. MSD recovered low (51%).
1,3-Dichlorobenzene	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Hexachlorobutadiene	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Tetrachloroethene	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-1	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Vinyl acetate	MW-1	1	U	U	J	1	1	Analyte not detected. ICAL greater than 15% RSD.

Definitions: **LOQ** Denotes laboratory limit of quantitation. **CRQL** Denotes laboratory contract required quantitation limit.
U Denotes analyte not detected above detection limit or LOQ/CRQL. **J** Denotes analyte is estimated. When used with a "U" (i.e., "UJ"), denotes analyte not detected above detection limit orLOQ/CRQL and LOQ/CRQL is estimated. **B** Denotes result attributed to blank contamination, a laboratory data qualifier. R Denotes result rejected.
Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: *8260B*								
Acetone	MW-10	2.4	J	U		2.5	1	Result < LOQ. Blank contamination in the associated blanks (1.3-1.9 ug/l).
Acetonitrile	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-10	5	U	U	J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Carbon tetrachloride	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. MSD recovered low (51%).
1,3-Dichlorobenzene	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-10	13		13		0.5	1	No action taken.
1,1-Dichloroethene	MW-10	20		20		3.1	1	No action taken.
Hexachlorobutadiene	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-10	0.11	J	U	J	0.5	1	Result < LOQ. Blank contamination in the method blanks (0.1-0.11 ug/l). ICAL greater than 15% RSD.
Tetrachloroethene	MW-10	3		3	J	0.5	1	ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-10	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,1,1-Trichloroethane	MW-10	91		91		0.5	6	No action taken.
Trichloroethene	MW-10	0.19	J	0.19	J	0.5	1	Result < LOQ.
Vinyl acetate	MW-10	1	U	U	J	1	1	Analyte not detected. ICAL greater than 15% RSD.

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Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)	Validated Results (ug/L)	LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC						
Method: *8260B*						
Acetone	MW-11	1.3 J	U	2.5	1	Result < LOQ. Blank contamination in the associated blanks (1.3-1.9 ug/l).
Acetonitrile	MW-11	0.5 U	U J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-11	5 U	U J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-11	0.5 U	U J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Benzene	MW-11	0.29 J	0.29 J	0.5	1	Result < LOQ.
Carbon tetrachloride	MW-11	0.5 U	U J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chlorobenzene	MW-11	0.36 J	0.36 J	0.5	1	Result < LOQ.
Chloroethane	MW-11	7.3	7.3 J	0.5	1	MSD recovered low (51%).
1,2-Dichlorobenzene	MW-11	0.14 J	0.14 J	0.5	1	Result < LOQ.
1,3-Dichlorobenzene	MW-11	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-11	3.2	3.2 J	0.5	1	ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-11	21	21	0.5	1	No action taken.
1,2-Dichloroethane	MW-11	0.51	0.51	0.5	1	No action taken.
1,1-Dichloroethene	MW-11	0.3 J	0.3 J	0.5	1	Result < LOQ.
cis-1,2-Dichloroethene	MW-11	37	37	0.5	2.5	No action taken.
trans-1,2-Dichloroethene	MW-11	0.57	0.57	0.5	1	No action taken.
1,2-Dichloropropane	MW-11	0.61	0.61	0.5	1	No action taken.
Hexachlorobutadiene	MW-11	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-11	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-11	0.35 J	U J	0.5	1	Result < LOQ. Blank contamination in the method blanks (0.1-0.11 ug/l). ICAL greater than 15% RSD.
Tetrachloroethene	MW-11	1.7	1.7 J	0.5	1	ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-11	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Trichloroethene	MW-11	2.7	2.7	0.5	1	No action taken.
Vinyl acetate	MW-11	1 U	U J	1	1	Analyte not detected. ICAL greater than 15% RSD.
Vinyl chloride	MW-11	2.6	2.6	0.5	1	No action taken.

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Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Watauga County Landfill **Facility ID 95-02**

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: ***8260B***								
Acetonitrile	MW-12	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-12	5	U	U	J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-12	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Benzene	MW-12	0.36	J	0.36	J	0.5	1	Result < LOQ.
Carbon tetrachloride	MW-12	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chlorobenzene	MW-12	0.36	J	0.36	J	0.5	1	Result < LOQ.
Chloroethane	MW-12	8.1		8.1	J	0.5	1	MSD recovered low (51%).
Chloroform	MW-12	1.2		1.2		0.5	1	No action taken.
1,2-Dichlorobenzene	MW-12	0.21	J	0.21	J	0.5	1	Result < LOQ.
1,3-Dichlorobenzene	MW-12	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-12	3.4		3.4	J	0.5	1	ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-12	24		24		0.5	1	No action taken.
1,2-Dichloroethane	MW-12	0.71		0.71		0.5	1	No action taken.
1,1-Dichloroethene	MW-12	0.35	J	0.35	J	0.5	1	Result < LOQ.
cis-1,2-Dichloroethene	MW-12	52		52		0.5	3.6	No action taken.
trans-1,2-Dichloroethene	MW-12	0.68		0.68		0.5	1	No action taken.
1,2-Dichloropropane	MW-12	0.8		0.8		0.5	1	No action taken.
Hexachlorobutadiene	MW-12	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-12	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-12	0.43	J	U	J	0.5	1	Result < LOQ. Blank contamination in the method blanks (0.1-0.11 ug/l). ICAL greater than 15% RSD.
Tetrachloroethene	MW-12	2.7		2.7	J	0.5	1	ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-12	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Trichloroethene	MW-12	4.7		4.7		0.5	1	No action taken.
Vinyl acetate	MW-12	1	U	U	J	1	1	Analyte not detected. ICAL greater than 15% RSD.
Vinyl chloride	MW-12	3		3		0.5	1	No action taken.

Definitions: **LOQ** Denotes laboratory limit of quantitation. **CRQL** Denotes laboratory contract required quantitation limit.
U Denotes analyte not detected above detection limit or LOQ/CRQL. **J** Denotes analyte is estimated. When used with a "U" (i.e., "UJ"), denotes analyte not detected above detection limit orLOQ/CRQL and LOQ/CRQL is estimated. **B** Denotes result attributed to blank contamination, a laboratory data qualifier. R Denotes result rejected.
Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: *8260B*								
Acetonitrile	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-15	5	U	U	J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Carbon tetrachloride	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. MSD recovered low (51%).
1,3-Dichlorobenzene	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-15	0.26	J	0.26	J	0.5	1	Result < LOQ.
Hexachlorobutadiene	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Tetrachloroethene	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-15	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,1,1-Trichloroethane	MW-15	0.93		0.93		0.5	1	No action taken.
Vinyl acetate	MW-15	1	U	U	J	1	1	Analyte not detected. ICAL greater than 15% RSD.

Definitions: **LOQ** Denotes laboratory limit of quantitation. **CRQL** Denotes laboratory contract required quantitation limit.
U Denotes analyte not detected above detection limit or LOQ/CRQL. **J** Denotes analyte is estimated. When used with a "U" (i.e., "UJ"), denotes analyte not detected above detection limit orLOQ/CRQL and LOQ/CRQL is estimated. **B** Denotes result attributed to blank contamination, a laboratory data qualifier. R Denotes result rejected.
Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: *8260B*								
Acetonitrile	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-17	5	U	U	J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Carbon tetrachloride	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-17	0.88		0.88	J	0.5	1	MSD recovered low (51%).
1,3-Dichlorobenzene	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-17	2.9		2.9		0.5	1	No action taken.
cis-1,2-Dichloroethene	MW-17	7		7		0.5	1	No action taken.
Hexachlorobutadiene	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Tetrachloroethene	MW-17	3.9		3.9	J	0.5	1	ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-17	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Trichloroethene	MW-17	1.3		1.3		0.5	1	No action taken.
Vinyl acetate	MW-17	1	U	U	J	1	1	Analyte not detected. ICAL greater than 15% RSD.

Definitions: **LOQ** Denotes laboratory limit of quantitation. **CRQL** Denotes laboratory contract required quantitation limit.
U Denotes analyte not detected above detection limit or LOQ/CRQL. **J** Denotes analyte is estimated. When used with a "U" (i.e., "UJ"), denotes analyte not detected above detection limit orLOQ/CRQL and LOQ/CRQL is estimated. **B** Denotes result attributed to blank contamination, a laboratory data qualifier. R Denotes result rejected.
Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analtytical, Cary, NC								
Method: *8260B*								
Acetone	MW-19	2.1	J	U		2.5	1	Result < LOQ. Blank contamination in the associated blanks (1.3-1.9 ug/l).
Acetonitrile	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-19	5	U	U	J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Carbon disulfide	MW-19	0.22	J	0.22	J	0.5	1	Result < LOQ.
Carbon tetrachloride	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. MSD recovered low (51%).
1,3-Dichlorobenzene	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Hexachlorobutadiene	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-19	0.1	J	U	J	0.5	1	Result < LOQ. Blank contamination in the method blanks (0.1-0.11 ug/l) ICAL greater than 15% RSD.
Tetrachloroethene	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-19	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Vinyl acetate	MW-19	1	U	U	J	1	1	Analyte not detected. ICAL greater than 15% RSD.

Definitions: LOQ Denotes laboratory limit of quantitation. **CRQL** Denotes laboratory contract required quantitation limit.
U Denotes analyte not detected above detection limit or LOQ/CRQL. **J** Denotes analyte is estimated. When used with a "U" (i.e., "UJ"), denotes analyte not detected above detection limit orLOQ/CRQL and LOQ/CRQL is estimated. **B** Denotes result attributed to blank contamination, a laboratory data qualifier. R Denotes result rejected.
Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Watauga County Landfill **Facility ID 95-02**

Draper Aden Associates
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Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: *8260B*								
Acetonitrile	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-2	83	U	U	J	83	16.7	Analyte not detected. Sample pH <2.
Allyl chloride	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. CV %D >+/-25% (63%).
Carbon tetrachloride	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. MSD recovered low (51%).
1,3-Dichlorobenzene	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-2	42		42		8.3	16.7	No action taken.
1,1-Dichloroethene	MW-2	61		61		8.3	16.7	No action taken.
Hexachlorobutadiene	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-2	2.1	J	U	J	8.3	16.7	Result < LOQ. Blank contamination in the method blanks (0.1-0.11 ug/l). ICAL greater than 15% RSD.
Tetrachloroethene	MW-2	3.5	J	3.5	J	8.3	16.7	Result < LOQ. ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-2	8.3	U	U	J	8.3	16.7	Analyte not detected. ICAL greater than 15% RSD.
1,1,1-Trichloroethane	MW-2	310		310		8.3	16.7	No action taken.
Vinyl acetate	MW-2	17	U	U	J	17	16.7	Analyte not detected. ICAL greater than 15% RSD.

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Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)	Validated Results (ug/L)	LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC						
Method: *8260B*						
Acetone	MW-3	4.6 J	U	6.3	2	Result < LOQ. Blank contamination in the associated blanks (1.3-1.9 ug/l).
Acetonitrile	MW-3	1.3 U	U J	1.3	2	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-3	13 U	U J	13	2	Analyte not detected. Sample pH <2.
Allyl chloride	MW-3	1.3 U	U J	1.3	2	Analyte not detected. CV %D >+/-25% (63%).
Carbon tetrachloride	MW-3	1.3 U	U J	1.3	2	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-3	1.2 J	1.2 J	1.3	2	Result < LOQ. MSD recovered low (51%).
1,3-Dichlorobenzene	MW-3	1.3 U	U J	1.3	2	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-3	1.3 U	U J	1.3	2	Analyte not detected. ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-3	12	12	1.3	2	No action taken.
cis-1,2-Dichloroethene	MW-3	34	34	1.3	2	No action taken.
trans-1,2-Dichloroethene	MW-3	0.37 J	0.37 J	1.3	2	Result < LOQ.
1,2-Dichloropropane	MW-3	0.4 J	0.4 J	1.3	2	Result < LOQ.
Hexachlorobutadiene	MW-3	1.3 U	U J	1.3	2	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-3	1.3 U	U J	1.3	2	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-3	0.89 J	U J	1.3	2	Result < LOQ. Blank contamination in the method blanks (0.1-0.11 ug/l). ICAL greater than 15% RSD.
Naphthalene	MW-3	0.57 J	U	1.3	2	Result < LOQ. Blank contamination in associated blanks (0.1-0.18 ug/l).
Tetrachloroethene	MW-3	1.2 J	1.2 J	1.3	2	Result < LOQ. ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-3	1.3 U	U J	1.3	2	Analyte not detected. ICAL greater than 15% RSD.
Trichloroethene	MW-3	3.4	3.4	1.3	2	No action taken.
Vinyl acetate	MW-3	2.5 U	U J	2.5	2	Analyte not detected. ICAL greater than 15% RSD.

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Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Watauga County Landfill **Facility ID 95-02**

Draper Aden Associates
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Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: *8260B*								
Acetone	MW-8	2.6		U	A	2.5	1	Blank contamination in the associated blanks (1.3-1.9 ug/l). QL adjusted to 2.6 ug/l.
Acetonitrile	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-8	5	U	U	J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Carbon tetrachloride	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chloroethane	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. MSD recovered low (51%).
1,3-Dichlorobenzene	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-8	0.13	J	0.13	J	0.5	1	Result < LOQ. ICAL greater than 15% RSD.
1,1-Dichloroethane	MW-8	0.39	J	0.39	J	0.5	1	Result < LOQ.
cis-1,2-Dichloroethene	MW-8	0.22	J	0.22	J	0.5	1	Result < LOQ.
Hexachlorobutadiene	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Tetrachloroethene	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-8	0.5	U	U	J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Trichloroethene	MW-8	0.41	J	0.41	J	0.5	1	Result < LOQ.
Vinyl acetate	MW-8	1	U	U	J	1	1	Analyte not detected. ICAL greater than 15% RSD.

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Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)	Validated Results (ug/L)	LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analtytical, Cary, NC						
Method: *8260B*						
Acetonitrile	MW-9	0.5 U	U J	0.5	1	Analyte not detected. CV %D >+/-25% (58%).
Acrolein	MW-9	5 U	U J	5	1	Analyte not detected. Sample pH <2.
Allyl chloride	MW-9	0.5 U	U J	0.5	1	Analyte not detected. CV %D >+/-25% (63%).
Benzene	MW-9	3.1	3.1	0.5	1	No action taken.
Carbon tetrachloride	MW-9	0.5 U	U J	0.5	1	Analyte not detected. CV %D >+/-25% (29%).
Chlorobenzene	MW-9	0.52	0.52	0.5	1	No action taken.
Chloroethane	MW-9	4.9	4.9 J	0.5	1	MSD recovered low (51%).
1,3-Dichlorobenzene	MW-9	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
1,4-Dichlorobenzene	MW-9	1.9	1.9 J	0.5	1	ICAL greater than 15% RSD.
Dichlorodifluoromethane	MW-9	0.58	0.58	0.5	1	No action taken.
1,1-Dichloroethane	MW-9	15	15	0.5	1	No action taken.
cis-1,2-Dichloroethene	MW-9	9.4	9.4	0.5	1	No action taken.
trans-1,2-Dichloroethene	MW-9	0.38 J	0.38 J	0.5	1	Result < LOQ.
1,2-Dichloropropane	MW-9	0.23 J	0.23 J	0.5	1	Result < LOQ.
Hexachlorobutadiene	MW-9	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD. CV %D >+/-25% (85%).
Chloromethane	MW-9	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Methylene chloride	MW-9	0.27 J	U J	0.5	1	Result < LOQ. Blank contamination in the method blanks (0.1-0.11 ug/l). ICAL greater than 15% RSD.
Tetrachloroethene	MW-9	1.3	1.3 J	0.5	1	ICAL greater than 15% RSD.
1,2,4-Trichlorobenzene	MW-9	0.5 U	U J	0.5	1	Analyte not detected. ICAL greater than 15% RSD.
Trichloroethene	MW-9	1.6	1.6	0.5	1	No action taken.
Vinyl acetate	MW-9	1 U	U J	1	1	Analyte not detected. ICAL greater than 15% RSD.
Vinyl chloride	MW-9	1.4	1.4	0.5	1	No action taken.
Method: *OLM04-REVS*						
1,1-Dichloroethene	S-1	10 U	U J	10	1	Analyte not detected. ICAL greater than 15% RSD (40%). CV %D >+/-25% (-29%).

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Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/8/2008

Watauga County Landfill **Facility ID 95-02**

Draper Aden Associates
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Analyte	Sample ID	Laboratory Results (ug/L)		Validated Results (ug/L)		LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC								
Method: *OLM04-REVS*								
Chloroethane	S-2	6	J	6	J	10	1	Result < CRQL.
1,4-Dichlorobenzene	S-2	3	J	3	J	10	1	Result < CRQL.
1,1-Dichloroethene	S-2	10	U	U	J	10	1	Analyte not detected. ICAL greater than 15% RSD (40%). CV %D >+/-25% (-29%).
Method: *OLM04-REVS*								
1,1-Dichloroethene	S-3	10	U	U	J	10	1	Analyte not detected. ICAL greater than 15% RSD (40%). CV %D >+/-25% (-29%).
Method: *OLM04-REVS*								
1,1-Dichloroethene	S-4	10	U	U	J	10	1	Analyte not detected. ICAL greater than 15% RSD (40%). CV %D >+/-25% (-29%).
cis-1,2-Dichloroethene	S-4	3	J	3	J	10	1	Result < CRQL.
Method: *OLM04-REVS*								
Dichlorodifluoromethane	S-5	2	J	2	J	10	1	Result < CRQL.
1,1-Dichloroethene	S-5	10	U	U	J	10	1	Analyte not detected. ICAL greater than 15% RSD (40%). CV %D >+/-25% (-29%).
Method: *OLM04-REVS*								
1,1-Dichloroethene	S-6	10	U	U	J	10	1	Analyte not detected. ICAL greater than 15% RSD (40%). CV %D >+/-25% (-29%).
Method: *8260B*								
Acetone	TRIP BLAN	1.3	J	U		2.5	1	Result < LOQ. Blank contamination in the associated blanks (1.3-1.9 ug/l).
Methylene chloride	TRIP BLAN	2	J	2	J	10	1	Result < CRQL.
Naphthalene	TRIP BLAN	0.1	J	U		0.5	1	Result < LOQ. Blank contamination in associated blanks (0.1-0.18 ug/l).

Definitions: **LOQ** Denotes laboratory limit of quantitation. **CRQL** Denotes laboratory contract required quantitation limit.
U Denotes analyte not detected above detection limit or LOQ/CRQL. **J** Denotes analyte is estimated. When used with a "U" (i.e., "UJ"), denotes analyte not detected above detection limit orLOQ/CRQL and LOQ/CRQL is estimated. **B** Denotes result attributed to blank contamination, a laboratory data qualifier. R Denotes result rejected.
Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

Data Validation Report for GC/MS Fraction. Monitoring Event: 9/9/2008

Draper Aden Associates
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Watauga County Landfill Facility ID 95-02

Analyte	Sample ID	Laboratory Results (ug/L)	Validated Results (ug/L)	LOQ/CRQL (ug/L)	Dilution	Validation Notes
Laboratory: Lancaster Laboratory, Lancaster, PA						
Method: *524.2*						
cis-1,2-Dichloroethene	RES-16	0.5	0.5	0.5	1	No action taken. Data not validated.
Method: *524.2*						
Chloroethane	RES-2	0.7	0.7	0.5	1	No action taken. Data not validated.
Dichlorodifluoromethane	RES-2	0.4 J	0.4 J	0.5	1	Result < LOQ. Data not validated.
1,1-Dichloroethane	RES-2	4.8	4.8	0.5	1	No action taken. Data not validated.
1,1-Dichloroethene	RES-2	0.3 J	0.3 J	0.5	1	Result < LOQ. Data not validated.
cis-1,2-Dichloroethene	RES-2	0.8	0.8	0.5	1	No action taken. Data not validated.
Trichloroethene	RES-2	0.2 J	0.2 J	0.5	1	Result < LOQ. Data not validated.
Method: *524.2*						
Benzene	RES-5	0.5 J	0.5 J	0.5	1	Result < LOQ. Data not validated.
sec-Butylbenzene	RES-5	0.1 J	0.1 J	0.5	1	Result < LOQ. Data not validated.
Chlorobenzene	RES-5	0.2 J	0.2 J	0.5	1	Result < LOQ. Data not validated.
Chloroethane	RES-5	11	11	0.5	1	No action taken. Data not validated.
1,4-Dichlorobenzene	RES-5	1.3	1.3	0.5	1	No action taken. Data not validated.
Dichlorodifluoromethane	RES-5	1	1	0.5	1	No action taken. Data not validated.
1,1-Dichloroethane	RES-5	30	30	5	10	No action taken. Data not validated.
1,1-Dichloroethene	RES-5	1.5	1.5	0.5	1	No action taken. Data not validated.
cis-1,2-Dichloroethene	RES-5	6	6	0.5	1	No action taken. Data not validated.
trans-1,2-Dichloroethene	RES-5	0.2 J	0.2 J	0.5	1	Result < LOQ. Data not validated.
1,2-Dichloropropane	RES-5	0.2 J	0.2 J	0.5	1	Result < LOQ. Data not validated.
Methylene chloride	RES-5	1.4	1.4	0.5	1	No action taken. Data not validated.
Tetrachloroethene	RES-5	0.4 J	0.4 J	0.5	1	Result < LOQ. Data not validated.
Trichloroethene	RES-5	1	1	0.5	1	No action taken. Data not validated.
Vinyl chloride	RES-5	0.5 J	0.5 J	0.5	1	Result < LOQ. Data not validated.

Definitions: **LOQ** Denotes laboratory limit of quantitation. **CRQL** Denotes laboratory contract required quantitation limit.
U Denotes analyte not detected above detection limit or LOQ/CRQL. **J** Denotes analyte is estimated. When used with a "U" (i.e., "UJ"), denotes analyte not detected above detection limit orLOQ/CRQL and LOQ/CRQL is estimated. **B** Denotes result attributed to blank contamination, a laboratory data qualifier. R Denotes result rejected.
Target analytes not listed above were not detected at or above the laboratory detection limit , LOQ/CRQL and no data qualification was required. For method reference CLP SOW-use CRQL.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-01

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0173

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
71-55-6	1,1,1-Trichloroethane	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

AMENDED DATA

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-1

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-01

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0173

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

AMENDED DATA

9A

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1MS

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 8091634-MS1

Sample wt/vol: 5 (g/mL) ML Lab File ID: 8091634-MS173

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	51	
75-01-4	Vinyl Chloride	52	
75-00-3	Chloroethane	50	
75-35-4	1,1-Dichloroethene	160	
75-09-2	Methylene Chloride	52	B
156-60-5	trans-1,2-Dichloroethene	50	
75-34-3	1,1-Dichloroethane	52	
156-59-2	cis-1,2-Dichloroethene	50	
71-55-6	1,1,1-Trichloroethane	49	
71-43-2	Benzene	49	
107-06-2	1,2-Dichloroethane	52	
79-01-6	Trichloroethene	47	
78-87-5	1,2-Dichloropropane	49	
127-18-4	Tetrachloroethene	46	
108-90-7	Chlorobenzene	49	
106-46-7	1,4-Dichlorobenzene	49	

AMENDED DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1MSD

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 8091634-MSD1

Sample wt/vol: 5 (g/mL) ML Lab File ID: 8091634-MSD173

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	49	
75-01-4	Vinyl Chloride	50	
75-00-3	Chloroethane	48	
75-35-4	1,1-Dichloroethene	73	
75-09-2	Methylene Chloride	51	B
156-60-5	trans-1,2-Dichloroethene	48	
75-34-3	1,1-Dichloroethane	48	
156-59-2	cis-1,2-Dichloroethene	50	
71-55-6	1,1,1-Trichloroethane	51	
71-43-2	Benzene	51	
107-06-2	1,2-Dichloroethane	52	
79-01-6	Trichloroethene	49	
78-87-5	1,2-Dichloropropane	51	
127-18-4	Tetrachloroethene	48	
108-90-7	Chlorobenzene	50	
106-46-7	1,4-Dichlorobenzene	50	

AMENDED DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-2

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-02

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0273

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	6	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
71-55-6	1,1,1-Trichloroethane	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	3	J

AMENDED DATA

1F

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-2

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-02

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0273

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-45-6	METHANE, CHLORODIFLUORO-	3.57	16	NJ
2.		UNKNOWN	5.90	6	J
3.	541-73-1	BENZENE, 1,3-DICHLORO-	14.47	9	NJ
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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22.					
23.					
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28.					
29.					
30.					

AMENDED DATA

12A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-03

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0373

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
71-55-6	1,1,1-Trichloroethane	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

AMENDED DATA

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-3

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-03

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0373

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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AMENDED DATA

13A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-4

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-04

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0473

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	3	J
71-55-6	1,1,1-Trichloroethane	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

AMENDED DATA

1F

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-4

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-04

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0473

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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21.					
22.					
23.					
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27.					
28.					
29.					
30.					

AMENDED DATA

14A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-5

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-05

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0573

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	J
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
71-55-6	1,1,1-Trichloroethane	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

AMENDED DATA

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-5

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-05

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0573

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

AMENDED DATA

15A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-6

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-06

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0673

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
71-55-6	1,1,1-Trichloroethane	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

AMENDED DATA

16

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-6

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-06

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0673

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

AMENDED DATA

16A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-07

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0773

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	2	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
71-55-6	1,1,1-Trichloroethane	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

AMENDED DATA

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: COMPUCHEM Contract: OLM04.3

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809065

Matrix: (soil/water) WATER Lab Sample ID: 0809065-07

Sample wt/vol: 5 (g/mL) ML Lab File ID: 0809065-0773

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/17/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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30.					

AMENDED DATA

17A

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-1

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-01

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0171

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.50	U
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	2.5	U
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	0.50	U
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-1

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-01

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0171

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	0.50	U
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-10

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-06

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0671

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	20	
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	2.4	J
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.11	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	13	
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	85	E
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	0.19	J
78-87-5	1,2-Dichloropropane	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-10

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-06

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0671

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	3.0	
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-10DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-06

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-06D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 6.3

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	3.1	U
74-87-3	Chloromethane	3.1	U
75-01-4	Vinyl Chloride	3.1	U
74-83-9	Bromomethane	3.1	U
75-00-3	Chloroethane	3.1	U
75-69-4	Trichlorofluoromethane	3.1	U
107-02-8	Acrolein	31	U
75-35-4	1,1-Dichloroethene	19	D
74-88-4	Iodomethane	3.1	U
75-15-0	Carbon disulfide	3.1	U
67-64-1	Acetone	16	U
107-05-1	3-Chloropropene	3.1	U
75-05-8	Acetonitrile	3.1	U
75-09-2	Methylene Chloride	0.93	DJ
156-60-5	trans-1,2-Dichloroethene	3.1	U
107-13-1	Acrylonitrile	31	U
75-34-3	1,1-Dichloroethane	14	D
108-05-4	Vinyl acetate	6.3	U
594-20-7	2,2-Dichloropropane	3.1	U
156-59-2	cis-1,2-Dichloroethene	3.1	U
78-93-3	2-butanone	16	U
107-12-0	Propionitrile	160	U
74-97-5	Bromochloromethane	3.1	U
126-98-7	Methacrylonitrile	31	U
67-66-3	Chloroform	3.1	U
71-55-6	1,1,1-Trichloroethane	91	D
56-23-5	Carbon Tetrachloride	3.1	U
563-58-6	1,1-dichloropropene	3.1	U
71-43-2	Benzene	3.1	U
107-06-2	1,2-Dichloroethane	3.1	U
78-83-1	Isobutyl alcohol	160	U
79-01-6	Trichloroethene	3.1	U
78-87-5	1,2-Dichloropropane	3.1	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-10DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-06

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-06D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 6.3

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	3.1	U
80-62-6	Methylmethacrylate	31	U
75-27-4	Bromodichloromethane	3.1	U
10061-01-5	cis-1,3-Dichloropropene	3.1	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	3.1	U
10061-02-6	trans-1,3-Dichloropropene	3.1	U
79-00-5	1,1,2-Trichloroethane	3.1	U
97-63-2	Ethylmethacrylate	31	U
127-18-4	Tetrachloroethene	2.6	DJ
142-28-9	1,3-Dichloropropane	3.1	U
591-78-6	2-hexanone	16	U
124-48-1	Dibromochloromethane	3.1	U
108-90-7	Chlorobenzene	3.1	U
630-20-6	1,1,1,2-Tetrachloroethane	3.1	U
100-41-4	Ethylbenzene	3.1	U
108-38-3	m,p-Xylene	6.3	U
95-47-6	o-Xylene	3.1	U
100-42-5	Styrene	3.1	U
75-25-2	Bromoform	3.1	U
96-18-4	1,2,3-Trichloropropane	3.1	U
79-34-5	1,1,2,2-Tetrachloroethane	3.1	U
110-57-6	trans-1,4-dichloro-2-butene	130	U
541-73-1	1,3-Dichlorobenzene	3.1	U
106-46-7	1,4-Dichlorobenzene	3.1	U
95-50-1	1,2-Dichlorobenzene	3.1	U
120-82-1	1,2,4-Trichlorobenzene	3.1	U
87-68-3	Hexachlorobutadiene	3.1	U
91-20-3	Naphthalene	3.1	U
1330-20-7	Xylene (total)	3.1	U
126-99-8	Chloroprene	3.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-11

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-07

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0771

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	2.6	
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	7.3	
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.30	J
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	1.3	J
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.35	J
156-60-5	trans-1,2-Dichloroethene	0.57	
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	21	
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	33	E
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.29	J
107-06-2	1,2-Dichloroethane	0.51	
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	2.7	
78-87-5	1,2-Dichloropropane	0.61	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-11

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-07

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0771

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	1.7	
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.36	J
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	3.2	
95-50-1	1,2-Dichlorobenzene	0.14	J
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-11DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-07

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-07D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	1.3	U
74-87-3	Chloromethane	1.3	U
75-01-4	Vinyl Chloride	2.5	D
74-83-9	Bromomethane	1.3	U
75-00-3	Chloroethane	2.5	D
75-69-4	Trichlorofluoromethane	1.3	U
107-02-8	Acrolein	13	U
75-35-4	1,1-Dichloroethene	0.38	DJ
74-88-4	Iodomethane	1.3	U
75-15-0	Carbon disulfide	1.3	U
67-64-1	Acetone	6.3	U
107-05-1	3-Chloropropene	1.3	U
75-05-8	Acetonitrile	1.3	U
75-09-2	Methylene Chloride	0.65	DJ
156-60-5	trans-1,2-Dichloroethene	0.62	DJ
107-13-1	Acrylonitrile	13	U
75-34-3	1,1-Dichloroethane	23	D
108-05-4	Vinyl acetate	2.5	U
594-20-7	2,2-Dichloropropane	1.3	U
156-59-2	cis-1,2-Dichloroethene	37	D
78-93-3	2-butanone	6.3	U
107-12-0	Propionitrile	63	U
74-97-5	Bromochloromethane	1.3	U
126-98-7	Methacrylonitrile	13	U
67-66-3	Chloroform	1.3	U
71-55-6	1,1,1-Trichloroethane	1.3	U
56-23-5	Carbon Tetrachloride	1.3	U
563-58-6	1,1-dichloropropene	1.3	U
71-43-2	Benzene	0.33	DJ
107-06-2	1,2-Dichloroethane	0.56	DJ
78-83-1	Isobutyl alcohol	63	U
79-01-6	Trichloroethene	3.0	D
78-87-5	1,2-Dichloropropane	0.64	DJ

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-11DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-07

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-07D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	1.3	U
80-62-6	Methylmethacrylate	13	U
75-27-4	Bromodichloromethane	1.3	U
10061-01-5	cis-1,3-Dichloropropene	1.3	U
108-10-1	4-Methyl-2-pentanone	6.3	U
108-88-3	Toluene	1.3	U
10061-02-6	trans-1,3-Dichloropropene	1.3	U
79-00-5	1,1,2-Trichloroethane	1.3	U
97-63-2	Ethylmethacrylate	13	U
127-18-4	Tetrachloroethene	1.8	D
142-28-9	1,3-Dichloropropane	1.3	U
591-78-6	2-hexanone	6.3	U
124-48-1	Dibromochloromethane	1.3	U
108-90-7	Chlorobenzene	0.43	DJ
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U
100-41-4	Ethylbenzene	1.3	U
108-38-3	m,p-Xylene	2.5	U
95-47-6	o-Xylene	1.3	U
100-42-5	Styrene	1.3	U
75-25-2	Bromoform	1.3	U
96-18-4	1,2,3-Trichloropropane	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	U
110-57-6	trans-1,4-dichloro-2-butene	50	U
541-73-1	1,3-Dichlorobenzene	1.3	U
106-46-7	1,4-Dichlorobenzene	3.4	D
95-50-1	1,2-Dichlorobenzene	0.25	DJ
120-82-1	1,2,4-Trichlorobenzene	1.3	U
87-68-3	Hexachlorobutadiene	1.3	U
91-20-3	Naphthalene	0.57	DJ
1330-20-7	Xylene (total)	1.3	U
126-99-8	Chloroprene	1.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-12

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-08

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0871

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	3.0	
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	8.1	
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.35	J
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	2.5	U
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.43	J
156-60-5	trans-1,2-Dichloroethene	0.68	
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	24	
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	53	E
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	1.2	
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.36	J
107-06-2	1,2-Dichloroethane	0.71	
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	4.7	
78-87-5	1,2-Dichloropropane	0.80	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-12

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-08

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0871

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	2.7	
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.36	J
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	3.4	
95-50-1	1,2-Dichlorobenzene	0.21	J
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-12DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-08

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-08D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 3.6

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	2.7	D
74-83-9	Bromomethane	1.8	U
75-00-3	Chloroethane	8.2	D
75-69-4	Trichlorofluoromethane	1.8	U
107-02-8	Acrolein	18	U
75-35-4	1,1-Dichloroethene	0.37	DJ
74-88-4	Iodomethane	1.8	U
75-15-0	Carbon disulfide	1.8	U
67-64-1	Acetone	8.9	U
107-05-1	3-Chloropropene	1.8	U
75-05-8	Acetonitrile	1.8	U
75-09-2	Methylene Chloride	0.72	DJ
156-60-5	trans-1,2-Dichloroethene	0.64	DJ
107-13-1	Acrylonitrile	18	U
75-34-3	1,1-Dichloroethane	22	D
108-05-4	Vinyl acetate	3.6	U
594-20-7	2,2-Dichloropropane	1.8	U
156-59-2	cis-1,2-Dichloroethene	52	D
78-93-3	2-butanone	8.9	U
107-12-0	Propionitrile	89	U
74-97-5	Bromochloromethane	1.8	U
126-98-7	Methacrylonitrile	18	U
67-66-3	Chloroform	1.0	DJ
71-55-6	1,1,1-Trichloroethane	1.8	U
56-23-5	Carbon Tetrachloride	1.8	U
563-58-6	1,1-dichloropropene	1.8	U
71-43-2	Benzene	0.38	DJ
107-06-2	1,2-Dichloroethane	1.8	U
78-83-1	Isobutyl alcohol	89	U
79-01-6	Trichloroethene	4.4	D
78-87-5	1,2-Dichloropropane	0.74	DJ

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-12DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-08

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-08D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 3.6

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	1.8	U
80-62-6	Methylmethacrylate	18	U
75-27-4	Bromodichloromethane	1.8	U
10061-01-5	cis-1,3-Dichloropropene	1.8	U
108-10-1	4-Methyl-2-pentanone	8.9	U
108-88-3	Toluene	1.8	U
10061-02-6	trans-1,3-Dichloropropene	1.8	U
79-00-5	1,1,2-Trichloroethane	1.8	U
97-63-2	Ethylmethacrylate	18	U
127-18-4	Tetrachloroethene	2.6	D
142-28-9	1,3-Dichloropropane	1.8	U
591-78-6	2-hexanone	8.9	U
124-48-1	Dibromochloromethane	1.8	U
108-90-7	Chlorobenzene	0.36	DJ
630-20-6	1,1,1,2-Tetrachloroethane	1.8	U
100-41-4	Ethylbenzene	1.8	U
108-38-3	m,p-Xylene	3.6	U
95-47-6	o-Xylene	1.8	U
100-42-5	Styrene	1.8	U
75-25-2	Bromoform	1.8	U
96-18-4	1,2,3-Trichloropropane	1.8	U
79-34-5	1,1,2,2-Tetrachloroethane	1.8	U
110-57-6	trans-1,4-dichloro-2-butene	71	U
541-73-1	1,3-Dichlorobenzene	1.8	U
106-46-7	1,4-Dichlorobenzene	3.2	D
95-50-1	1,2-Dichlorobenzene	1.8	U
120-82-1	1,2,4-Trichlorobenzene	1.8	U
87-68-3	Hexachlorobutadiene	1.8	U
91-20-3	Naphthalene	1.8	U
1330-20-7	Xylene (total)	1.8	U
126-99-8	Chloroprene	1.8	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-15

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-09

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0971

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.50	U
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	2.5	U
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	0.26	J
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.93	
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-15

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-09

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0971

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	0.50	U
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-17

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-1071

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.88	
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.50	U
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	2.5	U
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	2.9	
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	7.0	
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	1.3	
78-87-5	1,2-Dichloropropane	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-17

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-1071

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	3.9	
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-19

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-11R71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.50	U
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.22	J
67-64-1	Acetone	2.1	J
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.10	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	0.50	U
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-19

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-11R71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	0.50	U
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-2

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-02

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-02D271

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 16.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8.3	U
74-87-3	Chloromethane	8.3	U
75-01-4	Vinyl Chloride	8.3	U
74-83-9	Bromomethane	8.3	U
75-00-3	Chloroethane	8.3	U
75-69-4	Trichlorofluoromethane	8.3	U
107-02-8	Acrolein	83	U
75-35-4	1,1-Dichloroethene	61	
74-88-4	Iodomethane	8.3	U
75-15-0	Carbon disulfide	8.3	U
67-64-1	Acetone	42	U
107-05-1	3-Chloropropene	8.3	U
75-05-8	Acetonitrile	8.3	U
75-09-2	Methylene Chloride	2.1	J
156-60-5	trans-1,2-Dichloroethene	8.3	U
107-13-1	Acrylonitrile	83	U
75-34-3	1,1-Dichloroethane	42	
108-05-4	Vinyl acetate	17	U
594-20-7	2,2-Dichloropropane	8.3	U
156-59-2	cis-1,2-Dichloroethene	8.3	U
78-93-3	2-butanone	42	U
107-12-0	Propionitrile	420	U
74-97-5	Bromochloromethane	8.3	U
126-98-7	Methacrylonitrile	83	U
67-66-3	Chloroform	8.3	U
71-55-6	1,1,1-Trichloroethane	310	
56-23-5	Carbon Tetrachloride	8.3	U
563-58-6	1,1-dichloropropene	8.3	U
71-43-2	Benzene	8.3	U
107-06-2	1,2-Dichloroethane	8.3	U
78-83-1	Isobutyl alcohol	420	U
79-01-6	Trichloroethene	8.3	U
78-87-5	1,2-Dichloropropane	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-2

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-02

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-02D271

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 16.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	8.3	U
80-62-6	Methylmethacrylate	83	U
75-27-4	Bromodichloromethane	8.3	U
10061-01-5	cis-1,3-Dichloropropene	8.3	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	8.3	U
10061-02-6	trans-1,3-Dichloropropene	8.3	U
79-00-5	1,1,2-Trichloroethane	8.3	U
97-63-2	Ethylmethacrylate	83	U
127-18-4	Tetrachloroethene	3.5	J
142-28-9	1,3-Dichloropropane	8.3	U
591-78-6	2-hexanone	42	U
124-48-1	Dibromochloromethane	8.3	U
108-90-7	Chlorobenzene	8.3	U
630-20-6	1,1,1,2-Tetrachloroethane	8.3	U
100-41-4	Ethylbenzene	8.3	U
108-38-3	m,p-Xylene	17	U
95-47-6	o-Xylene	8.3	U
100-42-5	Styrene	8.3	U
75-25-2	Bromoform	8.3	U
96-18-4	1,2,3-Trichloropropane	8.3	U
79-34-5	1,1,2,2-Tetrachloroethane	8.3	U
110-57-6	trans-1,4-dichloro-2-butene	330	U
541-73-1	1,3-Dichlorobenzene	8.3	U
106-46-7	1,4-Dichlorobenzene	8.3	U
95-50-1	1,2-Dichlorobenzene	8.3	U
120-82-1	1,2,4-Trichlorobenzene	8.3	U
87-68-3	Hexachlorobutadiene	8.3	U
91-20-3	Naphthalene	8.3	U
1330-20-7	Xylene (total)	8.3	U
126-99-8	Chloroprene	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-3

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-03

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-03D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	1.3	U
74-87-3	Chloromethane	1.3	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.3	U
75-00-3	Chloroethane	1.2	J
75-69-4	Trichlorofluoromethane	1.3	U
107-02-8	Acrolein	13	U
75-35-4	1,1-Dichloroethene	1.3	U
74-88-4	Iodomethane	1.3	U
75-15-0	Carbon disulfide	1.3	U
67-64-1	Acetone	4.6	J
107-05-1	3-Chloropropene	1.3	U
75-05-8	Acetonitrile	1.3	U
75-09-2	Methylene Chloride	0.89	J
156-60-5	trans-1,2-Dichloroethene	0.37	J
107-13-1	Acrylonitrile	13	U
75-34-3	1,1-Dichloroethane	12	
108-05-4	Vinyl acetate	2.5	U
594-20-7	2,2-Dichloropropane	1.3	U
156-59-2	cis-1,2-Dichloroethene	34	
78-93-3	2-butanone	6.3	U
107-12-0	Propionitrile	63	U
74-97-5	Bromochloromethane	1.3	U
126-98-7	Methacrylonitrile	13	U
67-66-3	Chloroform	1.3	U
71-55-6	1,1,1-Trichloroethane	1.3	U
56-23-5	Carbon Tetrachloride	1.3	U
563-58-6	1,1-dichloropropene	1.3	U
71-43-2	Benzene	1.3	U
107-06-2	1,2-Dichloroethane	1.3	U
78-83-1	Isobutyl alcohol	63	U
79-01-6	Trichloroethene	3.4	
78-87-5	1,2-Dichloropropane	0.40	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-3

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-03

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-03D71

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	1.3	U
80-62-6	Methylmethacrylate	13	U
75-27-4	Bromodichloromethane	1.3	U
10061-01-5	cis-1,3-Dichloropropene	1.3	U
108-10-1	4-Methyl-2-pentanone	6.3	U
108-88-3	Toluene	1.3	U
10061-02-6	trans-1,3-Dichloropropene	1.3	U
79-00-5	1,1,2-Trichloroethane	1.3	U
97-63-2	Ethylmethacrylate	13	U
127-18-4	Tetrachloroethene	1.2	J
142-28-9	1,3-Dichloropropane	1.3	U
591-78-6	2-hexanone	6.3	U
124-48-1	Dibromochloromethane	1.3	U
108-90-7	Chlorobenzene	1.3	U
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U
100-41-4	Ethylbenzene	1.3	U
108-38-3	m,p-Xylene	2.5	U
95-47-6	o-Xylene	1.3	U
100-42-5	Styrene	1.3	U
75-25-2	Bromoform	1.3	U
96-18-4	1,2,3-Trichloropropane	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	U
110-57-6	trans-1,4-dichloro-2-butene	50	U
541-73-1	1,3-Dichlorobenzene	1.3	U
106-46-7	1,4-Dichlorobenzene	1.3	U
95-50-1	1,2-Dichlorobenzene	1.3	U
120-82-1	1,2,4-Trichlorobenzene	1.3	U
87-68-3	Hexachlorobutadiene	1.3	U
91-20-3	Naphthalene	0.57	J
1330-20-7	Xylene (total)	1.3	U
126-99-8	Chloroprene	1.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-3MS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 8091611-MS1

Sample wt/vol: 25 (g/ml) ML Lab File ID: 8091611-MS171

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	17	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	9.6	
75-00-3	Chloroethane	9.1	
75-69-4	Trichlorofluoromethane	17	
107-02-8	Acrolein	120	
75-35-4	1,1-Dichloroethene	13	
74-88-4	Iodomethane	21	
75-15-0	Carbon disulfide	14	
67-64-1	Acetone	72	
107-05-1	3-Chloropropene	24	
75-05-8	Acetonitrile	23	
75-09-2	Methylene Chloride	12	
156-60-5	trans-1,2-Dichloroethene	14	
107-13-1	Acrylonitrile	150	
75-34-3	1,1-Dichloroethane	25	
108-05-4	Vinyl acetate	31	
594-20-7	2,2-Dichloropropane	15	
156-59-2	cis-1,2-Dichloroethene	44	
78-93-3	2-butanone	77	
107-12-0	Propionitrile	740	
74-97-5	Bromochloromethane	15	
126-98-7	Methacrylonitrile	150	
67-66-3	Chloroform	14	
71-55-6	1,1,1-Trichloroethane	14	
56-23-5	Carbon Tetrachloride	14	
563-58-6	1,1-dichloropropene	13	
71-43-2	Benzene	13	
107-06-2	1,2-Dichloroethane	14	
78-83-1	Isobutyl alcohol	810	
79-01-6	Trichloroethene	16	
78-87-5	1,2-Dichloropropane	14	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-3MS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 8091611-MS1

Sample wt/vol: 25 (g/ml) ML Lab File ID: 8091611-MS171

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	12	
80-62-6	Methylmethacrylate	160	
75-27-4	Bromodichloromethane	14	
10061-01-5	cis-1,3-Dichloropropene	13	
108-10-1	4-Methyl-2-pentanone	79	
108-88-3	Toluene	12	
10061-02-6	trans-1,3-Dichloropropene	14	
79-00-5	1,1,2-Trichloroethane	13	
97-63-2	Ethylmethacrylate	160	
127-18-4	Tetrachloroethene	13	
142-28-9	1,3-Dichloropropane	14	
591-78-6	2-hexanone	81	
124-48-1	Dibromochloromethane	13	
108-90-7	Chlorobenzene	13	
630-20-6	1,1,1,2-Tetrachloroethane	13	
100-41-4	Ethylbenzene	12	
108-38-3	m,p-Xylene	25	
95-47-6	o-Xylene	12	
100-42-5	Styrene	12	
75-25-2	Bromoform	13	
96-18-4	1,2,3-Trichloropropane	13	
79-34-5	1,1,2,2-Tetrachloroethane	13	
110-57-6	trans-1,4-dichloro-2-butene	61	
541-73-1	1,3-Dichlorobenzene	12	
106-46-7	1,4-Dichlorobenzene	12	
95-50-1	1,2-Dichlorobenzene	12	
120-82-1	1,2,4-Trichlorobenzene	12	
87-68-3	Hexachlorobutadiene	15	
91-20-3	Naphthalene	11	
1330-20-7	Xylene (total)	38	
126-99-8	Chloroprene	15	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-3MSD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 8091611-MSD1

Sample wt/vol: 25 (g/ml) ML Lab File ID: 8091611-MSD171

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	14	
74-87-3	Chloromethane	15	
75-01-4	Vinyl Chloride	15	
74-83-9	Bromomethane	9.8	
75-00-3	Chloroethane	7.6	
75-69-4	Trichlorofluoromethane	16	
107-02-8	Acrolein	100	
75-35-4	1,1-Dichloroethene	13	
74-88-4	Iodomethane	21	
75-15-0	Carbon disulfide	14	
67-64-1	Acetone	80	
107-05-1	3-Chloropropene	23	
75-05-8	Acetonitrile	23	
75-09-2	Methylene Chloride	12	
156-60-5	trans-1,2-Dichloroethene	14	
107-13-1	Acrylonitrile	160	
75-34-3	1,1-Dichloroethane	25	
108-05-4	Vinyl acetate	34	
594-20-7	2,2-Dichloropropane	15	
156-59-2	cis-1,2-Dichloroethene	45	
78-93-3	2-butanone	82	
107-12-0	Propionitrile	800	
74-97-5	Bromochloromethane	16	
126-98-7	Methacrylonitrile	160	
67-66-3	Chloroform	14	
71-55-6	1,1,1-Trichloroethane	14	
56-23-5	Carbon Tetrachloride	15	
563-58-6	1,1-dichloropropene	14	
71-43-2	Benzene	13	
107-06-2	1,2-Dichloroethane	14	
78-83-1	Isobutyl alcohol	860	
79-01-6	Trichloroethene	16	
78-87-5	1,2-Dichloropropane	14	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-3MSD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 8091611-MSD1

Sample wt/vol: 25 (g/ml) ML Lab File ID: 8091611-MSD171

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/16/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 2.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	13	
80-62-6	Methylmethacrylate	160	
75-27-4	Bromodichloromethane	14	
10061-01-5	cis-1,3-Dichloropropene	14	
108-10-1	4-Methyl-2-pentanone	83	
108-88-3	Toluene	14	
10061-02-6	trans-1,3-Dichloropropene	14	
79-00-5	1,1,2-Trichloroethane	14	
97-63-2	Ethylmethacrylate	170	
127-18-4	Tetrachloroethene	14	
142-28-9	1,3-Dichloropropane	14	
591-78-6	2-hexanone	86	
124-48-1	Dibromochloromethane	14	
108-90-7	Chlorobenzene	14	
630-20-6	1,1,1,2-Tetrachloroethane	14	
100-41-4	Ethylbenzene	14	
108-38-3	m,p-Xylene	29	
95-47-6	o-Xylene	14	
100-42-5	Styrene	14	
75-25-2	Bromoform	14	
96-18-4	1,2,3-Trichloropropane	14	
79-34-5	1,1,2,2-Tetrachloroethane	14	
110-57-6	trans-1,4-dichloro-2-butene	63	
541-73-1	1,3-Dichlorobenzene	13	
106-46-7	1,4-Dichlorobenzene	13	
95-50-1	1,2-Dichlorobenzene	14	
120-82-1	1,2,4-Trichlorobenzene	14	
87-68-3	Hexachlorobutadiene	19	
91-20-3	Naphthalene	14	
1330-20-7	Xylene (total)	44	
126-99-8	Chloroprene	14	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-8

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-04

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0471

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.50	U
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	2.6	
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	0.39	J
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.22	J
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	0.41	J
78-87-5	1,2-Dichloropropane	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-8

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-04

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0471

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	0.50	U
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.13	J
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-9

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-05

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0571

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.58	
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	1.4	
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	4.9	
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.50	U
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	2.5	U
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.27	J
156-60-5	trans-1,2-Dichloroethene	0.38	J
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	15	
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	9.4	
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	3.1	
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	1.6	
78-87-5	1,2-Dichloropropane	0.23	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-9

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-05

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-0571

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	1.3	
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.52	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	1.9	
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.50	U
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-1271

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
107-02-8	Acrolein	5.0	U
75-35-4	1,1-Dichloroethene	0.50	U
74-88-4	Iodomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
67-64-1	Acetone	1.3	J
107-05-1	3-Chloropropene	0.50	U
75-05-8	Acetonitrile	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
107-13-1	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	0.50	U
108-05-4	Vinyl acetate	1.0	U
594-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-butanone	2.5	U
107-12-0	Propionitrile	25	U
74-97-5	Bromochloromethane	0.50	U
126-98-7	Methacrylonitrile	5.0	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
563-58-6	1,1-dichloropropene	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-83-1	Isobutyl alcohol	25	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0809064

Matrix: (soil/water) WATER Lab Sample ID: 0809064-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: 0809064-1271

Level: (low/med) LOW Date Received: 09/11/08

% Moisture: not dec. _____ Date Analyzed: 09/15/08

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3	Dibromomethane	0.50	U
80-62-6	Methylmethacrylate	5.0	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
97-63-2	Ethylmethacrylate	5.0	U
127-18-4	Tetrachloroethene	0.50	U
142-28-9	1,3-Dichloropropane	0.50	U
591-78-6	2-hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4	Ethylbenzene	0.50	U
108-38-3	m,p-Xylene	1.0	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
110-57-6	trans-1,4-dichloro-2-butene	20	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
91-20-3	Naphthalene	0.10	J
1330-20-7	Xylene (total)	0.50	U
126-99-8	Chloroprene	0.50	U

FORM I VOA

Lancaster Laboratories
2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

540-552-0444

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1109606. Samples arrived at the laboratory on Thursday, September 11, 2008.

Client Description	Lancaster Labs Number
RES-1 Grab Water Sample	5465668
RES-21 Grab Water Sample	5465669
H&G Produce Grab Water Sample	5465670
RES-15 Grab Water Sample	5465671
RES-16 Grab Water Sample	5465672
Bremco Grab Water Sample	5465673
Trip Blank Water Sample	5465674
RES-2 Grab Water Sample	5465675

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

ELECTRONIC COPY TO	Draper Aden Associates, Inc.	Attn: Janet Frazier
1 COPY TO	Data Package Group	

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717 656-2300 Fax 717-656-2681 • www.lancasterlabs.com

Questions? Contact your Client Services Representative
Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

Susan M. Goshert
Group Leader

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465668 PW Group No. 1109606

RES-1 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:50 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

RE1WA SDG#: WAT08-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	N.D.	0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.	0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.	0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.	0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.	0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.	0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465668 PW Group No. 1109606

RES-1 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:50 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

RE1WA SDG#: WAT08-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	N.D.	0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.	0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.	0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	ug/l	1
03408	Chloroform	67-66-3	N.D.	0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	ug/l	1
03411	Benzene	71-43-2	N.D.	0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	N.D.	0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.	0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.	0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.	0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.	0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.	0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465668 PW Group No. 1109606

RES-1 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:50 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

RE1WA SDG#: WAT08-01

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 10:51	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465669 PW Group No. 1109606

RES-21 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:20 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R21WA SDG#: WAT08-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	N.D.	0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.	0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.	0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.	0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.	0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.	0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465669 PW Group No. 1109606

RES-21 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:20 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R21WA SDG#: WAT08-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	N.D.	0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.	0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.	0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	ug/l	1
03408	Chloroform	67-66-3	N.D.	0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	ug/l	1
03411	Benzene	71-43-2	N.D.	0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	N.D.	0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.	0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.	0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.	0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.	0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.	0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465669 PW Group No. 1109606

RES-21 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:20 by CB Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R21WA SDG#: WAT08-02

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 11:16	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465670 PW Group No. 1109606

H&G Produce Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 12:25 by CB Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

HGPWA SDG#: WAT08-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	N.D.	0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.	0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.	0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.	0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.	0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.	0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465670 PW Group No. 1109606

H&G Produce Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 12:25 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

HGPWA SDG#: WAT08-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	N.D.	0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.	0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.	0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	ug/l	1
03408	Chloroform	67-66-3	N.D.	0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	ug/l	1
03411	Benzene	71-43-2	N.D.	0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	N.D.	0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.	0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.	0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.	0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.	0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.	0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465670 PW Group No. 1109606

H&G Produce Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 12:25 by CB Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

HGPWA SDG#: WAT08-03

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 11:42	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465671 PW Group No. 1109606

RES-15 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 13:10 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R15WA SDG#: WAT08-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	N.D.	0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.	0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.	0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.	0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.	0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.	0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465671 PW Group No. 1109606

RES-15 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 13:10 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R15WA SDG#: WAT08-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	N.D.	0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.	0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.	0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	ug/l	1
03408	Chloroform	67-66-3	N.D.	0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	ug/l	1
03411	Benzene	71-43-2	N.D.	0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	N.D.	0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.	0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.	0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.	0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.	0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.	0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465671 PW Group No. 1109606

RES-15 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 13:10 by CB Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R15WA SDG#: WAT08-04

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 12:08	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465672 PW Group No. 1109606

RES-16 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 12:55 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R16WA SDG#: WAT08-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	N.D.	0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.	0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	0.5	0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.	0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.	0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.	0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.	0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465672 PW Group No. 1109606

RES-16 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 12:55 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R16WA SDG#: WAT08-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	N.D.	0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.	0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.	0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	ug/l	1
03408	Chloroform	67-66-3	N.D.	0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	ug/l	1
03411	Benzene	71-43-2	N.D.	0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	N.D.	0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.	0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.	0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.	0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.	0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.	0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465672 PW Group No. 1109606

RES-16 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 12:55 by CB Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R16WA SDG#: WAT08-05

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 12:34	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465673 PW Group No. 1109606

Bremco Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 11:50 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

BREWA SDG#: WAT08-06

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2							
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.		0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	1.0		0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.		0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	6.0		0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.		0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.		0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.		0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.		0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.		0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.		0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.		0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.		0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.		0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.		0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.		0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.		0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.		0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.		0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	0.1	J	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.		0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.		0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	1.3		0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.		0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.		0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.		0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.		0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.		0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.		0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.		0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.		0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	0.5	J	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465673 PW Group No. 1109606

Bremco Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 11:50 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

BREWA SDG#: WAT08-06

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	11		0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.		0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	1.5		0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	1.4		0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	0.2	J	0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	30		1.0	5.0	ug/l	10
03408	Chloroform	67-66-3	N.D.		0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.		0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.		0.1	0.5	ug/l	1
03411	Benzene	71-43-2	0.5	J	0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	1		0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	0.2	J	0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.		0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.		0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	0.4	J	0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	0.2	J	0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.		0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.		0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.		0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465673 PW Group No. 1109606

Bremco Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 11:50 by CB Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

BREWA SDG#: WAT08-06

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 10:00	Anita M Dale	1
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 10:25	Anita M Dale	10

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465674 PW Group No. 1109606

Trip Blank Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/03/2008

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

TBLWA SDG#: WAT08-07TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	N.D.	0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.	0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.	0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.	0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.	0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.	0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465674 PW Group No. 1109606

Trip Blank Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/03/2008

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

TBLWA SDG#: WAT08-07TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	N.D.	0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.	0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.	0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	ug/l	1
03408	Chloroform	67-66-3	N.D.	0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	ug/l	1
03411	Benzene	71-43-2	N.D.	0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	N.D.	0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.	0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.	0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.	0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.	0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.	0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465674 PW Group No. 1109606

Trip Blank Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/03/2008

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

TBLWA SDG#: WAT08-07TB

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 13:00	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465675 PW Group No. 1109606

RES-2 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:40 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

RE2WA SDG#: WAT08-08*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	0.4 J	0.2	0.5	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.	0.2	0.5	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	0.8	0.1	0.5	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.	0.1	0.5	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	ug/l	1
00979	Dibromomethane	74-95-3	N.D.	0.1	0.5	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.	0.2	0.5	ug/l	1
00985	o-Xylene	95-47-6	N.D.	0.1	0.5	ug/l	1
00986	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	0.5	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	0.5	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	0.5	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	0.5	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	0.5	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	0.5	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	0.5	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	0.5	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	0.5	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	0.5	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	0.5	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5465675 PW Group No. 1109606

RES-2 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:40 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

RE2WA SDG#: WAT08-08*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
03402	Chloroethane	75-00-3	0.7		0.2	0.5	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.		0.2	0.5	ug/l	1
03404	1,1-Dichloroethene	75-35-4	0.3	J	0.1	0.5	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.		0.3	0.5	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.		0.1	0.5	ug/l	1
03407	1,1-Dichloroethane	75-34-3	4.8		0.1	0.5	ug/l	1
03408	Chloroform	67-66-3	N.D.		0.1	0.5	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.		0.1	0.5	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.		0.1	0.5	ug/l	1
03411	Benzene	71-43-2	N.D.		0.1	0.5	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	ug/l	1
03413	Trichloroethene	79-01-6	0.2	J	0.1	0.5	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.		0.1	0.5	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	ug/l	1
03416	Toluene	108-88-3	N.D.		0.1	0.5	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.		0.1	0.5	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.		0.1	0.5	ug/l	1
03419	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.		0.1	0.5	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.		0.1	0.5	ug/l	1
03422	Styrene	100-42-5	N.D.		0.1	0.5	ug/l	1
03423	Bromoform	75-25-2	N.D.		0.1	0.5	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.1	0.5	ug/l	1

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5465675 PW Group No. 1109606

RES-2 Grab Water Sample
September 2008 Semiannual Assess. Monitoring Event
Watauga County Landfill

Collected:09/09/2008 10:40 by CB

Account Number: 11200

Submitted: 09/11/2008 09:50
Reported: 09/23/2008 at 16:51
Discard: 10/24/2008

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

RE2WA SDG#: WAT08-08*

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	09/17/2008 13:26	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1109606
Reported: 09/23/08 at 04:51 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: S082611AA	Sample number(s): 5465668-5465675								
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	95		70-130		
Dichlorodifluoromethane	N.D.	0.2	0.5	ug/l	76		70-130		
2,2-Dichloropropane	N.D.	0.2	0.5	ug/l	94		70-130		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		70-130		
Bromochloromethane	N.D.	0.1	0.5	ug/l	100		70-130		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	90		70-130		
Dibromomethane	N.D.	0.1	0.5	ug/l	100		70-130		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	93		70-130		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	98		70-130		
m+p-Xylene	N.D.	0.2	0.5	ug/l	99		70-130		
o-Xylene	N.D.	0.1	0.5	ug/l	97		70-130		
Isopropylbenzene	N.D.	0.1	0.5	ug/l	89		70-130		
Bromobenzene	N.D.	0.1	0.5	ug/l	94		70-130		
1,2,3-Trichloropropane	N.D.	0.2	0.5	ug/l	100		70-130		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	87		70-130		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	91		70-130		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		70-130		
4-Chlorotoluene	N.D.	0.2	0.5	ug/l	90		70-130		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	94		70-130		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		70-130		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	93		70-130		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	93		70-130		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	99		70-130		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	94		70-130		
n-Butylbenzene	N.D.	0.2	0.5	ug/l	96		70-130		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	95		70-130		
1,2-Dibromo-3-chloropropane	N.D.	0.4	0.5	ug/l	92		70-130		
1,2,4-Trichlorobenzene	N.D.	0.2	0.5	ug/l	79		70-130		
Hexachlorobutadiene	N.D.	0.2	0.5	ug/l	81		70-130		
Naphthalene	N.D.	0.2	0.5	ug/l	76		70-130		
1,2,3-Trichlorobenzene	N.D.	0.2	0.5	ug/l	79		70-130		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	93		70-130		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	91		70-130		
Chloromethane	N.D.	0.2	0.5	ug/l	105		70-130		
Bromomethane	N.D.	0.1	0.5	ug/l	114		70-130		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	115		70-130		
Chloroethane	N.D.	0.2	0.5	ug/l	119		70-130		
Trichlorofluoromethane	N.D.	0.2	0.5	ug/l	102		70-130		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	97		70-130		
Methylene Chloride	N.D.	0.3	0.5	ug/l	86		70-130		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		70-130		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	100		70-130		
Chloroform	N.D.	0.1	0.5	ug/l	96		70-130		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	102		70-130		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	97		70-130		
Benzene	N.D.	0.1	0.5	ug/l	91		70-130		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1109606
Reported: 09/23/08 at 04:51 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	106		70-130		
Trichloroethene	N.D.	0.1	0.5	ug/l	97		70-130		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		70-130		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	97		70-130		
Toluene	N.D.	0.1	0.5	ug/l	96		70-130		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	92		70-130		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	90		70-130		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	96		70-130		
Chlorobenzene	N.D.	0.1	0.5	ug/l	91		70-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	96		70-130		
Styrene	N.D.	0.1	0.5	ug/l	100		70-130		
Bromoform	N.D.	0.1	0.5	ug/l	97		70-130		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	94		70-130		

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EPA Method 524.2
Batch number: S082611AA

	4-Bromofluorobenzene	1,2-Dichlorobenzene-d4
5465668	87	91
5465669	87	95
5465670	88	91
5465671	87	94
5465672	87	91
5465673	91	95
5465674	87	93
5465675	88	93
Blank	89	92
LCS	97	108
Limits:	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

11200 / 1109606 / 5465668-75

CHAIN OF CUSTODY RECORD

Laboratory: Lancaster Laboratories, 2425 New Holland Pike, Lancaster, PA, 17605-2425/ Barbara Weyandt, Manager/ (717) 656-2300

OK JUP 8/24/08

Client: Watauga County, NC **Attn:** Mr. J.V. Polter **Address:** 842 West King Street?/Courthouse, Suite 1 Boone, NC 28607 **Phone:** (704) 265-8003 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** Watauga County Landfill **Location:** Watauga County, NC **Event:** September 2008 Semiannual Assess. Monitoring Even **DAA JN:** 6520-39 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** ☑ PS ☐ B **Sample Collection for Project Complete? (See Note 1)** ☑ YES ☐ NO **Carrier:** UPS **Tracking Number:** 1Z 237 301 015 411 6245

Box 1: Matrix	Box 2: Preservative	Box 3: Filtered/Unfiltered	Box 4: Sample Type	Invoice
SW Surface Water GW Groundwater L Leachate S Soil T Trip Blank E Equipment Blank P Product O Other	A HCL B HNO_3 C H_2SO_4 D $Na_2S_2O_3$ E NaOH F ZnAc G Other (Specify) H None	F Filtered U Unfiltered **Box 5: Sample Container Type** P Plastic AG Amber Glass V VOA CG Clear Glass	G Grab C Composite	**Copy to Consultant:** ☑ YES ☐ NO **Bill:** ☑ Client ☐ Consultant **Preserved and shipped on ice:** ☑ YES ☐ NO

Box 4 - Sample Type	G
Box 3 - Filtered/Unfiltered	U
Required pH of Sample	<2
Box 2 - Preservative	A
Box 5 - Sample Container Type	3-40ml V

GENERAL NOTES: (lancaster level 1 deliverable) Report Quantitation Limit, detection limit and estimated results "J" flag. VA Drinking Water certification OK through ~~06/2009~~ 7/31/09 NOTE NC certification (DW) on lab results.

MJE 8/28/08

Sample ID	Date: 2008	Time	Box 1: Matrix	Number of Bottles	Volatiles - 524.2					
RES-1	09/09	1050	GW	3	X				2239 Hwy 421 S. (Bolick)	Well reference # 1
RES-21	09/09	1020	GW	3	X				142 Green Briar Road (Findt)	Well reference # 21
H & G Produce	09/09	1225	GW	3	X				230 Cabbage Row (Hollar & Greene)	Well reference # 6
RES-15	09/09	1310	GW	3	X				2711 Hwy 421 S (Greer)	Well reference # 15
RES-16	09/09	1255	GW	3	X				2737 Hwy 421 S (Williamson)	Well reference # 16
BREMCO	09/09	1150	GW	3	X				2491 Hwy 421 S. (Bremco)	Well reference # 5
~~RES-2~~			~~GW~~	~~3~~	~~X~~				~~2347 Hwy. 421 S. (Bolick Rental)~~	~~Well reference # 2~~ JUP 8/28/08
TRIP BLANK	9/3	—	T	3	X					No Collection Time supplied by Lab (Jte 9-9-08)
Res 2	09/09	1040	GW	3	X				2347 Hwy. 421 S. (Bolick Rental)	Well reference #2 (Add per Jeff Smith CTB 09/08/08)

Clients Special Instructions:

Received by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on ice ____ Yes ____ No

Describe problems, if any:

Sampler Name (Print): Chris Branscome	Date: 09/08/08	#1 Relinquished by (Signature): Chris Branscome	Date: 09/09/08	#2 Relinquished by (Signature): [signature]	Date: 9/10/08	Sample Storage Time Requested:
Sampler Signature: Chris Branscome	Time: 0700	Company Name: Draper Aden Assoc	Time: 16:30	Company Name: DAA	Time: 1700	
Sampler Name (Print): KEN CODDINGTON	Date: 09/08/08	#1 Received by (Signature): [signature]	Date: 9/9/08	#2 Received by (Signature): [signature]	Date: 9/11/08	30 DYS ORG/6 MTHS INORG
Sampler Signature: [signature]	Time: 0700	Company Name: DAA	Time: 1630	Company Name:	Time: 0950	

\\draperaden.net\DAA\Projects\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\Watauga\2005-CompuChemCOC - CoreMW's,Surf,& Res .XLS

1/3 JUP
7/9C 2/4 8/24/08

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
524.2	Volatile Organics					
	Dichlorodifluoromethane	ND	0.5	ug/L	08/16/01	jdn
	Chloromethane	ND	0.5	ug/L	08/16/01	jdn
	Vinyl chloride	ND	0.5	ug/L	08/16/01	jdn
	Bromomethane	ND	0.5	ug/L	08/16/01	jdn
	Chloroethane	ND	0.5	ug/L	08/16/01	jdn
	Trichlorofluoromethane	ND	0.5	ug/L	08/16/01	jdn
	1,1-Dichloroethene	ND	0.5	ug/L	08/16/01	jdn
	Methylene chloride	ND	0.5	ug/L	08/16/01	jdn
	trans-1,2-Dichloroethene	ND	0.5	ug/L	08/16/01	jdn
	1,1-Dichloroethane	ND	0.5	ug/L	08/16/01	jdn
	2,2-Dichloropropane	ND	0.5	ug/L	08/16/01	jdn
	cis-1,2-Dichloroethene	ND	0.5	ug/L	08/16/01	jdn
	Bromochloromethane	ND	0.5	ug/L	08/16/01	jdn
	Chloroform	ND	0.5	ug/L	08/16/01	jdn
	1,1,1-Trichloroethane	ND	0.5	ug/L	08/16/01	jdn
	1,1-Dichloropropene	ND	0.5	ug/L	08/16/01	jdn
	Carbon tetrachloride	ND	0.5	ug/L	08/16/01	jdn
	Benzene	ND	0.5	ug/L	08/16/01	jdn
	1,2-Dichloroethane	ND	0.5	ug/L	08/16/01	jdn
	Trichloroethene	ND	0.5	ug/L	08/16/01	jdn
	1,2-Dichloropropane	ND	0.5	ug/L	08/16/01	jdn
	Dibromomethane	ND	0.5	ug/L	08/16/01	jdn
	Bromodichloromethane	ND	0.5	ug/L	08/16/01	jdn
	cis-1,3-Dichloropropene	ND	0.5	ug/L	08/16/01	jdn
	Toluene	ND	0.5	ug/L	08/16/01	jdn
	trans-1,3-Dichloropropene	ND	0.5	ug/L	08/16/01	jdn
	1,1,2-Trichloroethane	ND	0.5	ug/L	08/16/01	jdn
	Tetrachloroethene	ND	0.5	ug/L	08/16/01	jdn
	1,3-Dichloropropane	ND	0.5	ug/L	08/16/01	jdn
	Dibromochloromethane	ND	0.5	ug/L	08/16/01	jdn
	1,2-Dibromoethane (EDB)	ND	0.5	ug/L	08/16/01	jdn
	Chlorobenzene	ND	0.5	ug/L	08/16/01	jdn
	1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	08/16/01	jdn
	Ethylbenzene	ND	0.5	ug/L	08/16/01	jdn
	m&p-Xylenes	ND	0.5	ug/L	08/16/01	jdn
	Xylenes (total)	ND	0.5	ug/L	08/16/01	jdn
	o-Xylene	ND	0.5	ug/L	08/16/01	jdn
	Styrene	ND	0.5	ug/L	08/16/01	jdn
	Bromoform	ND	0.5	ug/L	08/16/01	jdn
	Isopropylbenzene	ND	0.5	ug/L	08/16/01	jdn
	1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	08/16/01	jdn
	Bromobenzene	ND	0.5	ug/L	08/16/01	jdn
	1,2,3-Trichloropropane	ND	0.5	ug/L	08/16/01	jdn
	n-Propylbenzene	ND	0.5	ug/L	08/16/01	jdn
	2-Chlorotoluene	ND	0.5	ug/L	08/16/01	jdn
	1,3,5-Trimethylbenzene	ND	0.5	ug/L	08/16/01	jdn
	4-Chlorotoluene	ND	0.5	ug/L	08/16/01	jdn
	tert-Butylbenzene	ND	0.5	ug/L	08/16/01	jdn

In Description = Dry Wgt.

To JCP
~~Residential~~ Lancaster
Samples: 524.2
JCP 3-15-05

JCP 8/24/02
2/3
NFC 3/4

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	1,2,4-Trimethylbenzene	ND	0.5	ug/L	08/16/01	jdn
	sec-Butylbenzene	ND	0.5	ug/L	08/16/01	jdn
	1,3-Dichlorobenzene	ND	0.5	ug/L	08/16/01	jdn
	p-Isopropyltoluene	ND	0.5	ug/L	08/16/01	jdn
	1,4-Dichlorobenzene	ND	0.5	ug/L	08/16/01	jdn
	n-Butylbenzene	ND	0.5	ug/L	08/16/01	jdn
	1,2-Dichlorobenzene	ND	0.5	ug/L	08/16/01	jdn
	1,2-Dibromo-3-chloropropane	ND	0.5	ug/L	08/16/01	jdn
	1,2,4-Trichlorobenzene	ND	0.5	ug/L	08/16/01	jdn
	Hexachlorobutadiene	ND	0.5	ug/L	08/16/01	jdn
	Naphthalene	ND	0.5	ug/L	08/16/01	jdn
	1,2,3-Trichlorobenzene	ND	0.5	ug/L	08/16/01	jdn

* In Description = Dry Wgt.

JLF 8/24/08

3/3

7 of 4

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060
540-552-0444

Prepared by:
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1109606. Samples arrived at the laboratory on Thursday, Sep 11 2008.
The project for this group is Watauga County, NC.

Sample No.	Collected	Client Description
5465668	9/9/2008 10:50	RES-1 Grab Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill
5465669	9/9/2008 10:20	RES-21 Grab Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill
5465670	9/9/2008 12:25	H&G Produce Grab Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill
5465671	9/9/2008 13:10	RES-15 Grab Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill
5465672	9/9/2008 12:55	RES-16 Grab Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill
5465673	9/9/2008 11:50	Bremco Grab Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill
5465674	9/3/2008	Trip Blank Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill
5465675	9/9/2008 10:40	RES-2 Grab Water Sample September 2008 Semiannual Assess. Monitoring Event Watauga County Landfill

METHODOLOGY

The specified methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicle.

ANALYTICAL RESULTS

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060
540-552-0444

Prepared by:
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

ELECTRONIC COPY TO	Draper Aden Associates, Inc.	Attn: Janet Frazier
1 COPY TO	Data Package Group	

Questions? Contact your Client Services Representative
Barbara A Weyandt at (717)656-2300

Respectfully Submitted,

Susan M. Goshert
Group Leader

Draper Aden Associates, Inc.
Project: Watauga County, NC
SDG: WAT08

Report Date: 9/23/2008 16:51
Submit Date: 9/11/2008 9:50

Analysis Name	Units	5465668 RES-1 Gr			5465669 RES-21 G		
		Result	MDL**	LOQ	Result	MDL**	LOQ
1,1,1,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dichlorodifluoromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
2,2-Dichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
cis-1,2-Dichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dibromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichloropropane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dibromoethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
m+p-Xylene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
o-Xylene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Isopropylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,3-Trichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
n-Propylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
2-Chlorotoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3,5-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
4-Chlorotoluene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
tert-Butylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,4-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
sec-Butylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
p-Isopropyltoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,4-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
n-Butylbenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,2-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dibromo-3-chloropropane	ug/l	N.D.	0.4	0.5	N.D.	0.4	0.5
1,2,4-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Hexachlorobutadiene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Naphthalene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,2,3-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
trans-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
cis-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Bromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Vinyl Chloride	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloroethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Trichlorofluoromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,1-Dichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Methylene Chloride	ug/l	N.D.	0.3	0.5	N.D.	0.3	0.5
trans-1,2-Dichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1-Dichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5

** = This limit was used in the evalution of the final result

Draper Aden Associates, Inc.
Project: Watauga County, NC
SDG: WAT08

Report Date: 9/23/2008 16:51
Submit Date: 9/11/2008 9:50

Chloroform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,1-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Carbon Tetrachloride	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Benzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Trichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dichloropropane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromodichloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Toluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Tetrachloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dibromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Ethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Styrene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromoform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5

Analysis Name	Units	5465670 H&G Prod			5465671 RES-15 G		
		Result	MDL**	LOQ	Result	MDL**	LOQ
1,1,1,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dichlorodifluoromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
2,2-Dichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
cis-1,2-Dichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dibromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichloropropane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dibromoethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
m+p-Xylene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
o-Xylene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Isopropylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,3-Trichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
n-Propylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
2-Chlorotoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3,5-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
4-Chlorotoluene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
tert-Butylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,4-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
sec-Butylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
p-Isopropyltoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,4-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
n-Butylbenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5

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1,2-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dibromo-3-chloropropane	ug/l	N.D.	0.4	0.5	N.D.	0.4	0.5
1,2,4-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Hexachlorobutadiene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Naphthalene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,2,3-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
trans-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
cis-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Bromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Vinyl Chloride	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloroethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Trichlorofluoromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,1-Dichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Methylene Chloride	ug/l	N.D.	0.3	0.5	N.D.	0.3	0.5
trans-1,2-Dichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1-Dichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloroform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,1-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Carbon Tetrachloride	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Benzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Trichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dichloropropane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromodichloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Toluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Tetrachloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dibromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Ethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Styrene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromoform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5

Analysis Name	Units	5465672 RES-16 G			5465673 Bremco G		
		Result	MDL**	LOQ	Result	MDL**	LOQ
1,1,1,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dichlorodifluoromethane	ug/l	N.D.	0.2	0.5	1.0	0.2	0.5
2,2-Dichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
cis-1,2-Dichloroethene	ug/l	0.5	0.1	0.5	6.0	0.1	0.5
Bromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dibromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichloropropane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5

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1,2-Dibromoethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
m+p-Xylene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
o-Xylene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Isopropylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,3-Trichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
n-Propylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
2-Chlorotoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3,5-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
4-Chlorotoluene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
tert-Butylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,4-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
sec-Butylbenzene	ug/l	N.D.	0.1	0.5	0.1 J	0.1	0.5
p-Isopropyltoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,4-Dichlorobenzene	ug/l	N.D.	0.1	0.5	1.3	0.1	0.5
n-Butylbenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,2-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dibromo-3-chloropropane	ug/l	N.D.	0.4	0.5	N.D.	0.4	0.5
1,2,4-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Hexachlorobutadiene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Naphthalene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,2,3-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
trans-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
cis-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Bromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Vinyl Chloride	ug/l	N.D.	0.1	0.5	0.5 J	0.1	0.5
Chloroethane	ug/l	N.D.	0.2	0.5	11	0.2	0.5
Trichlorofluoromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,1-Dichloroethene	ug/l	N.D.	0.1	0.5	1.5	0.1	0.5
Methylene Chloride	ug/l	N.D.	0.3	0.5	1.4	0.3	0.5
trans-1,2-Dichloroethene	ug/l	N.D.	0.1	0.5	0.2 J	0.1	0.5
1,1-Dichloroethane	ug/l	N.D.	0.1	0.5	30	1.0	5.0
Chloroform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,1-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Carbon Tetrachloride	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Benzene	ug/l	N.D.	0.1	0.5	0.5 J	0.1	0.5
1,2-Dichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Trichloroethene	ug/l	N.D.	0.1	0.5	1	0.1	0.5
1,2-Dichloropropane	ug/l	N.D.	0.1	0.5	0.2 J	0.1	0.5
Bromodichloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Toluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Tetrachloroethene	ug/l	N.D.	0.1	0.5	0.4 J	0.1	0.5
Dibromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5

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Chlorobenzene	ug/l	N.D.	0.1	0.5	0.2 J	0.1	0.5
Ethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Styrene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromoform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5

Analysis Name	Units	5465674 Trip Bla			5465675 RES-2 Gr		
		Result	MDL**	LOQ	Result	MDL**	LOQ
1,1,1,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dichlorodifluoromethane	ug/l	N.D.	0.2	0.5	0.4 J	0.2	0.5
2,2-Dichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
cis-1,2-Dichloroethene	ug/l	N.D.	0.1	0.5	0.8	0.1	0.5
Bromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dibromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichloropropane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dibromoethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
m+p-Xylene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
o-Xylene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Isopropylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,3-Trichloropropane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
n-Propylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
2-Chlorotoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3,5-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
4-Chlorotoluene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
tert-Butylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2,4-Trimethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
sec-Butylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
p-Isopropyltoluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,3-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,4-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
n-Butylbenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,2-Dichlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dibromo-3-chloropropane	ug/l	N.D.	0.4	0.5	N.D.	0.4	0.5
1,2,4-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Hexachlorobutadiene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Naphthalene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,2,3-Trichlorobenzene	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
trans-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
cis-1,3-Dichloropropene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
Bromomethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Vinyl Chloride	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chloroethane	ug/l	N.D.	0.2	0.5	0.7	0.2	0.5

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Trichlorofluoromethane	ug/l	N.D.	0.2	0.5	N.D.	0.2	0.5
1,1-Dichloroethene	ug/l	N.D.	0.1	0.5	0.3 J	0.1	0.5
Methylene Chloride	ug/l	N.D.	0.3	0.5	N.D.	0.3	0.5
trans-1,2-Dichloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1-Dichloroethane	ug/l	N.D.	0.1	0.5	4.8	0.1	0.5
Chloroform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,1-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Carbon Tetrachloride	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Benzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,2-Dichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Trichloroethene	ug/l	N.D.	0.1	0.5	0.2 J	0.1	0.5
1,2-Dichloropropane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromodichloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Toluene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2-Trichloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Tetrachloroethene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Dibromochloromethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Chlorobenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Ethylbenzene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Styrene	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
Bromoform	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5
1,1,2,2-Tetrachloroethane	ug/l	N.D.	0.1	0.5	N.D.	0.1	0.5

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CAT No.	Analysis Name	Method	Trial ID	Analysis Date/Time	Analyst	Dilution
5465668	**RES-1 Grab Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1051	Anita M Dale	1
5465669	**RES-21 Grab Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1116	Anita M Dale	1
5465670	**H&G Produce Grab Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1142	Anita M Dale	1
5465671	**RES-15 Grab Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1208	Anita M Dale	1
5465672	**RES-16 Grab Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1234	Anita M Dale	1
5465673	**Bremco Grab Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1000	Anita M Dale	1
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1025	Anita M Dale	10
5465674	**Trip Blank Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1300	Anita M Dale	1
5465675	**RES-2 Grab Water Sample**					
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	9/17/08 1326	Anita M Dale	1

Client Name: Draper Aden Associates, Inc. Group Number: 1109606

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	Max RPD
Batch number: S082611AA	Sample number(s): 5465668-5465675								
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	95		70-130		
Dichlorodifluoromethane	N.D.	0.2	0.5	ug/l	76		70-130		
2,2-Dichloropropane	N.D.	0.2	0.5	ug/l	94		70-130		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		70-130		
Bromochloromethane	N.D.	0.1	0.5	ug/l	100		70-130		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	90		70-130		
Dibromomethane	N.D.	0.1	0.5	ug/l	100		70-130		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	93		70-130		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	98		70-130		
m+p-Xylene	N.D.	0.2	0.5	ug/l	99		70-130		
o-Xylene	N.D.	0.1	0.5	ug/l	97		70-130		
Isopropylbenzene	N.D.	0.1	0.5	ug/l	89		70-130		
Bromobenzene	N.D.	0.1	0.5	ug/l	94		70-130		
1,2,3-Trichloropropane	N.D.	0.2	0.5	ug/l	100		70-130		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	87		70-130		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	91		70-130		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		70-130		
4-Chlorotoluene	N.D.	0.2	0.5	ug/l	90		70-130		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	94		70-130		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		70-130		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	93		70-130		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	93		70-130		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	99		70-130		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	94		70-130		
n-Butylbenzene	N.D.	0.2	0.5	ug/l	96		70-130		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	95		70-130		
1,2-Dibromo-3-chloropropane	N.D.	0.4	0.5	ug/l	92		70-130		
1,2,4-Trichlorobenzene	N.D.	0.2	0.5	ug/l	79		70-130		
Hexachlorobutadiene	N.D.	0.2	0.5	ug/l	81		70-130		
Naphthalene	N.D.	0.2	0.5	ug/l	76		70-130		
1,2,3-Trichlorobenzene	N.D.	0.2	0.5	ug/l	79		70-130		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	93		70-130		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	91		70-130		
Chloromethane	N.D.	0.2	0.5	ug/l	105		70-130		
Bromomethane	N.D.	0.1	0.5	ug/l	114		70-130		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	115		70-130		

* - Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
** = This limit was used in the evalution of the final result

Chloroethane	N.D.	0.2	0.5	ug/l	119	70-130
Trichlorofluoromethane	N.D.	0.2	0.5	ug/l	102	70-130
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	97	70-130
Methylene Chloride	N.D.	0.3	0.5	ug/l	86	70-130
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96	70-130
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	100	70-130
Chloroform	N.D.	0.1	0.5	ug/l	96	70-130
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	102	70-130
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	97	70-130
Benzene	N.D.	0.1	0.5	ug/l	91	70-130
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	106	70-130
Trichloroethene	N.D.	0.1	0.5	ug/l	97	70-130
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102	70-130
Bromodichloromethane	N.D.	0.1	0.5	ug/l	97	70-130
Toluene	N.D.	0.1	0.5	ug/l	96	70-130
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	92	70-130
Tetrachloroethene	N.D.	0.1	0.5	ug/l	90	70-130
Dibromochloromethane	N.D.	0.1	0.5	ug/l	96	70-130
Chlorobenzene	N.D.	0.1	0.5	ug/l	91	70-130
Ethylbenzene	N.D.	0.1	0.5	ug/l	96	70-130
Styrene	N.D.	0.1	0.5	ug/l	100	70-130
Bromoform	N.D.	0.1	0.5	ug/l	97	70-130
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	94	70-130

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EPA Method 524.2
Batch number: S082611AA

	4-Bromofluorobenzene	1,2-Dichlorobenzene-d4
5465668	87	91
5465669	87	95
5465670	88	91
5465671	87	94
5465672	87	91
5465673	91	95
5465674	87	93
5465675	88	93

* - Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
** = This limit was used in the evalution of the final result

Blank	89	92
LCS	97	108
Limits:	80-120	80-120

* - Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
** = This limit was used in the evalution of the final result

QC Comment

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

5465668 RES-1 Grab Water Sample

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

5465669 RES-21 Grab Water Sample

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

5465670 H&G Produce Grab Water Sample

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

5465671 RES-15 Grab Water Sample

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

5465672 RES-16 Grab Water Sample

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not offer certification for unregulated compounds.

5465673 Bremco Grab Water Sample

The laboratory is NC DHHS certified for all SDWA regulated compounds reported (Lab ID 42705). North Carolina Department of Health and Human Services does not