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Final Report: Results of the 2005 Investigation of Contaminant Sources at Agra, Kansas

Environmental Science Division

USDA United States Department of Agriculture

Work sponsored by Commodity Credit Corporation,
United States Department of Agriculture

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Final Report: Results of the 2005 Investigation of Contaminant Sources at Agra, Kansas

by
Applied Geosciences and Environmental Management Section
Environmental Science Division, Argonne National Laboratory

July 2006

USDA
United States Department of Agriculture
Work sponsored by Commodity Credit Corporation,
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Notation

AGEM	Applied Geosciences and Environmental Management
AMSL	above mean sea level
ASTM	American Society for Testing and Materials
BGL	below ground level
°C	degree(s) Celsius
CAS	Corrective Action Study
CCC	Commodity Credit Corporation
CD	compact disc
CLP	Contract Laboratory Program
COC	chain of custody
cpm	count(s) per minute
CPT	cone penetrometer
1,2-DCA	1,2-dichloroethane
DF	dilution factor
EPA	U.S. Environmental Protection Agency
ESC	Expedited Site Characterization
ft	foot (feet)
g	gram(s)
gal	gallon(s)
GC-MS	gas chromatograph-mass spectrometer
gpm	gallon(s) per minute
hr	hour(s)
in.	inch(es)
KDHE	Kansas Department of Health and Environment
KGS	Kansas Geological Survey
µg/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
µS/cm	microsiemen(s) per centimeter
MCL	maximum contaminant level
mg/L	milligram(s) per liter
mi	mile(s)
min	minute(s)
mL	milliliter(s)
NAD	North American Datum
NAVD	North American Vertical Datum

PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RBSL	Risk Based Screening Level (Kansas Tier 2)
RPD	relative percent difference
SDG	sample delivery group
TOC	top of casing
TU	tritium unit(s)
USDA	U.S. Department of Agriculture
VOC	volatile organic compound

Final Report: Results of the 2005 Investigation of Contaminant Sources at Agra, Kansas

Executive Summary

The 2005 investigation of contaminant sources at Agra, Kansas, was conducted at the request of the Kansas Department of Health and Environment (KDHE; Gotto 2004). The Environmental Science Division of Argonne National Laboratory implemented the investigation on behalf of the Commodity Credit Corporation of the U.S. Department of Agriculture (CCC/USDA). The investigation was designed to (1) update the conceptual site model and (2) investigate sources of previously identified carbon tetrachloride contamination in groundwater.

The Investigation

The 2005 investigation at Agra focused on three target areas: the former CCC/USDA facility, the Pro-Ag Co-op property, and the location of a former retail store. The investigation was performed by using an iterative process of data collection, evaluation, and interpretation during field activities. Throughout data evaluation and interpretation, the CCC/USDA and the KDHE project managers were kept informed of the analytical results as they were received, and modifications to the *Work Plan* (Argonne 2005) were made with their input and approval.

In this investigation, electronic logs were collected through use of the electronic capabilities of Argonne's cone penetrometer (CPT) to evaluate the site lithology and determine target depths for groundwater samples. Contaminant source areas were investigated by collecting soil and groundwater samples in vertical profiles at numerous locations with the CPT. A total of 250 subsurface soil samples were collected at 20 CPT locations. A total of 196 groundwater samples were collected at CPT locations and at permanent monitoring locations.

Conclusions

Conclusions of the 2005 investigation of contaminant sources at Agra are as follows:

- A source area for contamination and a pathway for contaminant migration from soil to groundwater were identified near the central part of the former CCC/USDA property. Three source areas were identified on the Pro-Ag Co-op property, along with a pathway at each location for contaminant migration from soil to groundwater. Contamination is present on the former retail store property, but no source area was identified.

- 1,2-Dichloroethane was not detected in any soil or groundwater sample collected on the former CCC/USDA property, but it was detected on the Pro-Ag Co-op property. The presence of this compound in soil and groundwater on the Pro-Ag Co-op but not on the former CCC/USDA facility indicates separate sources for contamination on the two properties.

- Some soil contaminant concentrations on the former CCC/USDA property and the Pro-Ag Co-op property exceeded the Tier 2 risk-based standard for the soil-to-groundwater protection pathway.

- A number of groundwater samples collected on the former CCC/USDA and the Pro-Ag Co-op property exhibited carbon tetrachloride concentrations exceeding the Tier 2 risk-based standard for carbon tetrachloride.

- The presence of chloroform indicates that natural degradation of carbon tetrachloride is occurring.

- Greatly elevated nitrate levels in groundwater samples from two of the carbon tetrachloride source areas identified on the Pro-Ag Co-op property indicate that sources of nitrate contamination exist at these locations. Elevated nitrate levels in groundwater occur throughout the investigation area.

- The carbon tetrachloride contaminant plume in groundwater is generally widespread and is continuing to migrate toward the south-southeast. The data

obtained during the current investigation indicate the presence of two separate groundwater contaminant plumes, a finding consistent with results of earlier investigations.

Recommendations

No specific recommendations are made for the Pro-Ag Co-op property; data and conclusions related to this property are presented for use by the KDHE.

The following recommendations are related to the former CCC/USDA property:

- Carbon tetrachloride concentrations in groundwater in the source area on the former CCC/USDA property should be addressed with a point source remediation system. Contaminant concentrations downgradient of this area are expected to fall below regulatory levels once the source area is addressed.

- Continued monitoring of the source area on the CCC/USDA property is recommended. Any adverse changes should be addressed as needed.

- A separate remedial system for soils on the former CCC/USDA property is not recommended. Remediation to acceptable risk-based standard concentrations can be expected when the point source remediation system mentioned above is installed to address contamination detected in the capillary fringe and groundwater. However, continued monitoring is recommended so that an alternative approach can be considered if the contaminant levels do not fall as expected.

- An expedited Corrective Action Study (CAS) is recommended before a remedial system is designed or implemented. Development of the CAS should follow KDHE requirements (KDHE 2001).

- The potential impact of vapor intrusion at the former CCC/USDA property does not need to be addressed at this time, because the land is vacant and is used only for agriculture. If the property is developed this issue may need to be addressed.

- To minimize the human health risk of potential exposure, the installation of drinking water wells within the plume area should be prohibited through implementation of environmental use controls.

- Until remediation of point source areas is complete, consideration should be given to limiting the extended pumping of any privately owned well in the area to minimize the migration of groundwater and associated contaminants from identified source areas.

- Several monitoring wells need to be repaired. Some of these wells are of interest to the CCC/USDA as part of the KDHE monitoring well ownership transfer program. A request for ownership transfer for specific wells will be forthcoming.

1 Introduction

The 2005 investigation of contaminant sources at Agra, Kansas, was conducted at the request of the Kansas Department of Health and Environment (KDHE; Gotto 2004). The Environmental Science Division of Argonne National Laboratory implemented the investigation on behalf of the Commodity Credit Corporation of the U.S. Department of Agriculture (CCC/USDA). The investigation was designed to (1) update the conceptual site model and (2) investigate sources of previously identified carbon tetrachloride contamination in groundwater.

1.1 Objectives

Six technical objectives were proposed in the *Work Plan* (Argonne 2005). The *Work Plan* was approved by the KDHE on March 28, 2005 (KDHE 2005). The six objectives were as follows:

1. Determine the current configuration of the carbon tetrachloride plume in the investigation area.

2. Delineate contamination detected in 1998–1999 at the former CCC/USDA facility.

3. Investigate the Pro-Ag Co-op property for evidence of releases of carbon tetrachloride.

4. Investigate the area adjacent to the site of the former retail store for evidence of releases of carbon tetrachloride to the subsurface.

5. Collect data to support the analysis of potential remedial alternatives.

6. Update the inventory of private wells to identify potential downgradient receptors.

This report details and interprets the data collected during the 2005 investigation at Agra. The investigation met the objectives defined in the *Work Plan.*

1.2 Background and Previous Investigations

The CCC/USDA operated a grain storage facility approximately 175 ft north of the city limits of Agra from the 1950s to the early 1970s (Figure 1.2). No structures remain on the property, and the land is currently used for agriculture purposes, specifically wheat production. The property is currently owned by Mid States Port Authority and is leased to Mr. Herb VanEaton.

The city of Agra, Kansas, is located in Phillips County, in the northwestern corner of the state (Figure 1.1). The town lies about 275 mi northwest of Topeka, Kansas. The current population of Agra is approximately 283 (U.S. Census Bureau, 2004 estimate).

In 1985, carbon tetrachloride was detected in groundwater samples collected by the KDHE from Agra public water supply wells PWS-3 and PWS-4. The concentrations detected (3.0 µg/L and 1.2 µg/L, respectively) were below the maximum contaminant level (MCL) of 5.0 µg/L established by the U.S. Environmental Protection Agency (EPA) for carbon tetrachloride in drinking water supplies. Subsequently, the KDHE required city officials to test groundwater from these wells annually. During the 1986 sampling event, carbon tetrachloride was detected at 12 µg/L in PWS-3. In response to the elevated concentration, the KDHE required the city to remove both wells (PWS-3 and PWS-4) from service (KDHE 1986).

From 1986 to 1998, several investigations were conducted at the Agra site. Table 1.1 summarizes the previous investigations.

TABLE 1.1 History of investigations of the carbon tetrachloride contamination at Agra, Kansas.

Date	Description of Event	Investigating Entity and Report Date
Sep 1985–Aug 1986	Routine sampling of public supply wells PWS-3 and PWS-4 showed low concentrations (below action levels) of carbon tetrachloride (3.0 μg/L and 1.2 μg/L, respectively). Resampling in August 1986 revealed carbon tetrachloride levels above the maximum contaminant level (MCL) of 5 μg/L (12 μg/L and 3 μg/L, respectively). KDHE required the city to discontinue use of the wells, except if other city wells could not supply adequate quantities of water. The KDHE advised the city to begin constructing additional wells.	KDHE Dec 1985, Sep 1986
Apr 1987	**Preliminary Assessment.** KDHE conducted a preliminary assessment of PWS-3 and PWS-4. Potential sources identified included the former CCC/USDA facility (originally misidentified as the Agra Co-op), the former Agra Co-op and Kensington Co-op property (now the location of the Pro-Ag Co-op), privately owned grain bins at the southwest corner of Main and Railroad, the former retail store at the southeast corner of Main and Railroad, and the public school (Unified School District 234) septic system.	KDHE Apr 1987
Oct 1987–Jun 1988	**Site Inspection.** The tasks completed during the site inspection included a soil gas survey of potential source areas, the installation of three monitoring wells, and sampling of private and public water supply wells. Analytical data indicated carbon tetrachloride in soil gas samples collected near the grain elevator and the former retail store. Groundwater samples indicated carbon tetrachloride in private and public water supply wells.	KDHE Dec 1988
Aug 1991–Oct 1991	City of Agra gave public water supply well PWS-4 to the high school to be used for irrigation of the football field, and the city installed a new supply well (PWS-5) 1 mi east of town.	PRC Environmental for KDHE Nov 1995
Nov 1993	**Site Assessment.** The site assessment involved the collection of groundwater samples from two existing public water supply wells and three monitoring wells. The results showed concentrations of carbon tetrachloride above the MCL in four of the five wells sampled.	PRC Environmental for KDHE Jul 1994
Mar 1995	**Comprehensive Investigation.** The comprehensive investigation involved the collection and analysis of soil gas, surface soil, subsurface soil, and groundwater samples on the Pro-Ag Co-op property and in the vicinity of the former retail store. Carbon tetrachloride was detected in samples from both properties.	PRC Environmental for KDHE Nov 1995
Jun 1995	**Phase I Expedited Site Characterization (ESC).** The Phase I ESC involved the collection and analysis of soil and groundwater samples; the installation of one monitoring well and one well point; and the characterization of local stratigraphy. No samples were collected on the Pro-Ag Co-op property.	Argonne for CCC/USDA Nov 1995
Nov 1995	**Phase II ESC.** The Phase II ESC involved the collection of surface soil, near-surface soil, and groundwater samples; the installation of four monitoring wells; and a geophysical survey of the bedrock topography. The data indicated that the general extent of the contaminant plume had been delineated. Two distinct areas of contamination were identified, and the geophysical survey showed areas of significant relief in the bedrock topography.	Argonne for CCC/USDA May 1996

TABLE 1.1 (Cont.)

Date	Description of Event	Investigating Entity and Report Date
Jun 1996–Sep 1996	**Feasibility Study.** The feasibility study was conducted to identify possible remedial alternatives. The work included the installation of one soil boring, one monitoring well, and three piezometers; an aquifer pump test; water level monitoring; fate and transport modeling of the contaminant plume; and examination of the health risks associated with exposure to contaminated groundwater.	Argonne for CCC/USDA Jun 1997
May 1997–Aug 1997	**Phase I Corrective Action Study (CAS).** The CAS involved the collection of soil and groundwater samples and the installation of 18 monitoring wells in the vicinity of the former CCC/USDA property, the Pro-Ag Co-op property, and the former retail store, as well as at locations downgradient from these properties.	BE&K/Terranext for KDHE Jul 1998
Sep 1998–May 1999	**Monitoring.** The last work conducted at Agra involved monitoring of the contaminant plume. Groundwater samples were collected from existing monitoring wells in 1998 and 1999. The contaminant plume was identified as extending to the southeast from the vicinity of the source areas. The monitoring validated the identification of two distinct areas of contamination in Argonne's earlier study.	BE&K/Terranext for KDHE Nov 1998 Jun 1999

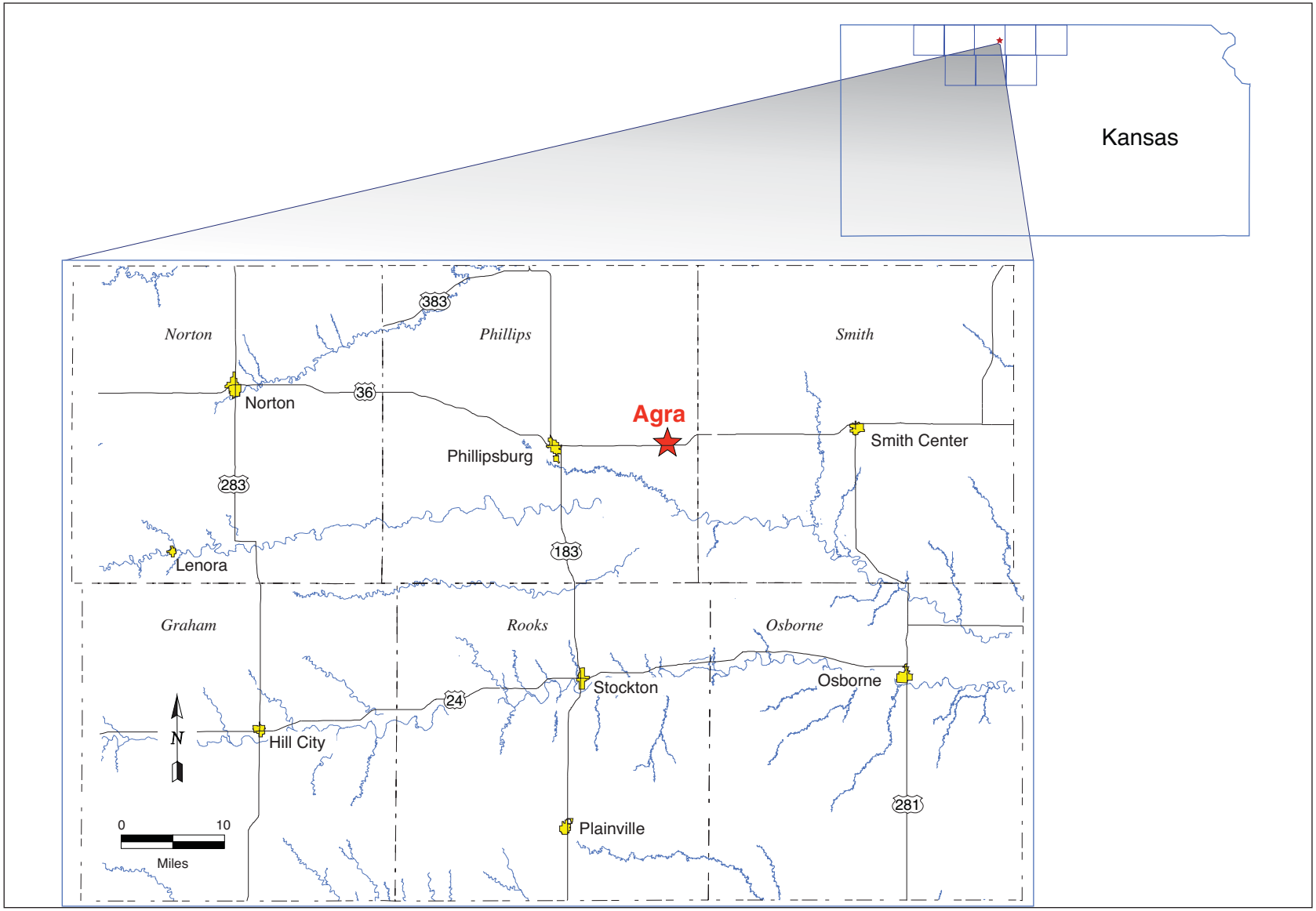

FIGURE 1.1 Location of Agra, Kansas.

FIGURE 1.2 Aerial photograph of Agra, Kansas. Source of photograph: USDA (1961).

2 Investigative Methods

The 2005 investigation at Agra was performed by using an iterative process of data collection, evaluation, and interpretation during field activities. This methodology ensured that the data necessary to achieve the specific technical objectives listed in Section 1 were obtained. Throughout data evaluation and interpretation, the CCC/USDA and KDHE project managers were kept informed of the analytical results as they were received, and modifications to the *Work Plan* (Argonne 2005) were made with their input and approval.

Throughout the field program, a comprehensive quality assurance/quality control (QA/QC) program was implemented to confirm the reliability of all information as it was accumulated. Procedures for the individual techniques employed by Argonne at this site are in the *Master Work Plan* (Argonne 2002). This section provides a brief overview of the methods used to implement this investigation, and it identifies modifications made to the *Work Plan* (Argonne 2005) in response to data acquired during the field work.

The primary data collected in the 2005 investigation at the Agra site included electronic logs and soil and groundwater samples. Electronic logs were used to evaluate the site lithology and determine target depths for groundwater samples. These data were collected by using the electronic capabilities of Argonne's cone penetrometer (CPT). Contaminant source areas were investigated by collecting soil and groundwater samples with the CPT at numerous locations in the investigation area.

All locations investigated are shown in Figures 2.1 and 2.2. The activities at each location are summarized in Table 2.1a, with the investigation locations sorted as existing versus new in 2005. Table 2.1b presents the same information, with locations sorted by the area investigated.

The initial task conducted at each CPT location consisted of collecting an electronic profile from ground surface to bedrock, in accordance with the procedures detailed in the *Master Work Plan* (Argonne 2002). The electronic logs are in Appendix A.

Soil samples were collected at 4-ft intervals from the ground surface to the top of the saturated zone. Because of the slow recharge rate at many locations, the depth to the saturated

TABLE 2.1a Activities in the 2005 investigation of contaminant sources at Agra, Kansas, with locations sorted as existing versus new in 2005.

Location	Study Area[a]	Type[b]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval (ft BGL)	Lithology Log	CPT Sensor Log	New Well Installed	Existing Well
Existing locations												
DW07A	O	DW	1	50–70	– [c]	–	–	–	–	–	–	x
DW98	O	DW	1	Unknown	–	–	–	–	–	–	–	x
KMW01	S	MW	1	43–53	–	–	–	–	–	–	–	x
KMW02	P	MW	1	57–97	–	–	–	–	–	–	–	x
KMW03	C	MW	1	74–89	–	–	–	–	–	–	–	x
MW-1	S	MW	1	41–51	–	–	–	–	–	–	–	x
MW-2	S	MW	1	40–60	–	–	–	–	–	–	–	x
MW-B	O	MW	1	39–54	–	–	–	–	–	–	–	x
MW-C	O	MW	1	35–55	–	–	–	–	–	–	–	x
MW-F	O	MW	1	65–75	–	–	–	–	–	–	–	x
MW-G	O	MW	1	89–99	–	–	–	–	–	–	–	x
MW-H	P	MW	1	43–53	–	–	–	–	–	–	–	x
MW-I	P	MW	1	36–71	–	–	–	–	–	–	–	x
MW-J	P	MW	1	56–66	–	–	–	–	–	–	–	x
MW-K	P	MW	1	55–65	–	–	–	–	–	–	–	x
MW-L	O	MW	1	70–80	–	–	–	–	–	–	–	x
MW-M	O	MW	1	59–69	–	–	–	–	–	–	–	x
MW-N	O	MW	1	80–90	–	–	–	–	–	–	–	x
MW-O	P	MW	1	38–58	–	–	–	–	–	–	–	x
MW-P	C	MW	2	35.42–54.92	–	–	–	–	–	–	–	x
MW-Q	C	MW	1	43.28–62.78	–	–	–	–	–	–	–	x
MW-R	O	MW	1	44.45–63.95	–	–	–	–	–	–	–	x
PWS-1	O	PW	1	82–91	–	–	–	–	–	–	–	x
PWS-2	O	PW	1	73–82	–	–	–	–	–	–	–	x
PWS-3	O	PW	1	–	–	–	–	–	–	–	–	x

TABLE 2.1a (Cont.)

Location	Study Area[a]	Type[b]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval (ft BGL)	Lithology Log	CPT Sensor Log	New Well Installed	Existing Well
Existing locations (Cont.)												
SB15	O	SB/W	1	98.5–108.5	–	–	–	–	–	–	–	x
SB23	O	CPT/P	1	100–106	–	–	–	–	–	–	–	x
SB23S	O	CPT/P	1	49–55	–	–	–	–	–	–	–	x
SB28	O	CPT/P	1	100–106	–	–	–	–	–	–	–	x
SB28S	O	CPT/P	1	59–65	–	–	–	–	–	–	–	x
SB36	O	SB/W	1	42.7–62.7	–	–	–	–	–	–	–	x
SB38	O	CPT/P	1	95–101	–	–	–	–	–	–	–	x
SB38S	O	CPT/P	1	57–63	–	–	–	–	–	–	–	x
New locations in 2005												
SB40	O	CPT	5	50–105	–	–	–	–	–	x	–	–
SB41	O	CPT	5	48–78	–	–	–	–	–	x	–	–
SB42	O	CPT	7	50–145	–	–	–	–	–	x	–	–
SB43	C	CPT	5	42–67	13	4–48	–	–	x	x	–	–
SB44	C	CPT	1	53.5–58.5	–	–	–	–	–	x	–	–
SB45	C	CPT	5	44–69	16	2–48	–	–	x	x	–	–
SB46	C	CPT	5	45–70	13	4–52	5	30–48	x	x	–	–
SB47	C	CPT	6	44.5–72	–	–	–	–	–	x	–	–
SB48	C	CPT	5	45.5–70.5	12	4–48	–	–	[d]	x	–	–
SB49	C	CPT	6	43–73	13	4–48	–	–	x	x	–	–
SB50	C	CPT	4	45.5–65.5	–	–	–	–	–	x	–	–
SB51	P	CPT	4	46–66	12	4–48	–	–	x	x	–	–
SB52	P	CPT	5	44–68.45	13	4–46	–	–	x	x	–	–
SB53	P	CPT	4	48–68	11	4–40	–	–	x	x	–	–
SB54	P	CPT	4	45–65	11	4–44	5	10–37.5	x	x	–	–
SB55	P	CPT	6	45–90	12	4–45	–	–	x	x	–	–
SB56	P	CPT	7	48–117	12	4–48	–	–	x[e]	x	–	–
SB57	P	CPT	–	–	–	–	–	–	–	X	–	–
SB58	P	CPT	4	48–68	12	4–48	3	32.5–49	x	X	–	–
SB59	P	CPT	5	45–78	13	4–52	5	27–51	x[e]	X	–	–

TABLE 2.1a (Cont.)

Location	Study Area[a]	Type[b]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval (ft BGL)	Lithology Log	CPT Sensor Log	New Well Installed	Existing Well
New locations in 2005 (Cont.)												
SB60	C	CPT	5	41–67	–	–	–	–	–	x	–	–
SB61	P	CPT	5	60–107	10	4–40	–	–	[d]	x	–	–
SB62	P	CPT	4	45–65	12	4–48	–	–	[d]	x	–	–
SB63	P	CPT	4	42.9–58.2	17	2–44	–	–	x[e]	x	–	–
SB64	P	CPT	5	42.7–67.7	12	4–48	7	20–48	x	x	–	–
SB65	P	CPT	4	50–73	–	–	–	–	–	x	–	–
SB66	P	CPT	6	48–111	–	–	–	–	–	x	–	–
SB67	S	CPT	3	46.5–61.5	12	4–48	–	–	x	x	–	–
SB68	C	CPT	4	44–64	12	4–48	–	–	x	x	–	–
SB69	C	CPT	3	49–64	–	–	–	–	–	x	–	–
SB70	P	CPT	4	40–65	–	–	–	–	–	x	–	–
SB71	C	CPT	6	47–77	–	–	–	–	–	x	–	–
SB72	O	CPT/P	1	59–69	–	–	–	–	–	x	x	–
SB73	P	CPT	4	43–68	12	4–48	–	–	x	x	–	–
SB74	C	CPT	–	–	–	–	–	–	–	x	–	–
SB75	P	CPT	2	46.5–56.5	–	–	–	–	–	x	–	–
SB76	P	CPT	–	–	–	–	–	–	–	x	–	–
SB77	P	CPT	–	–	–	–	–	–	–	x	–	–
SB78	P	CPT	4	47.5–67.5	–	–	–	–	–	x	–	–
SB79	O	CPT	3	50–65	–	–	–	–	–	–	–	–
SB80	O	CPT	3	50–64.75	–	–	–	–	–	–	–	–

[a] Study areas: C = at the former CCC/USDA facility; O = other; P = at or near the Pro-Ag Co-op; S = at or near the former retail store.

[b] Abbreviations: DW = domestic well; MW = monitoring well; PW = public water supply well; CPT = cone penetrometer location; CPT/P = piezometer; SB/W = drilled monitoring well.

[c] Does not apply.

[d] Lithology logs could be constructed for SB48, SB61, and SB62. Core is in storage and could be described in the future.

[e] Soil core was collected to total depth.

TABLE 2.1b Activities in the 2005 investigation of contaminant sources at Agra, Kansas, with locations sorted by study area

Location	Study Area[a]	Type[b]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval (ft BGL)	Lithology Log	CPT Sensor Log	New Well Installed	Existing Well
Locations at the former CCC/USDA facility												
KMW03	C	MW	1	74–89	–	–	–	–	–	–	–	x
MW-P	C	MW	2	35.42–54.92	–	–	–	–	–	–	–	x
MW-Q	C	MW	1	43.28–62.78	–	–	–	–	–	–	–	x
SB43	C	CPT	5	42–67	13	4–48	–	–	x	x	–	–
SB44	C	CPT	1	53.5–58.5	–	–	–	–	–	x	–	–
SB45	C	CPT	5	44–69	16	2–48	–	–	x	x	–	–
SB46	C	CPT	5	45–70	13	4–52	5	30–48	x	x	–	–
SB47	C	CPT	6	44.5–72	–	–	–	–	–	x	–	–
SB48	C	CPT	5	45.5–70.5	12	4–48	–	–	[d]	x	–	–
SB49	C	CPT	6	43–73	13	4–48	–	–	x	x	–	–
SB50	C	CPT	4	45.5–65.5	–	–	–	–	–	x	–	–
SB60	C	CPT	5	41–67	–	–	–	–	–	x	–	–
SB68	C	CPT	4	44–64	12	4–48	–	–	x	x	–	–
SB69	C	CPT	3	49–64	–	–	–	–	–	x	–	–
SB71	C	CPT	6	47–77	–	–	–	–	–	x	–	–
SB74	C	CPT	–	–	–	–	–	–	–	x	–	–
Locations at or near the Pro-Ag Co-op												
KMW02	P	MW	1	57–97	–	–	–	–	–	–	–	x
MW-H	P	MW	1	43–53	–	–	–	–	–	–	–	x
MW-I	P	MW	1	36–71	–	–	–	–	–	–	–	x
MW-J	P	MW	1	56–66	–	–	–	–	–	–	–	x
MW-K	P	MW	1	55–65	–	–	–	–	–	–	–	x
MW-O	P	MW	1	38–58	–	–	–	–	–	–	–	x
SB51	P	CPT	4	46–66	12	4–48	–	–	x	x	–	–
SB52	P	CPT	5	44–68.45	13	4–46	–	–	x	x	–	–
SB53	P	CPT	4	48–68	11	4–40	–	–	x	x	–	–
SB54	P	CPT	4	45–65	11	4–44	5	10–37.5	x	x	–	–

TABLE 2.1b (Cont.)

Location	Study Area[a]	Type[b]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval (ft BGL)	Lithology Log	CPT Sensor Log	New Well Installed	Existing Well
Locations at or near the Pro-Ag Co-op (Cont.)												
SB55	P	CPT	6	45–90	12	4–45	–	–	x	x	–	–
SB56	P	CPT	7	48–117	12	4–48	–	–	x[e]	x	–	–
SB57	P	CPT	–	–	–	–	–	–	–	x	–	–
SB58	P	CPT	4	48–68	12	4–48	3	32.5–49	x[e]	x	–	–
SB59	P	CPT	5	45–78	13	4–52	5	27–51	x	x	–	–
SB61	P	CPT	5	60–107	10	4–40	–	–	[d]	x	–	–
SB62	P	CPT	4	45–65	12	4–48	–	–	[d]	x	–	–
SB63	P	CPT	4	42.9–58.2	17	2–44	–	–	x[e]	x	–	–
SB64	P	CPT	5	42.7–67.7	12	4–48	7	20–48	x	x	–	–
SB65	P	CPT	4	50–73	–	–	–	–	–	x	–	–
SB66	P	CPT	6	48–111	–	–	–	–	–	x	–	–
SB70	P	CPT	4	40–65	–	–	–	–	–	x	–	–
SB73	P	CPT	4	43–68	12	4–48	–	–	x	x	–	–
SB75	P	CPT	2	46.5–56.5	–	–	–	–	–	x	–	–
SB76	P	CPT	–	–	–	–	–	–	–	x	–	–
SB77	P	CPT	–	–	–	–	–	–	–	x	–	–
SB78	P	CPT	4	47.5–67.5	–	–	–	–	–	x	–	–
Locations at or near the former retail store												
KMW01	S	MW	1	43–53	–	–	–	–	–	–	–	x
MW-1	S	MW	1	41–51	–	–	–	–	–	–	–	x
MW-2	S	MW	1	40–60	–	–	–	–	–	–	–	x
SB67	S	CPT	3	46.5–61.5	12	4–48	–	–	x	x	–	–

TABLE 2.1b (Cont.)

Location	Study Area[a]	Type[b]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval (ft BGL)	Lithology Log	CPT Sensor Log	New Well Installed	Existing Well
Other locations												
DW07A	O	DW	1	50–70	–	–	–	–	–	–	–	x
DW98	O	DW	1	Unknown	–	–	–	–	–	–	–	x
MW-B	O	MW	1	39–54	–	–	–	–	–	–	–	x
MW-C	O	MW	1	35–55	–	–	–	–	–	–	–	x
MW-F	O	MW	1	65–75	–	–	–	–	–	–	–	x
MW-G	O	MW	1	89–99	–	–	–	–	–	–	–	x
MW-L	O	MW	1	70–80	–	–	–	–	–	–	–	x
MW-M	O	MW	1	59–69	–	–	–	–	–	–	–	x
MW-N	O	MW	1	80–90	–	–	–	–	–	–	–	x
MW-R	O	MW	1	44.45–63.95	–	–	–	–	–	–	–	x
PWS-1	O	PW	1	82–91	–	–	–	–	–	–	–	x
PWS-2	O	PW	1	73–82	–	–	–	–	–	–	–	x
PWS-3	O	PW	1	65–125	–	–	–	–	–	–	–	x
SB15	O	SB/W	1	98.5–108.5	–	–	–	–	–	–	–	x
SB23	O	CPT/P	1	100–106	–	–	–	–	–	–	–	x
SB23S	O	CPT/P	1	49–55	–	–	–	–	–	–	–	x
SB28	O	CPT/P	1	100–106	–	–	–	–	–	–	–	x
SB28S	O	CPT/P	1	59–65	–	–	–	–	–	–	–	x
SB36	O	SB/W	1	42.7–62.7	–	–	–	–	–	–	–	x
SB38	O	CPT/P	1	95–101	–	–	–	–	–	–	–	x
SB38S	O	CPT/P	1	57–63	–	–	–	–	–	–	–	x
SB40	O	CPT	5	50–105	–	–	–	–	–	x	–	–
SB41	O	CPT	5	48–78	–	–	–	–	–	x	–	–
SB42	O	CPT	7	50–145	–	–	–	–	–	x	–	–
SB72	O	CPT/P	1	59–69	–	–	–	–	–	x	x	–

TABLE 2.1b (Cont.)

Location	Study Area[a]	Type[b]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval (ft BGL)	Lithology Log	CPT Sensor Log	New Well Installed	Existing Well
Other locations (Cont.)												
SB79	O	CPT	3	50–65	–	–	–	–	–	–	–	–
SB80	O	CPT	3	50–64.75	–	–	–	–	–	–	–	–

[a] Study areas: C = at the former CCC/USDA facility; O = other; P = at or near the Pro-Ag Co-op; S = at or near the former retail store.

[b] Abbreviations: DW = domestic well; MW = monitoring well; PW = public water supply well; CPT = cone penetrometer location; CPT/P = piezometer; SB/W = drilled monitoring well.

[c] Does not apply.

[d] Lithology logs could be constructed for SB48, SB61, and SB62. Core is in storage and could be described in the future.

[e] Soil core was collected to total depth.

zone was estimated on the basis of groundwater levels in nearby wells and data from the specialized CPT conductivity cone or combination cone. Soil samples were collected by using a 4-ft-long modified Macro-Core® soil sampler that allowed for discrete and continuous collection of soil samples at specified depths. Lithologic descriptions of soil cores are in Appendix A.

Groundwater samples were collected at 5-ft intervals from the static water level to bedrock. Targeted sampling depths were determined from the electronic logs. After target sample intervals were identified, the CPT rods were pushed to the specified depth. The lead CPT rod was fitted with a 5-ft polyvinyl chloride (PVC) screen inserted inside the rod and attached to a disposable tip. After the target depth was reached, PVC riser pipe was inserted into the rods and threaded to the screen. The rods were then withdrawn 5 ft to expose the screened area. If groundwater was not initially present, the CPT rods were completely withdrawn, and the temporary well was left in place until enough groundwater accumulated for sampling. Temporary wells were set at each location to the extent necessary to accomplish the investigational objectives. All temporary wells were subsequently plugged in accordance with KDHE regulations.

Soil and groundwater samples were collected in laboratory-approved containers, sealed, placed on ice (dry ice for soils), and transported to the Applied Geosciences and Environmental Management (AGEM) Laboratory at Argonne National Laboratory for preparation and analysis for volatile organic compounds (VOCs), including carbon tetrachloride, chloroform, methylene chloride, and 1,2-dichloroethane (1,2-DCA). Selected groundwater samples were analyzed for cations, anions, and nitrate. In addition, some soil samples were submitted for grain size analysis.

2.1 Methods to Determine the Current Configuration of the Carbon Tetrachloride Plume in the Investigation Area

To document the horizontal extent of the carbon tetrachloride plume in the general investigation area, groundwater samples were collected from 28 existing monitoring wells and piezometers, 1 newly installed piezometer, 2 private wells, and 3 public water supply wells (Figure 2.3). The *Work Plan* (Argonne 2005) proposed sampling 27 wells (including SB23S and SB28S, which were implied but not named). The sample locations added during field activities

included public water supply wells PWS-1 and PWS-2, monitoring wells SB36 and MW-N, and piezometers SB38, SB38S, and SB72. The additions were made for the following reasons:

- The public water supply wells were added after data collected during field activities indicated that these pumping wells could be influencing the groundwater flow direction and possibly the contaminant plume distribution. Preliminary groundwater flow maps developed during field activities indicated that groundwater along the western part of the targeted source areas may have been migrating slightly south to southwest. This migration pattern might be a function of pumping of PWS-1 and PWS-2. Additional monitoring of groundwater flow and pumping rates would be needed to verify migration patterns and the influence of pumping of PWS-1 and PWS-2.

- Well MW-N was added to improve delineation of the contaminant plume near PWS-2.

- Well SB36 and piezometers SB38 and SB38S were added for delineation of the plume near PWS-3.

- Piezometer SB72 was installed at the northwest corner of Sixth Street and Kansas Avenue at the request of the KDHE. The analytical and lithologic data collected during the installation of SB72 filled a data gap between the source area and the public wells.

Before groundwater samples were collected, each well or piezometer was purged in accordance with procedures in the *Master Work Plan* (Argonne 2002).

2.2 Methods to Delineate Contamination Detected in 1998–1999 at the Former CCC/USDA Facility

The contaminant plume associated with the use of grain fumigants on the former CCC/USDA property was delineated through use of the CPT to collect the following samples on that property (Figure 2.4):

- Soil samples in vertical profiles at 6 CPT locations (SB43, SB45, SB46, SB48, SB49, and SB68).

- Groundwater samples in vertical profiles at 12 CPT locations (SB43, SB44, SB45, SB46, SB47, SB48, SB49, SB50, SB60, SB68, SB69, and SB71).

- Groundwater samples from monitoring wells MW-P, MW-Q, and KMW03.

The original scope of work (Argonne 2005) involved collection of soil samples at CPT locations SB43–SB46 and SB48–SB50 and groundwater samples at CPT locations SB45–SB50 on the former CCC/USDA property, as well as collection of groundwater samples from existing monitoring wells MW-P, MW-Q, and KMW03. The scope of work was modified as analytical data were received in the field, in response to discussions with the KDHE project managers indicating that complete delineation of the contaminant plume associated with the former CCC/USDA property would ultimately be required. The modifications made in the field were as follows:

- Groundwater sampling was added at locations SB43 and SB44 (originally designated for soil sampling only) to improve delineation of the plume.

- Proposed soil sampling at locations SB44 and SB50 was eliminated, because no contaminants were detected groundwater samples collected at these locations.

- Proposed locations SB60, SB68, and SB69 were moved from the Pro-Ag Co-op property and the retail store property to the former CCC/USDA facility to improve delineation of the plume.

- Location SB71 was added on the former CCC/USDA property to achieve tighter delineation of the horizontal and vertical extent of the contaminant plume.

- Location SB74 was added along the southeast edge of the former CCC/USDA property. Electronic data were collected at this location for comparison with

depth to bedrock at locations along the east side of the former CCC/USDA and Pro-Ag Co-op properties.

All modifications were approved by the CCC/USDA and KDHE project managers.

Sampling along the north edge of the Pro-Ag Co-op property (Section 2.3) helped to achieve complete delineation of the carbon tetrachloride plume emanating from the former CCC/USDA property.

2.3 Methods to Investigate the Pro-Ag Co-op Property for Evidence of Releases of Carbon Tetrachloride

The identification of potential source areas on the Pro-Ag Co-op property occurred at locations where grain handling or chemical storage is thought to have taken place. The target locations included areas adjacent to several storage buildings and downgradient from identified source areas. The following samples were collected specifically to identify source areas on the Pro-Ag Co-op property (Figure 2.4):

- Soil samples in vertical profiles at 8 CPT locations (SB53, SB56, SB58, SB59, SB61, SB62, SB63, and SB64).

- Groundwater samples in vertical profiles at 10 CPT locations (SB53, SB56, SB58, SB59, SB61, SB62, SB63, SB64, SB65, and SB66).

- Groundwater samples from existing monitoring wells MW-J, MW-K, and MW-O.

In addition, soil or groundwater samples (or both) were collected at several CPT locations along the north edge of the Pro-Ag Co-op property to delineate the extent of contamination on the Pro-Ag Co-op property associated with the use of grain fumigants at the former CCC/USDA property (Section 2.2) and also to provide information on potential migration pathways. These locations are boreholes SB51, SB52, SB54, SB55, SB70, SB73, SB75, and SB78.

Groundwater samples were also collected from wells KMW02, MW-H, and MW-I, near the Pro-Ag Co-op property.

At CPT locations SB57, SB76, and SB77 on the Pro-Ag Co-op property, only electronic logs were collected. The purpose was to generate additional data concerning the site lithology and the depth to bedrock.

The original scope of work proposed for the Pro-Ag Co-op property (Argonne 2005) specified collection of soil samples at CPT locations SB51–SB62 and groundwater samples at CPT locations SB51–SB66. The scope of work was modified as analytical data received in the field were discussed with the CCC/USDA and KDHE project managers. All modifications were approved by the CCC/USDA and KDHE project managers. Furthermore, the on-site Pro-Ag Co-op manager was kept apprised of the modifications; he approved changing locations as needed. The modifications were as follows:

- Soil and groundwater sampling location SB60 became a groundwater sampling location and was moved from the Pro-Ag Co-op property to the former CCC/USDA property. This change was made to improve delineation between the former CCC/USDA property and the soil and groundwater contamination detected in the area of SB53 on the Pro-Ag Co-op property.

- Soil sampling location SB70 became a groundwater sampling location and was moved from the retail store property to the north edge of the Pro-Ag Co-op property. In this position SB70 improved delineation of both contaminant migration from the former CCC/USDA facility and the horizontal and vertical extent of the contaminant plume.

- Soil and groundwater sampling location SB73 and groundwater sampling locations SB75 and SB78 were added along the northern edge of the Pro-Ag Co-op property to improve delineation of both contaminant migration from the former CCC/USDA facility and the horizontal and vertical extent of the contaminant plume.

- Locations SB76 and SB77 were added for collection of electronic logs to generate additional information concerning the depth to bedrock.

- Soil and groundwater sampling at SB57 was eliminated, because the samples from upgradient/side-gradient borings SB55 and SB56 contained no

detectable carbon tetrachloride. An electronic log was collected to generate additional information concerning the depth to bedrock.

- Soil sampling was added at locations SB63 and SB64 (originally intended for groundwater sampling only) to improve delineation of source areas.

2.4 Methods to Investigate the Area Adjacent to the Site of the Former Retail Store for Evidence of Releases of Carbon Tetrachloride to the Subsurface

The original proposed scope of work to identify source areas on the retail store property (Argonne 2005) specified collection of soil samples at SB67–SB70 and groundwater samples at SB67 and SB68. This plan was modified after analytical data for soil and groundwater samples collected on the Pro-Ag Co-op property revealed a significant source area upgradient of the store property. In addition, groundwater flow data collected during field activities showed the potential for contamination from the Pro-Ag Co-op source area to migrate toward the former retail store property. As a result of discussions with the CCC/USDA and KDHE project managers, the following modifications were made:

- The investigation of source areas on the former retail store property was eliminated.

- Cone penetrometer sampling points in this area were decreased to one location (SB67) on the east side of the property. At this location, soil and groundwater samples were collected in vertical profiles. An electronic log was also collected to generate additional information concerning the depth to bedrock.

- The remaining proposed CPT sampling locations (SB68, SB69, and SB70) were moved to the former CCC/USDA property and the northern edge of the Pro-Ag Co-op property.

The locations investigated with the CPT are shown in Figure 2.4. All modifications were approved by the CCC/USDA and KDHE project managers.

2.5 Methods to Collect Data to Support the Analysis of Potential Remedial Alternatives

Data collected during field activities for the purpose of evaluating remedial alternatives included organic chemical and grain size analyses of soil samples, as well as organic and inorganic analyses of groundwater samples. A total of 250 soil samples were collected at 20 CPT locations, and 163 groundwater samples were collected at 37 CPT locations (including new piezometer SB72). In addition, 33 groundwater samples were collected from existing monitoring wells, piezometers, private wells, and public water supply wells. American Society for Testing and Materials (ASTM) method D422-90 was used for particle size analyses on 25 samples from 5 CPT locations on the Pro-Ag Co-op property and the former CCC/USDA property, including locations exhibiting the highest contaminant concentrations.

2.6 Methods to Update the Inventory of Private Wells to Identify Potential Downgradient Receptors

Potential receptors for contaminants at the Agra site include residents and commercial workers who might come into contact with contaminated water. Because potential downgradient receptors were last identified several years ago, public records were reviewed to verify that no drinking water wells are located within the contaminant plume and to identify any new domestic lawn and garden wells installed since the last investigation in and downgradient from the contaminant plume.

An update of private wells in Agra was conducted by (1) researching the Kansas Geological Survey (KGS) water well database and (2) comparing property ownership records with customer water bill information provided by the city of Agra.

FIGURE 2.1 Investigated locations in the wider study area at Agra. Source of photograph: NAIP (2004).

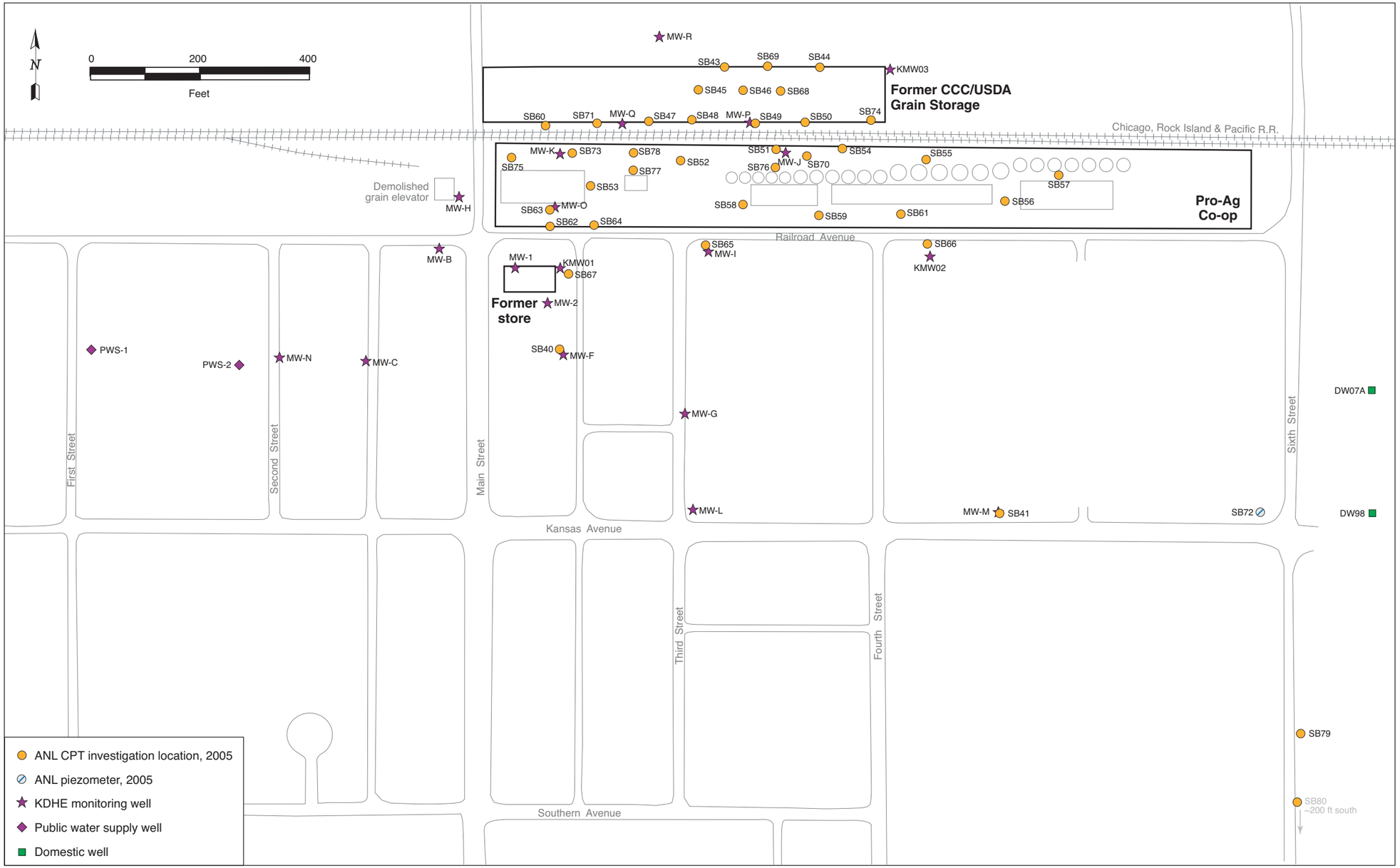

FIGURE 2.2 Investigated locations in the three target areas of the 2005 study at Agra.

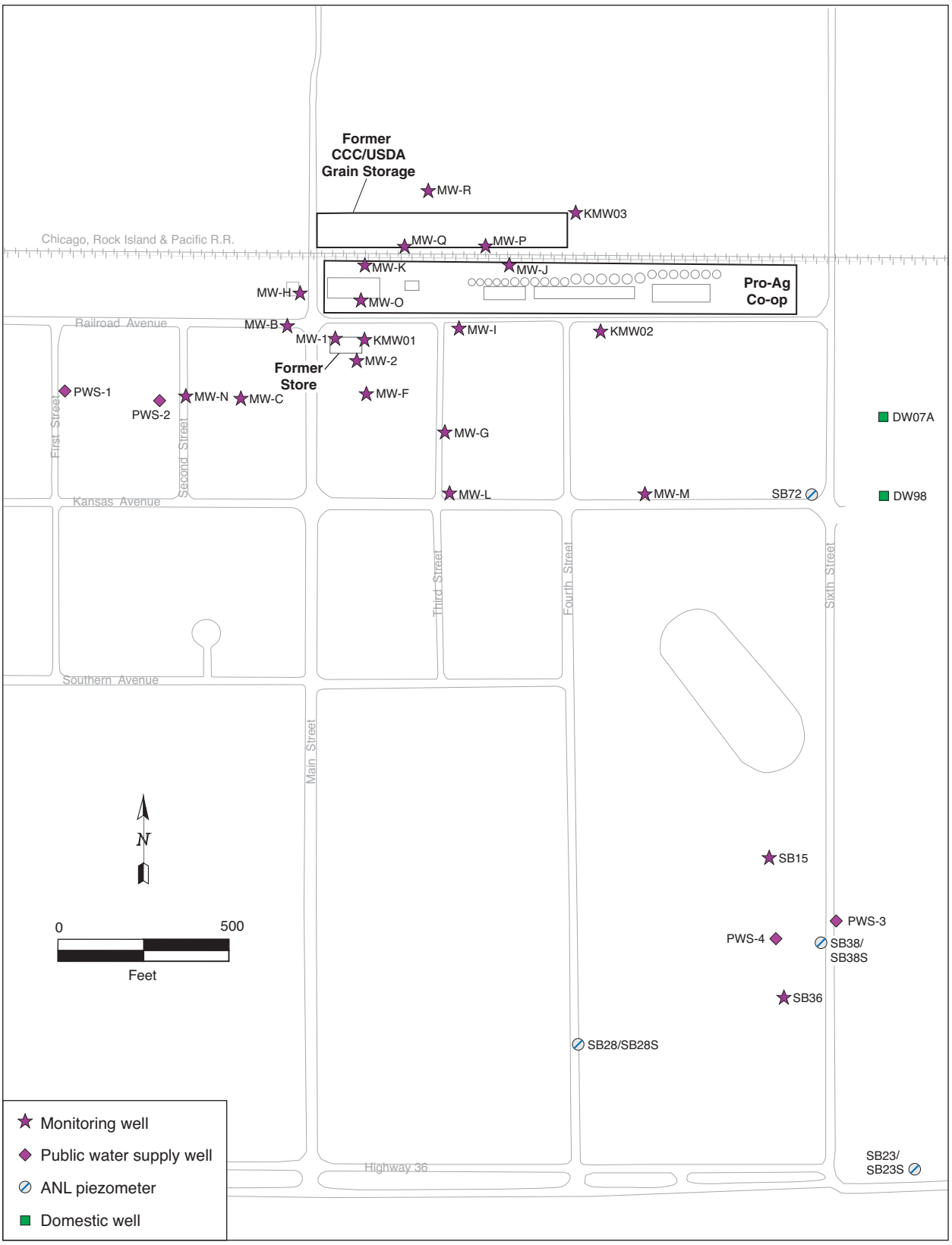

FIGURE 2.3 Permanent groundwater sampling locations in the wider study area at Agra.

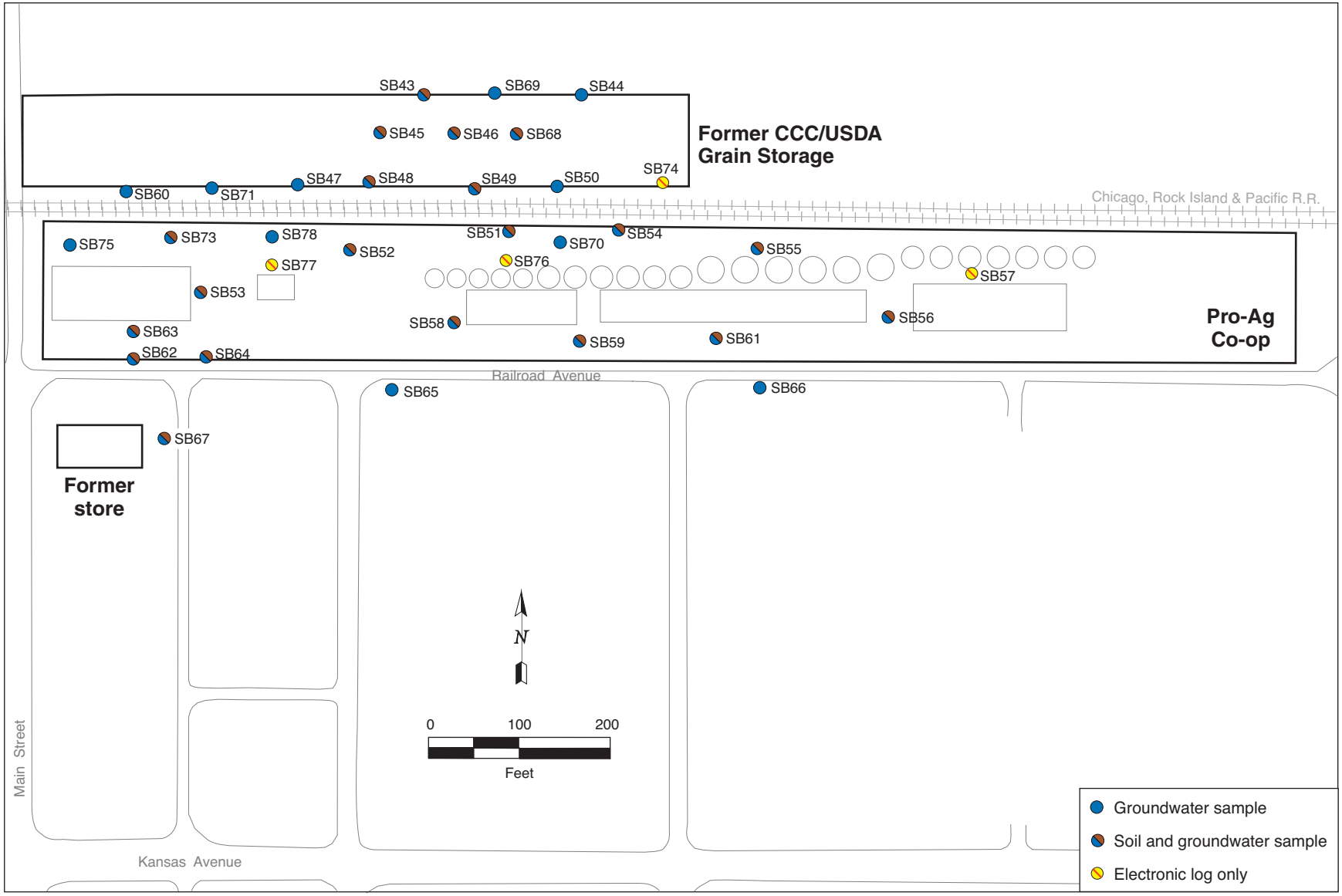

FIGURE 2.4 Cone penetrometer investigation locations (2005) in the three target areas at Agra.

3 Field and Laboratory Data

This section presents the field and laboratory data generated during the Agra investigation. The methods and procedures followed in collecting the data are described in detail in Section 2 and in the *Master Work Plan* (Argonne 2002). A detailed interpretation of the data is in Section 4.

3.1 Cone Penetrometer Sensor Data

The CPT was used to collect tip, sleeve, and (in some instances) conductance electronic sensor data for 39 boreholes (Table 2.1a and Figure 3.1). The electronic logs are in Appendix A. The investigated locations were distributed as follows:

- Thirteen locations on the former CCC/USDA property (SB43–SB50, SB60, SB68, SB69, SB71, and SB74)
- Twenty-one locations on or near the Pro-Ag Co-op property (SB51–SB59, SB61–SB66, SB70, SB73, and SB75–SB78)
- One location on the former retail store property (SB67)
- One location downgradient from PWS-3 (SB42)
- Three other locations downgradient from potential source areas (SB40, SB41, and SB72).

Measurements of tip and sleeve stresses were used to identify target zones for groundwater sampling and to estimate depth to bedrock. Tip stress is a measure of the resistance of the soil on the tip of the cone during penetration, and sleeve stress is a measure of the drag created along the sidewall of the cone. The ratio of tip stress to sleeve stress, called the friction ratio, is a tool for evaluating subsurface lithology. Conductance data indicate the presence of water; these data are used to identify optimal intervals for water sampling.

The electronic sensor data collected during the Agra investigation did not indicate significant or distinct zones of sand or gravel. This observation was supported by the soil cores

collected from the boreholes. Bedrock depths were determined by pushing the CPT until refusal was met. Depth to bedrock ranged from approximately 60 ft BGL (below ground level) to 118 ft BGL. To ensure that refusal was indicative of bedrock, soil cores were collected to total depth from boreholes SB56, SB59, and SB63. The bedrock data confirmed results of Argonne's earlier studies (Argonne 1997), which showed significant topographic relief from the west side to the east side of the general area, as well as a ridge running from west to east, downgradient from the potential source areas.

3.2 Piezometer Construction

The CPT was used to install a permanent piezometer (sand point well) at boring SB72 (Figure 2.2), in accordance with state regulations. The construction diagram and state well database registration for this piezometer are in Appendix B.

3.3 Coordinates Survey Data

The subsurface soil and groundwater sampling locations were surveyed by Schwab-Eaton, P.A., of Manhattan, Kansas, to provide horizontal and vertical control for stratigraphy correlation and water level monitoring. Coordinates survey data are in Appendix C, Table C.1. A metal pin driven into the ground at each soil boring location was surveyed, and each monitoring well was surveyed from the top of the casing.

3.4 Analytical Data for Subsurface Soil Samples

A total of 250 subsurface soil samples were collected at 20 CPT locations (Table 2.1a,b and Figure 3.1) throughout the investigation area. Results of all analyses for VOCs are in Supplement 1, Table S1.1. Supplement 1 and the other supplements are on a compact disc (CD) inside the back cover of this report.

Discrete subsurface soil samples were collected from each borehole at 4-ft intervals. The shallowest sample was collected at a depth of 2 ft BGL, and the deepest was at 52 ft BGL. The primary purpose was to investigate potential source areas and migration pathways for carbon tetrachloride. Soil boring locations were chosen on the basis of analytical data from past investigations, as well as a review of areas where grain handling or chemical storage is thought

to have occurred on the former CCC/USDA property, the Pro-Ag Co-op property, and the former retail store property. Typically, grain- and chemical-handling activities are associated with doorways, equipment such as auger systems that transport grain from or to storage, and areas where maintenance or storage of equipment and chemicals occurred.

In addition to VOCs, soil samples were analyzed for particle size distribution and composition (Supplement 1, Table S1.2), as well as for percent moisture and percent volatiles (Supplement 1, Table S1.3).

3.4.1 Former CCC/USDA Property

On the former CCC/USDA property, 79 soil samples were collected from boreholes SB43, SB45, SB46, SB48, SB49, and SB68 (Table 2.1b and Figure 3.2). The samples were prepared and analyzed for VOCs by using EPA Methods 5030B and 8260B. The complete results of analyses for VOCs are in Supplement 1, Table S1.1. The results for the soil samples from the former CCC/USDA facility are summarized in Table 3.1. This table and the other Section 3 data summary tables are grouped at the end of the section's text, before the figures.

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 μg/kg in 16 soil samples from boreholes SB43, SB46, and SB49. Trace levels (below the quantitation limit) were detected in 13 samples from SB43, SB49, and SB68. The other 50 samples, including all samples from boreholes SB45 and SB48, showed no detectable concentrations of carbon tetrachloride (Figure 3.2).

Chloroform was detected in soil samples from boreholes SB43, SB46, SB49, and SB68 (Figure 3.3). Levels of chloroform at SB46 were above the quantitation limit, but at the other locations only trace levels were found.

No 1,2-DCA was found in soil samples from the former CCC/USDA property (Figure 3.4).

The highest carbon tetrachloride concentrations on the former CCC/USDA property occurred in the soil samples collected at SB46 (Table 3.1). Twelve of the 13 samples at SB46 (every sample at 8–52 ft BGL) contained carbon tetrachloride, at concentrations ranging from 27 μg/kg (12 ft BGL) to 2,273 μg/kg (44 ft BGL, just above the saturated zone). Chloroform

levels at or above the method quantitation limit of 10 μg/kg (concentrations of 10–17 μg/kg) occurred in most of the samples at depths between 20 ft and 48 ft BGL, and trace levels of chloroform were found in several additional samples.

The second highest carbon tetrachloride concentrations in soil on the former CCC/USDA property occurred at SB49. Table 3.1 summarizes the vertical distribution of VOCs in soil samples at all investigative locations on the former CCC/USDA property.

3.4.2 Pro-Ag Co-op Property

On the Pro-Ag Co-op property, 159 soil samples were collected from boreholes SB51–SB56, SB58, SB59, SB61–SB64, and SB73 (Figure 3.2). The samples were prepared and analyzed for VOCs by using EPA Methods 5030B and 8260B. The complete results of analyses for VOCs are in Supplement 1, Table S1.1. The results for the soil samples from the Pro-Ag Co-op property are summarized in Table 3.2.

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 μg/kg in 14 soil samples from boreholes SB53, SB59, and SB64. Trace levels were detected in 12 samples from SB58, SB59, SB62, SB63, and SB64. The other 133 soil samples, including all samples from SB51, SB52, SB54, SB55, SB56, SB61, and SB73 (on the northern edge and the eastern part of the property) contained no detectable concentrations of carbon tetrachloride (Figure 3.2).

Chloroform was found at trace concentrations (below the method quantitation limit) across the property, at SB53, SB55, SB56, SB59, SB62, SB63, and SB64 (Figure 3.3).

The VOC 1,2-DCA was detected in soil on the Pro-Ag Co-op property at a trace concentration in a sample from SB53 (Figure 3.4).

The highest carbon tetrachloride concentration found in soil on the Pro-Ag Co-op property (Table 3.2) occurred in a sample collected from the saturated zone at SB64 (1,604 μg/kg at 48 ft BGL). Carbon tetrachloride was also detected above the method quantitation limit in four additional samples from SB64, at concentrations ranging from 14 μg/kg (36 ft BGL) to 375 μg/kg (44 ft BGL). Trace levels of carbon tetrachloride and chloroform also occurred at this location.

Soil samples from boring SB59 on the Pro-Ag Co-op property had the second highest levels of carbon tetrachloride (concentrations of 11–728 μg/kg at depths of 32–52 ft BGL). Table 3.2 summarizes the vertical distribution of VOCs in soil samples at all investigative locations on the Pro-Ag Co-op property.

3.4.3 Former Retail Store

Twelve soil samples were collected at SB67 at the former retail store. The only VOC detected was carbon tetrachloride (a trace at 44 ft BGL and a concentration of 47 μg/kg at 48 ft BGL, in the saturated zone; Figure 3.2). Table 3.3 summarizes the vertical distribution of VOCs in soil at SB67.

3.5 Groundwater Analytical Data

A total of 196 groundwater samples were collected. Of these, 34 samples were from the new piezometer installed at location SB72 and from existing monitoring wells, piezometers, private wells, and public water supply wells. Historical data regarding the permanent monitoring points are summarized in Table D.1, Appendix D. Another 162 groundwater samples were collected at 36 CPT investigation locations, at discrete depths between 40 ft BGL and 145 ft BGL.

Sample locations are shown in Figure 3.1. Sample descriptions are on CD in Supplement 2, Table S2.1. Results of field parameter measurements on the samples are in Table S2.2, organic analytical results in Table S2.3, inorganic data in Table S2.4, and tritium values in Table S2.5.

Groundwater samples were collected from wells and piezometers to determine the extent of carbon tetrachloride contamination in groundwater in the general investigation area. Groundwater profiling at CPT locations was conducted to identify source areas and vertical migration pathways for the carbon tetrachloride contamination. Locations for groundwater sampling with the CPT were selected on the basis of analytical data from past investigations and a review of areas where grain handling or chemical storage is thought to have occurred on the former CCC/USDA property, the Pro-Ag Co-op property, and the former retail store property. In

addition, several groundwater samples were collected at CPT locations throughout the general investigation area to determine the extent of the contamination.

3.5.1 Former CCC/USDA Property

Fifty-five groundwater samples were collected from boreholes SB43–SB50, SB60, SB68, SB69, and SB71 on the former CCC/USDA property, at depths from 41 ft to 70.5 ft BGL. Groundwater samples were also collected from existing monitoring wells KMW03, MW-P, and MW-Q. All samples were analyzed for VOCs by using EPA Method 524.2, and selected samples were analyzed for inorganic compounds. Complete results for VOCs are in Table S2.3 in Supplement 2. Table 3.4 summarizes the VOCs results in groundwater samples from the former CCC/USDA property.

Figure 3.5 shows the groundwater sampling locations and the maximum carbon tetrachloride concentration detected at each location on the former CCC/USDA property. Figures 3.6 and 3.7 show chloroform and 1,2-DCA concentrations in groundwater, respectively.

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 1 μg/L in 22 groundwater samples from locations MW-P, SB43, SB46, SB48, SB49, SB68, SB69, and SB71 on the former CCC/USDA property (Figure 3.5). In addition, trace levels of carbon tetrachloride (below the method quantitation limit) were detected in 14 groundwater samples from locations MW-Q, SB43, SB45, SB47, SB60, SB68, SB69, and SB71. Carbon tetrachloride levels at MW-P, SB46, SB48, SB49, and SB68 exceeded the MCL of 5 μg/L. The MCL is equivalent to the KDHE Tier 2 Risk Based Screening Level (RBSL) for carbon tetrachloride in groundwater.

The highest carbon tetrachloride concentrations found in groundwater on the former CCC/USDA property (Table 3.4) occurred in samples from SB46 (1,710 μg/L at 45–50 ft BGL), SB49 (four samples with concentrations of 228–731 μg/L at 48–68 ft BGL), MW-P (423 μg/L at approximately 35–55 ft BGL), and SB48 (76 μg/L at 60.5–65.5 ft BGL). Locations SB46, SB48, and SB49 are in the east-central part of the property. Locations SB46 and SB49 also had the highest concentrations of carbon tetrachloride in soil on the former CCC/USDA property.

Chloroform was detected at or above the method quantitation limit in 13 groundwater samples from locations MW-P, SB46, SB48, and SB49, as well as at trace levels in 8 samples

from SB43, SB45, SB46, SB60, SB68, and SB71. All of the chloroform concentrations were below the MCL (and RBSL) of 100 μg/L for this compound.

No VOCs were detected in groundwater samples from KMW03, SB44, and SB50 on the former CCC/USDA property.

Neither methylene chloride nor 1,2-DCA was found in any groundwater sample collected on the former CCC/USDA property.

3.5.2 Pro-Ag Co-op Property

Eighty-one groundwater samples were collected from boreholes SB51–SB56, SB58, SB59, SB61–SB66, SB70, SB73, SB75, and SB78 on and near the Pro-Ag Co-op property. Sampling occurred at discrete depths between 40 ft and 117 ft BGL. Groundwater samples were also collected from existing monitoring wells KMW02, MW-H, MW-I, MW-J, MW-K, and MW-O. All samples were analyzed for VOCs by using EPA Method 524.2, and selected samples were analyzed for inorganic compounds. Complete analytical results are in Supplement 2. Table 3.5 summarizes the VOCs results for groundwater samples from the Pro-Ag Co-op property.

Figure 3.5 shows the groundwater sampling locations and the maximum carbon tetrachloride concentration detected at each location on the Pro-Ag Co-op property. Figures 3.6 and 3.7 show chloroform and 1,2-DCA concentrations in groundwater.

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 1 μg/L in 37 groundwater samples from well MW-J and boreholes SB51, SB53, SB54, SB58, SB59, SB61–SB65, SB73, and SB78 (Table 3.5). Trace levels were detected in 17 additional samples from wells KMW02, MW-I, and MW-O and boreholes SB52, SB54, SB58, SB62, SB63, SB66, SB70, and SB78. Carbon tetrachloride levels above the MCL (and the RBSL) occurred at MW-J, SB51, SB53, SB59, SB61, SB62, SB64, SB65, and SB73.

Chloroform was detected at or above the laboratory method quantitation limit in 22 samples from CPT locations SB53, SB59, SB61–SB64, and SB73. Trace concentrations were found in 18 additional samples from wells KMW02 and MW-H and from boreholes SB51–SB54,

SB58, SB62, SB65, and SB78. None of the concentrations were above the MCL (and the RBSL) for chloroform.

The VOC 1,2-DCA was detected at trace to low levels in 7 groundwater samples from SB53, SB59, and SB64 on the Pro-Ag Co-op property. The compound was also found in a soil sample collected at SB53.

No VOCs were detected in groundwater samples from MW-K, SB55, SB56, and SB75.

The highest maximum carbon tetrachloride concentrations in groundwater samples from the Pro-Ag Co-op property occurred at locations SB53 (350 μg/L at 58–63 ft BGL), SB59 (1,506 μg/L at 45–50 ft BGL), and SB64 (6,413 μg/L at 47.7–52.7 ft BGL). The highest concentrations of carbon tetrachloride in soil also occurred at these three locations. In addition, these were the only sample locations that showed detectable levels of 1,2-DCA in groundwater.

3.5.3 Former Retail Store Property

Three groundwater samples were collected from one borehole (SB67) at and near the former retail store property, at depths of 46.5–61.5 ft BGL. Groundwater samples were also collected from monitoring wells KMW01, MW-1, and MW-2. All samples were analyzed for VOCs by using EPA Method 524.2. Complete analytical results are in Supplement 2. Table 3.6 summarizes the vertical distribution of VOCs in groundwater samples collected at or near the former retail store.

Figure 3.5 shows the groundwater sampling locations at and near the former retail store and the maximum carbon tetrachloride concentration detected at each location. Figures 3.6 and 3.7 show chloroform and 1,2-DCA concentrations in groundwater.

Carbon tetrachloride and chloroform were detected above the AGEM Laboratory's method quantitation limit in all three samples from SB67 (Table 3.6). The highest concentration occurred in the shallow sample (57 μg/L at 46.5–51.5 ft BGL). The deeper samples contained carbon tetrachloride at 35 μg/L and 22 μg/L (51.5–61.5 ft BGL). The chloroform levels were significantly lower at comparable depths.

The monitoring wells sampled near the former retail store showed both carbon tetrachloride and chloroform contamination (Table 3.6). Carbon tetrachloride was detected above the MCL and RBSL in the samples from KMW01 (54.4 μg/L) and MW-2 (59 μg/L), and a trace level was detected in well MW-1.

3.5.4 Areas Downgradient from the Target Areas

The CPT was used to collect 24 groundwater samples downgradient from the three target areas (the former CCC/USDA facility, the former retail store, and the Pro-Ag Co-op property), at locations SB40–SB42, SB72, SB79, and SB80. In addition, 21 samples were collected from monitoring wells, public water supply wells, privately owned water wells, and existing piezometers outside the three target areas. The results provide additional information concerning the extent and degree of the contaminant plume in the general investigation area. Carbon tetrachloride concentrations at these locations are displayed in Figure 3.8, and chloroform concentrations are shown in Figure 3.9. Table 3.7 summarizes the distribution of VOCs in these samples.

Groundwater samples from all of the downgradient boreholes, except SB72, contained carbon tetrachloride at levels above the AGEM Laboratory method quantitation limit. The highest contaminant levels were in boreholes SB40 and SB41, where concentrations in all samples exceeded the MCL and RBSL for carbon tetrachloride. Boreholes SB40 and SB41 are downgradient from the sample locations (SB53, SB59, and SB64) on the Pro-Ag Co-op property that exhibited the highest carbon tetrachloride concentrations in both soil and groundwater.

Farther downgradient from the Pro-Ag Co-op property, at SB42, SB79, and SB80, one or more groundwater samples contained carbon tetrachloride at concentrations above the MCL or RBSL. Chloroform was also detected in several samples from downgradient boreholes, but 1,2-DCA was not.

Carbon tetrachloride and chloroform were not detected in the new lawn and garden well at the Betty McCormick residence (DW07A) in the 2005 investigation. The former lawn and garden well at this residence was not sampled during the 1998–1999 monitoring; the owners reported that the well had collapsed. Trace concentrations of both carbon tetrachloride and chloroform were detected in the 2005 investigation in the shallow stock well (windmill) at the Atchison residence (DW98).

Nitrate was detected at levels above the MCL of 10 mg/L throughout the area investigated, as shown in Figure 3.10.

3.6 Groundwater Depth Data

The groundwater gradient in the general investigation area has historically been determined to be toward the south to southeast. Data collected in previous investigations suggested that use of the public water supply wells has influenced the groundwater flow direction and contaminant migration.

During the 2005 investigation, groundwater levels in monitoring wells and piezometers were recorded on May 18, 2005. Levels were measured manually (with an electronic meter) to the nearest 0.01 ft from a surveyed reference point (the top of the casing in each well). Water levels measured on four dates in May 2005–January 2006 and used for water level mapping are in Table S3.1, Supplement 3 (on CD).

In June and July 2005, Argonne placed data loggers in monitoring wells KMW02, MW-B, MW-I, MW-M, MW-R, SB23, SB23S, SB28, SB28S, SB38D, SB38S, and SB72. The data loggers have been recording water levels at 4-hr intervals. The complete set of water levels recorded by the data loggers in May–September 2005 is in Supplement 3, Table S3.2.

Maps depicting groundwater gradients were developed from both manual measurements and data logger records for four dates (Table S3.1; Figures 3.11 and 3.12). As the figures indicate, the groundwater flow direction and gradient did not vary significantly over the period of record. The results are consistent with the previously determined south-southeast flow direction.

3.7 Results of Quality Control Activities

The QA/QC procedures for sample collection, handling, and analysis during the investigation are described in detail in the *Master Work Plan* (Argonne 2002) and the site-specific *Work Plan* (Argonne 2005). A detailed QA/QC report addressing activities related to sample collection, handling, and analysis during the investigation is in Supplement 4 (on CD).

Results of QA/QC activities are summarized as follows:

- Sample integrity was maintained successfully throughout the collection, shipping, and analysis activities through documentation of samples as they were collected and the use of custody seals and chain-of-custody records (Supplement 5, on CD).

- All samples were received with custody seals intact and at appropriate preservation conditions. All samples were analyzed within the required holding times. Carbon tetrachloride and chloroform were not detected in laboratory method blanks.

- The common laboratory contaminant methylene chloride was present at trace concentrations in the methanol used for extraction of the soil samples. Detections of methylene chloride at similar concentrations in the soil samples are not reported.

- Except for one sample delivery group, methylene chloride was not present in laboratory blanks or water samples. The exception involves water samples analyzed on May 24, 2005. In this case, methylene chloride was present at low concentrations in the laboratory blank and several samples. Detections of methylene chloride in these samples are not reported.

- As an indicator of cross-contamination, 40 trip blanks were prepared and included in containers of soil or water samples shipped for organic analyses. Carbon tetrachloride and chloroform were not detected in trip blanks shipped with samples for VOCs analyses.

- Four field blanks were collected to represent waters used during equipment decontamination. Carbon tetrachloride and chloroform, contaminants of concern in this investigation, were not detected in the field blanks.

- Fifteen equipment rinsates were collected to monitor decontamination procedures for the reusable sampling equipment. Neither carbon tetrachloride

nor chloroform was detected in the rinsate samples, indicating that cross-contamination of groundwater samples did not occur during sample collection.

- Extremely heavy rainfall on July 9, 2005, affected groundwater samples collected at two locations on that day. Field measurements of conductivity confirmed that the samples had been diluted. The locations were resampled on July 11, 2005, and the July 9 results were rejected as non-representative of site conditions.

- Initial samples collected without sufficient purging at MW-P on June 10, 2005, and at SB49 on June 12, 2005 (one depth interval only), were rejected as non-representative of site conditions. Both locations were resampled.

- Soil and groundwater samples were analyzed for carbon tetrachloride and chloroform at the AGEM Laboratory by using the purge-and-trap method. Dual analyses of samples indicated consistency in the sampling and analytical methodologies. Dual analyses involved either analyses of replicate samples submitted to the laboratory or duplicate analyses of samples selected by the laboratory. Consistency in both the sampling and analytical methodologies is indicated by the average relative percent difference (RPD) value of 17.7% for carbon tetrachloride and the average RPD value of 17.4% for chloroform in dual analyses with the contaminants present. The data are acceptable for quantitative determination of contaminant distribution.

- The initial analyses of one groundwater sample-replicate pair (collected at SB64, 42.7–47.7 ft BGL) at the AGEM Laboratory gave carbon tetrachloride concentrations above the instrument calibration range. Limited water was available at this depth, and sample volume was inadequate to repeat the analyses at dilution. The carbon tetrachloride results are accepted with qualification.

- The analyses of water samples at the AGEM Laboratory with EPA Method 524.2 were verified at a second laboratory with EPA-defined Contract Laboratory Program (CLP) methodology. Of the 196 groundwater samples analyzed at the AGEM Laboratory, 17 (9%) were also analyzed with CLP

methodology at Envirosystems, Inc., in Columbia, Maryland. Agreement was good over the range of contaminant concentrations detected. Samples analyzed at the AGEM Laboratory with no detection of contamination were analyzed at the CLP laboratory with similar results. Because of the higher quantitation limit of 5 μg/L for the CLP analysis, very low concentrations of VOCs detected by the purge-and-trap analysis (quantitation limit 1 μg/L) were sometimes not detected by the CLP analysis. For samples with contaminant concentrations above the purge-and-trap quantitation limit, the RPD values for carbon tetrachloride ranged from 0.4% to 46.6%, while the RPD values for chloroform ranged from 8% to 26.7%. The detection of the contaminant 1,2-DCA at soil boring SB53 was confirmed by CLP analysis. The CLP laboratory data are in Supplement 5 (on CD).

- The analyses of soil samples at the AGEM Laboratory with EPA Method 8260B were verified at a second laboratory with the same analytical method. Of the 250 soil samples analyzed at the AGEM Laboratory, 26 (10%) were also analyzed at Severn-Trent Laboratories, Inc., in Colchester, Vermont. Agreement was good over the range of contaminant concentrations detected. Soil samples analyzed at the AGEM Laboratory with no detection of VOCs were analyzed at Severn-Trent with similar results. With one exception, the RPD values for carbon tetrachloride ranged from 13.5% to 33.6% for soil samples with contaminant concentrations above the AGEM Laboratory purge-and-trap quantitation limit of 10 μg/kg. The inherent heterogeneity of soil samples is evident in the results for sample AGSB46-S-17519, for which the AGEM Laboratory reported carbon tetrachloride at 801 μg/kg, while Severn-Trent reported 250 μg/kg. The detection of the contaminant 1,2-DCA at soil boring SB53 by analysis at the AGEM Laboratory was confirmed by the Severn-Trent analysis. The Severn-Trent data are in Supplement 5 (on CD).

- Inorganic analyses of the groundwater samples were similarly conducted at Severn-Trent Laboratories. Accuracy in the analytical methodology followed was measured by the analysis of spiked laboratory QC samples with each sample delivery group. Recovery in these samples was within prescribed limits. Good analytical precision was indicated by the low RPD values between the reported concentrations in dual analyses. The inorganic data are acceptable for geochemical characterization.

- For the tritium analyses at the University of Miami Tritium Laboratory, the instrument was calibrated with a standard, and dual analyses of samples gave comparable results. The data are acceptable for age dating of groundwaters.

3.8 Waste Characterization, Handling, and Disposal

Waste water generated from field activities was stored in 55-gal drums and aerated. Carbon tetrachloride was detected in one drum at < 1 μg/L, while chloroform was not detected (Table S4.2, Supplement 4). The water was discharged on-site.

3.9 Summary of Analytical Data

The data collected during this investigation address the objectives detailed in the KDHE-approved *Work Plan* (Argonne 2005). Key results of the investigation are as follows:

- Former CCC/USDA property

  - One potential source area (SB46) was identified near the center of the former CCC/USDA property.

  - Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 μg/kg in 16 of the 79 soil samples collected (at 3 of the 6 locations sampled) on the former CCC/USDA property. The highest carbon tetrachloride levels in soil samples occurred at SB46 (2,273 μg/kg at 44 ft BGL, just above the saturated zone), in the east-central part of the property.

  - Carbon tetrachloride was detected at or above the MCL of 5 μg/L in 12 of the 58 groundwater samples collected (at 4 of 15 locations sampled) on the former CCC/USDA property. The highest concentration (1,710 μg/L at 45–50 ft BGL) was again detected at SB46.

  - 1,2-Dichloroethane was not detected in soil or groundwater samples collected on the former CCC/USDA property.

- Pro-Ag Co-op property

  - Three source areas (locations SB53, SB59, and SB64) were identified on the Pro-Ag Co-op property. Locations SB53 and SB64 are near the western end of the property, while SB59 is near the center of the property.

  - Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 μg/kg in 14 of the 159 soil samples collected (at 3 of the 13 locations sampled) on the Pro-Ag Co-op property. The maximum concentrations were 52 μg/kg at SB53 (40 ft BGL), 728 μg/kg at SB59 (48 ft BGL), and 1,604 μg/kg at SB64 (within the saturated zone at 48 ft BGL).

  - Carbon tetrachloride was detected at or above the MCL of 5 μg/L in 28 of the 87 groundwater samples collected on the Pro-Ag Co-op property (at 9 of 24 locations sampled). The highest concentrations occurred in the potential source areas: 350 μg/L at SB53 (58–63 ft BGL); 1,506 μg/L at SB59 (45–50 ft BGL); and 6,413 μg/L at SB64 (48–53 ft BGL).

  - 1,2-Dichloroethane was found in both soil and groundwater samples collected at SB53 and in groundwater samples collected at SB59 and SB64.

- Former retail store property

  - The present investigation did not rule out a source area at the former retail store. However, identification of a separation between potential contaminant plumes emanating from the Pro-Ag Co-op property and the former retail store property was beyond the scope of this investigation.

  - Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 μg/kg in 1 of the 12 soil samples collected at SB67 on the former retail store property (47 μg/kg at 48 ft BGL).

  - Carbon tetrachloride was found at or above the MCL of 5 μg/L in all of the 3 groundwater samples collected at SB67, as well as in samples from 2 of

the 3 monitoring wells on or near the former retail store property. The concentrations in the 5 samples were similar (22–59 μg/L at depths between 40 ft and 61.5 ft BGL in SB67, KMW01, and MW-1).

- No 1,2-DCA was detected in soil or groundwater samples collected at or near the former retail store.

TABLE 3.1 Summary of analytical results for soil samples collected on the former CCC/USDA property during the 2005 investigation at Agra, Kansas.

				Concentration (μg/kg)		
Location	Sample Date	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB43	7/11/05	4.0	1	ND[a]	ND	ND
		8.0	1	ND	ND	ND
		11.0	1	1.5 J[b]	ND	ND
		12.0	1	2.6 J	1.3 J	ND
		16.0	1	2.6 J	ND	ND
		20.0	1	1.5 J	0.8 J	ND
		24.0	1	2.6 J	1.3 J	ND
		28.0	1	ND	ND	ND
		32.0	1	ND	ND	ND
		36.0	1	5.9 J	ND	ND
		40.0	1	11	ND	ND
		44.0	1	10	1.3 J	ND
		48.0	1	ND	ND	ND
SB45	7/11/05	2.0–48.0	16	ND	ND	ND
SB46	7/10/05	4.0	1	ND	ND	ND
		8.0	1	29	5.7 J	ND
		12.0	1	27	3.6 J	ND
		16.0	1	73	1.2 J	ND
		20.0	1	85	11	ND
		24.0	1	79	13	ND
		28.0	1	213	17	ND
		32.0	1	742	10	ND
		36.0	1	127	10	ND
		40.0	1	705	8.3 J	ND
		44.0	1	2,273	7.7 J	ND
		48.0	1	856	17	ND
		52.0	1	801	2.0 J	ND
SB48	7/12/05–7/13/05	4.0–48.0	12	ND	ND	ND
SB49	7/12/05	4.0	1	ND	ND	ND
		8.0	1	ND	0.3 J	ND
		12.0	1	ND	ND	ND
		16.0	1	ND	0.9 J	ND
		20.0–32.0	4	ND	ND	ND
		34.0	1	4.1 J	ND	ND
		36.0	1	ND	ND	ND
		40.0	1	ND	ND	ND
		44.0	1	33	ND	ND
		48.0	1	481	8.5 J	ND

TABLE 3.1 (Cont.)

Location	Sample Date	Depth (ft BGL)	Number of Samples	Concentration (μg/kg) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB68	7/13/05	4.0–8.0	2	ND	ND	ND
		12.0	1	ND	1.8 J	ND
		16.0	1	ND	1.6 J	ND
		20.0	1	ND	ND	ND
		24.0	1	4.4 J	2.7 J	ND
		28.0	1	1.5 J	ND	ND
		32.0	1	3.4 J	2.3 J	ND
		36.0	1	7.2 J	1.7 J	ND
		40.0	1	6.3 J	1.4 J	ND
		44.0	1	5.0 J	ND	ND
		48.0	1	ND	ND	ND

[a] ND, contaminant not detected at a detection limit of 1.0 μg/kg.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 10.0 μg/kg.

TABLE 3.2 Summary of analytical results for soil samples collected on and near the Pro-Ag Co-op property during the 2005 investigation at Agra, Kansas.

				Concentration (μg/kg)		
Location	Sample Date	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB51	5/23/05	4.0–48.0	12	ND[a]	ND	ND
SB52	5/21/05	4.0–46.0	13	ND	ND	ND
SB53	5/20/05	4.0	1	ND	ND	ND
		8.0	1	ND	ND	ND
		12.0	1	16	2.1 J[b]	ND
		16.0–32.0	6	ND	ND	ND
		36.0	1	10	3.4 J	ND
		40.0	1	52	5.9 J	5.9 J
SB54	6/7/05	4.0–44.0	11	ND	ND	ND
SB55	6/3/05	4.0–37.0	10	ND	ND	ND
		41.0	1	ND	4.0 J	ND
		45.0	1	ND	ND	ND
SB56	5/26/05	4.0–36.0	9	ND	ND	ND
		40.0	1	ND	4.1 J	ND
		44.0–48.0	2	ND	ND	ND
SB58	5/22/05	4.0–24.0	6	ND	ND	ND
		28.0	1	2.1 J	ND	ND
		32.0–48.0	5	ND	ND	ND
SB59	6/6/05	4.0–8.0	2	ND	ND	ND
		12.0	1	2.4 J	1.4 J	ND
		16.0	1	2.4 J	ND	ND
		20.0	1	ND	ND	ND
		24.0	1	5.4 J	1.9 J	ND
		28.0	1	5.5 J	2.0 J	ND
		32.0	1	11	2.8 J	ND
		36.0	1	236	5.5 J	ND
		40.0	1	62	6.0 J	ND
		44.0	1	562	6.4 J	ND
		48.0	1	728	5.0 J	ND
		52.0	1	138	3.4 J	ND
SB61	6/4/05	4.0–40.0	10	ND	ND	ND
SB62	5/24/05	4.0–36.0	9	ND	ND	ND
		40.0	1	6.2 J	1.1 J	ND
		44.0	1	1.9 J	ND	ND
		48.0	1	3.4 J	ND	ND
SB63	5/18/05–	2.0	1	ND	ND	ND
	5/19/05	4.0	1	2.7 J	1.5 J	ND
		5.0–44.0	15	ND	ND	ND

TABLE 3.2 (Cont.)

Location	Sample Date	Depth (ft BGL)	Number of Samples	Concentration (μg/kg) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB64	6/12/05–6/13/05	4.0	1	3.1 J	ND	ND
		8.0	1	ND	ND	ND
		12.0	1	1.9 J	ND	ND
		16.0–24.0	3	ND	ND	ND
		28.0	1	3.4 J	ND	ND
		32.0	1	19	1.8 J	ND
		36.0	1	14	ND	ND
		40.0	1	140	3.0 J	ND
		44.0	1	375	9.2 J	ND
		48.0	1	1,604	4.2 J	ND
SB73	6/13/05	4.0–48.0	12	ND	ND	ND

[a] ND, contaminant not detected at a detection limit of 1.0 μg/kg.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 10.0 μg/kg.

TABLE 3.3 Summary of analytical results for soil samples collected at and near the former retail store during the 2005 investigation at Agra, Kansas.

				Concentration (μg/kg)		
Location	Sample Date	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB67	7/14/05	4.0–40.0	10	ND[a]	ND	ND
		44.0	1	8.2 J[b]	ND	ND
		48.0	1	47	ND	ND

[a] ND, contaminant not detected at a detection limit of 1.0 μg/kg.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 10.0 μg/kg.

TABLE 3.4 Summary of results of organic analyses on groundwater samples collected on the former CCC/USDA property during the 2005 investigation at Agra, Kansas.[a]

					Concentration (μg/L)		
Location	Sample Date	Sample Type[b]	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
KMW03	5/21/05	MW	74–89	1	ND[c]	ND	ND
MW-P	6/13/05	MW	35.42–54.92	1	423	3.5	ND
MW-Q	5/21/05	MW	43.28–62.78	1	0.5 J[d]	ND	ND
SB43	7/11/05	CPT	42–47	1	3.2	0.8 J	ND
			47–52	1	1.7	0.3 J	ND
			52–57	1	0.8 J	ND	ND
			57–62	1	0.4 J	ND	ND
			62–67	1	0.5 J	ND	ND
SB44	7/10/05	CPT	53.5–58.5	1	ND	ND	ND
SB45	7/8/05	CPT	44–49	1	0.3 J	0.2 J	ND
	7/7/05		49–69	4	ND	ND	ND
SB46	7/6/05	CPT	45–50	1	1,710	49	ND
			50–55	1	35	2.1	ND
			55–60	1	65	4.6	ND
			60–65	1	2.0	0.4 J	ND
			65–70	1	2.0	0.4 J	ND
SB47	6/11/05	CPT	44.5–49.5	1	0.4 J	ND	ND
			49.5–54.5	1	ND	ND	ND
			54.5–59.5	1	0.9 J	ND	ND
			59.5–64.5	1	0.3 J	ND	ND
			64.5–69.5	1	0.3 J	ND	ND
			67–72	1	ND	ND	ND
SB48	6/12/05–6/13/05	CPT	45.5–50.5	1	35	1.4	ND
			50.5–55.5	1	8.5	1.1	ND
			55.5–60.5	1	23	1.7	ND
			60.5–65.5	1	76	2.8	ND
			65.5–70.5	1	2.3	1.0	ND
SB49	6/13/05	CPT	43–48	1	2.0	ND	ND
			48–53	1	731	5.5	ND
			53–58	1	228	2.3	ND
			58–63	1	428	4.5	ND
			63–68	1	287	3.2	ND
			68–73	1	2.9	ND	ND
SB50	6/13/05	CPT	45.5–65.5	4	ND	ND	ND
SB60	6/10/05	CPT	41–46	1	0.4 J	0.5 J	ND
			46–67	4	ND	ND	ND

TABLE 3.4 (Cont.)

Location	Sample Date	Sample Type[b]	Depth (ft BGL)	Number of Samples	Concentration (μg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB68	7/10/05	CPT	44–49	1	6.0	0.4 J	ND
			49–54	1	ND	ND	ND
			54–59	1	0.2 J	ND	ND
			59–64	1	ND	ND	ND
SB69	7/8/05	CPT	49–54	1	0.5 J	ND	ND
			54–59	1	1.0	ND	ND
			59–64	1	ND	ND	ND
SB71	6/11/05	CPT	47–52	1	2.1	0.7 J	ND
			52–57	1	0.2 J	ND	ND
			57–62	1	0.9 J	ND	ND
			62–77	3	ND	ND	ND

[a] Methylene chloride was not detected in any of these samples at a method detection limit of 0.1 μg/L.

[b] Sample types: CPT, cone penetrometer; MW, monitoring well.

[c] ND, contaminant not detected at detection limit of 0.1 μg/L.

[d] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 μg/L.

TABLE 3.5 Summary of results of organic analyses on groundwater samples collected on and near the Pro-Ag Co-op property during the 2005 investigation at Agra, Kansas.[a]

					Concentration (μg/L)		
Location	Sample Date	Sample Type[b]	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
KMW02	5/19/05	MW	57–97	1	0.4 J[c]	0.3 J	ND[d]
MW-H	5/25/05	MW	43–53	1	ND	0.7 J	ND
MW-I	5/19/05	MW	36–71	1	0.2 J	ND	ND
MW-J	5/21/05	MW	56–66	1	13	ND	ND
MW-K	5/21/05	MW	55–65	1	ND	ND	ND
MW-O	5/22/05	MW	38–58	1	0.9 J	ND	ND
SB51	5/23/05–5/24/05	CPT	46–51	1	9.6	0.3 J	ND
			51–56	1	10	0.5 J	ND
			56–61	1	9.1	ND	ND
			61–66	1	6.4	ND	ND
SB52	5/22/05	CPT	44–49	1	ND	ND	ND
			49–54	1	0.4 J	ND	ND
			54–59	1	0.7 J	0.3 J	ND
			59–68.45	2	ND	ND	ND
SB53	5/20/05–5/21/05	CPT	48–53	1	294	18	3.0
			53–58	1	168	11	ND
			58–63	1	350	14	1.3
			63–68	1	5.4	0.9 J	ND
SB54	6/8/05–6/9/05	CPT	45–50	1	1.4	0.4 J	ND
			50–55	1	ND	ND	ND
			55–60	1	0.8 J	ND	ND
			60–65	1	ND	ND	ND
SB55	6/3/05	CPT	45–90	6	ND	ND	ND
SB56	5/25/05–5/26/05	CPT	48–117	7	ND	ND	ND
SB58	5/22/05–5/23/05	CPT	48–53	1	3.0	0.6 J	ND
			53–58	1	1.4	0.6 J	ND
			58–63	1	1.3	0.2 J	ND
			63–68	1	0.7 J	ND	ND
SB59	6/6/05–6/7/05	CPT	45–50	1	1,506	23	ND
			52–57	1	487	18	ND
			59–64	1	173	3.8	0.6 J
			66–71	1	82	2.6	ND
			73–78	1	27	2.4	ND

TABLE 3.5 (Cont.)

Location	Sample Date	Sample Type[b]	Depth (ft BGL)	Number of Samples	Concentration (μg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB61	6/4/05–6/5/05	CPT	60–65	1	26	16	ND
			72–77	1	1.4	1.3	ND
			81–86	1	ND	ND	ND
			91–96	1	3.7	2.0	ND
			102–107	1	ND	ND	ND
SB62	5/24/05–5/25/05	CPT	45–50	1	31	5.7	ND
			50–55	1	10	1.0	ND
			55–60	1	1.5	0.4 J	ND
			60–65	1	0.5 J	0.4 J	ND
SB63	5/18/05–5/19/05	CPT	42.9–47.9	1	1.1	1.1	ND
			48.2–53.2	1	0.5 J	ND	ND
			52.9–57.9	1	0.2 J	ND	ND
			53.2–58.2	1	0.5 J	ND	ND
SB64	6/7/05–6/9/05	CPT	42.7–47.7	1	1,399 C[e]	49	ND
			47.7–52.7	1	6,413	49	0.9 J
			52.7–57.7	1	4,034	31	0.7 J
			57.7–62.7	1	1,026	31	1.1
			62.7–67.7	1	2,686	66	0.9 J
SB65	6/5/05–6/6/05	CPT	50–55	1	9.4	0.6 J	ND
			56–61	1	8.1	0.4 J	ND
			62–67	1	5.4	0.3 J	ND
			68–73	1	ND	ND	ND
SB66	6/7/05–6/9/05	CPT	48–83	3	ND	ND	ND
			88–93	1	0.5 J	ND	ND
			98–111	2	ND	ND	ND
SB70	7/11/05	CPT	40–50	2	ND	ND	ND
			55–60	1	0.2 J	ND	ND
			60–65	1	0.5 J	ND	ND
SB73	6/11/05–6/12/05	CPT	43–48	1	11	2.6	ND
			48–53	1	9.0	1.0	ND
			53–58	1	16	2.3	ND
			63–68	1	ND	ND	ND
SB75	7/12/05–7/13/05	CPT	46.5–56.5	2	ND	ND	ND
SB78	7/13/05	CPT	47.5–52.5	1	0.6 J	0.3 J	ND
			52.5–57.5	1	1.4	0.7 J	ND
			57.5–62.5	1	0.9 J	0.6 J	ND
			62.5–67.5	1	0.2 J	ND	ND

TABLE 3.5 (Cont.)

Footnotes:

[a] Methylene chloride was not detected in any of these samples at a method detection limit of 0.1 μg/L.

[b] Sample types: CPT, cone penetrometer; MW, monitoring well.

[c] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 μg/L.

[d] ND, contaminant not detected at detection limit of 0.1 μg/L.

[e] Qualifier C indicates an estimated result outside the calibration range for the analysis.

TABLE 3.6 Summary of results of organic analyses on groundwater samples collected at or near the former retail store during the 2005 investigation at Agra, Kansas.[a]

					Concentration (μg/L)		
Location	Sample Date	Sample Type[b]	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
KMW01	5/19/05	MW	43–53	1	54.4	2.7	ND[c]
MW-1	5/19/05	MW	41–51	1	0.5 J[d]	ND	ND
MW-2	5/24/05	MW	40–60	1	59	2.4	ND
SB67	7/12/05–7/13/05	CPT	46.5–51.5	1	57	3.0	ND
			51.5–56.5	1	35	2.3	ND
			56.5–61.5	1	22	3.8	ND

[a] Methylene chloride was not detected in any of these samples at a method detection limit of 0.1 μg/L.

[b] Sample types: CPT, cone penetrometer; MW, monitoring well.

[c] ND, contaminant not detected at detection limit of 0.1 μg/L.

[d] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 μg/L.

TABLE 3.7 Summary of results of organic analyses on groundwater samples collected at downgradient CPT locations and permanent monitoring points outside the target investigation areas during the 2005 investigation at Agra, Kansas.[a]

					Concentration (μg/L)		
Location	Sample Date	Sample Type[b]	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
DW07A	6/2/05	DW	50–70	1	ND[c]	ND	ND
DW98	6/3/05	DW	Unknown	1	0.3 J[d]	0.2 J	ND
MW-B	5/19/05	MW	39–54	1	ND	0.3 J	ND
MW-C	5/22/05	MW	35–55	1	ND	ND	ND
MW-F	5/25/05	MW	65–75	1	445	4.4	ND
MW-G	5/24/05	MW	89–99	1	25	2.3	ND
MW-L	5/22/05	MW	70–80	1	64	1.7	ND
MW-M	5/25/05	MW	59–69	1	112	1.9	ND
MW-N	7/12/05	MW	80–90	1	ND	ND	ND
MW-R	5/20/05	MW	44.45–63.95	1	ND	ND	ND
PWS-1	6/9/05	PW	82–91	1	0.6 J	3.5	ND
PWS-2	6/9/05	PW	73–82	1	ND	3.4	ND
PWS-3	6/3/05	PW	65–125	1	ND	ND	ND
SB15	6/2/05	SB/W	98.5–108.5	1	23	1.4	ND
SB23S	5/20/05	CPT/P	49–55	1	1.5	ND	ND
SB23	5/20/05	CPT/P	100–106	1	0.7 J	ND	ND
SB28S	5/23/05	CPT/P	59–65	1	ND	ND	ND
SB28	5/24/05	CPT/P	100–106	1	ND	ND	ND
SB36	6/2/05	SB/W	42.7–62.7	1	5.1	0.4 J	ND
SB38S	6/3/05	CPT/P	57–63	1	37	0.7 J	ND
SB38	6/3/05	CPT/P	95–101	1	57	1.0	ND
SB40	6/10/05	CPT	50–55	1	595	7.8	ND
			60–65	1	297	37	ND
			70–75	1	301	7.1	ND
			80–85	1	74	5.5	ND
			100–105	1	164	21	ND

TABLE 3.7 (Cont.)

Location	Sample Date	Sample Type[b]	Depth (ft BGL)	Number of Samples	Concentration (μg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB41	6/8/05–6/9/05	CPT	48–53	1	50	1.4	ND
			58–63	1	43	5.4	ND
			63–68	1	78	2.3	ND
			68–73	1	94	2.2	ND
			73–78	1	105	1.6	ND
SB42	7/7/05–7/9/05	CPT	50–55	1	43	1.3	ND
			65–70	1	60	1.3	ND
			80–85	1	0.8 J	ND	ND
			95–130	3	ND	ND	ND
			140–145	1	0.2 J	ND	ND
SB72	7/12/05	CPT/P	59–69	1	0.7 J	0.2 J	ND
SB79	7/14/05	CPT	50–55	1	13	1.3	ND
			55–60	1	10	0.6 J	ND
			60–65	1	3.0	0.7 J	ND
SB80	7/14/05	CPT	50–55	1	13	0.6 J	ND
			55–60	1	9.7	1.1	ND
			60–64.75	1	4.9	3.8	ND

[a] Methylene chloride was not detected in any of these samples at a method detection limit of 0.1 μg/L.

[b] Sample types: CPT, cone penetrometer; CPT/P, piezometer; DW, domestic well; MW, monitoring well; PW, public water supply well; SB/W, drilled monitoring well.

[c] ND, contaminant not detected at a detection limit of 0.1 μg/L.

[d] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 μg/L.

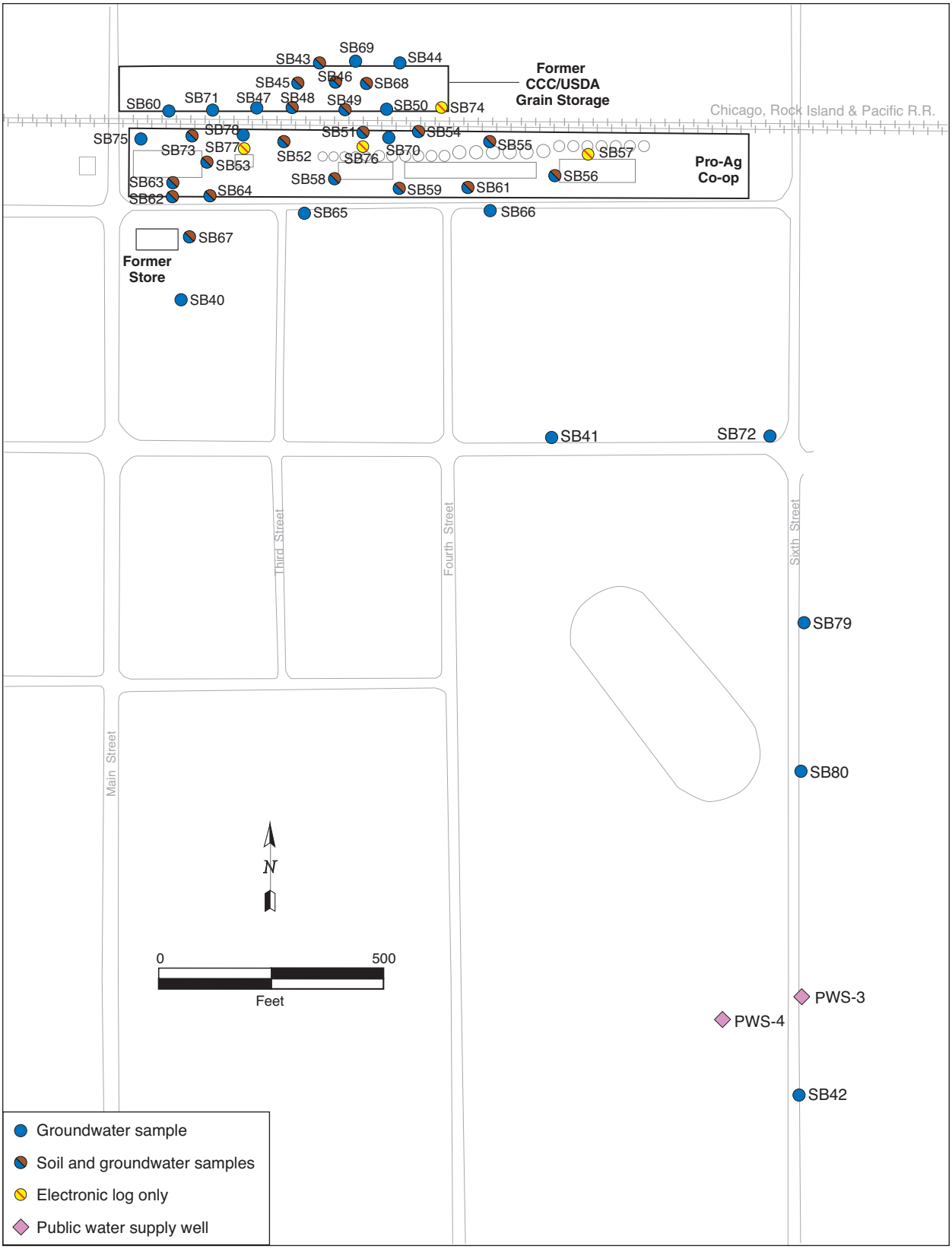

FIGURE 3.1 Cone penetrometer investigation locations (2005) in the target areas and the wider study area at Agra.

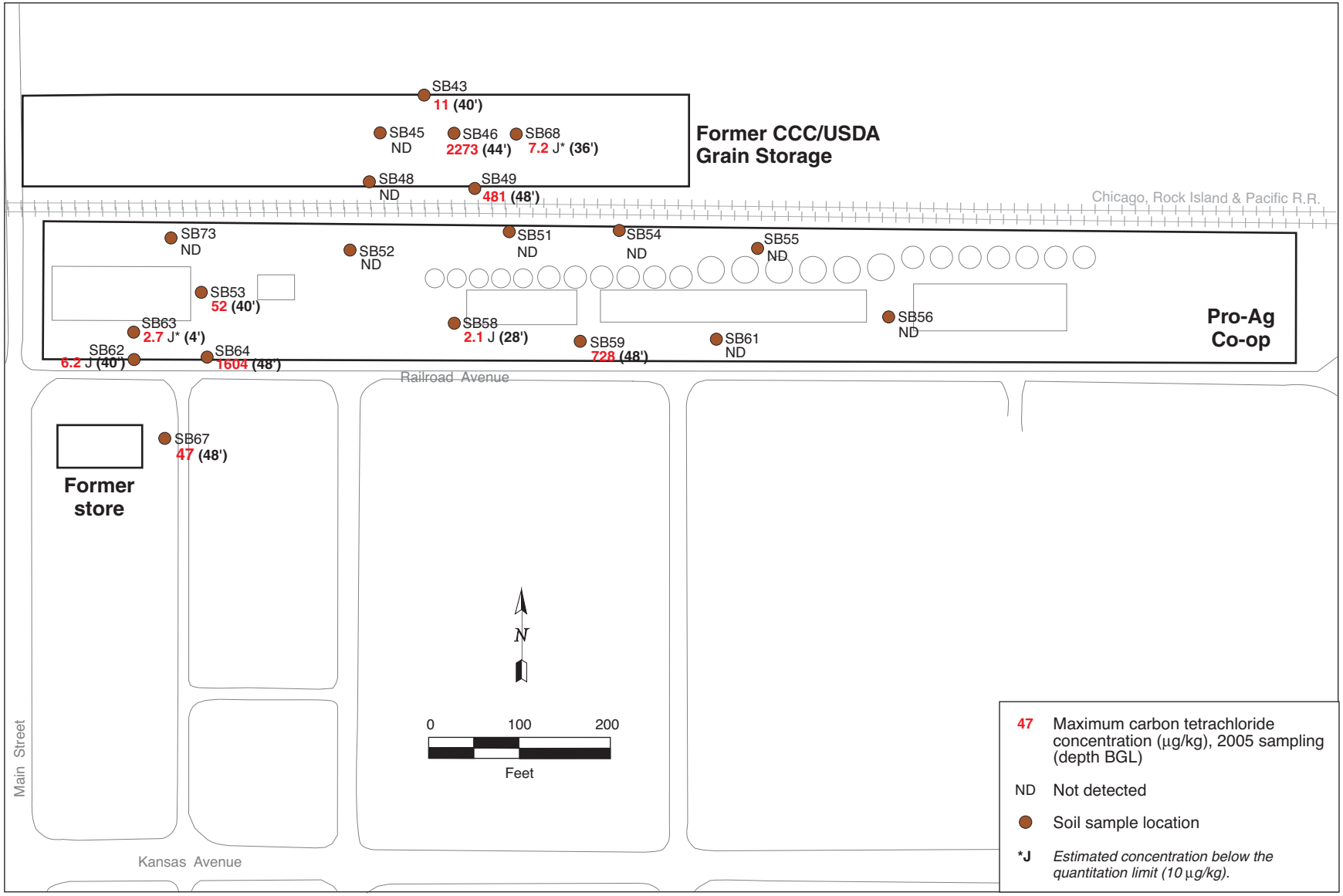

FIGURE 3.2 Carbon tetrachloride concentrations (maximum at each location) in soil samples from the three target areas at Agra.

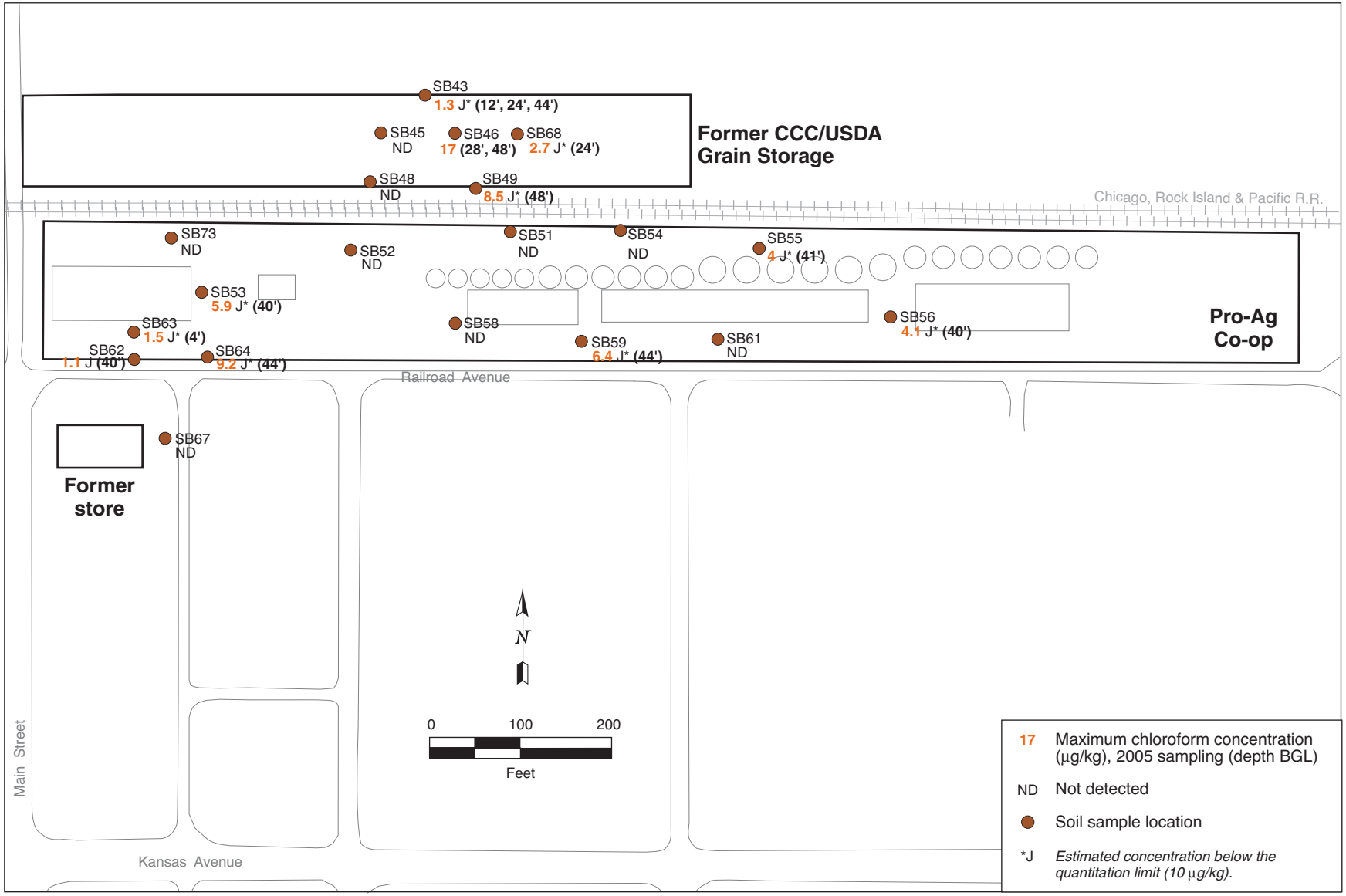

FIGURE 3.3 Chloroform concentrations (maximum at each location) in soil samples from the three target areas at Agra.

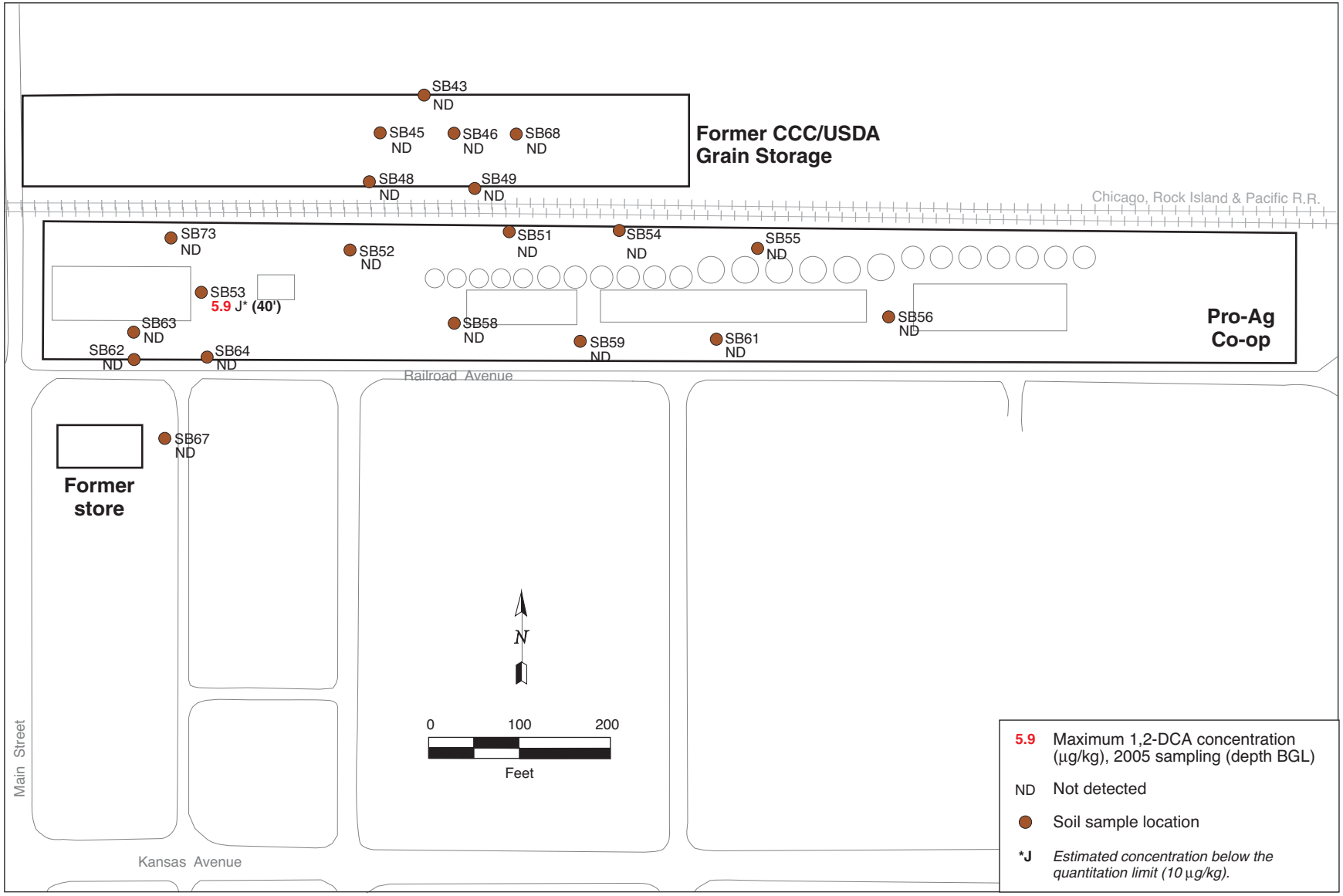

FIGURE 3.4 1,2-Dichloroethane concentrations (maximum at each location) in soil samples from the three target areas at Agra.

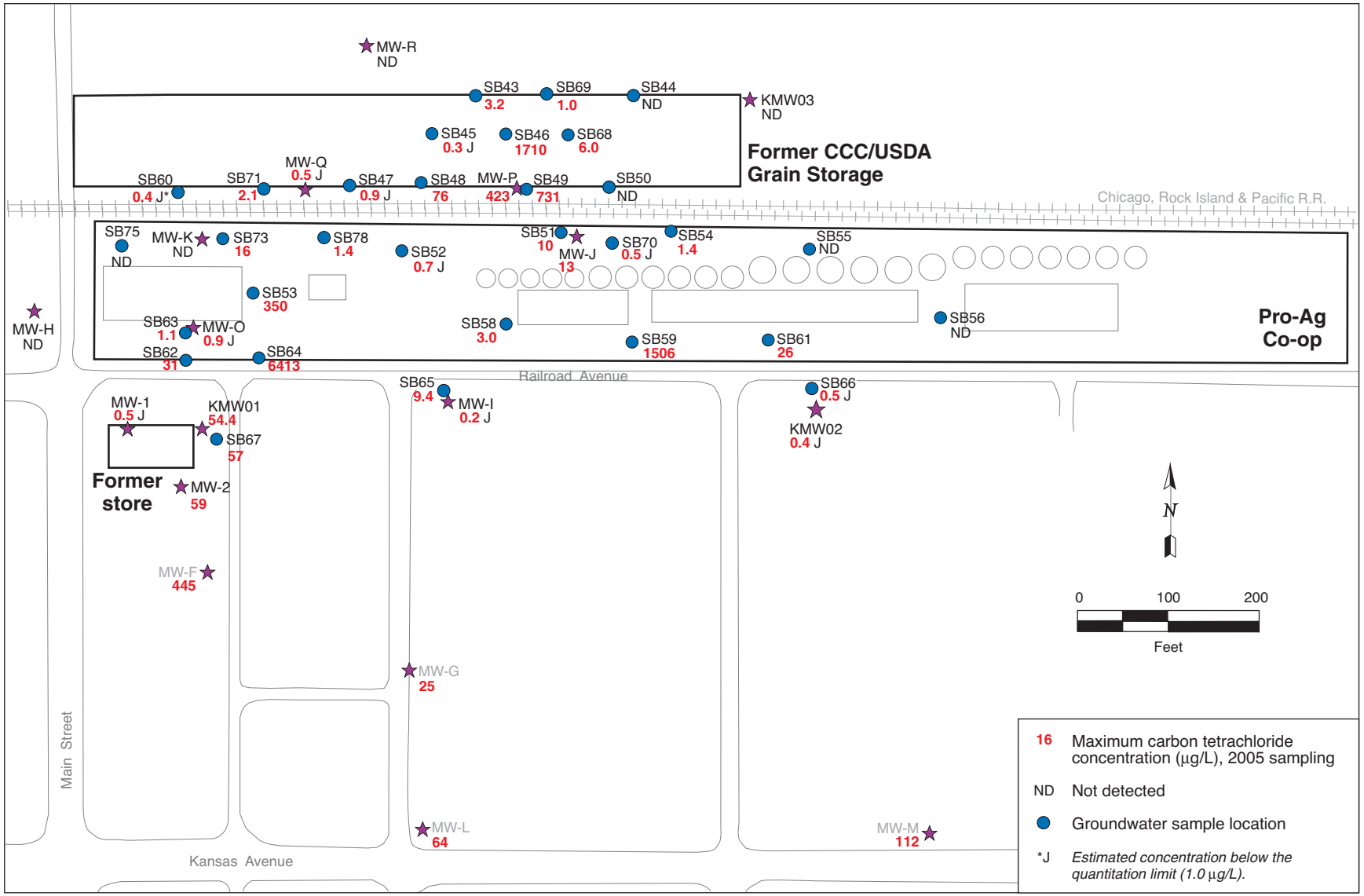

FIGURE 3.5 Carbon tetrachloride concentrations (maximum at each location) in groundwater samples from the three target areas at Agra.

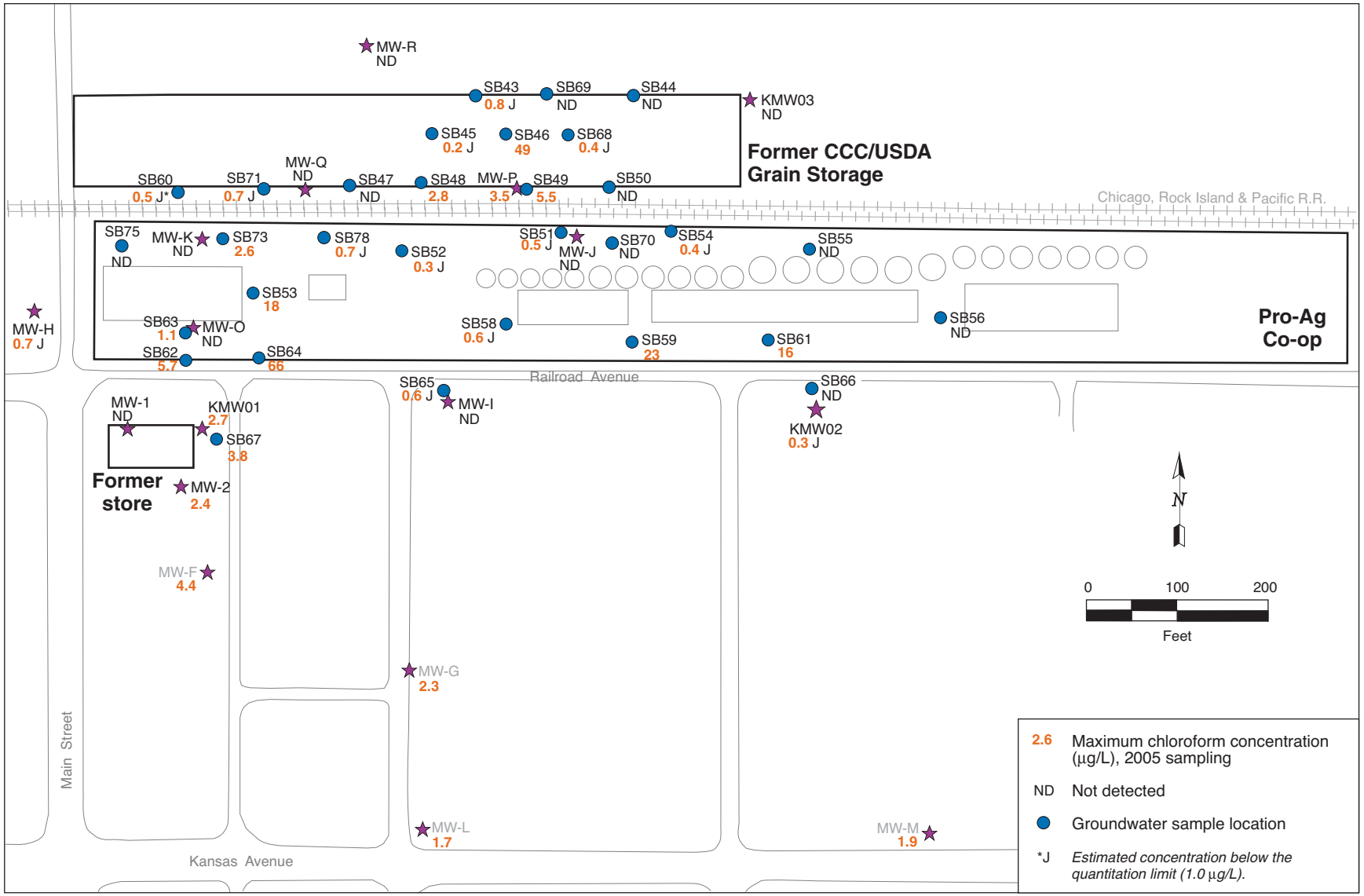

FIGURE 3.6 Chloroform concentrations (maximum at each location) in groundwater samples from the three target areas at Agra.

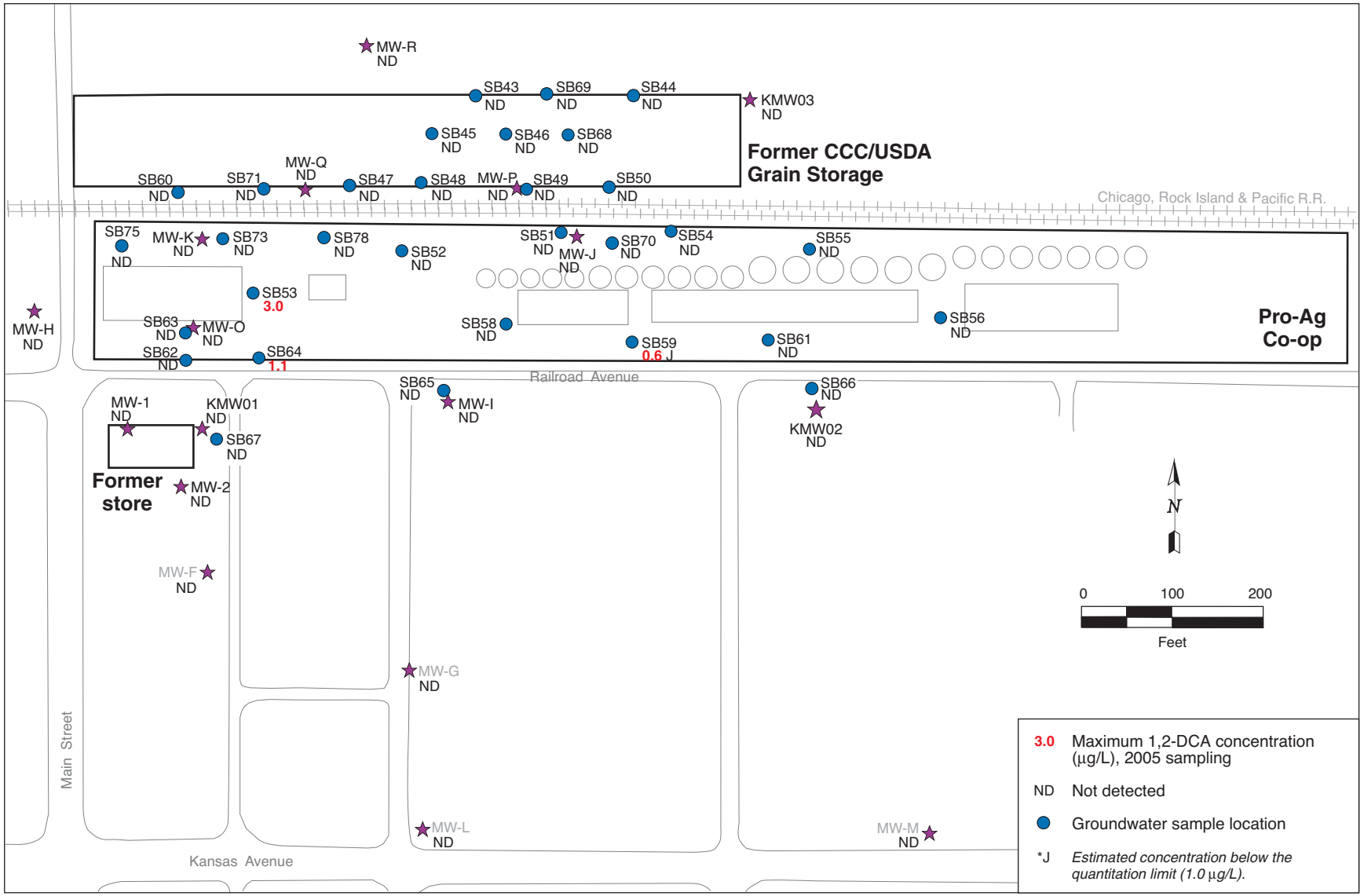

FIGURE 3.7 1,2-Dichloroethane concentrations (maximum at each location) in groundwater samples from the three target areas at Agra.

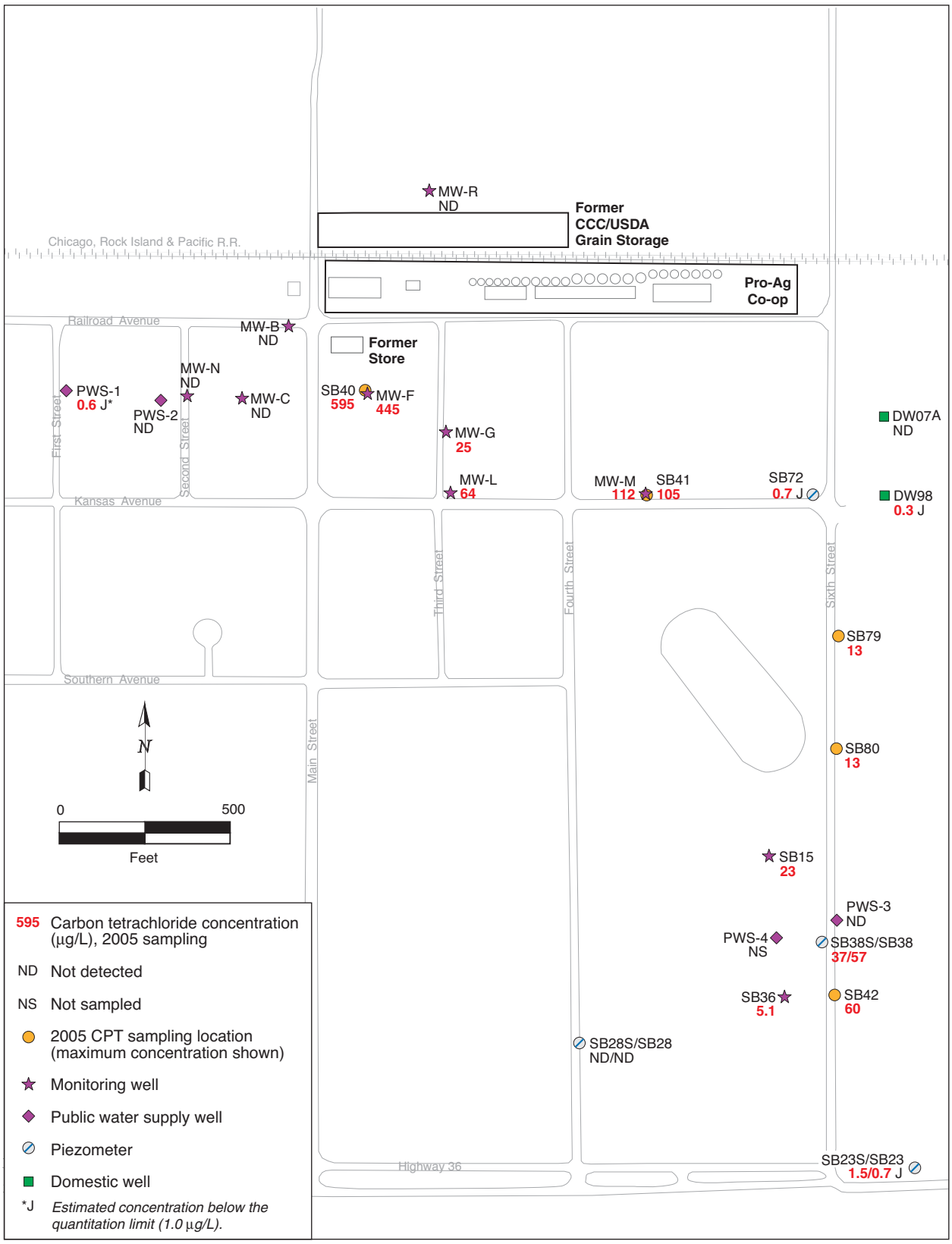

FIGURE 3.8 Carbon tetrachloride concentrations (maximum at each location) in groundwater samples collected outside the three target areas at Agra.

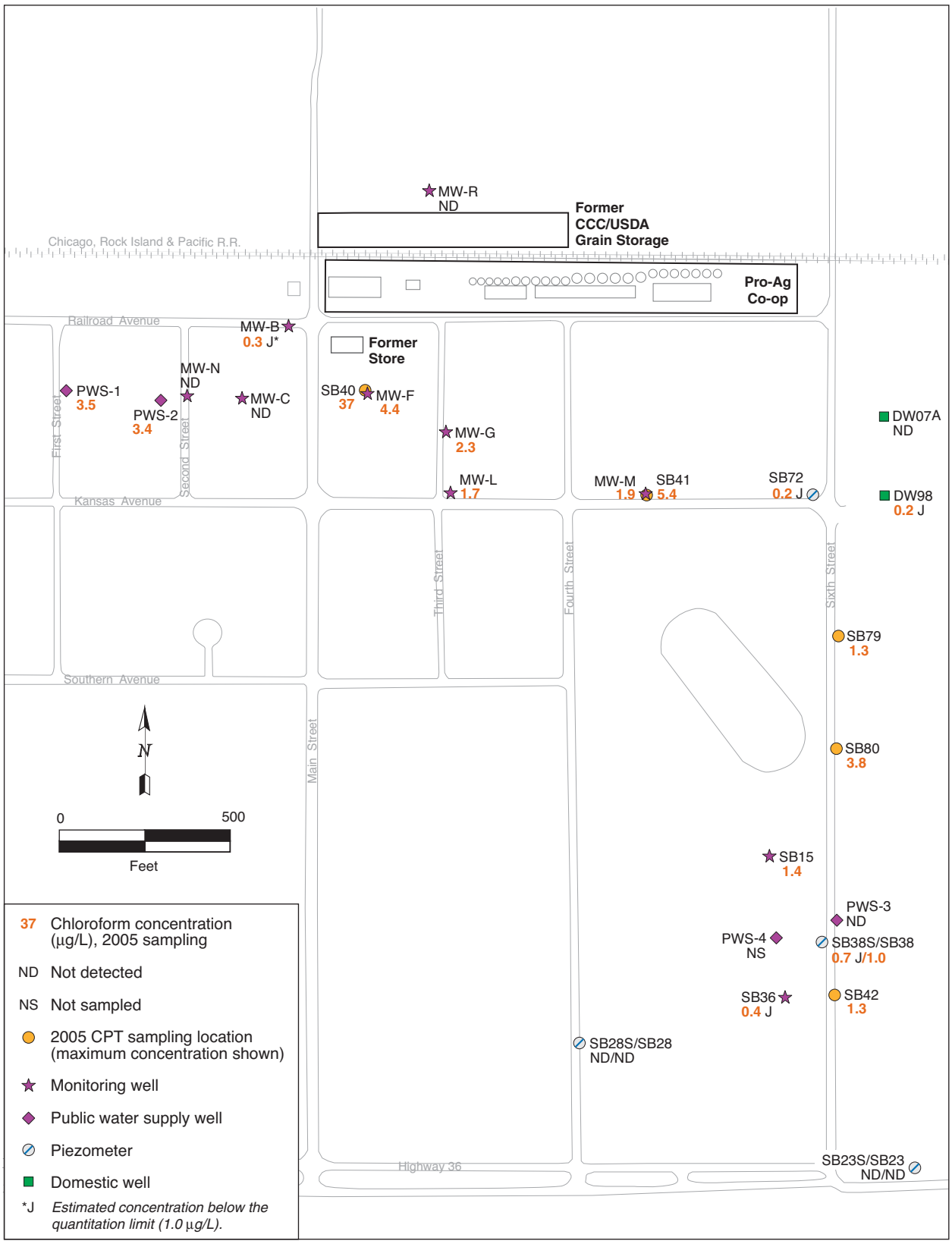

FIGURE 3.9 Chloroform concentrations (maximum at each location) in groundwater samples collected outside the three target areas at Agra.

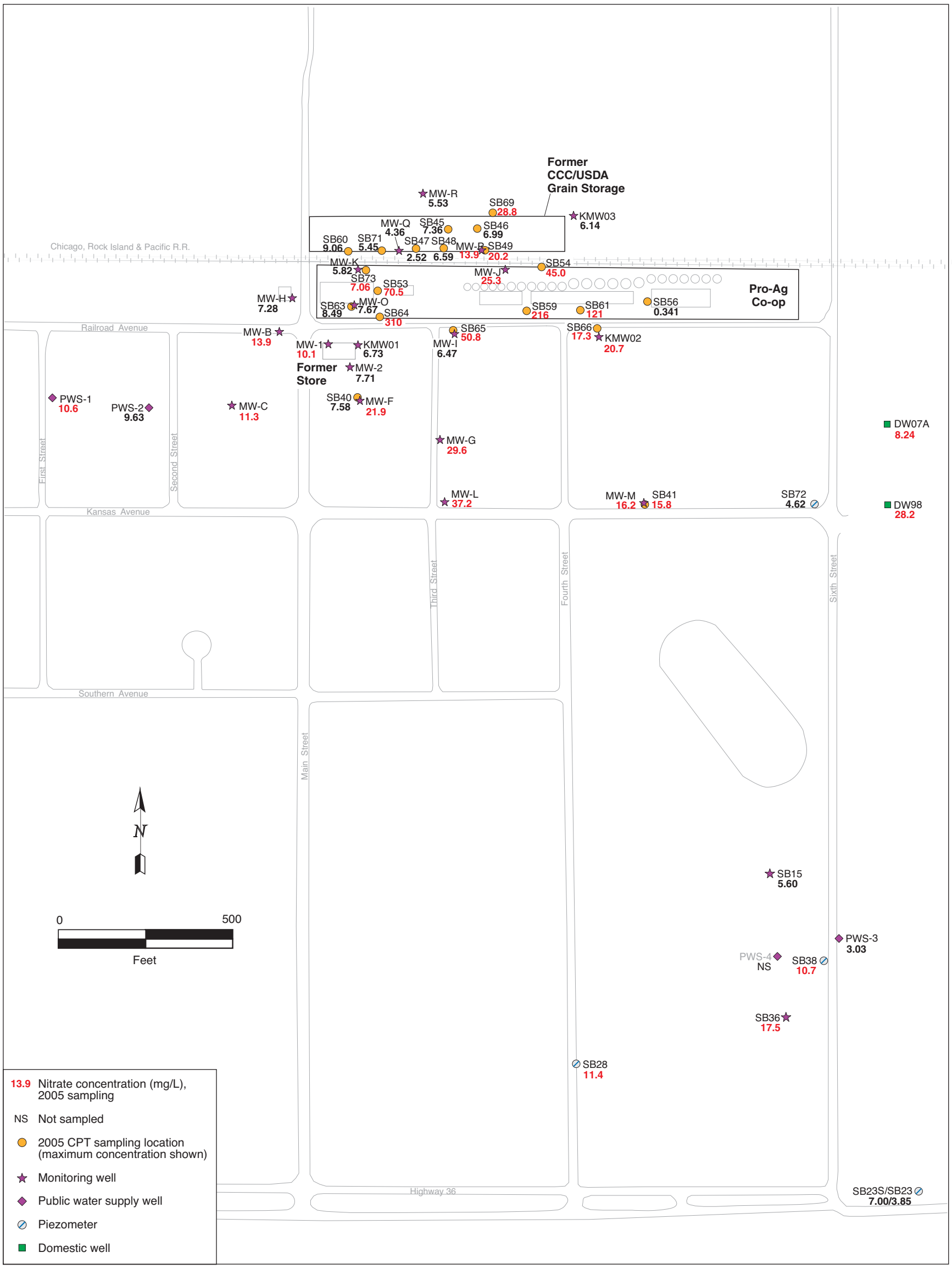

FIGURE 3.10 Nitrate concentrations (maximum at each location) in groundwater samples collected at Agra.

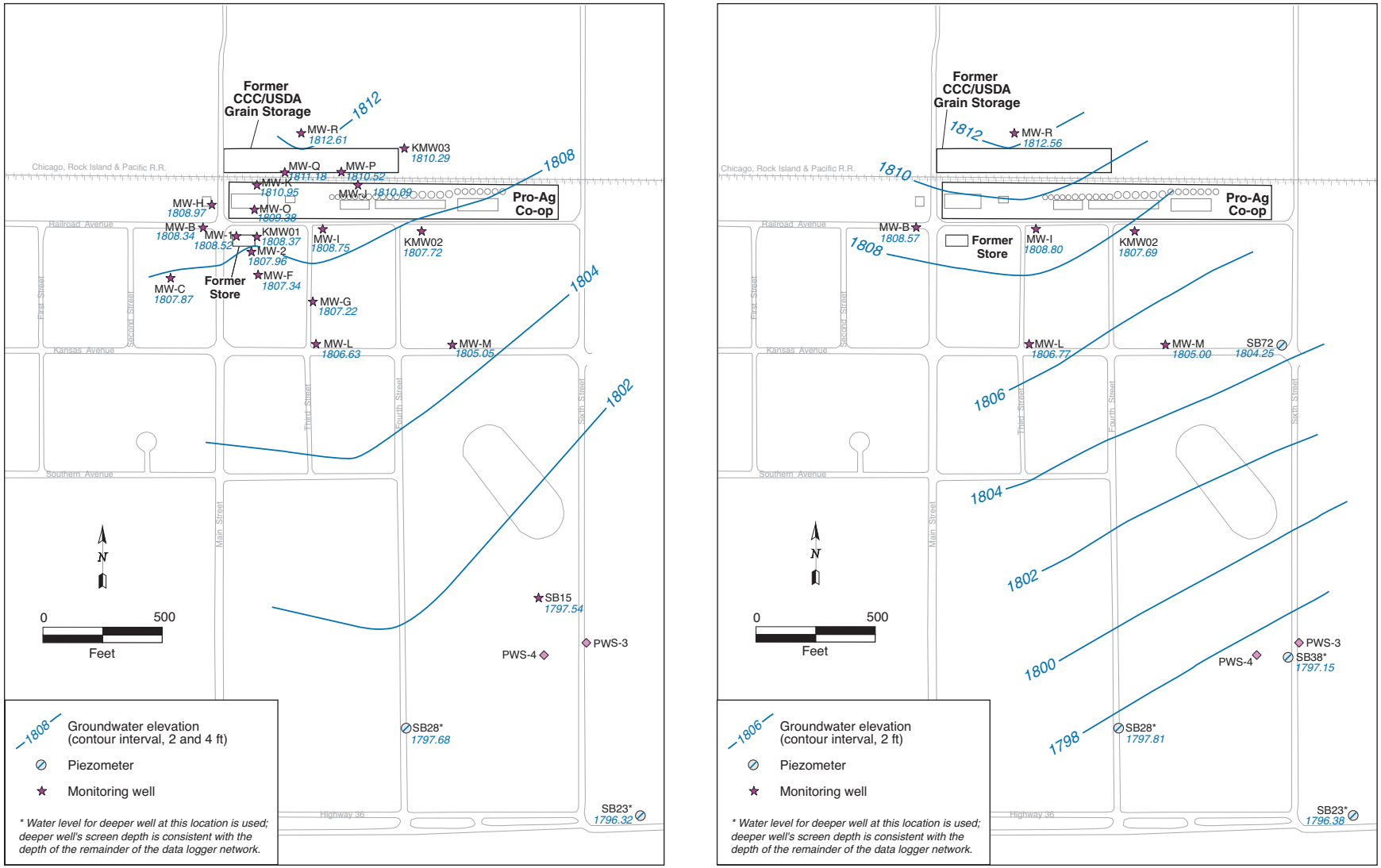

FIGURE 3.11 Groundwater gradients at Agra on May 18, 2005 (left), and July 12, 2005 (right).

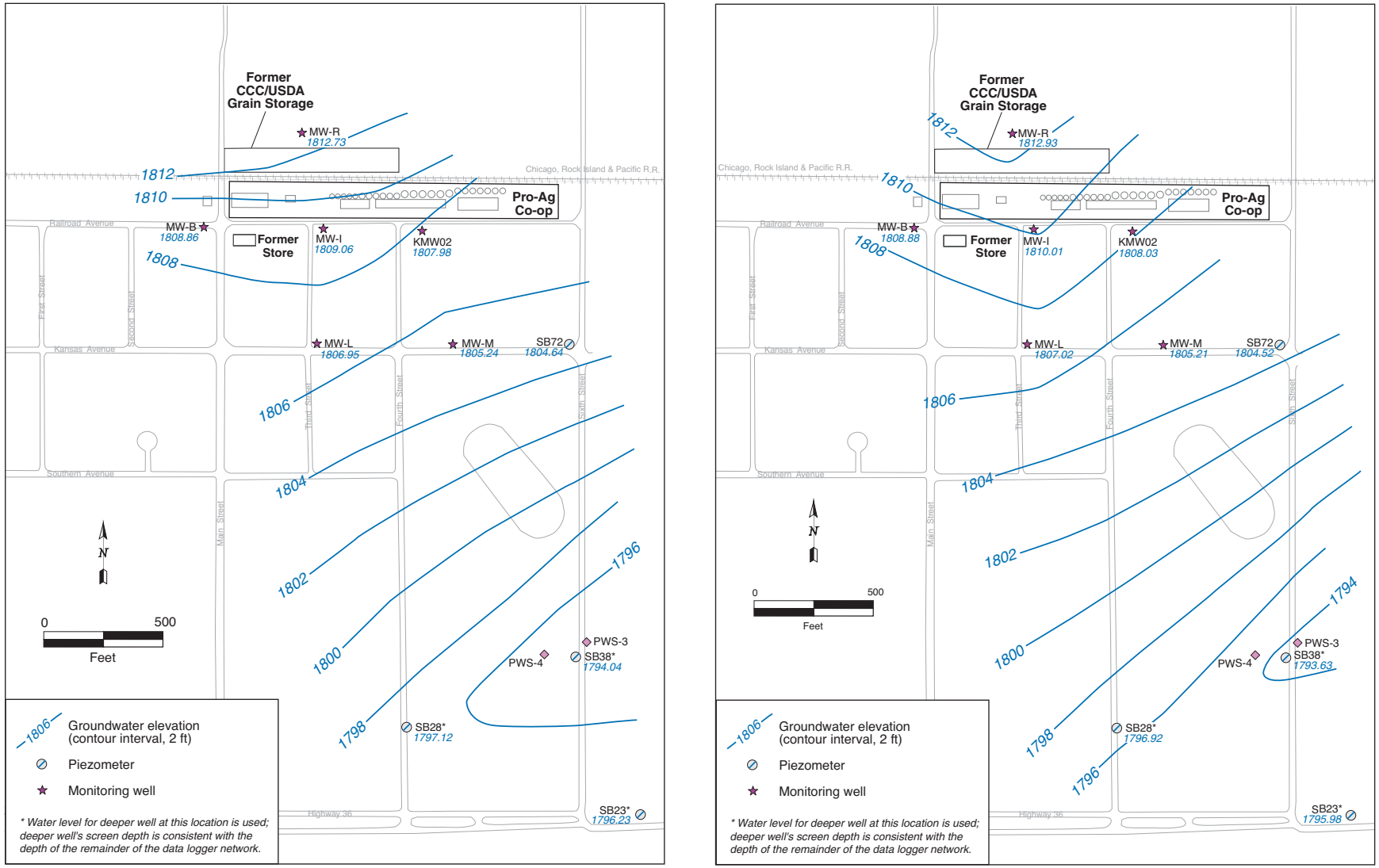

FIGURE 3.12 Groundwater gradients at Agra on September 23, 2005 (left), and January 4, 2006 (right).

4 Data Interpretation

The primary purpose of this investigation was to update the conceptual site model and investigate sources of the previously identified groundwater contamination in Agra, Kansas.

Six technical objectives were proposed in the KDHE-approved *Work Plan* (Argonne 2005). The six objectives are as follows:

1. Determine the current configuration of the carbon tetrachloride plume in the investigation area.

2. Delineate contamination detected in 1998–1999 at the former CCC/USDA facility.

3. Investigate the Pro-Ag Co-op property for evidence of releases of carbon tetrachloride.

4. Investigate the area adjacent to the site of the former retail store for evidence of releases of carbon tetrachloride to the subsurface.

5. Collect data to support the analysis of potential remedial alternatives.

6. Update the inventory of private wells to identify potential downgradient receptors.

4.1 Determine the Current Configuration of the Carbon Tetrachloride Plume in the Investigation Area

The methods described in Section 2.1 were used to collect groundwater samples for plume delineation from 29 monitoring wells and piezometers (existing and newly installed), 2 private water wells, and 3 public water supply wells. Two of the public water supply wells sampled (PWS-1 and PWS-2) are actively used as a drinking water supply for the city of Agra; PWS-3 is used for bulk non-potable water distribution, while PWS-4 is used only for watering the high school football field. Well PWS-4 has no direct power supply; a temporary connection to the PWS-3 power supply is required to operate PWS-4.

The groundwater analytical data from wells sampled in the general investigation area indicate that the carbon tetrachloride contamination is generally widespread (Figure 4.1). Soil sources of carbon tetrachloride were identified on the former CCC/USDA property and on the Pro-Ag Co-op property in the north-central to northeastern section of Agra. Analytical data for samples collected on the former retail property were insufficient to determine definitively whether a soil source area is present at this location. Resources were diverted (with the concurrence of the CCC/USDA and KDHE project managers) to the other investigation target areas, as discussed in Sections 2.2–2.4.

The contaminant plume appears to be migrating toward PWS-3 and PWS-4 in the southeast part of town. Historical data suggested the presence of two separate groundwater contaminant plumes. The data collected from existing monitoring wells during this investigation revealed similar results.

The contaminant concentrations detected immediately downgradient of the targeted source areas have increased since the previous monitoring event in 1999. Monitoring wells MW-F (445 μg/L in 2005; 180 μg/L in 1999), MW-G (25 μg/L in 2005; 5.3 μg/L in 1999), MW-L (64 μg/L in 2005; 26 μg/L in 1999), and MW-M (112 μg/L in 2005; 91 μg/L in 1999) illustrate this trend. The 2005 concentrations in these wells are the highest levels since the wells were installed in 1997. These results suggest that the contaminant plume is migrating toward the south-southeast.

Results for the existing monitoring wells on the former CCC/USDA property were similar in 2005 and 1999, with only one exception. The 2005 carbon tetrachloride level in the sample from MW-P (423 μg/L) was significantly higher than the 1999 value (95 μg/L). This 2005 value was also the highest since the well was installed in 1998. Well MW-P is located near the source area identified during this investigation at SB46 on the former CCC/USDA property.

Carbon tetrachloride concentrations in groundwater samples from existing monitoring wells on the Pro-Ag Co-op property and the former retail store decreased from 1999 to 2005; however, these wells are not near the source areas identified during the 2005 investigation. Additional work beyond the scope of the current investigation would be required to determine the impact to the former store property of contamination at the source areas identified on the Pro-Ag Co-op property.

No carbon tetrachloride levels above the AGEM method quantitation limit of 1 μg/L were found in samples from public wells PWS-1, PWS-2, and PWS-3, though one well (PWS-1) did show a trace level of carbon tetrachloride. Also detected in public wells PWS-1 and PWS-2 were low concentrations of chloroform (which could be the result of chlorination). These results were reported to the KDHE during field activities. The trace level of carbon tetrachloride detected in PWS-1 should be monitored further. In addition, investigation of the groundwater flow direction and migration rate might be warranted. Continued detection of carbon tetrachloride in well PWS-1 could indicate that an additional source area is present or that the pumping of wells PWS-1 and PWS-2 is affecting groundwater flow and pulling contamination toward the west.

4.2 Delineate the Contamination Detected in 1998–1999 at the Former CCC/USDA Facility

In 1997–1998, a soil gas survey was conducted. Monitoring wells were installed on the former CCC/USDA property and sampled. In 1998 and 1999 monitoring events, groundwater from the newly installed wells and existing monitoring wells was sampled. Field headspace analyses of 20 soil gas samples showed that high concentrations of carbon tetrachloride were limited to areas near the central part of the former CCC/USDA property. The 2005 investigation in this area and along the southern perimeter of the property was intended to identify potential source areas and delineate the extent of contamination.

The only organic compounds detected on the former CCC/USDA property were carbon tetrachloride and chloroform. Also tested for during this investigation — but not detected in any sample collected on the former CCC/USDA property — was 1,2-DCA.

Analytical data collected during the 2005 investigation indicate that the extent of soil and groundwater contamination associated with historical grain fumigation activities on the former CCC/USDA property has been determined. Supporting this interpretation are the low concentrations of carbon tetrachloride and chloroform (relative to concentrations in the soil source area) detected in groundwater and soil samples collected from CPT borings along the northern and southern edges of the former CCC/USDA property, as well as along the south side of the railroad tracks that separate the Pro-Ag Co-op buildings and the former CCC/USDA property.

The overall vertical distribution of carbon tetrachloride in soil and groundwater at Agra is displayed in four hydrogeologic cross sections, the locations of which are illustrated in Figure 4.2. The four cross sections themselves are in Figure 4.3 (A-A′), Figure 4.4 (B-B′), Figure 4.5 (C-C′), and Figure 4.6 (D-D′). Cross sections C-C′ and D-D′ traverse the former CCC/USDA property.

A single soil source area for carbon tetrachloride contamination was identified in the central part of the former CCC/USDA property, at SB46. Carbon tetrachloride was quantified in soil samples collected at this location, from 8 ft BGL to 52 ft BGL, at concentrations up to 2,273 μg/kg just above the saturated zone (Figure 4.5). In contrast, at SB49, no carbon tetrachloride was detected at or above the method quantitation limit in soil samples collected at depths of 4 ft to 40 ft BGL, though a trace was detected at 34 ft BGL. Carbon tetrachloride was found at SB49 in soil samples collected at greater depths of 44 ft BGL (33 μg/kg) and 48 ft BGL (481 μg/kg). The occurrence of the static water level in this area at approximately 46 ft BGL suggests that the carbon tetrachloride detected in soil samples from SB49 is at least partly associated with horizontal migration through the saturated zone, rather than only vertical migration through the unsaturated zone (Figure 4.5).

Soil samples from locations along the northern boundary of the former CCC/USDA property and west and east of the source area at SB46 contained only trace to low levels of carbon tetrachloride (Figures 3.2 and 4.6). Immediately south of the railroad tracks that separate the former CCC/USDA from the Pro-Ag Co-op property, no carbon tetrachloride was detected in soil samples collected at depths of 4 ft to 48 ft BGL at locations SB51, SB52, SB54, and SB55 (Figure 4.3).

Groundwater samples collected along the southern boundary of the former CCC/USDA property at SB47, SB50, SB60, and SB71 (Figure 3.5) contained no more than a trace of carbon tetrachloride, except for the concentration of 2.1 μg/L at 47–52 ft BGL in SB71. In contrast, groundwater samples collected from SB48 and SB49 (also located along the southern property boundary) showed significantly higher levels of carbon tetrachloride, plus low levels of chloroform (Figures 3.5, 3.6, and 4.5). Locations SB48 and SB49 are less than 75 ft downgradient from the source area identified on the former CCC/USDA property in the vicinity of SB46. Low concentrations of chloroform were detected in all but two groundwater samples collected from these two boreholes.

The horizontal extent of groundwater contamination emanating from the former CCC/USDA property was defined by analysis of samples collected along the north edge of the Pro-Ag Co-op property, at SB51, SB52, SB54, and SB70 (Figures 3.5, 3.6, and 4.3). Only trace concentrations of carbon tetrachloride and chloroform were detected in the groundwater samples from SB52 and SB70, and low concentrations were detected in samples from SB51 (up to 10 μg/L) and SB54 (up to 1.4 μg/L). Sample location SB51 is directly downgradient from the source area that was identified at SB46 on the former CCC/USDA property. The contaminant concentrations at SB51 were significantly lower than the levels found in groundwater samples from SB46 and SB49, which are directly upgradient (Figure 4.5). Locations SB51, SB52, SB54, and SB70 define the leading edge of the contaminant plume associated with historical grain fumigation activities on the former CCC/USDA property.

4.3 Investigate the Pro-Ag Co-op Property for Evidence of Releases of Carbon Tetrachloride

Previous investigations on the Pro-Ag Co-op property were limited to the collection of six soil gas samples at four locations in 1987 and 1995, the collection of four soil samples and two groundwater samples in 1995, the installation of three monitoring wells in 1998, and groundwater sampling of the wells during 1998 and 1999 monitoring events. The 2005 investigation focused on identifying potential source areas on the property.

The organic compounds detected in soil and groundwater samples collected during the 2005 investigation included carbon tetrachloride, chloroform, and 1,2-DCA.

The overall vertical distribution of carbon tetrachloride in soil and groundwater at Agra in 2005 is displayed in four hydrogeologic cross sections, the locations of which are illustrated in Figure 4.2. The four cross sections themselves are in Figure 4.3 (A-A′), Figure 4.4 (B-B′), Figure 4.5 (C-C′), and Figure 4.6 (D-D′). Cross sections A-A′, B-B′, and C-C′ traverse the Pro-Ag Co-op property.

Analytical data collected during the 2005 investigation identified three potential source areas on the Pro-Ag Co-op property. Two of these locations (SB53 and SB64) are on the west end of the property, and the other location (SB59) is near the central part of the property (Figures 4.1 and 4.2). None of these areas had been investigated previously.

Soil samples from SB53 contained moderate levels of carbon tetrachloride at depths of 12 ft and 36 ft to 40 ft BGL and trace levels of chloroform contamination (Figure 4.4). In addition, 1,2-DCA was detected at 40 ft BGL. Groundwater samples collected at this location contained carbon tetrachloride at concentrations up to 350 μg/L (58–63 ft BGL), as well as chloroform and 1,2-DCA.

Soil samples collected at SB64, downgradient from SB53, also contained carbon tetrachloride and chloroform but no detectable 1,2-DCA. Carbon tetrachloride concentrations in soil increased with depth to 1,604 μg/kg at the top of the saturated zone (Figure 4.4). Groundwater samples collected at SB64 contained carbon tetrachloride (maximum 6,413 μg/L), chloroform (maximum 66 μg/L), and 1,2-DCA (maximum 1.1 μg/L).

Locations SB53 and SB64 are source areas for the contaminant plume historically detected along the western part of the Pro-Ag Co-op property. Samples from upgradient (SB73) and side-gradient (SB62 and SB63) boreholes showed significantly lower concentrations of carbon tetrachloride and chloroform and no detectable 1,2-DCA (Figures 3.2–3.7 and Figure 4.4).

A third contaminant source was identified at SB59, in the central part of the Pro-Ag Co-op property (Figures 4.2 and 4.5). Soil samples from this borehole contained trace levels of carbon tetrachloride and chloroform below 12 ft BGL and higher levels at depths greater than 24 ft BGL. Groundwater samples collected at SB59 contained carbon tetrachloride at concentrations up to 1,506 μg/L (45–50 ft BGL). Chloroform was detected in all groundwater samples from SB59, and a trace of 1,2-DCA was detected at 59–64 ft BGL. Soil and groundwater samples collected at locations upgradient (SB51 and SB70) and side-gradient (SB58 and SB61) from SB59 (Figures 3.2–3.7 and Figure 4.5) showed significantly lower levels of carbon tetrachloride and chloroform and no detectable 1,2-DCA, indicating that SB59 is a source area for contamination.

4.4 Investigate the Area Adjacent to the Site of the Former Retail Store for Evidence of Releases of Carbon Tetrachloride to the Subsurface

The proposed scope of work (Argonne 2005) included collecting soil samples from four CPT locations and groundwater samples from two CPT locations near the former retail store. This scope of work was modified when analytical data collected from the Pro-Ag Co-op property suggested that other sources upgradient from the retail store property had at least partially contributed to the groundwater contamination historically detected in this area. All but one of the originally proposed sample locations (SB67) were moved to the former CCC/USDA property and the northern edge of the Pro-Ag Co-op property. This change in the scope of work change was discussed with and approved by CCC/USDA and KDHE project managers.

Carbon tetrachloride was found at SB67 in the soil samples collected at 44 ft and 48 ft BGL (Figure 4.4). Groundwater samples from SB67 showed moderate concentrations of carbon tetrachloride and low levels of chloroform but no detectable 1,2-DCA. These limited results indicate the presence of contamination at SB67, and they are consistent with a source for that contamination at the upgradient location SB64.

4.5 Collect Data to Support the Analysis of Potential Remedial Alternatives

Remedial options and contaminant migration pathways were investigated by identifying soil types in samples collected during probing activities, evaluating CPT electronic sensor data, and conducting grain size analyses on selected soil samples. The soil samples and the electronic sensor data were evaluated by Kansas licensed geologists, and grain size analyses were conducted by a laboratory certified for geotechnical testing. The lithologic logs and electronic sensor data are in Appendix A. The grain size analysis results are in Table S1.2, Supplement 1 (on CD). The lithologic data were further compiled and interpreted; they are depicted graphically on the cross sections in Figures 4.3–4.6.

The lithology identified along the western portion of the Pro-Ag Co-op property (B-B′; Figure 4.4) consists of silty clay to clayey silt interbedded with silt, clayey silt with sand, and silty sandy to sandy silt. A continuous layer of clayey silt with sand and sandy silt to silty sand was observed in all boreholes along this section. The layer of clayey silt with sand ranged from 0.75 ft thick at 12 ft BGL in the northern part of the section (SB73) to about 13 ft at SB67. This lithology was also observed at greater depths in all boreholes, ranging from about 1 ft thick in

SB73 to at least 23 ft thick at SB64. A thin layer of silty sand to sandy silt was observed at about 23.5 ft BGL in SB73. The thickness of this layer increases to 8 ft in SB53 and then gradually thins toward SB67. Bedrock along this cross section was encountered at depths of about 59 ft to 68 ft BGL.

The cross sectional area from west to east on the Pro-Ag Co-op property is represented by A-A′ (Figure 4.3). The most continuous layers identified along this section were silty clay and clayey silt in the upper zone, underlain by silty sandy clay to clayey sandy silt. The silty clay to clayey silt layer extended across the entire section, and the silty sandy clay to clayey sandy silt was observed in all boreholes except SB63. These predominant zones were interbedded with discontinuous layers of silty sand and sandy silt, silt, and clayey silt with gravel. Bedrock depth varies significantly across the Pro-Ag Co-op property. At the western part of the property bedrock was encountered at 60 ft BGL; its depth increased toward the east to 118 ft BGL. A core sample of bedrock material was collected at SB63. Bedrock consisted of dark gray, highly weathered shale.

The lithology identified across the former CCC/USDA property (D-D′; Figure 4.6) consists of a zone of clayey silt or silty clay 20–26 ft thick, underlain by a discontinuous layer of silty sandy clay to clayey sandy silt. Within this layer are a few minor lenses of sand, silt, and clay, as well as thicker zones of clayey silt to silty clay. Bedrock at the former CCC/USDA property was encountered at depths of about 64-68 ft BGL in all but one borehole. At CPT borehole SB44, located along the northern property boundary (not shown in the cross sections), bedrock was encountered at 56 ft BGL.

The only borehole that contained substantial gravel units was SB51 (A-A′ [Figure 4.3] and C-C′ [Figure 4.5]), in two layers at depths of 20–27.25 ft BGL and 42.9–46 ft BGL. These two layers were composed of clayey silt to silty clay with gravel and some sand. Significant amounts of gravel were not observed in any other borehole along this cross sectional area, though the silt in many of the core samples appeared to be coarse to very coarse.

Groundwater depths in monitoring wells in the targeted source areas indicated that static water levels ranged from approximately 44 to 49 ft BGL. Lithologic data support a single, unconfined aquifer system that is underlain by highly weathered shale. Saturated thickness ranges from about 15 ft along the western part of the Pro-Ag Co-op and the former CCC/USDA properties to more than 70 ft east of this area. Groundwater in the upper part of the aquifer was slow in production and limited in quantity. The lower part of the aquifer produced water, but the

quantities were limited. Well PWS-1 is screened at 82–91 ft BGL, while well PWS-2 is screened at 73–82 ft BGL.

4.6 Update the Inventory of Private Wells to Identify Potential Downgradient Receptors

No privately owned drinking water wells are known to exist in Agra, although several private wells are used for lawn and garden purposes. To verify that residents at all addresses in the city of Agra obtain drinking water from the municipal water supply system, property records and water billing records were cross-referenced. Use of the municipal water supply by residents at ten properties could not be verified through this process. In a telephone conversation, the city clerk indicated that water service is being billed to all residences in question and verified that all residents within the city of Agra obtain drinking water from the municipal supply (Bell 2006).

A search of the KGS water well database was conducted to identify new lawn and garden wells installed since the KDHE Corrective Action Study in 1998 and the KDHE's monitoring in 1998–1999. The following two lawn and garden wells have been installed since that time:

- A lawn and garden well installed on September 16, 2002, at the Betty McCormick residence at 1660 Sixth Street, in the eastern portion of the city, is registered as a domestic well. Argonne sampled this well on June 2, 2005, as location DW07A. No VOCs contaminants were detected. Discussion with the well owner revealed that the new well is used as a lawn and garden well and is a replacement for a previous well (sampled several times during prior investigations as location DW07) that had collapsed.

- A lawn and garden well was installed on October 17, 2002, on a vacant property between public well PWS-4 and the high school football field. The property owner, Francis Shaw, reported that this well has been used extensively.

The area south of the city of Agra that is downgradient of the contaminant plume as it is presently characterized is used almost exclusively for agriculture. Aerial photos (Figure 4.7) show homes on either side of Township 3 South Range 16 West Section 34 (south of Section 27, in which Agra is primarily located). The use of private wells to supply potable water to these residences cannot be ruled out, though no wells are registered in Section 34.

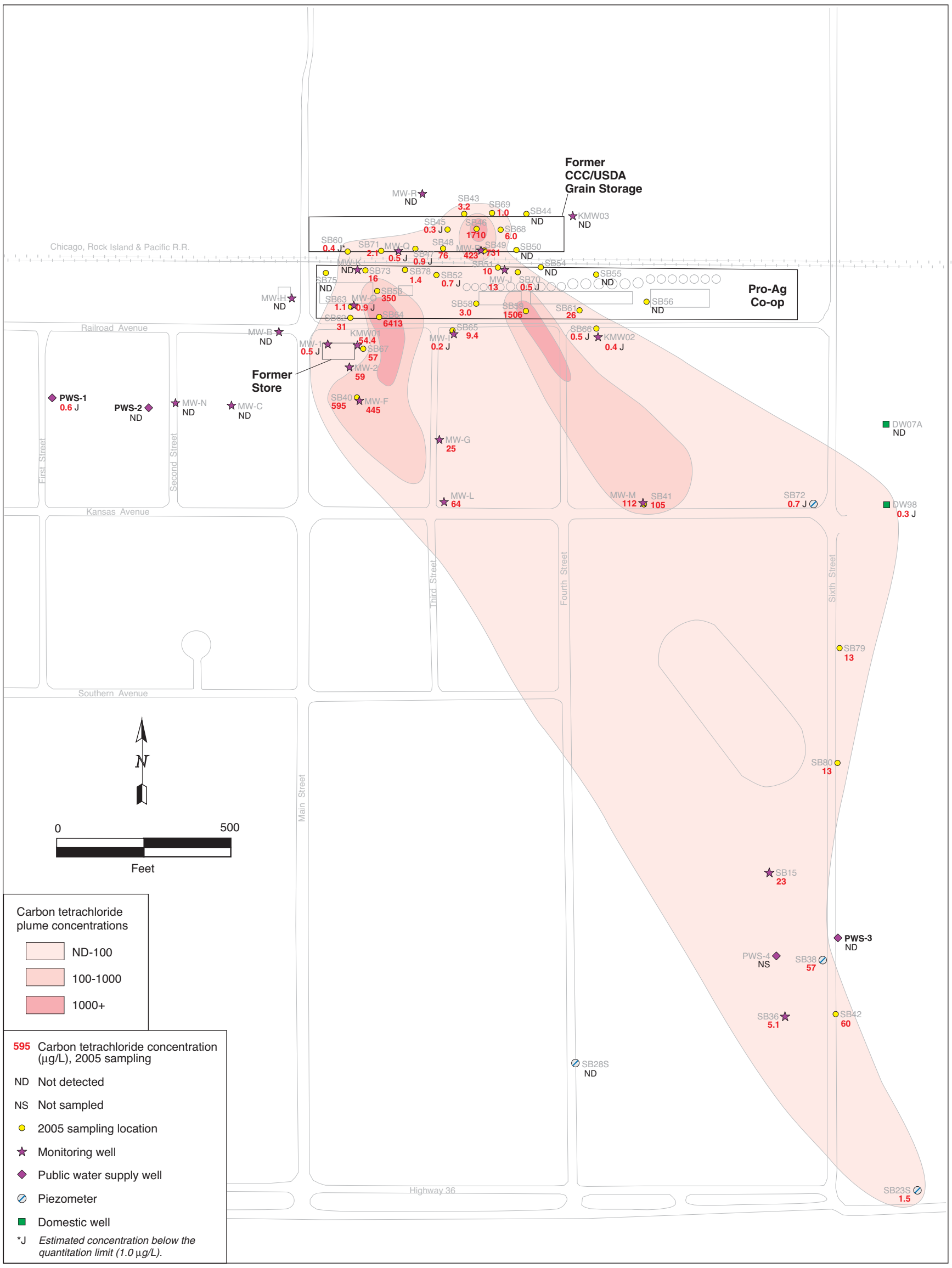

FIGURE 4.1 Distribution of carbon tetrachloride in groundwater at Agra, summer 2005.

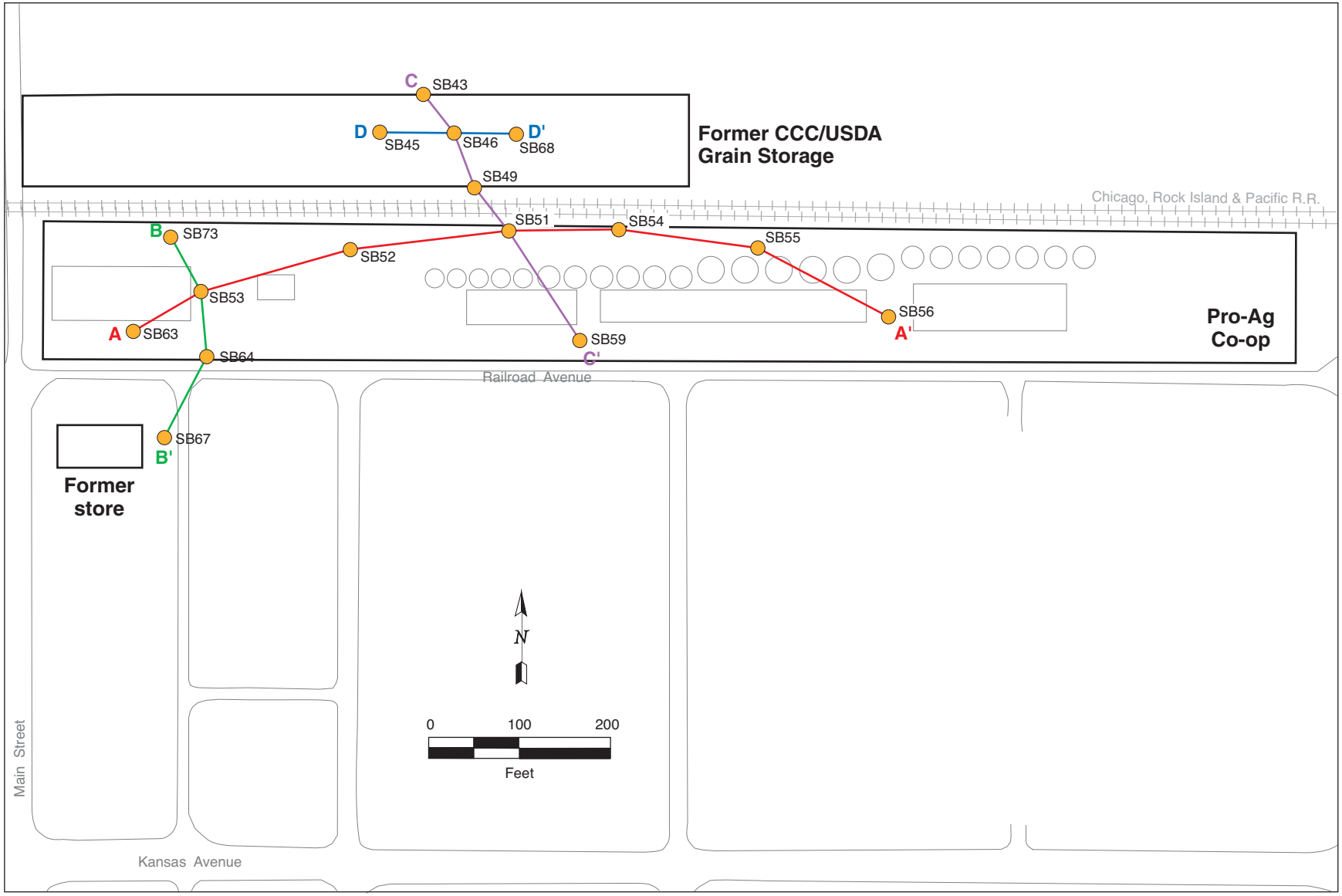

FIGURE 4.2 Locations of hydrogeologic cross sections A-A′, B-B′, C-C′, and D-D′ at Agra.

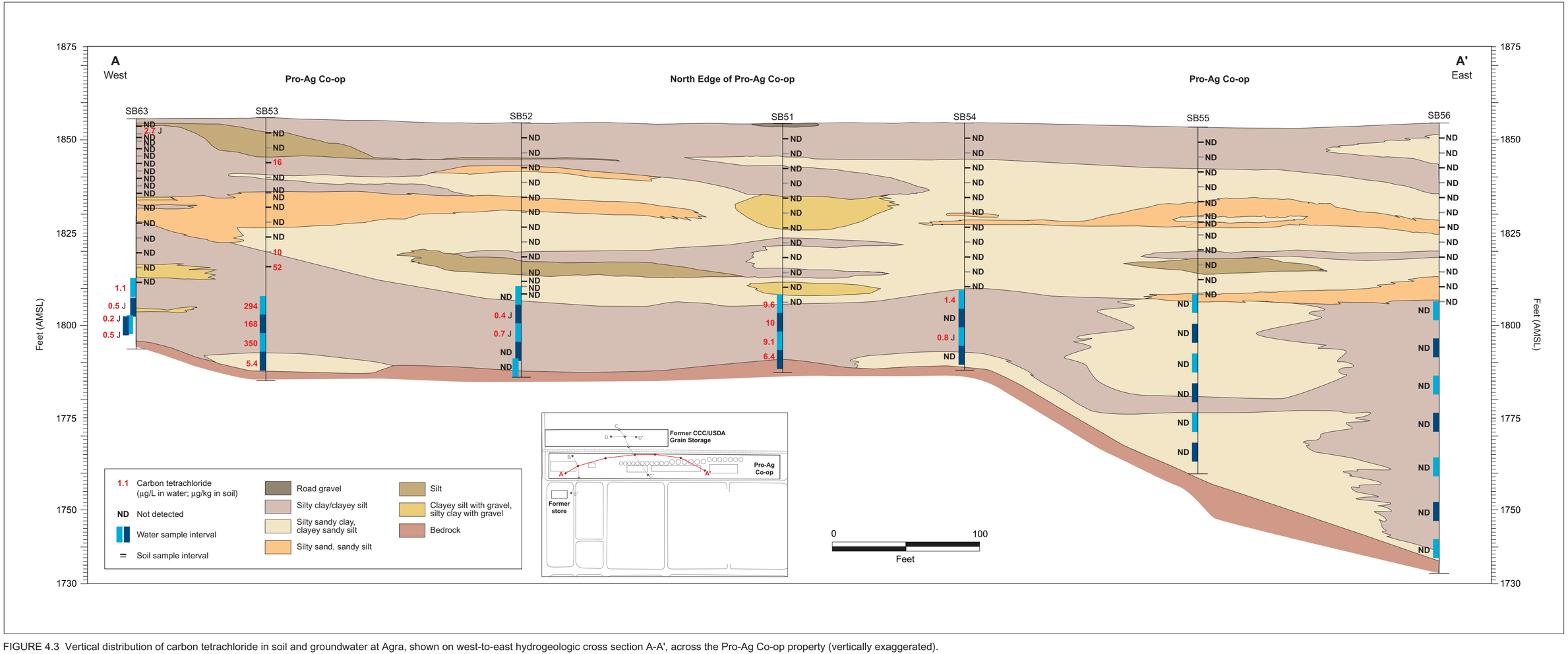

FIGURE 4.3 Vertical distribution of carbon tetrachloride in soil and groundwater at Agra, shown on west-to-east hydrogeologic cross section A-A', across the Pro-Ag Co-op property (vertically exaggerated).

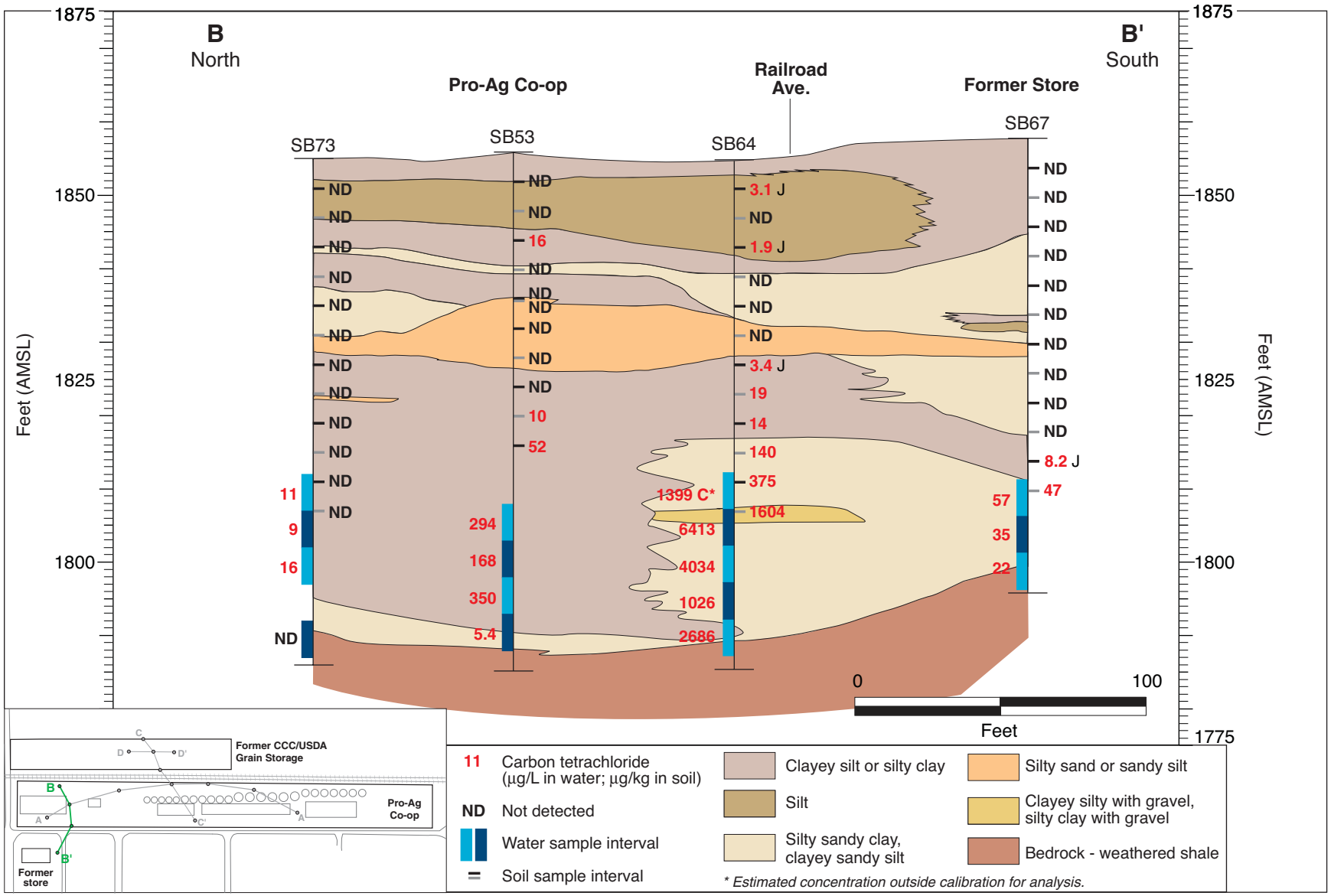

FIGURE 4.4 Vertical distribution of carbon tetrachloride in soil and groundwater at Agra, shown on north-to-south hydrogeologic cross section B-B′, across the Pro-Ag Co-op property, Railroad Avenue, and the former store property (vertically exaggerated).

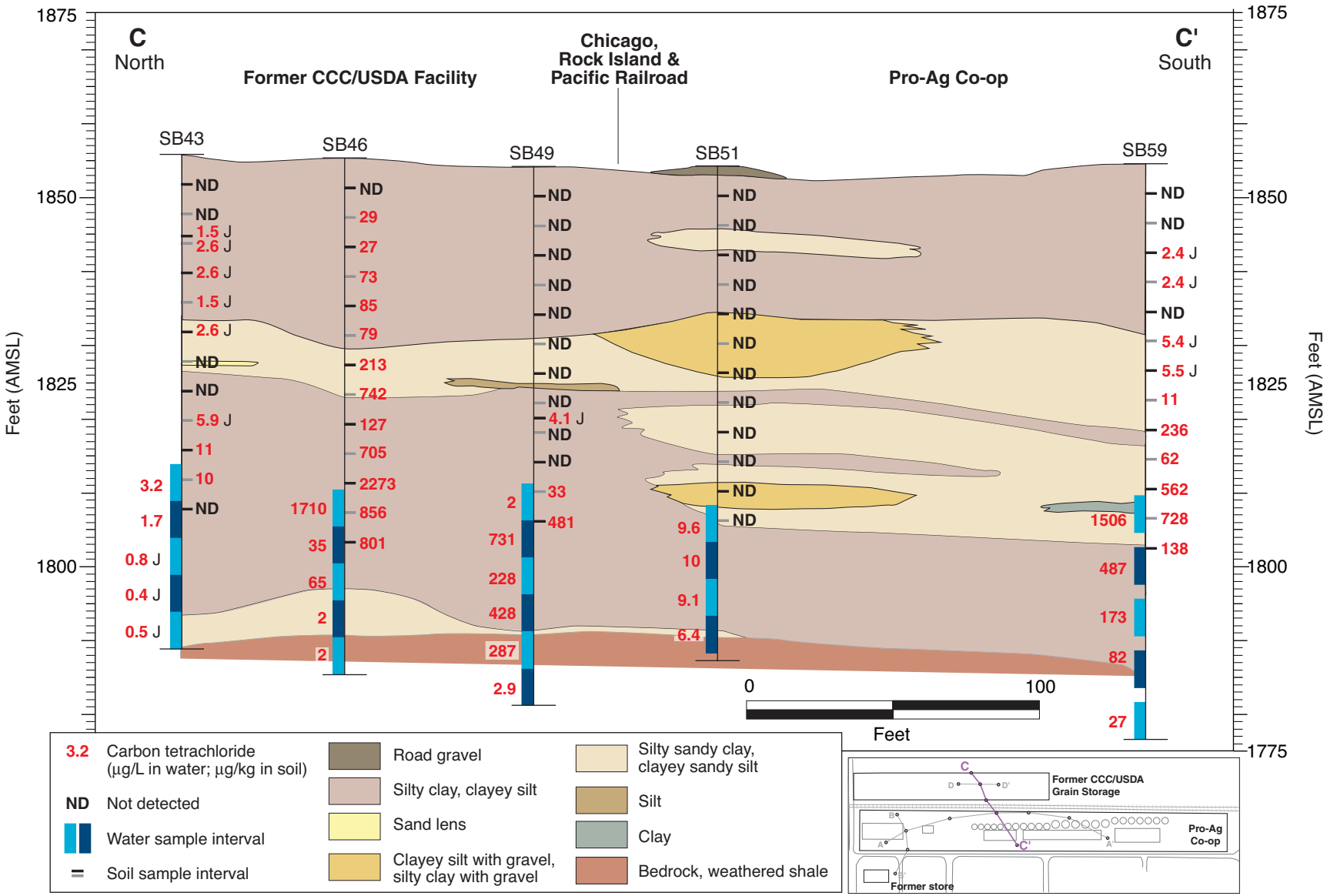

FIGURE 4.5 Vertical distribution of carbon tetrachloride in soil and groundwater at Agra, shown on north-to-south hydrogeologic cross section C-C′, across former CCC/USDA facility, the railroad, and the Pro-Ag Co-op property (vertically exaggerated).

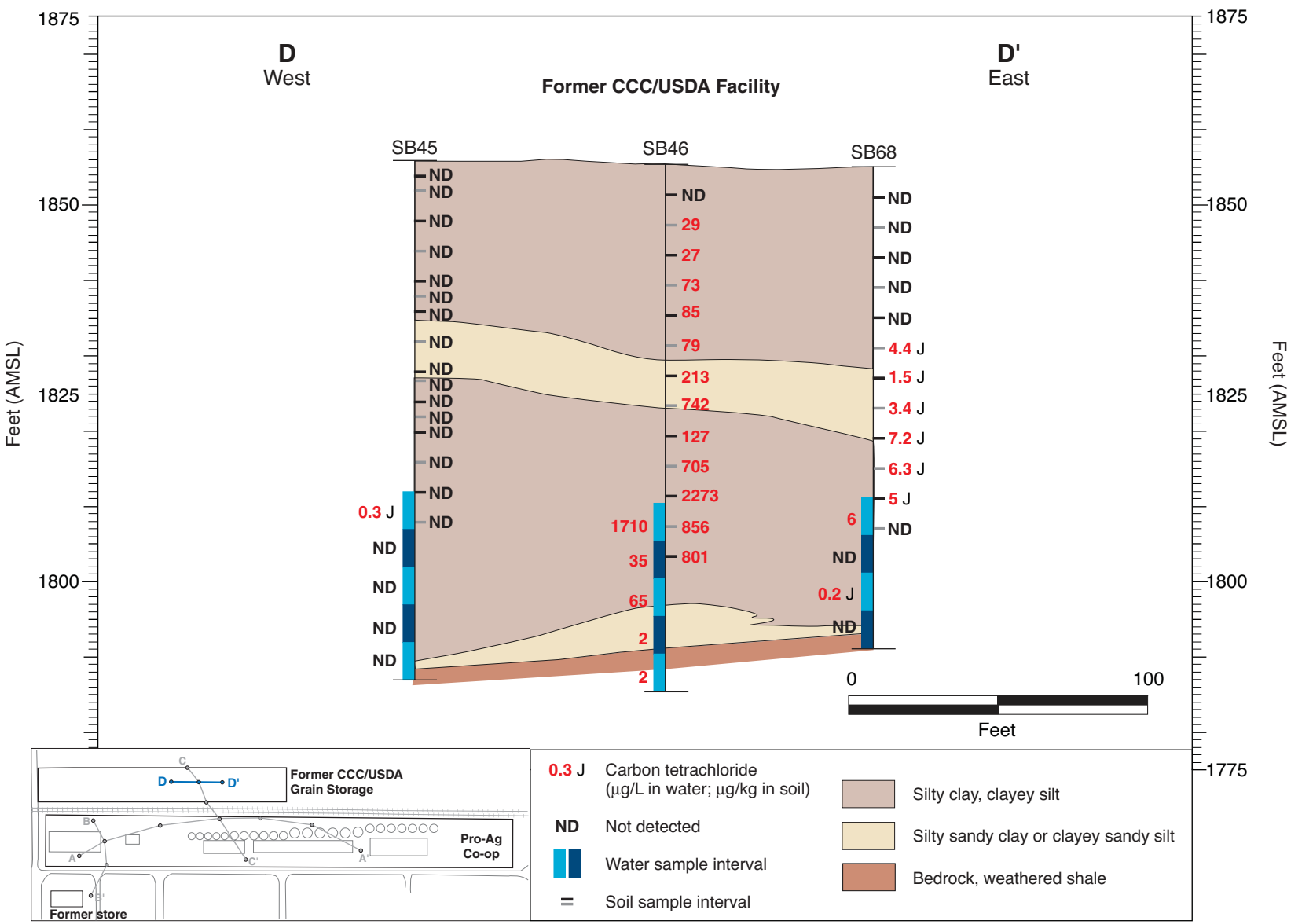

FIGURE 4.6 Vertical distribution of carbon tetrachloride in soil and groundwater at Agra, shown on west-to-east hydrogeologic cross section D-D′, on the former CCC/USDA facility (vertically exaggerated).

FIGURE 4.7 The agricultural area and residences south of Agra and downgradient of the present contaminant plume. Source of photograph: NAIP (2004).

5 Conclusions and Recommendations

5.1 Conclusions

The conclusions related to the technical objectives of the 2005 investigation at Agra are discussed below.

5.1.1 Former CCC/USDA Property Source Area and Contaminant Extent

Conclusions related to the former CCC/USDA property are as follows:

- *A source area for contamination was identified near the central part of the former CCC/USDA property at SB46*, as evidenced by the presence of carbon tetrachloride and chloroform in soil (increasing concentrations with depth) and groundwater samples (decreasing concentrations with depth).

- *A pathway for contaminant migration from soil to groundwater was identified* through the vertical-profile sampling at SB46.

- *The extent of carbon tetrachloride and chloroform contamination associated with past activities on the former CCC/USDA property was delineated* by soil and groundwater samples collected at locations near SB46: upgradient samples at SB43, SB69, and SB44; side-gradient samples at SB45, SB47, SB52, and SB68; and downgradient samples at SB50, SB51, SB54, and SB70. Carbon tetrachloride and chloroform levels detected in groundwater samples from all of these locations were below the MCL and the RBSL of 5 μg/L, except for levels of 10 μg/L and less at SB51 and SB68. Vadose zone soil samples collected at several of these locations showed no carbon tetrachloride or chloroform levels at or above the quantitation limit of 10 μg/kg, except for two samples collected at 40 ft BGL (11 μg/kg) and 44 ft BGL (10 μg/kg) in SB43, upgradient of the source area near SB46.

- *1,2-Dichloroethane was not detected in any soil or groundwater sample collected on the former CCC/USDA property*. This distribution pattern

supports other data indicating separate contaminant sources on the former CCC/USDA property and the Pro-Ag Co-op property.

- *The highest carbon tetrachloride concentrations detected in soil samples from both SB49 and SB49 on the former CCC/USDA property were at depths within the capillary fringe and saturated zone. Some soil contaminant concentrations exceeded the Tier 2 risk-based standard of 200 μg/kg for the "soil-to-groundwater protection pathway."* These include six soil samples from location SB46 and one from location SB49, at or near the source area. The concentrations of carbon tetrachloride detected in all soil samples collected on the former CCC/USDA property were below the Tier 2 risk-based standards of 2,500 μg/kg for carbon tetrachloride in soils for the residential scenario and 7,000 μg/kg for the nonresidential scenario.

- *A number of groundwater samples collected on the former CCC/USDA property exhibited carbon tetrachloride concentrations that exceeded the Tier 2 risk-based standard for carbon tetrachloride.* These include samples from SB46, SB48, SB49, and SB68. The highest levels were at SB46 and SB49, at or near the source area. The following groundwater samples exceeded the Tier 2 risk-based standard: 3 of the 5 samples from SB46; 4 of the 5 samples from SB48; 4 of the 6 samples from SB49; and 1 of the 4 samples from SB68. The concentrations detected at SB48 and SB68 were significantly lower than those found in the source area.

- *Chloroform levels in all soil and groundwater samples collected on the former CCC/USDA property were below the Tier 2 risk-based standard.* The presence of chloroform indicates that natural degradation of carbon tetrachloride is occurring.

- *The extent of contamination on the former CCC/USDA property has been determined*, as indicated by analytical results for samples collected at and near the source area (SB46 and SB49), as well as at locations upgradient, side-gradient, and downgradient of this area. The contamination is limited to an area near the central part of the former CCC/USDA property in the vicinity of SB46 and extends just south of the railroad tracks near SB51. The upgradient and side-gradient extent is defined by data collected from boreholes SB44,

SB45, SB47, SB50, SB52, SB54, SB68, SB69, and SB70. Analytical data collected from other outlying boreholes (SB55, SB58, SB71, and SB78) further support the conclusion that the extent of carbon tetrachloride and chloroform contamination associated with the past use of grain fumigants on the former CCC/USDA property has been determined.

5.1.2 Pro-Ag Co-op Property Source Areas

Conclusions related to the Pro-Ag Co-op property are as follows:

- *Three source areas were identified on the Pro-Ag Co-op property*. Two are on the west end of the property at SB53 and SB64, and one is near the central part of the property at SB59. The source areas were identified through the detection of carbon tetrachloride in soil samples collected at various depths, plus high concentrations in groundwater samples collected at the same locations.

- *Carbon tetrachloride was found in soil samples from the three source areas on the Pro-Ag Co-op property*, as follows: in 3 of 8 samples from SB53 (10–52 μg/kg); in 8 of 12 samples from SB64 (trace to 1,604 μg/kg); and in 10 of 13 samples from SB59 (trace to 728 μg/kg). The higher concentrations generally occurred at greater depths.

- *Carbon tetrachloride was found in groundwater samples from the three source areas on the Pro-Ag Co-op property*, as follows: in all 4 samples from SB53 (5.4–350 μg/L); in all 5 samples from SB59 (27–1,506 μg/L); and in all 5 samples from SB64 (1,026–6,413 μg/L). The concentrations detected generally decreased with depth.

- *Pathways for contaminant migration from soil to groundwater were identified on the Pro-Ag Co-op property* through the vertical-profile sampling at SB53, SB59, and SB64.

- Other compounds detected in some soil and groundwater samples from the source areas on the Pro-Ag Co-op property were chloroform and 1,2-DCA.

The presence of 1,2-DCA in soil and groundwater on the Pro-Ag Co-op property but not on the former CCC/USDA property indicates separate sources for contamination on the two properties.

- *Three soil samples from SB59 and two from SB64 on the Pro-Ag Co-op property exceeded the Tier 2 risk-based standard of 200 μg/kg for the "soil-to-groundwater protection pathway." The highest concentrations detected in both SB59 and SB64 were at depths within the capillary fringe and in the saturated zone.* The concentrations of carbon tetrachloride detected in all soil samples collected on the Co-op property were below the Tier 2 risk-based standards for carbon tetrachloride in soils for the residential and non-residential scenarios (2,500 μg/kg and 7,000 μg/kg, respectively).

- *All groundwater samples collected from source area boreholes SB53, SB59, and SB64 exceeded the Tier 2 risk-based standard of 5 μg/L for carbon tetrachloride.*

- *Chloroform and 1,2-DCA levels detected in both soil and groundwater samples did not exceed the Tier 2 risk-based standard in any sample.*

- The presence of chloroform indicates that *natural degradation of carbon tetrachloride is occurring*.

- The elevated nitrate levels in groundwater samples from SB59 (maximum 216 mg/L) and SB64 (maximum 310 mg/L) indicate that *sources of nitrate contamination exist near SB59 and SB64.*

5.1.3 Former Retail Store Source Area

The proposed scope of work for the area of the former retail store was modified after significant levels of contamination were detected in upgradient samples collected on the Pro-Ag Co-op property. The sampling in this area was limited to one borehole (SB67). This change in the scope of work was approved by the CCC/USDA and KDHE project managers.

Conclusions related to the former retail store are as follows:

- The limited results of the present investigation indicate that *although contamination is present on the former retail store property, no source area could be identified*. Carbon tetrachloride was found at SB67 only in soil samples collected at 44–48 ft BGL. Groundwater samples collected at SB67 showed moderate concentrations of carbon tetrachloride and low levels of chloroform but no detectable level of 1,2-DCA.

5.1.4 Status of the Contaminant Plume in the General Investigation Area

Conclusions related to the status of the contaminant plume are as follows:

- *The carbon tetrachloride contamination is generally widespread*, as indicated by groundwater analytical data from wells sampled in the general investigation area. Historical investigations and monitoring events gave similar results.

- *Points of origin for the contamination were found in the targeted source areas* in the north-central to northeastern section of Agra, though other source areas cannot be ruled out.

- *The contaminant plume appears to be migrating toward PWS-3 and PWS-4* in the southeast part of town (Figure 5.1).

- The data collected from existing monitoring wells during this investigation indicated the presence of *two separate groundwater contaminant plumes*. Earlier investigations gave similar results.

- *Elevated nitrate concentrations in groundwater occurred throughout the area*, with maximum detected values near SB59 and SB64 on the Pro-Ag Co-op property.

5.2 Recommendations

The following recommendations are based on the interpretation of analytical data collected during this investigation and observations made during field activities.

1. **Groundwater on the Former CCC/USDA Property.** A number of groundwater samples collected on the former CCC/USDA property contained carbon tetrachloride at concentrations exceeding the Tier 2 risk-based standard. The extent of the carbon tetrachloride contamination in groundwater associated with the past use of grain fumigants on this property is limited to the central part of the property, extending southward just beyond the railroad tracks.

   - Groundwater concentrations detected in the source area, near SB46 and SB49, should be addressed with a *point source remediation system*. Contaminant concentrations downgradient of this area are likely to fall below the MCL and the RBSL once the source area is addressed.

   - An expedited Corrective Action Study (CAS) is recommended before a remedial system is designed or implemented. Development of the CAS should follow KDHE requirements (KDHE 2001).

   - *Continued monitoring of this source area is recommended.* Any adverse changes should be addressed as needed. Monitoring should involve the installation of a monitoring well at the source area and possibly others at locations side-gradient to this area. Downgradient and upgradient wells are currently installed. If further monitoring of the soil is necessary, samples can be collected periodically to verify that the point source remediation continues to be effective.

2. **Soils on the Former CCC/USDA Property.** Carbon tetrachloride concentrations in soils collected from the vadose zone on the former CCC/USDA property did not exceed the Tier 2 risk-based standards for soils; however, some of the concentrations did exceed the standard for the "soil to groundwater protection pathway." The highest concentrations occurred in soil samples collected from the capillary fringe and the saturated zone. Therefore, these concentrations are probably associated with groundwater contamination.

- *A separate remedial system for soils on the former CCC/USDA property is not recommended.* Remediation to acceptable risk-based standard concentrations can be expected when the point source remediation system mentioned above is installed to address the limited soil contamination detected immediately above and within the capillary fringe, as well as in groundwater.

- *Further monitoring of the area is recommended* after a groundwater remedial system is installed and operating. If the contaminant levels do not fall as expected, an alternative approach should be considered.

3. **Vapor Intrusion.** *The potential impact of vapor intrusion at the former CCC/USDA property does not need to be addressed at this time*, because the land is vacant and is used only for agriculture. If the property is developed, this issue may need to be addressed.

4. **Contaminant Plume.** The widespread groundwater contamination detected in the general investigation area revealed recent increases in concentrations in some wells. These results indicate that *the contaminant plume continues to migrate toward the south-southeast*. Sudden, extended drawdowns of groundwater in monitoring wells near PWS-3 and PWS-4, recorded by data loggers, suggest that *a pumping well is present at the southern end of the plume area*. Discussions with owners of two water wells in this area (Agra High School and Francis Shaw) indicated that Mr. Shaw had pumped his well for an extended period (Shaw 2006). The pumped well is on the vacant lot between PWS-3 and the high school football field (Figure 2.1); it reportedly pumps at about 50 gpm.

   - To minimize the human health risk of potential exposure, *the installation of drinking water wells within the plume area should be prohibited* through implementation of environmental use controls.

   - Until remediation of point source areas is complete, consideration should be given to *limiting the extended pumping of any privately owned well* in the area to minimize migration from source areas.

5. **Condition of Monitoring Wells.** Observations made during field activities revealed that *several monitoring wells need to be repaired*. These include MW-1, MW-A, MW-B, MW-C, MW-H, MW-I, MW-J, MW-K, MW-L, MW-M, MW-N, MW-P, MW-Q, MW-R, and SB15. Some of these wells are of interest to the CCC/USDA as part of the KDHE monitoring well ownership transfer program. A request for ownership transfer for specific wells will be forthcoming. If and when ownership is transferred, the CCC/USDA will be responsible for the maintenance and repair of the wells.

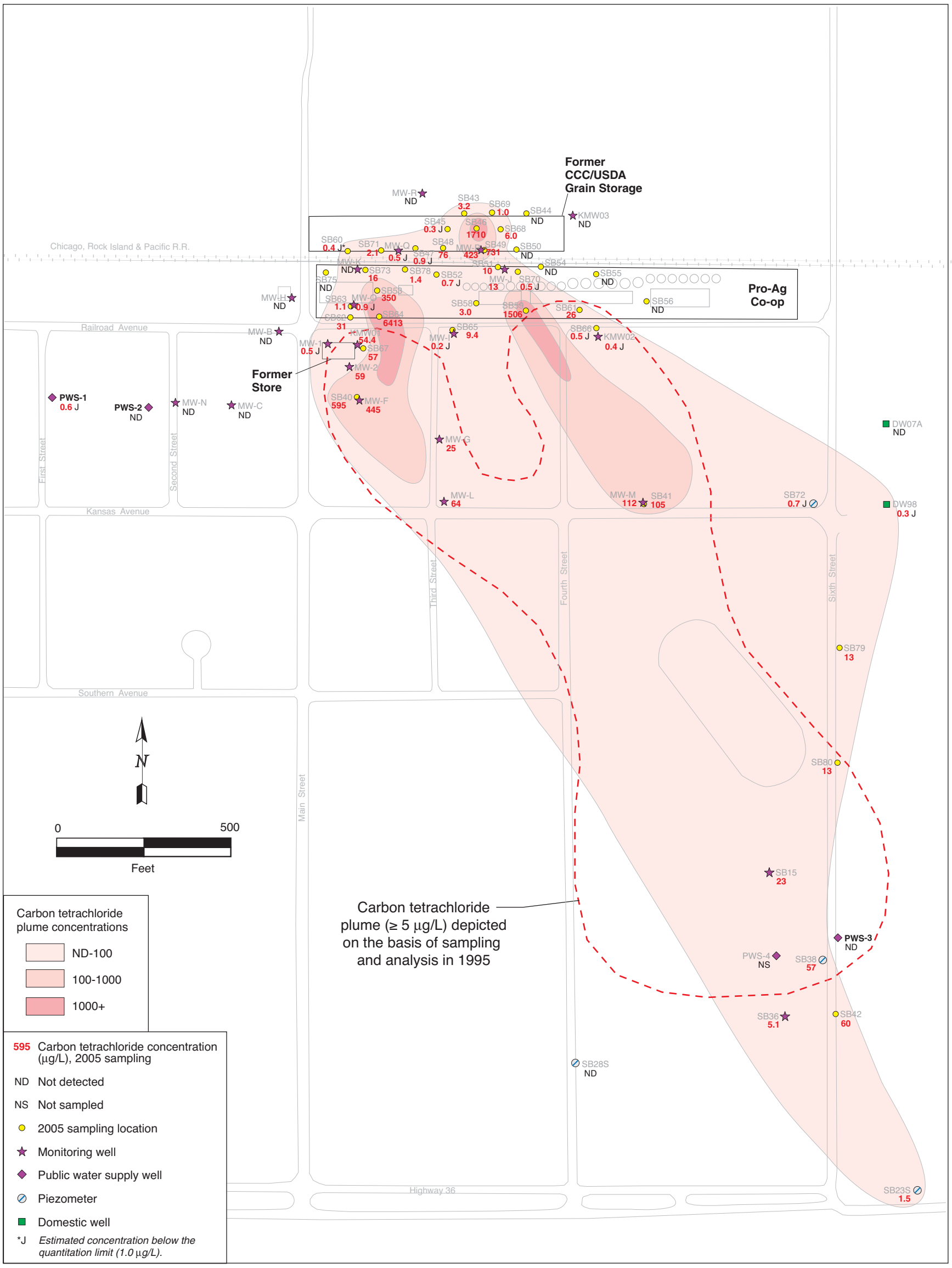

FIGURE 5.1 Distribution of carbon tetrachloride in groundwater at Agra in summer 2005, with the outline of the plume interpreted on the basis of Argonne's 1995 sampling (Argonne 1996).

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Appendix A

Electronic and Lithologic Logs

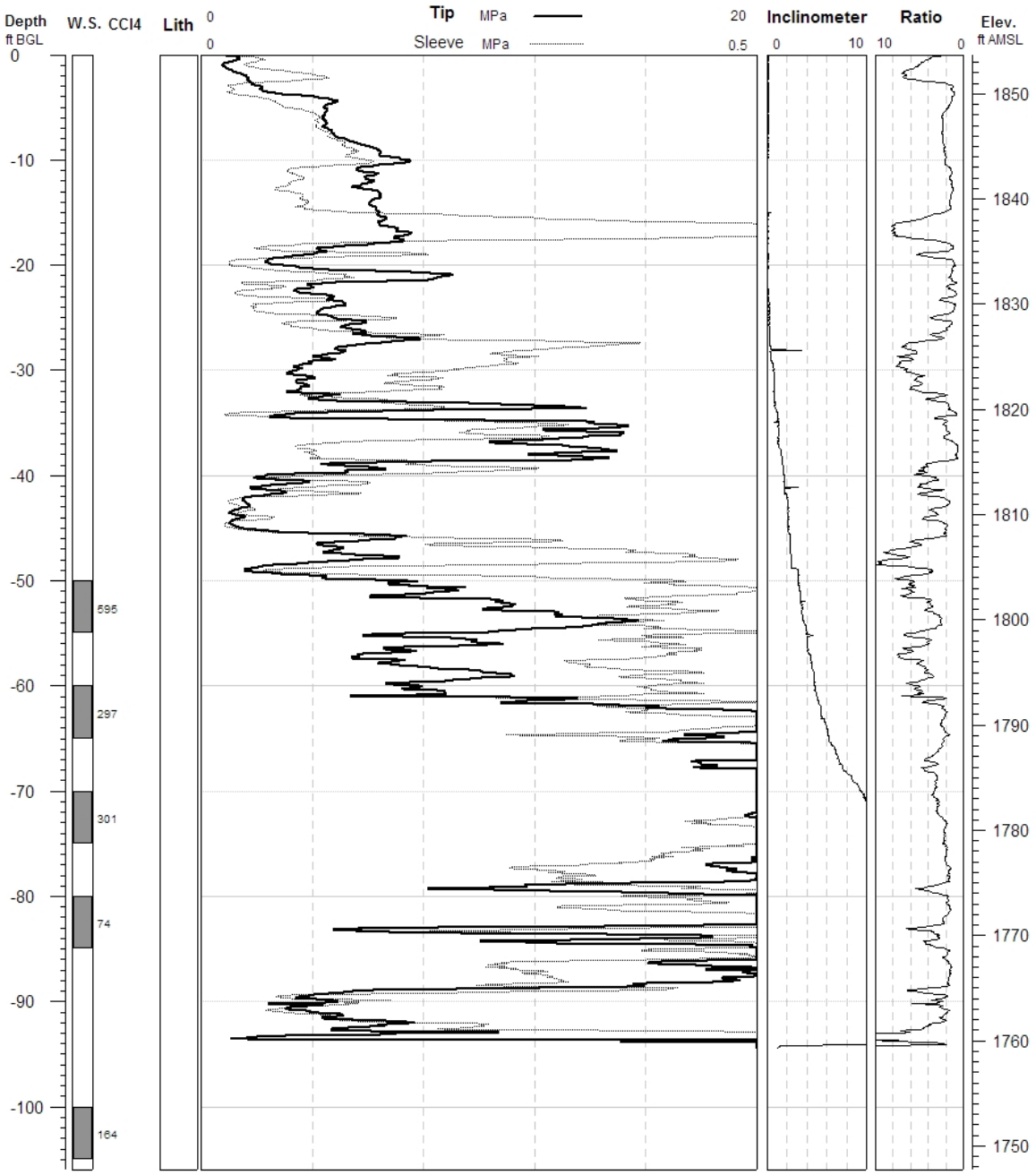
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1853.72 ft.

Geologist: Lorraine LaFreniere **Depth:** 105 ft. BGL

Boring ID: SB40

Log Date: 06/07/2005



Carbon tetrachloride in water sample = micrograms/L

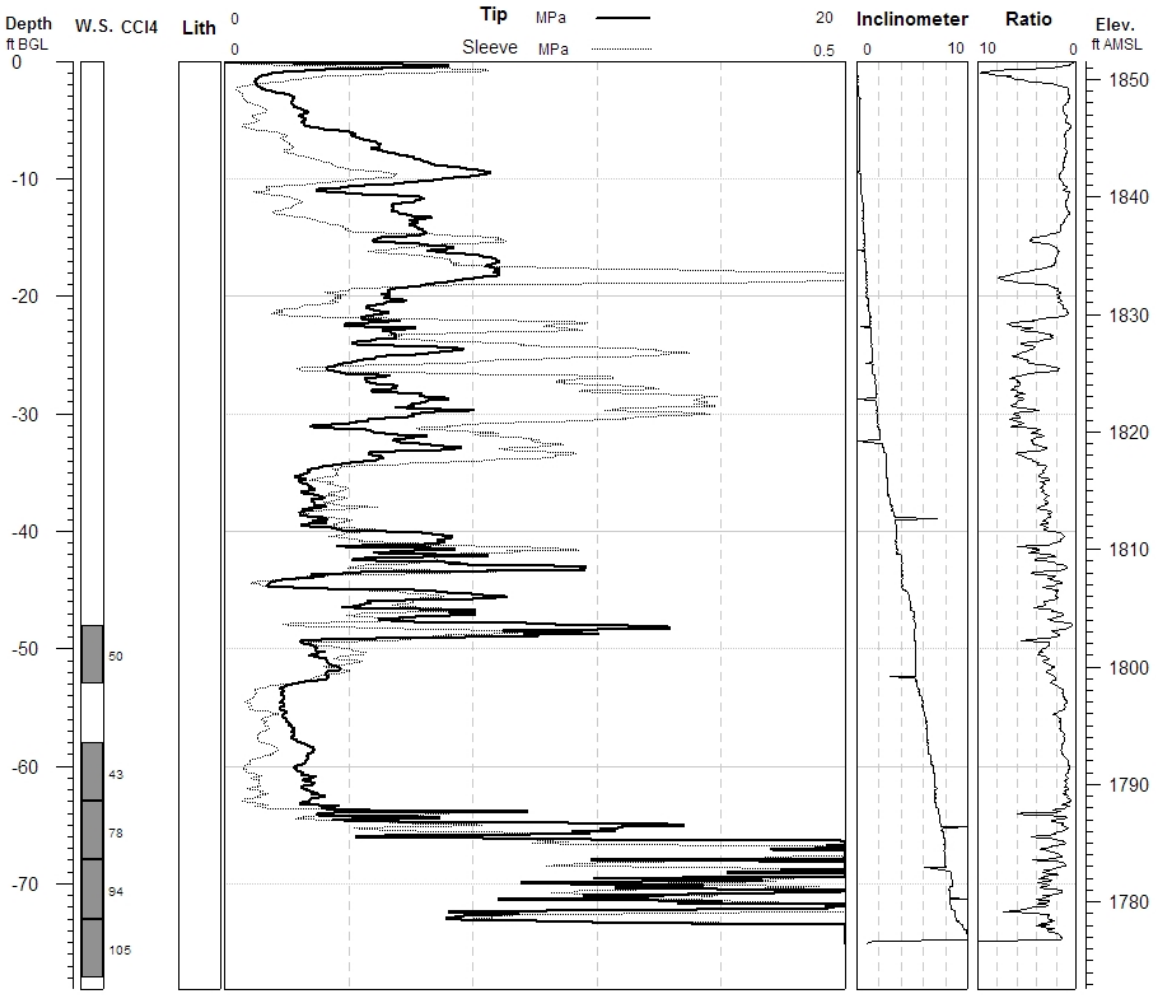
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1851.54 ft.

Geologist: Lorraine LaFreniere **Depth:** 78 ft. BGL

Boring ID: SB41

Log Date: 06/07/2005



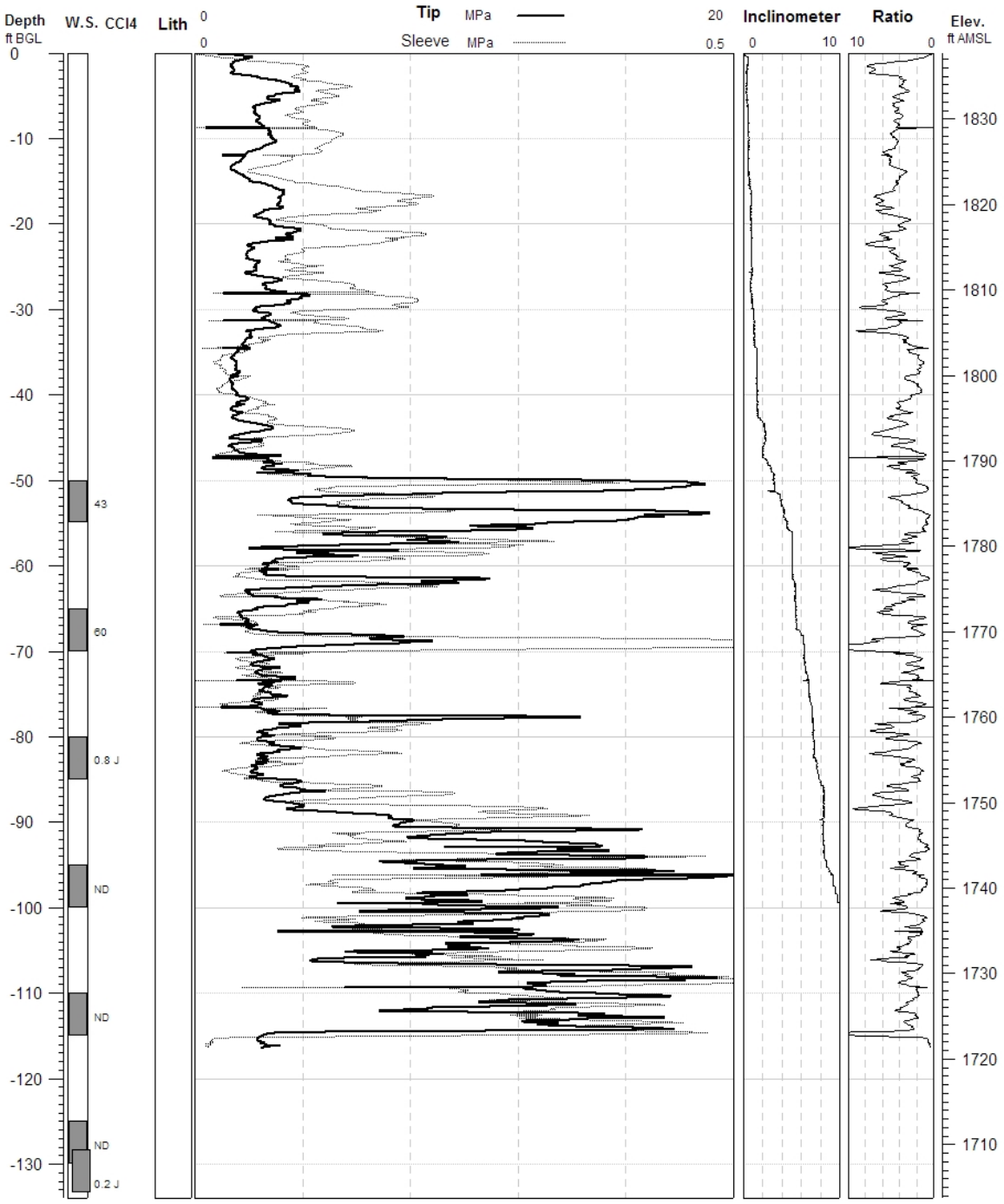
Carbon tetrachloride in water sample = micrograms/L

Argonne National Laboratory

Project: Agra, KS **Elevation:** 1837.71 ft.

Boring ID: SB42

Geologist: Lorraine LaFreniere **Depth:** 133.3 ft. BGL **Log Date:** 06/07/2005

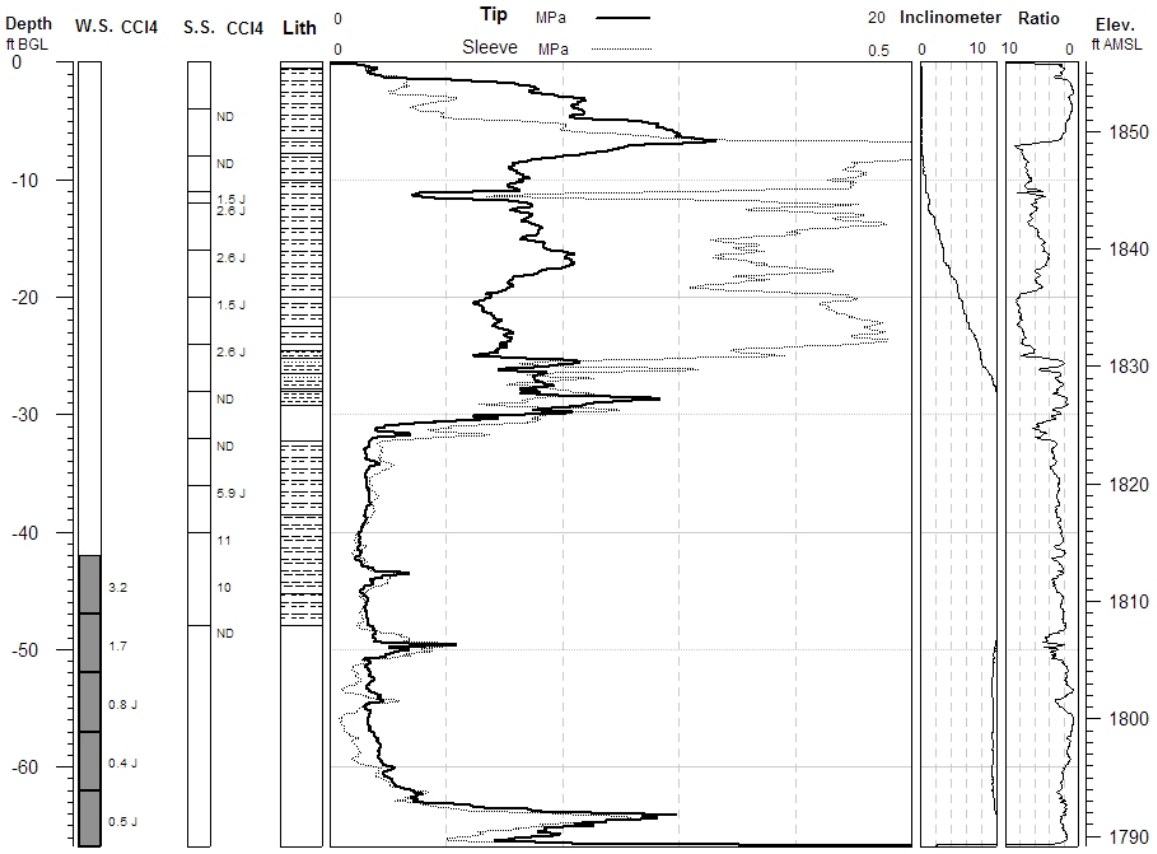


Carbon tetrachloride in water sample = micrograms/L

Argonne National Laboratory

Project: Agra, KS **Elevation:** 1855.9 ft. **Boring ID: SB43**

Geologist: Lorraine LaFreniere **Depth:** 67 ft. BGL **Log Date:** 07/08/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1855.9 ft.

Depth: 67 ft. BGL

Boring ID: SB43

Log Date: 07/08/2005

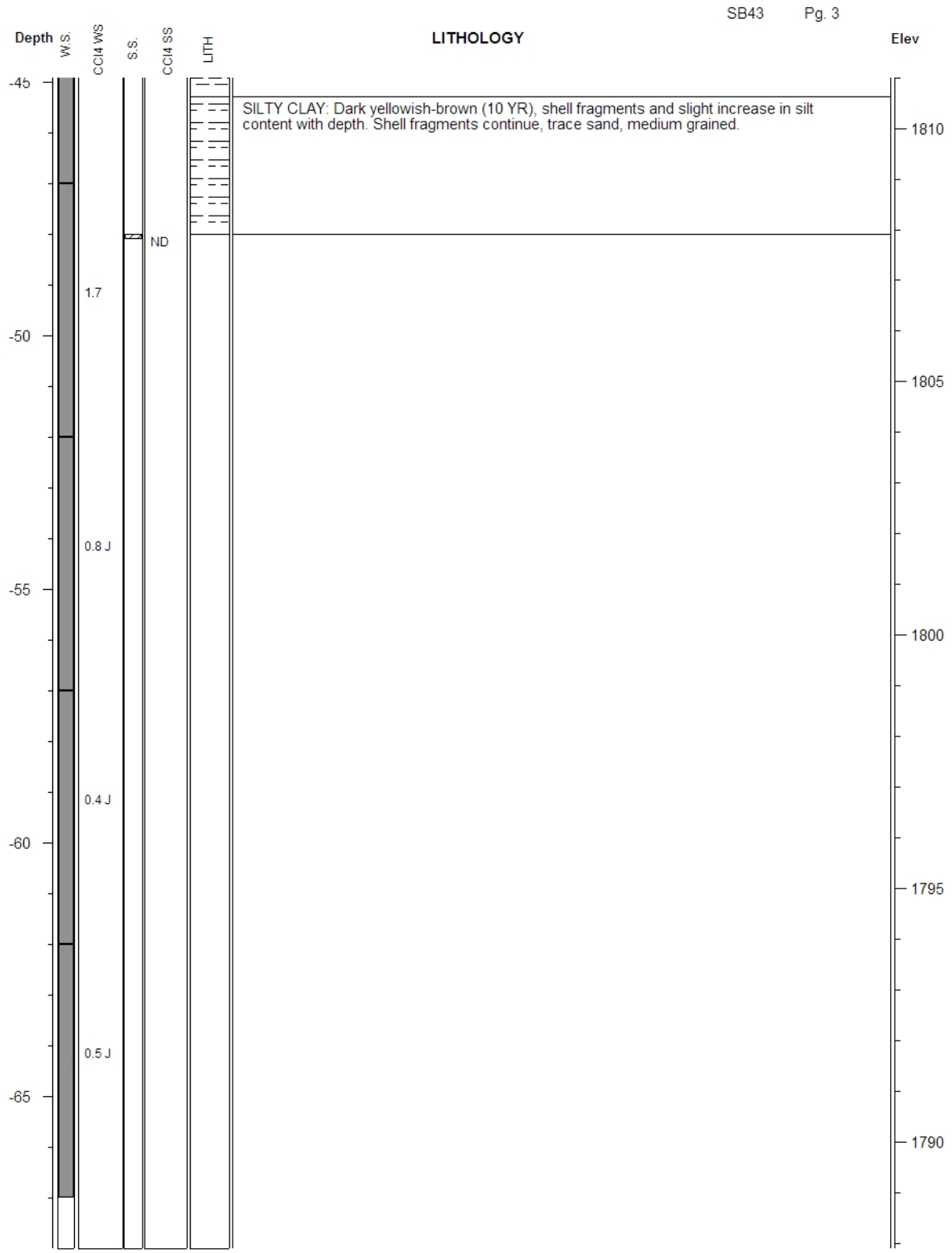
Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY: Roots, near-surface rubble. Grayish-brown (10YR), non-calcareous.	
						SILTY CLAY: Abundant root fragments, non-calcareous, porous, damp, grayish-brown (10 YR).	1855
				ND			
-5							1850
						CLAY, SILTY: Transition zone. Non-calcareous, zones of slightly lighter gray. Clay matrix grayish-brown (10 YR).	
				ND		CLAY, SILTY: Slightly silty, non-calcareous, occasional zone predominantly silt. Pale brown (10 YR).	
-10						CLAY, SILTY: Marked increase in silt content. Evidence of root fragments and molds of fragments throughout. Abundant evidence of iron associated with coarser grained areas throughout unit. Porous, non-calcareous, slight color changes throughout. Light brownish clay. At 20 feet, concentration of iron oxide.	1845
				1.5 J			
				2.6 J			
-15							1840
				2.6 J			
-20				1.5 J		CLAY, SILTY: Very silty, color change to brown (10 YR). Abundant and distinct root fragments. Iron oxide throught associated with roots and coarser grained areas. Trace of coarse sand-quartz. Porous and non-calcareous.	1835

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB43 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						CLAY, SILTY: Iron nodules, porous, silty, reduction in silt content from above. Trace medium grained, clear quartz sand. Becomes increasingly silty with increasing evidence of sand with depth.	
				2.6 J		CLAY, SILTY: Color change - brownish-yellow (10 YR). Clay, silty as above. Oxidized.	
-25						CLAYEY SAND: Zone of distinct clayey sand, oxidized, highly porous, abundant root fragments and molds, iron oxide concentrated in areas of sand and increased porosity, brownish-yellow (10 YR), oxidized.	
						SILT, CLAY, AND SAND: Faint layering present. Sand scattered throughout - some concentrated along oxidized partings, non-calcareous, light yellowish-brown (10 YR).	1830
						SILT, CLAY, AND SAND: Color change to brownish-yellow (10 YR). Distinct evidence of layering present, selective oxidation.	
				ND		SAND: Loose sand, poorly sorted, grain size fine to medium/minor coarse grains, angular to sub-angular.	
						SILT: Slightly/faintly layered. Trace medium, sub-angular sand grains become coarse grained and sandier with depth. Non-calcareous, light yellowish-brown (10 YR).	
-30						NO RECOVERY: No core recovered.	1825
				ND		CLAY, SILTY: Slightly silty, non-calcareous, stiff. Oxidized, dark yellowish-brown (10 YR).	
-35				5.9 J			1820
						CLAY: Color change - yellowish-brown (10 YR), slightly mottled, oxidized, moist to damp, calcareous, abundant shell fragments (delicate, probably pelecypods).	
-40				11			1815
		3.2		10			

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

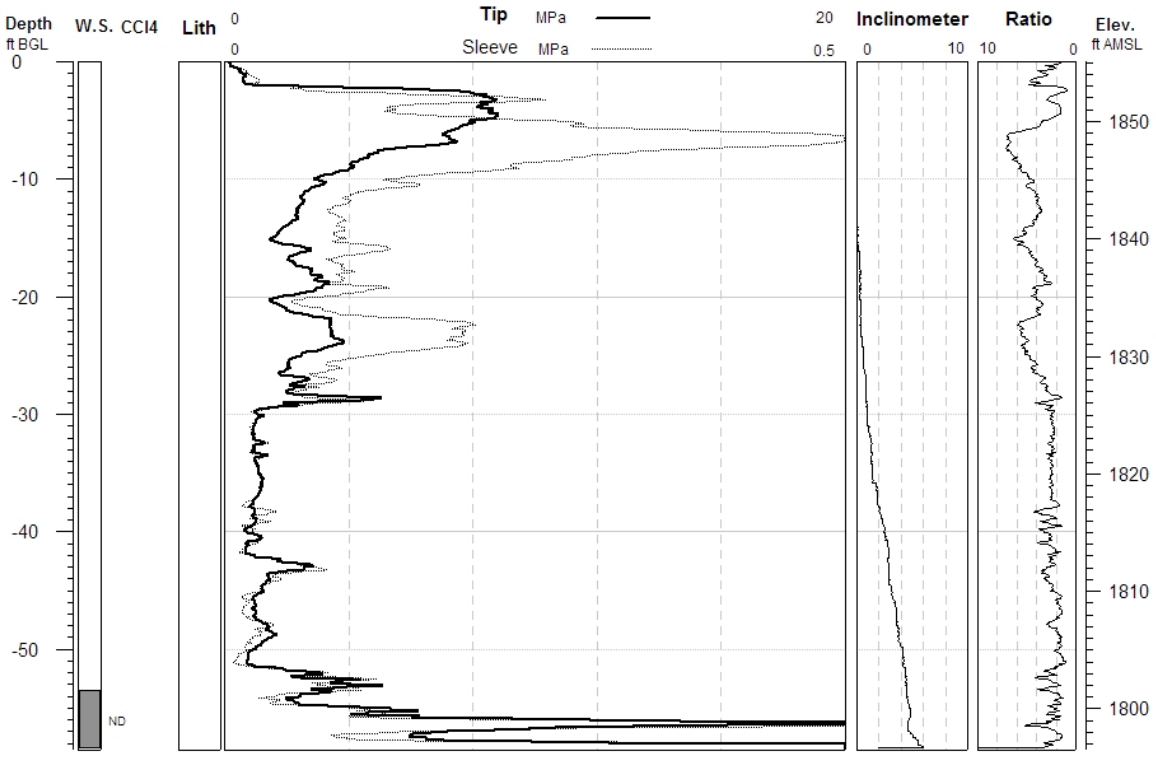
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1855.07 ft.

Geologist: Lorraine LaFreniere **Depth:** 58.60 ft. BGL

Boring ID: SB44

Log Date: 07/09/2005



Carbon tetrachloride in water sample = micrograms/L

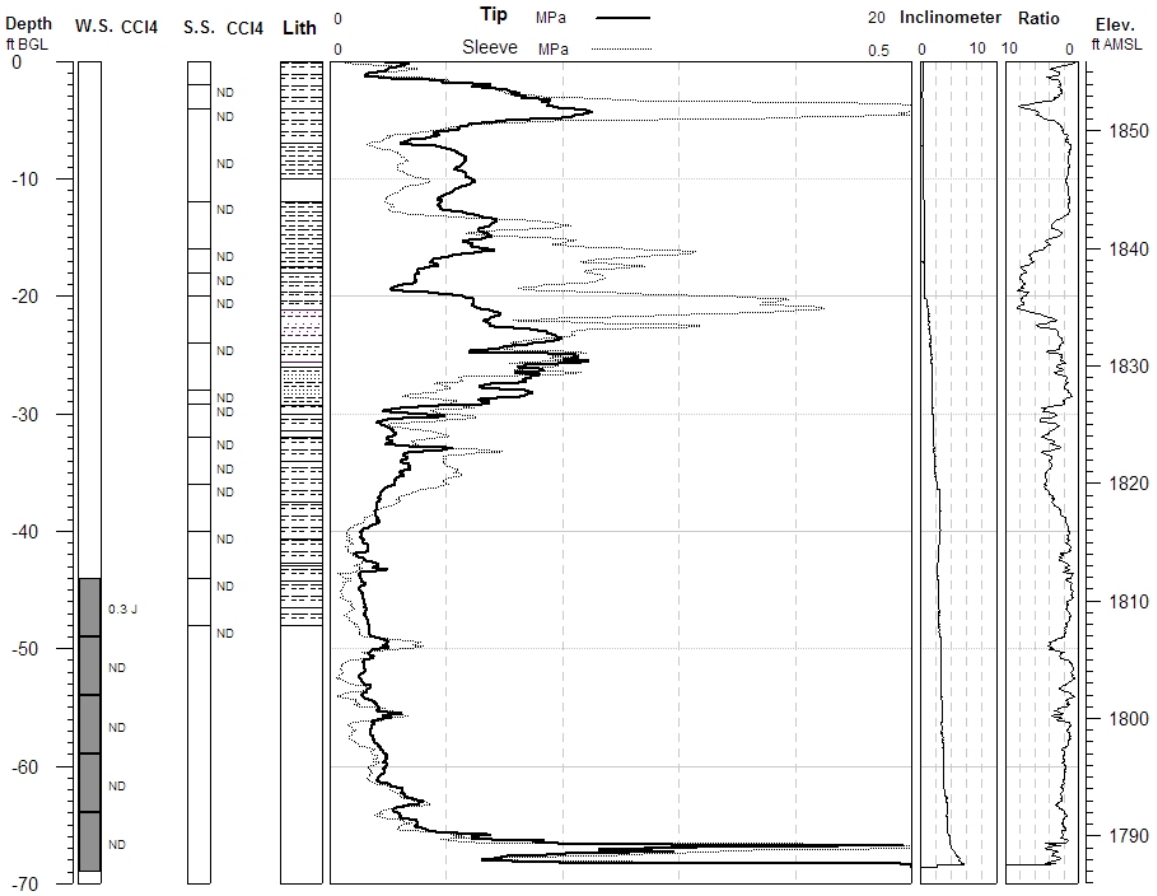
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1855.93 ft.

Geologist: Lorraine LaFreniere **Depth:** 68.64 ft. BGL

Boring ID: SB45

Log Date: 07/07/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1855.93 ft.

Depth: 69 ft. BGL

Boring ID: SB45

Log Date: 07/07/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						SILTY CLAY: Root fragments, very silty clay, damp. Very dark grayish-brown (10 YR), non-calcareous.	1855
				ND			
				ND		CLAYEY SILT: Brown (10 YR), damp, porous, non-calcareous.	
-5							1850
						SILT AND CLAY: Brown (10 YR), marked decrease in clay content, non-calcareous. Porous.	
				ND			
-10						NO RECOVERY: No core recovery.	1845
				ND		SILT AND CLAY: Very slight increase in clay content. Progressively darker in color with depth. Damp. Non-calcareous (pale brown (10 YR)). Porous.	
-15							1840
				ND			
				ND		SILT AND CLAY: Slight change in color - brown (10 YR), silt with increase in clay content, non-calcareous. Porous.	
						SILT, CLAYEY: Marked increase in clay content, porous. Non-calcareous, brown (10 YR).	
-20				ND			1835
						SILT AND SAND: Distinct color change, gradational, non-calcareous - layered appearance - silt layer/medium grained sand scattered throughout layer with very fine silt. Porous, occasional (calcareous) clasts of light gray (10 YR) limestone, granular size, oxidized.	

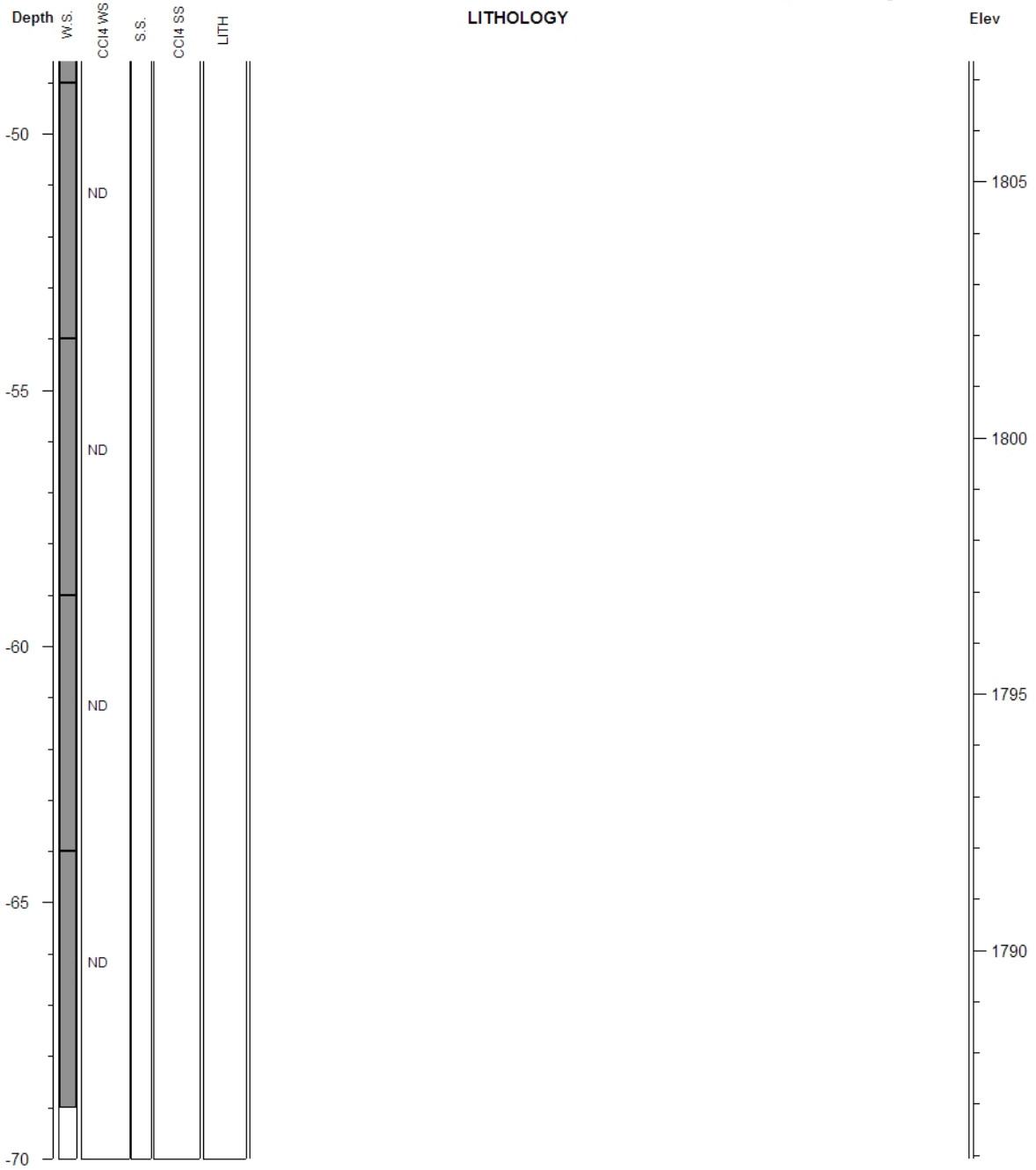
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB45 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
				ND		SILT, SANDY: Very distinctly layered, sandy silt with clasts as described above, thin layer of very fine silt. Abundant medium grained sand - sub-rounded to sub-angular. Decrease in grain size with depth. Oxidized. Very pale brown (10 YR) to light yellowish-brown (10 YR), calcareous.	
-25						SILT AND SAND: Becomes non-calcareous, very fine silt. Layering persists as above - decrease in sand content/decrease in grain size to fine grained sand. Porous. Color as described above.	1830
				ND		SILT, SANDY WITH CLAY: Very porous, non-calcareous, distinctly layered fine silt and sandy clay, oxidized. Very pale brown to light yellowish-brown (10 YR), marked increase in sand content, sand is fine grained. Sand content variable in layer - the fine silt forms very thin layers between sand-bearing zones.	
				ND		SILTY CLAY: Transitional zone, marked increase in clay content. Oxidized. Non-calcareous.	
-30						CLAY, SILTY: Heavily oxidized. Layering less distinct. Non-calcareous, very slightly plastic, yellowish-brown (10 YR).	1825
				ND		SILTY CLAY: Distinct color change, calcareous, heavily oxidized. Transition zone. Non-porous.	
						SILTY CLAY: Very silty clay, damp, slightly calcareous, oxidized. Faintly layered - not as well defined as above units, yellowish-brown (10 YR).	
				ND		CLAY, SILTY: Gradational change to clay, slightly silty, calcareous, occasional minute shell fragments - probably gastropod. Light yellowish-brown (10 YR), clay stiff.	
-35							1820
				ND			
						CLAY, SILTY: Calcareous, clay, silty, increase in clay content from above. Plastic, moist, very pale brown (10 YR).	
-40				ND			
						CLAY, SILTY: Highly calcareous - clay, silty as above, increased clay content, moist. Very pale brown (10 YR).	1815
						SAND: 1 inch sand lense - highly oxidized, wet, medium grained, well sorted, sub-angular, yellowish-brown (10 YR), non-calcareous.	
						SILTY CLAY: Very silty clay, very pale brown (10 YR), occasional shell fragments. Damp.	
				ND		CLAY, SILTY: Damp to moist, slightly mottled, occasional shell fragments. Trace sand, yellowish-brown (10 YR).	
-45							
		0.3 J					1810
						CLAY, SILTY: Very silty, possible evidence of fine layering again - not as well developed as above. Oxidized, darkening in color with depth, damp to moist, trace angular gravel. Faintly calcareous. Brown (10 YR).	
				ND			

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB45 Pg. 3

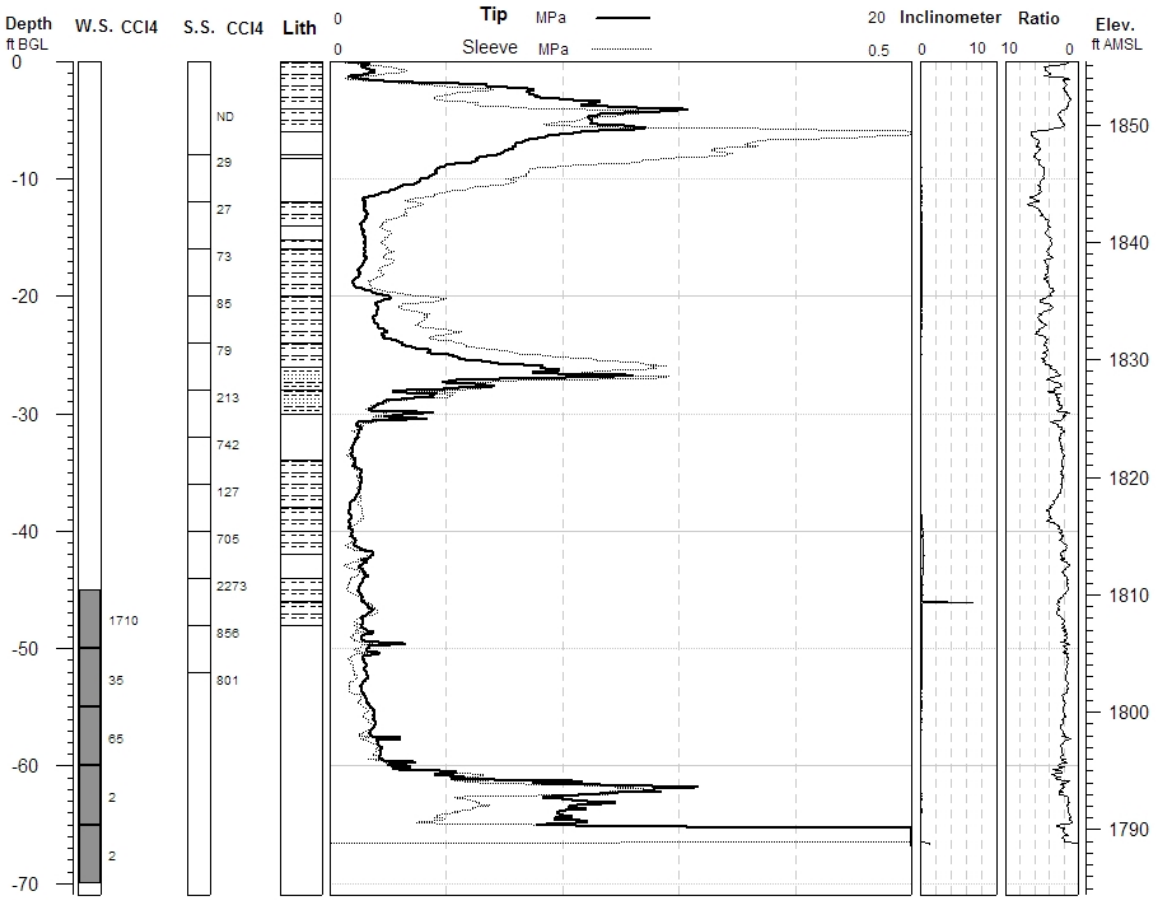


Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS **Elevation:** 1855.42 ft. **Boring ID: SB46**

Geologist: Lisa Larsen **Depth:** 70 ft. BGL **Log Date:** 07/08/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lisa Larsen

Elevation: 1855.42 ft.

Depth: 70 ft. BGL

Boring ID: SB46

Log Date: 07/08/2005

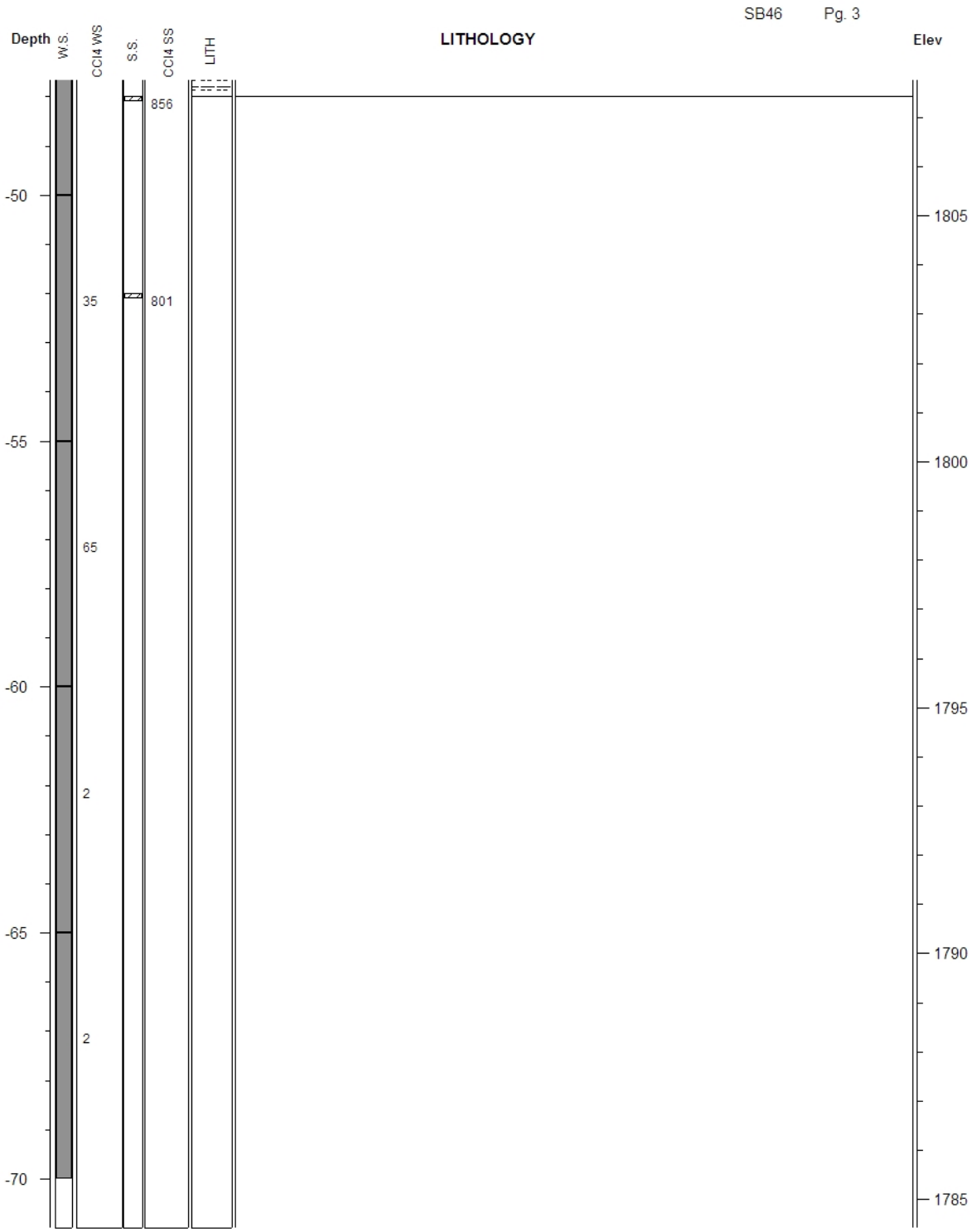
Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						SILTY CLAY: Very dark grayish-brown (10 YR) throughout, color change to grayish-brown with depth, non-calcareous.	1855
				ND		CLAYEY SILT: Gray (10 YR), non-calcareous.	
-5							1850
						NOT CORED	
				29		SILTY CLAY: Pale brown (10 YR), non-calcareous.	
						NOT CORED	
-10							1845
				27		SILTY CLAY: Pale brown (10 YR), pinpoint oxidation, non-calcareous.	
						NOT CORED	
-15							
						SILTY CLAY: Pale brown (10 YR), pinpoint oxidation, non-calcareous.	1840
				73		SILTY CLAY: Pale brown (10 YR), evidence of oxidation throughout, very silty, non-calcareous, increase in oxidation with depth.	
-20				85		SILTY CLAY: High clay content, gray-brown (10 YR), pinpoint oxidation throughout, occasional sand grain (coarse), color change to dark gray-brown (10 YR) at 22 ft., non-calcareous, very stiff.	1835

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB46 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
				79		SILTY CLAY: High clay content, oxidized, dark grayish-brown, very stiff, non-calcareous, pale brown at 25.5 ft., occasional sand grain.	
-25							1830
						SILT, CLAY, AND SAND: Fine to trace coarse, sub-angular, poorly sorted, yellowish-brown (10 YR), sand content slightly increased with depth, oxidized, non-calcareous.	
				213		SILT, CLAY, AND SAND: Fine sand, yellowish-brown (10 YR), oxidized, non-calcareous, moist.	
-30							
						SILT, CLAY, AND SAND: Yellowish-brown (10 YR), fine sand, non-calcareous, oxidized, moist.	1825
				742		SILT, CLAY, AND SAND: Yellowish-brown (10 YR), fine sand with trace coarse, oxidized, moist, non-calcareous.	
						SILTY CLAY: Light yellowish-brown (10 YR), increase in clay content from 36 - 38 ft., oxidized.	
-35							1820
				127			
						SILTY CLAY: Light yellowish-brown (10 YR), occasional sand grain, sub-angular, small gastropod shell fragments throughout, oxidized, slightly calcareous from 39.5 - 40 ft., color lightens with depth.	
-40				705		SILTY CLAY: Brownish-yellow (10 YR), white calcareous material throughout, occasional root hole, color lightens with depth, very silty, calcareous, oxidized.	1815
						SILT, CLAY, AND SAND: Light brownish-yellow (10 YR), coarse sandy silty clay at 43.75 ft., white calcareous material, highly calcareous, oxidized.	
				2273		SILTY CLAY: Abundant coarse silt, light yellowish-brown (10 YR), mottled, oxidized, highly calcareous.	
-45							1810
						SILTY CLAY: Abundant coarse silt, brownish-yellow (10 YR), small gastropod fragments, highly calcareous, oxidized, moist.	
		1710					

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

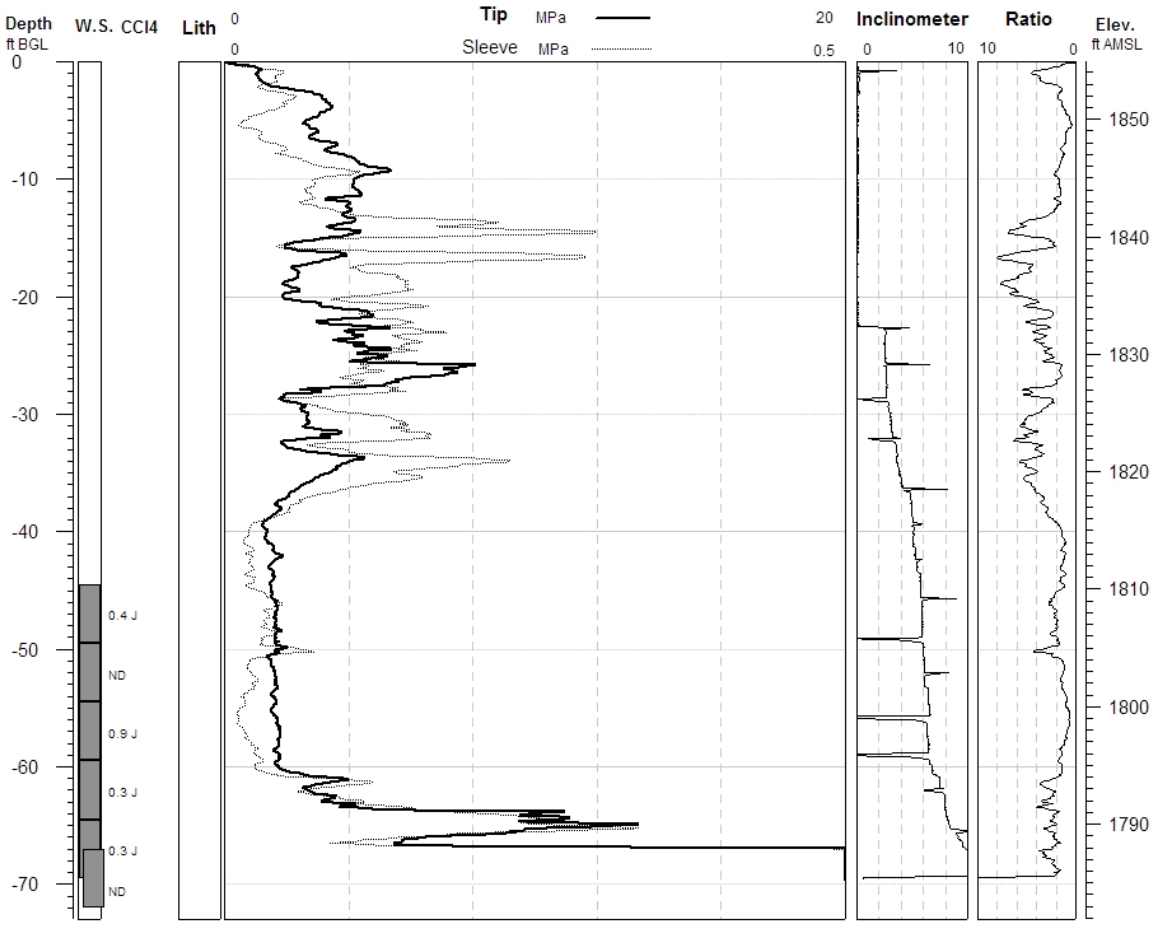
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.88 ft.

Geologist: Lorraine LaFreniere **Depth:** 72 ft. BGL

Boring ID: SB47

Log Date: 06/09/2005



Carbon tetrachloride in water sample = micrograms/L

Argonne National Laboratory

Project: Agra, KS

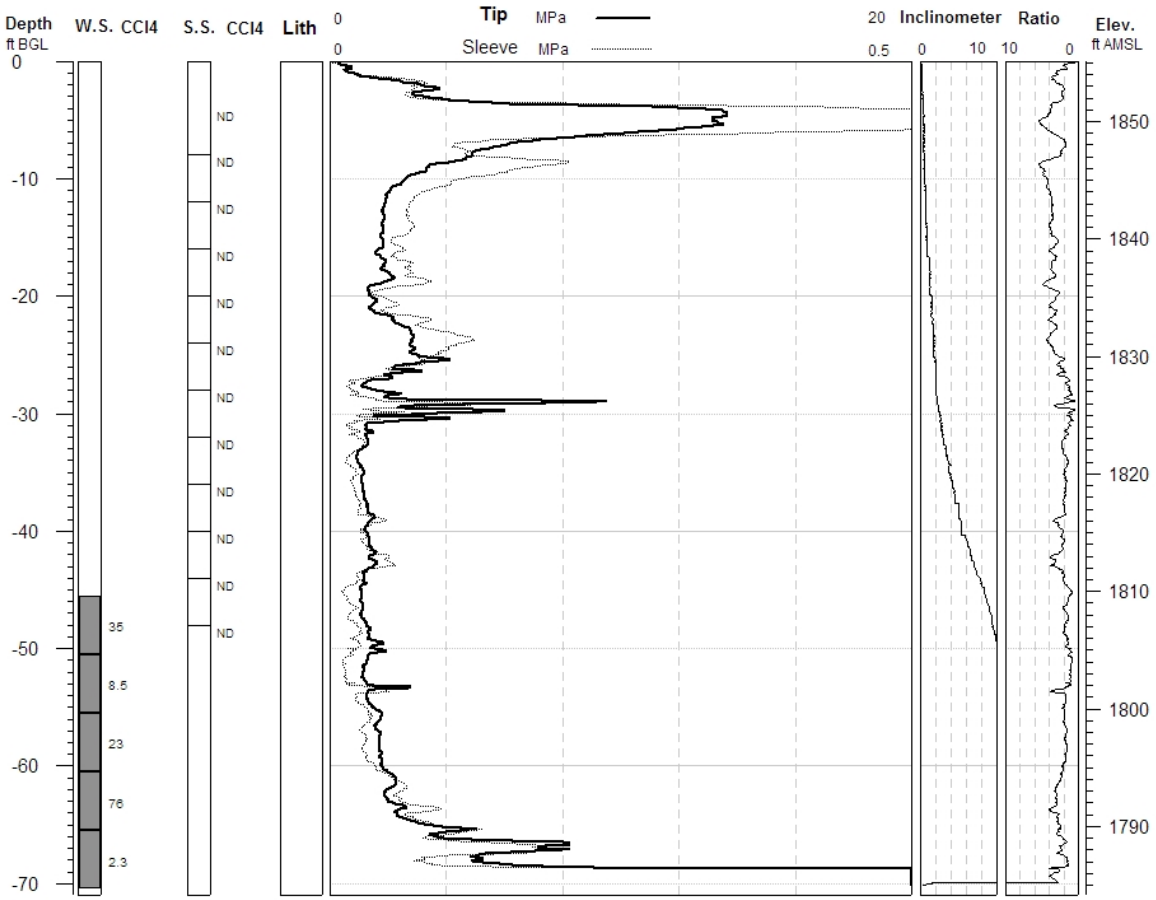
Geologist: Lorraine LaFreniere

Elevation: 1855.13 ft.

Depth: 70.5 ft. BGL

Boring ID: SB48

Log Date: 06/11/2005

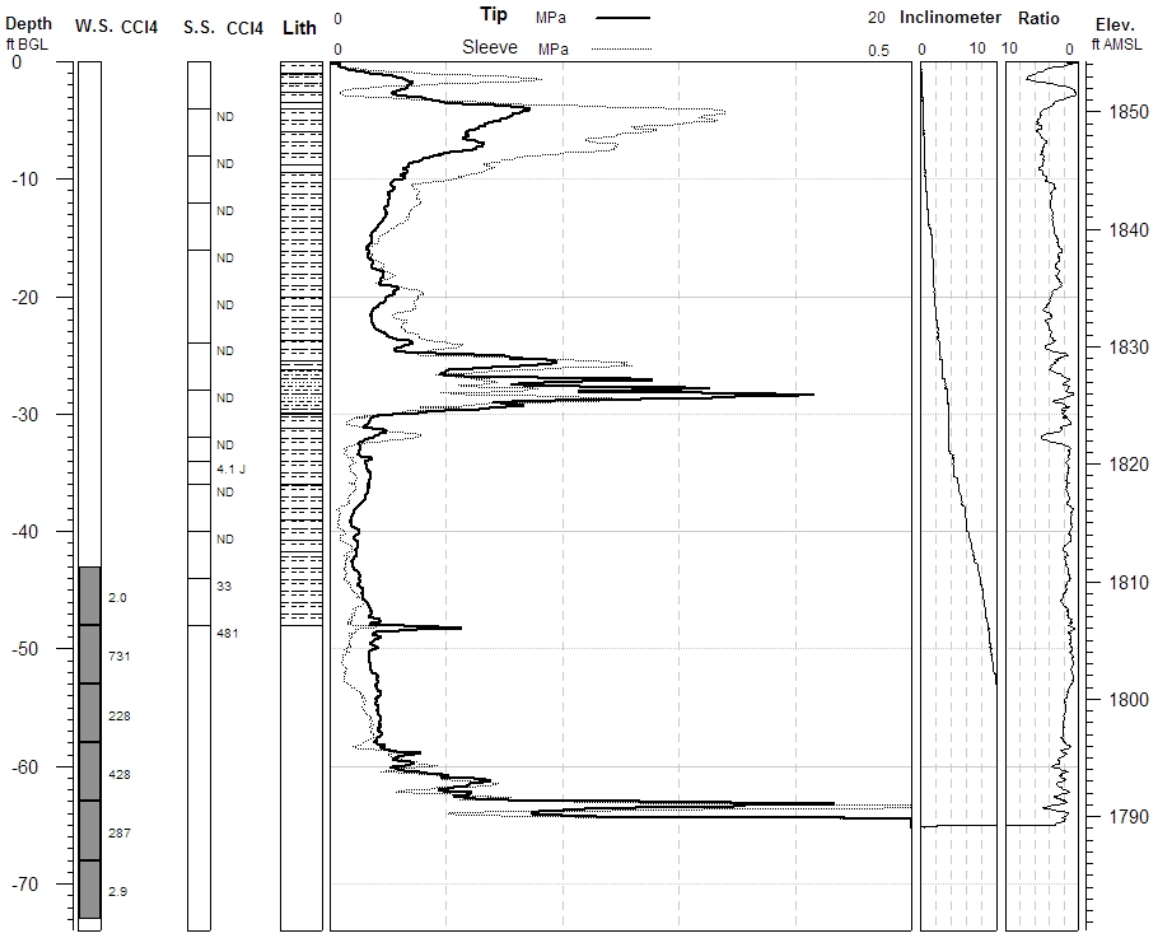


Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.27 ft. **Boring ID: SB49**

Geologist: Lorraine LaFreniere **Depth:** 73 ft. BGL **Log Date:** 06/12/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1854.27 ft.

Depth: 73 ft. BGL

Boring ID: SB49

Log Date: 06/12/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY, SILTY: Damp. Root fragments throughout, non-calcareous, dark grayish-brown (10 YR).	
						SILT, CLAYEY: Non-calcareous, damp, pale brown (10 YR), root fragments throughout, porous.	
						CLAY, SILTY: Very silty, non-calcareous, pinpoint oxidation - faintly laminated. Dark grayish-brown (10 YR).	
						CLAY, SILTY: Very silty, disaggregated, non-calcareous. Dark grayish-brown (10 YR).	
				ND		CLAY, SILTY: Non-calcareous, porous, mottled with increased mottling with depth as transitions to underlying zone. Clay matrix, color is dark grayish-brown (10 YR) with areas of light brownish-gray (10 YR), formed by concentrations of fine silt.	1850
-5							
						CLAY, SILTY: Abrupt color change, non-calcareous, porous. Trace iron oxide present. Brown (10 YR), non-calcareous.	
				ND			
						CLAY, SILTY: Marked increase in silt content from that described above. Increased evidence of iron and associated iron oxide with depth. Non-calcareous, color lightening with depth also. Grayish-brown (10 YR). Damp.	1845
-10						CLAY, SILTY: High silt content in part, stiff clay, non-calcareous, minor selective oxidation variable. Damp to moist (10 YR). Variable silt content throughout unit. Generally non-calcareous, thick section of silty clay with minor, variable silt content.	
				ND			
							1840
-15							
				ND			
							1835
-20				ND		CLAY, SILTY: Abrupt change in color to clay, slightly silty, stiff. Heavily oxidized, grayish-brown (10 YR). Non-calcareous.	

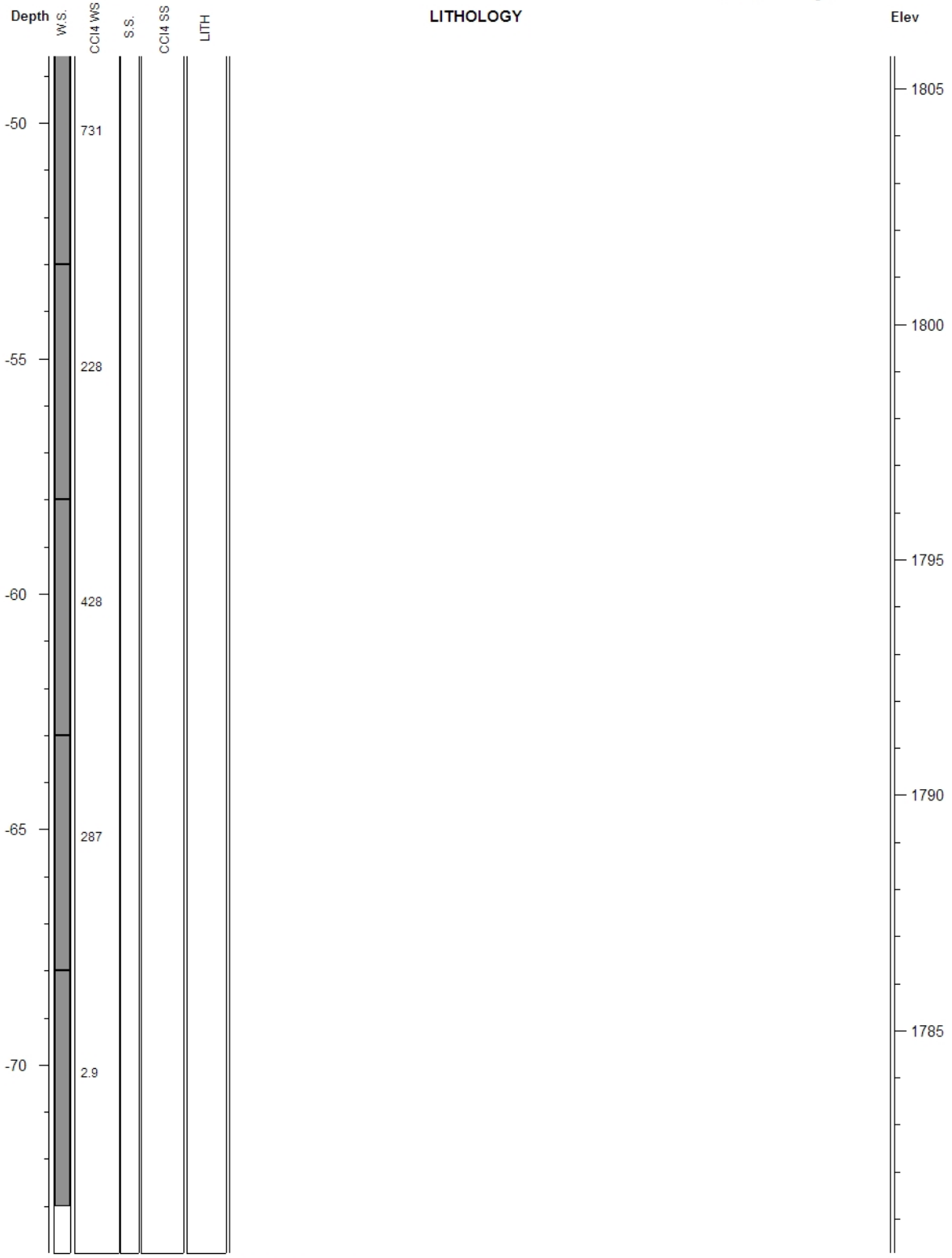
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB49 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
				ND		CLAY, SILTY: Damp, non-calcareous, trace iron oxide throughout. Light grayish-brown (10 YR). Coarse silt to very fine sucrosic sand in lenses.	1830
-25							
						CLAY, SILTY WITH SAND: Increasing silt content with depth, coarse silt with minor trace of medium grained sand (sub-angular quartz). Sand content increases with depth. Concentrating along partings in clay. Grayish-brown (10 YR). Porous, non-calcareous.	
						CLAY, SANDY WITH SILT: Heavily oxidized, sand, poorly sorted, medium to very coarse grained, trace gravel of mixed lithology. Brownish-yellow (10 YR). Non-calcareous. Variable silt content. Porous.	
				ND			
							1825
-30						SILT: Heavily oxidized silt. Brownish-yellow (10 YR). Friable, non-calcareous.	
						CLAY, SILTY: Very silty, crumbly in appearance, moist, heavily oxidized. Possible sucrosic, very fine sand in evidence throughout. Silt content decreases with depth, becomes a stiff, silty clay. Non-calcareous. Yellowish-brown (10 YR).	
				ND		CLAY, SILTY: Oxidized, stiff, damp to moist, dark yellowish-brown (10 YR). Variable silt content throughout. Yellowish-brown (10 YR). Non-calcareous.	
				4.1 J			1820
-35							
				ND		CLAY, SILTY: Slightly silty, moist to very moist, plastic. Oxidized throughout, no evidence of iron nodules, as above. Yellow-brown (10 YR). Non-calcareous.	
						CLAY, SILTY: Slightly silty, obvious lightening in color, minor concentrations of minute $CaCO_3$ nodules. Highly calcareous throughout. Light yellowish-brown (10 YR). Mottled in appearance with mottles of yellowish-brown (10 YR). Oxidation fabric accounts for color variations.	1815
-40				ND			
						CLAY, SILTY: Yellowish-brown (10 YR), stiff, oxidized. Damp. Very slightly calcareous to non-calcareous. Oxidized.	
						SILTY CLAY: Very silty clay, damp, oxidized, abrupt contact with above, minute white calcareous fragments throughout. Highly calcareous throughout. Light yellowish-brown (10 YR). Variable silt content throughout. Moist to wet at base.	
				33			1810
-45		2.0					
				481			

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB49 Pg. 3



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

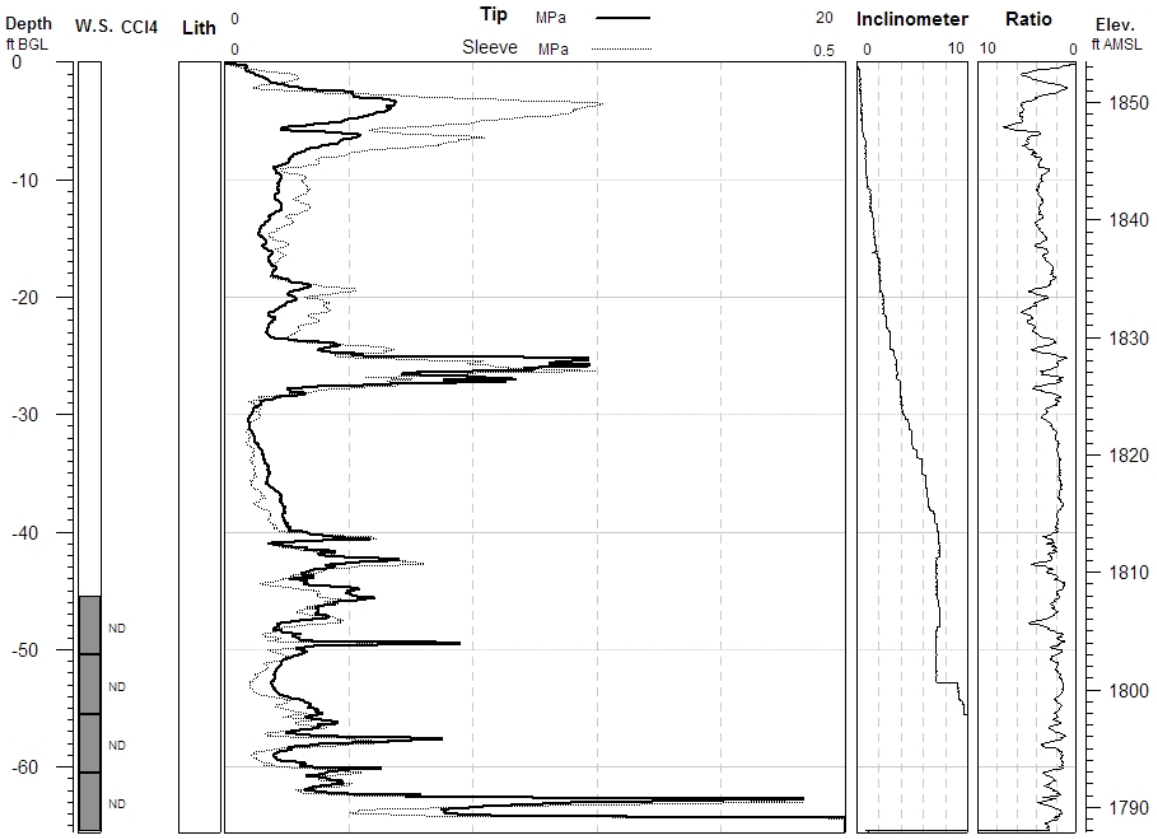
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1853.43 ft.

Geologist: Lorraine LaFreniere **Depth:** 65.62 ft. BGL

Boring ID: SB50

Log Date: 06/12/2005

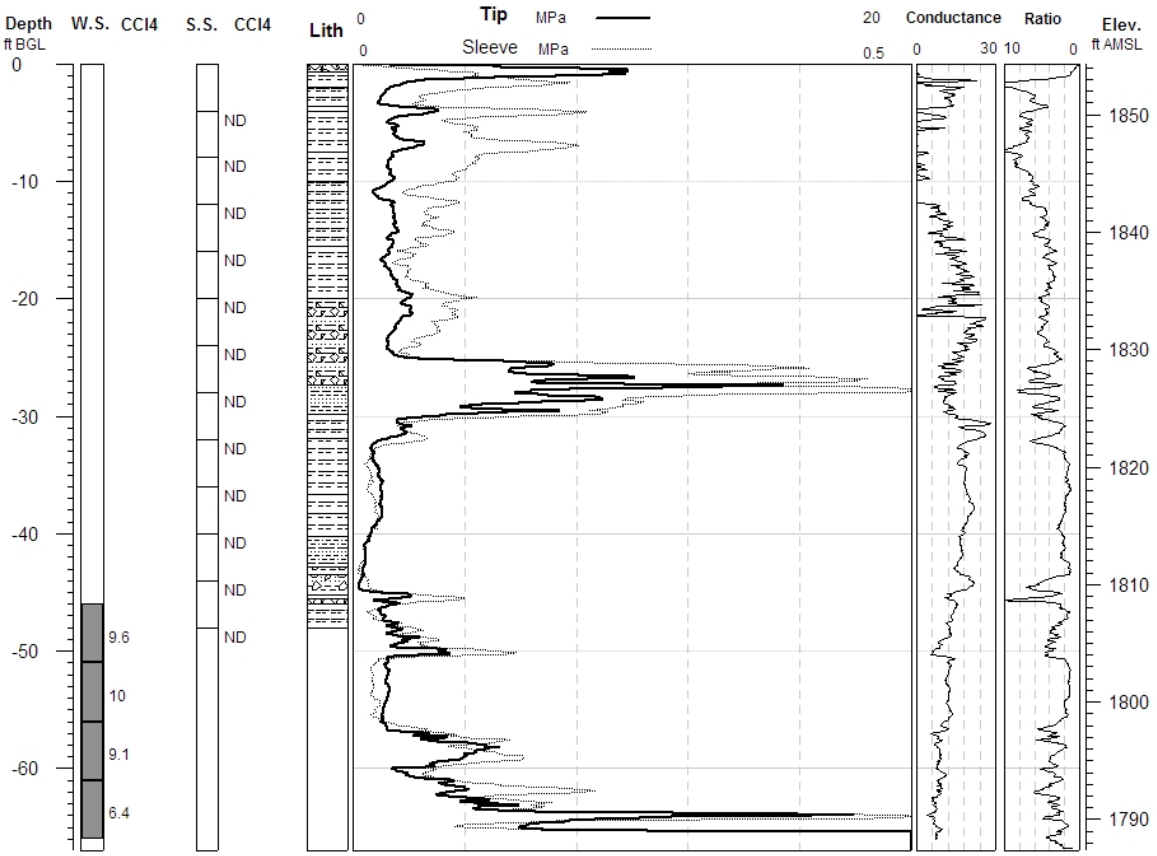


Carbon tetrachloride in water sample = micrograms/L

Argonne National Laboratory **Boring ID: SB51**

Project: Agra, KS **Elevation:** 1854.34 ft.

Geologist: Lorraine LaFreniere **Depth:** 66.99 ft. BGL **Log Date:** 05/22/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1854.34 ft.

Depth: 66 ft. BGL

Boring ID: SB51

Log Date: 05/22/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						GRAVEL: Road gravel and disturbed sediment.	
						CLAY, SILTY: Slightly silty, hard, dense, clay, dry, non-calcareous. Dark grayish-brown (2.5 YR).	
						SILT, CLAYEY: Silt, slightly clayey, moist, calcareous, dark grayish-brown (2.5 YR).	
						NOT CORED	
				ND		CLAY, SILTY: Very silty, non-calcareous, non-plastic, moist, coarse silt, oxidized iron grains present. Very dark gray (2.5 YR).	1850
-5							
				ND		CLAY, SILTY: Distinct color change to grayish-brown (2.5 YR). Clay, silty, dense, hard, moist, trace medium grained sand, evidence of selective oxidation associated with individual grains, silt content increases with depth. Tiny iron nodules present throughout. Silt coarsens with depth.	1845
-10						SILT, CLAYEY: Very clayey, slightly moist, very coarse silt, minor evidence of oxidized grains present. Grayish-brown (2.5 YR).	
				ND			1840
-15							
				ND		CLAY, SILTY: Very silty, moist. Silt content varies considerably throughout. Selective evidence of oxidation throughout. Grayish-brown (2.5 YR).	1835
-20				ND		SILT, GRAVEL AND CLAY: Marked increase in evidence of pinpoint oxidation, silt to coarse gravel, crumbly in appearance. Non-calcareous, dark grayish-brown (2.5 YR).	

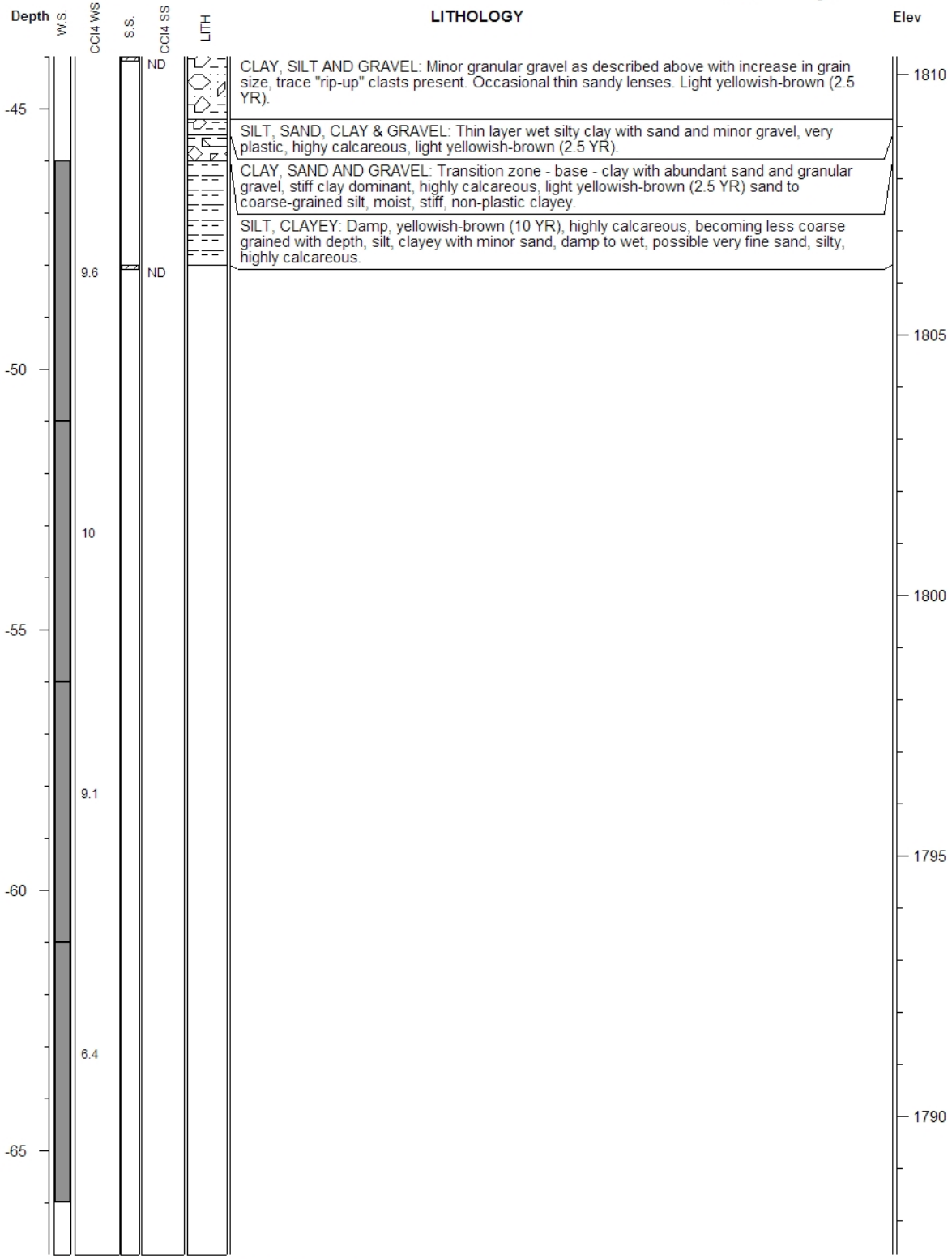
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB51 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
-25				ND			1830
				ND		SILT, CLAY, AND SAND: Highly oxidized, silt, coarse with sand and clay. Sand disseminated throughout, unoxidized clear grains, moist, coarse silt matrix with clay, becoming sandier with depth. Damp. Non-calcareous, yellowish-brown (10 YR).	1825
-30						SILT, CLAYEY: Highly oxidized silt, very clayey. Clay content increasing with depth. Non-calcareous, moist, dark yellowish-brown (10 YR).	
				ND		CLAY, SILTY: Highy oxidized clay, very silty, moderate plasticity, damp, trace fine to medium sand increases, yellowish-brown (10 YR).	1820
-35				ND			
						CLAY, SILTY: Highly oxidized clay, silty, marked increase in clay content, moderate to good plasticity, trace fine sand overall, predominantly clay. Non-calcareous, damp, dark yellowish-brown (10 YR).	
						CLAY, SILTY: Highly oxidized, clay, silty, highly calcareous, slight increase in clay content and plasticity, mottled in appearance and increasingly damp. Silt grain size increases to coarse. Light yellowish-brown (2.5 YR).	1815
-40				ND			
						CLAY, SANDY WITH SILT: Damp to wet clay, sandy with silt, sand scattered throughout, oxidized, light yellowish-brown (2.5 YR).	
						CLAY, SILT AND GRAVEL: Dense, hard, slightly moist, minor granular gravel of mixed lithology scattered throughout, sub-angular to angular granules (weathered limestone), highly calcareous, clear quartz grains	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB51 Pg. 3



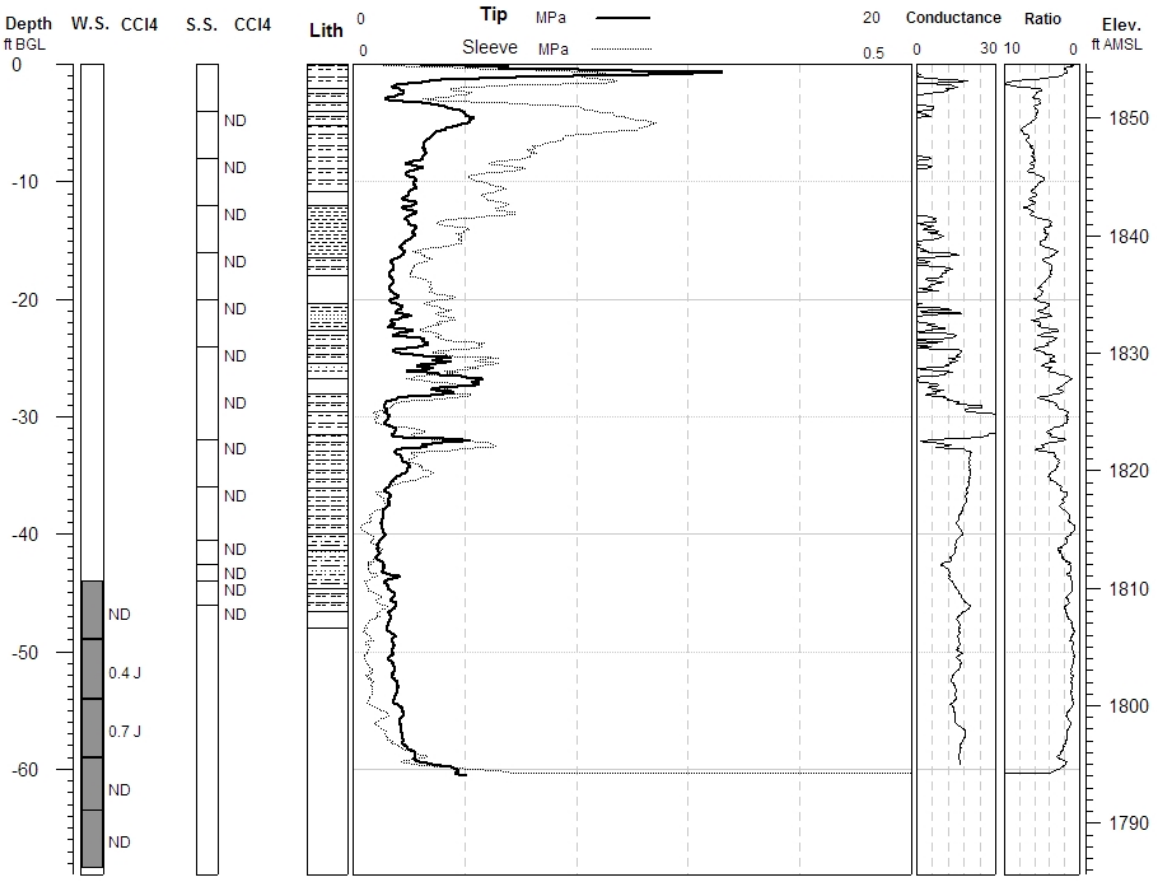
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: SB52

Project: Agra, KS **Elevation:** 1854.59 ft.

Geologist: Lorraine LaFreniere **Depth:** 68.45 ft. BGL **Log Date:** 05/20/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: SB52

Project: Agra, KS

Elevation: 1854.59 ft.

Geologist: Lorraine LaFreniere

Depth: 68.45 ft. BGL

Log Date: 05/20/2005

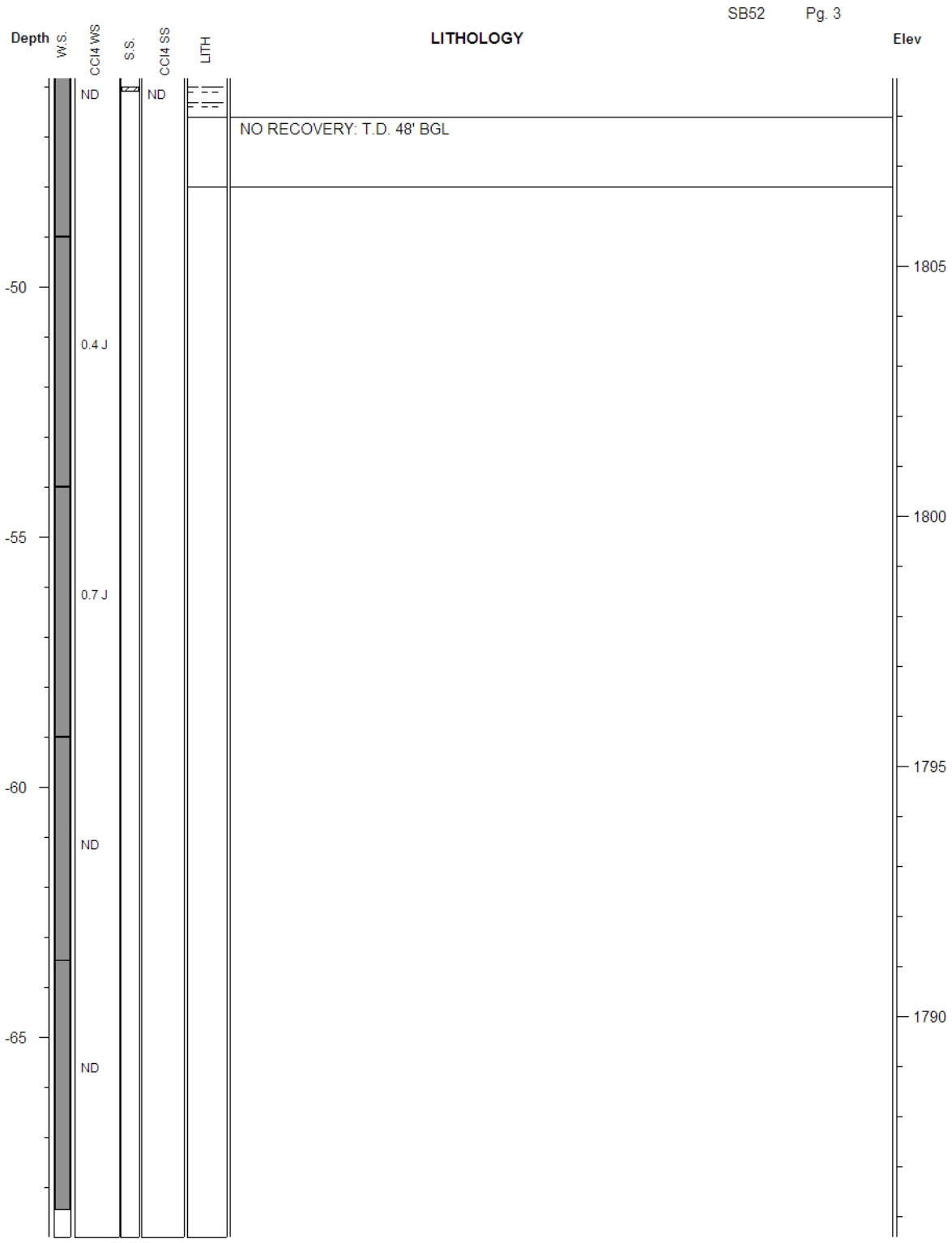
Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						SILTY CLAY: Disturbed surface soils with road gravel, black, silty clay.	
						SILT, CLAYEY: Minor clay content. Slightly moist, dark brown (10 YR) coarse silt.	
						SILT, CLAYEY: As described above with reduced clay content. Trace fine to medium grained sand. Dark brown (10 YR), slightly damp, non-calcareous.	
				ND		SILT, CLAYEY: Minor clay content, some evidence of mottling, dark brownish-gray (10 YR), very slightly damp, non-calcareous.	1850
-5						CLAYEY SILT: Grading into increasingly clayey silt, clay content increases slightly with depth. Very slightly damp, non-calcareous, grayish-brown (10 YR).	
				ND			
							1845
-10							
						NO RECOVERY	
				ND		SILT: Silt with slight increase in clay content, grayish-brown (10 YR). Moist. Very weak plasticity to non-plastic. Increasingly coarse grained with depth, non-calcareous. Gradiational lower contact reflected in slight color change.	
							1840
-15							
				ND			
						SILT, CLAYEY: Increasingly darker brown (10 YR) in color, silt, clayey, non-calcareous. Increased clay content, moist, weak to non-plastic, coarse silt with areas of fine sand, oxidized.	
						SILT, CLAY, WITH SAND: Sand fine grained and scattered throughout. Dark brown (10 YR), weak plasticity, slightly moist.	
							1835
-20				ND			
						SILT, SANDY WITH CLAY: Heavily oxidized, coarse silt/fine sand scattered throughout. Brown (10 YR).	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB52 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						SILT, CLAYEY: Oxidized, coarse silt with minor clay. Weak to no plasticity. Moist. Brown (10 YR).	
				ND			1830
-25						SILT, SANDY: Oxidized, silt, sandy with minor clay. Coarse silt with fine to medium-grained sand. Moist to damp. Non-plastic.	
						NO RECOVERY: No sample recovered.	
				ND		SILT, CLAYEY: Oxidized, coarse silt, clayey, wet, weak plasticity, varying silt content throughout.	
-30						CLAY, SILTY: Highly oxidized, damp to moist clay, silty, moderate plasticity, grayish-brown. (10 YR)	1825
				ND		SILT, CLAYEY: Slightly less oxidized than above, silt, clayey, moist. Grayish-brown (10 YR).	
-35							1820
				ND		SILT, CLAYEY: with trace sand. Increased clay content from above. Moist to damp. Sand fine to medium grained, light brownish-gray. (10 YR)	
-40							1815
				ND		CLAY, SILTY WITH SAND: Light yellow-gray (10 YR), clay, silty with sand, moist to damp, moderate plasticity, sand fine grained, highly calcareous.	
				ND		CLAY, SILTY WITH SAND: As described above with partings of sand, very poorly sorted fine to very coarse grained (sub-angular grains). Marked appearance of zones of "rip-up"clasts. Variable sand content and distribution. Highly calcareous.	
				ND			
-45						SILT, CLAYEY: Slight darkening of color, increased oxidation, silt, clayey, coarse with minor fine sand. Moderately calcareous.	1810

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg



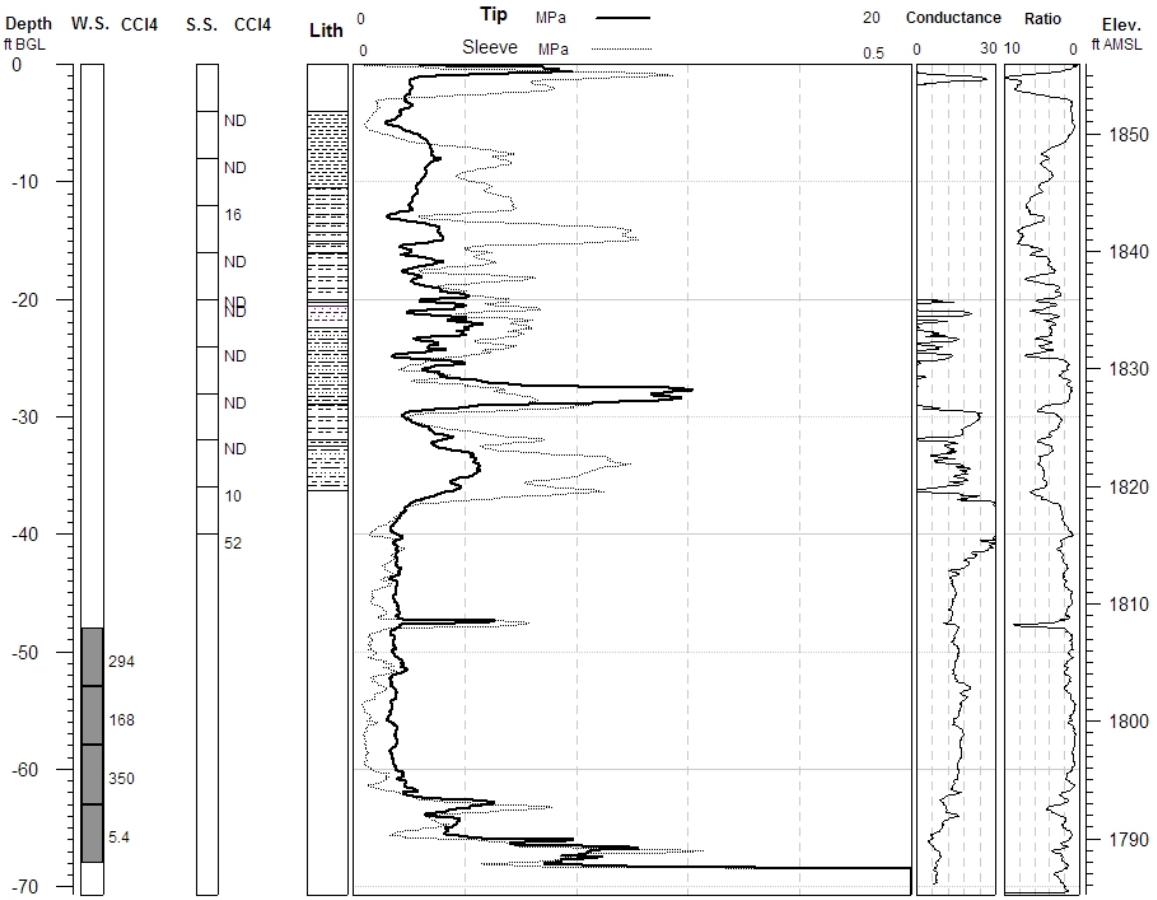
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: SB53

Project: Agra, KS **Elevation:** 1855.92 ft.

Geologist: Lorraine LaFreniere **Depth:** 70.73 ft. BGL **Log Date:** 05/19/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1855.92 ft.

Depth: 68 ft. BGL

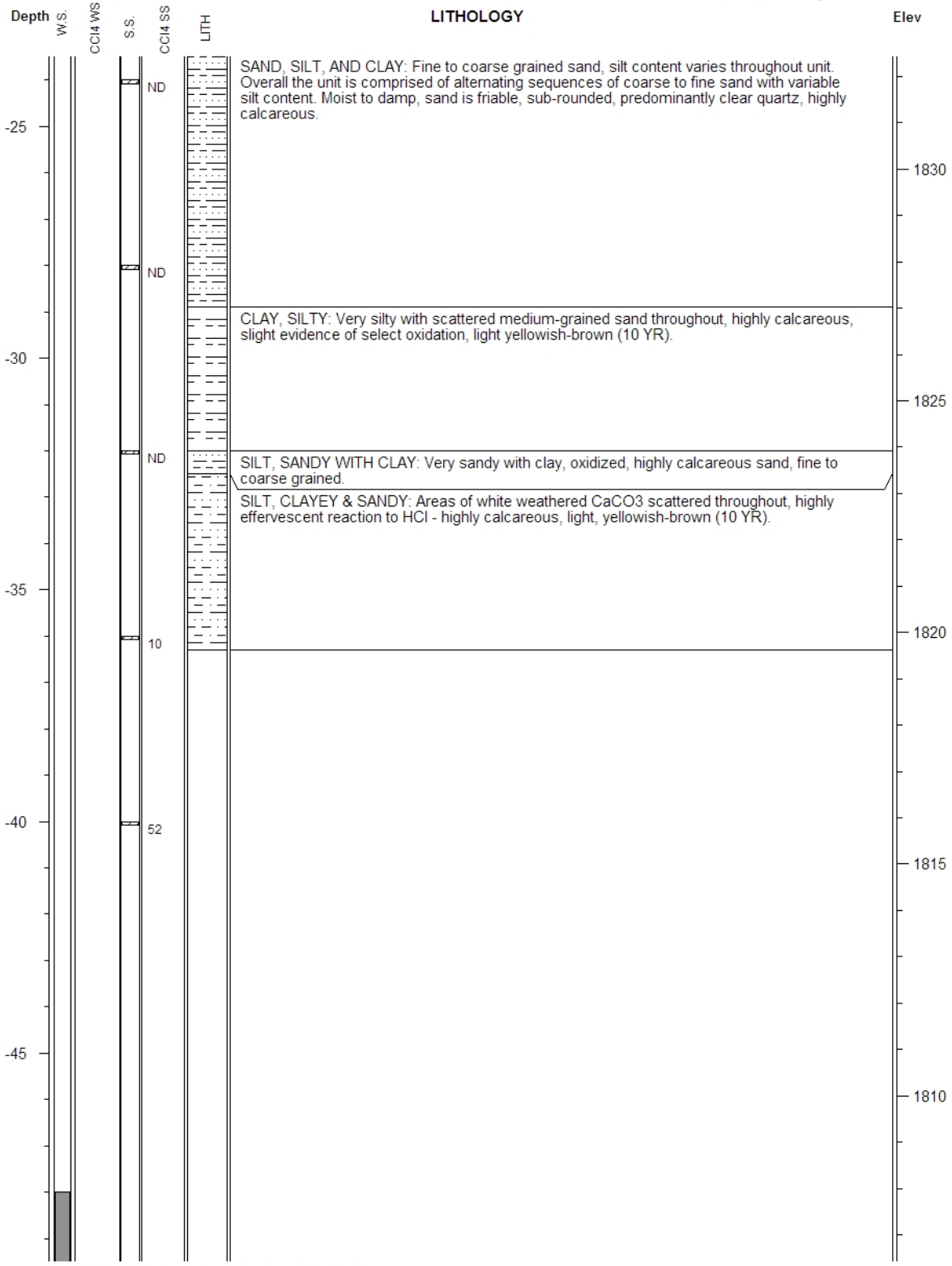
Boring ID: SB53

Log Date: 05/19/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						NOT CORED	1855
-5				ND		SILT: Calcareous, pale brown (10 YR), dry.	1850
-10				ND		SILT, CLAYEY: Slightly clayey, abrupt color change, non-calcareous, slightly moist, crumbly in appearance, dark brown (10 YR), silt coarser than overlying unit, oxidized.	1845
-15				16		SILT, CLAYEY: Gradational color change. Silt, very clayey, non-calcareous with trace sand, light brown (7.5 YR).	
						SILT, CLAYEY: Very clayey with trace medium sand, transitional zone - highly calcareous, evidence of white, weathered calcareous material, possible exposure surface.	1840
				ND		CLAY, SILTY: Very silty, highly calcareous, pale brown (10 YR).	
-20				ND ND		SAND, SILTY: Poorly sorted, fine to coarse grained sand, sub-angular to sub-rounded, highly calcareous, yellow (10 YR).	1835
						CLAY, SANDY WITH SILT: Very sandy with silt, trace of clay inclusions present. Sand is fine to very coarse-grained with granular gravel to 8 cm in length, mixed lithology, predominantly quartz. Highly calcareous, very pale brown (10 YR). Gravel increased with depth, basal gravel.	
						SILT AND SAND: Very fine sand, highly calcareous, very pale brown (10 YR). Basal portion coarse grained in part.	

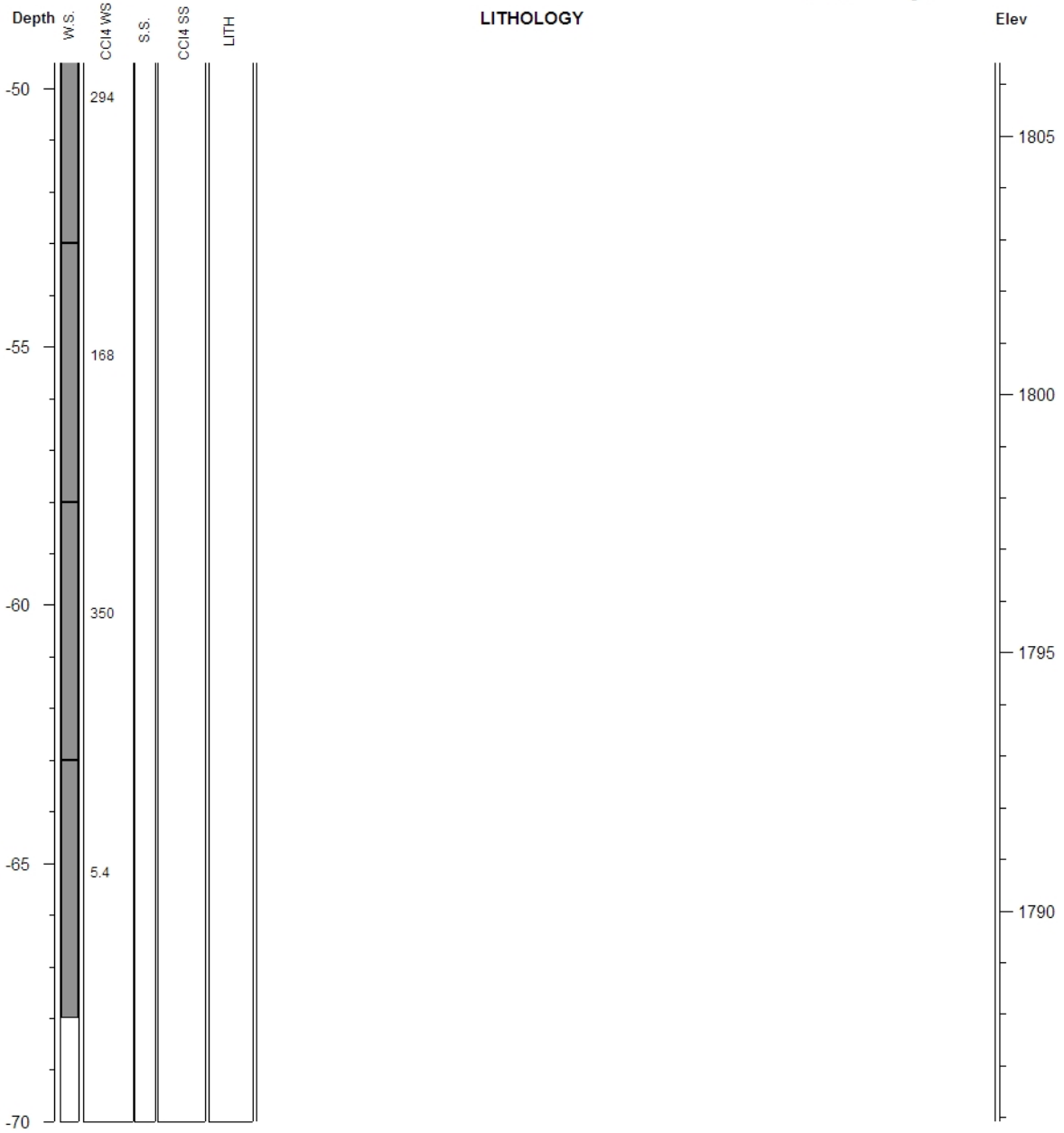
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB53 Pg. 2



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB53 Pg. 3



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

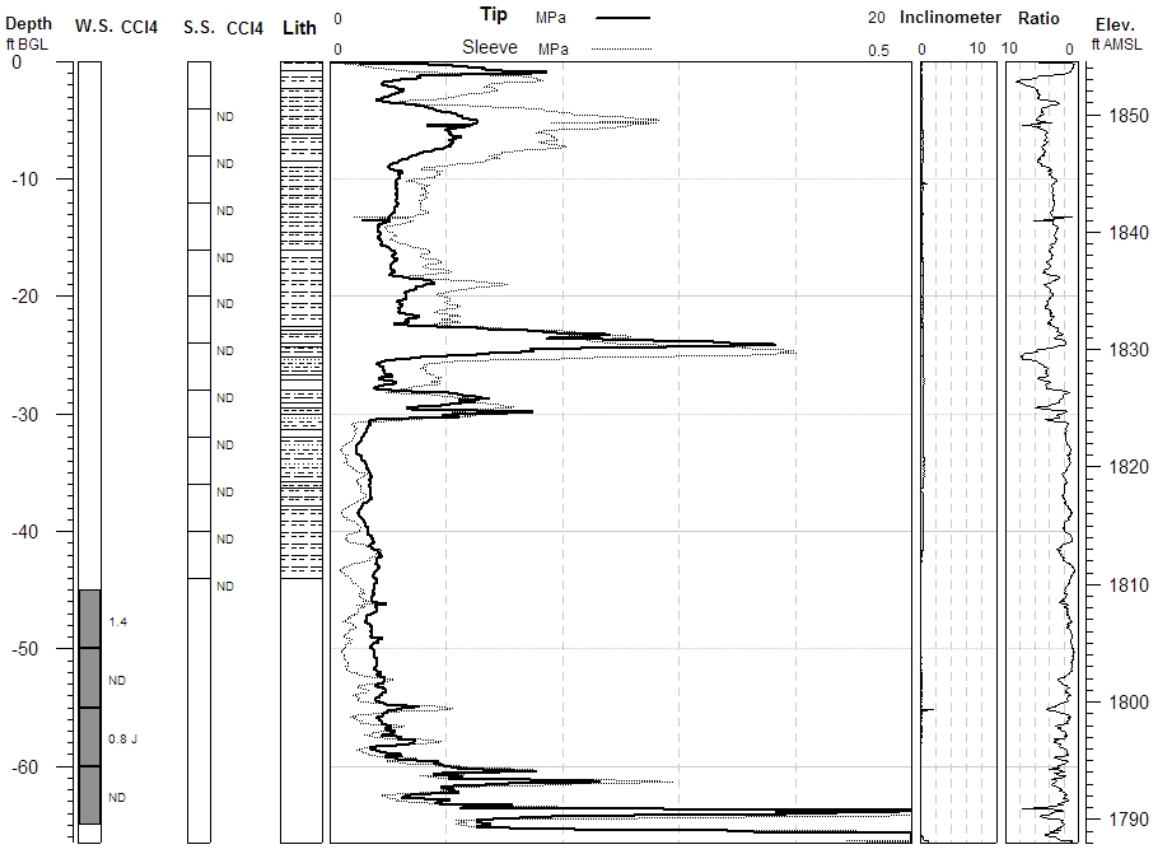
Elevation: 1854.52 ft.

Boring ID: SB54

Geologist: Lorraine LaFreniere

Depth: 66.54 ft. BGL

Log Date: 06/07/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1854.52 ft.

Depth: 65 ft. BGL

Boring ID: SB54

Log Date: 06/07/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY: and road construction materials. Disturbed soils, dry.	
						CLAY, SILTY: Minor sand grains. Clay is hard, stiff, non-plastic, relatively high silt content, dark grayish-brown (10 YR). Non-calcareous. Moist.	
						SILT, CLAYEY: Very clayey. Dark grayish-brown (10 YR), non-calcareous, slight evidence of mottling present. Silt ranges to coarse grained. Moist.	
				ND			1850
-5							
						CLAY, SILTY: Transitional contact with underlying unit, distinct color change, oxidized, pyritic - producing mottled appearance. Silt to coarse grained, increased silt content with depth, light olive-brown (2.5 YR), non-calcareous. Moist.	
				ND			
						SILT, CLAYEY: Selectively oxidized, non-calcareous, crumbly texture. Light olive-brown (2.5 YR), variable clay content. Moist.	
							1845
-10						10' to 11' - Grain size analysis	
				ND			
							1840
-15							
				ND		CLAY, SILTY: Very silty, trace sand, non-calcareous, light olive-brown (2.5 YR). Increasing evidence of iron oxide with depth - inclusions. Moist. Variable silt content.	
							1835
-20				ND			

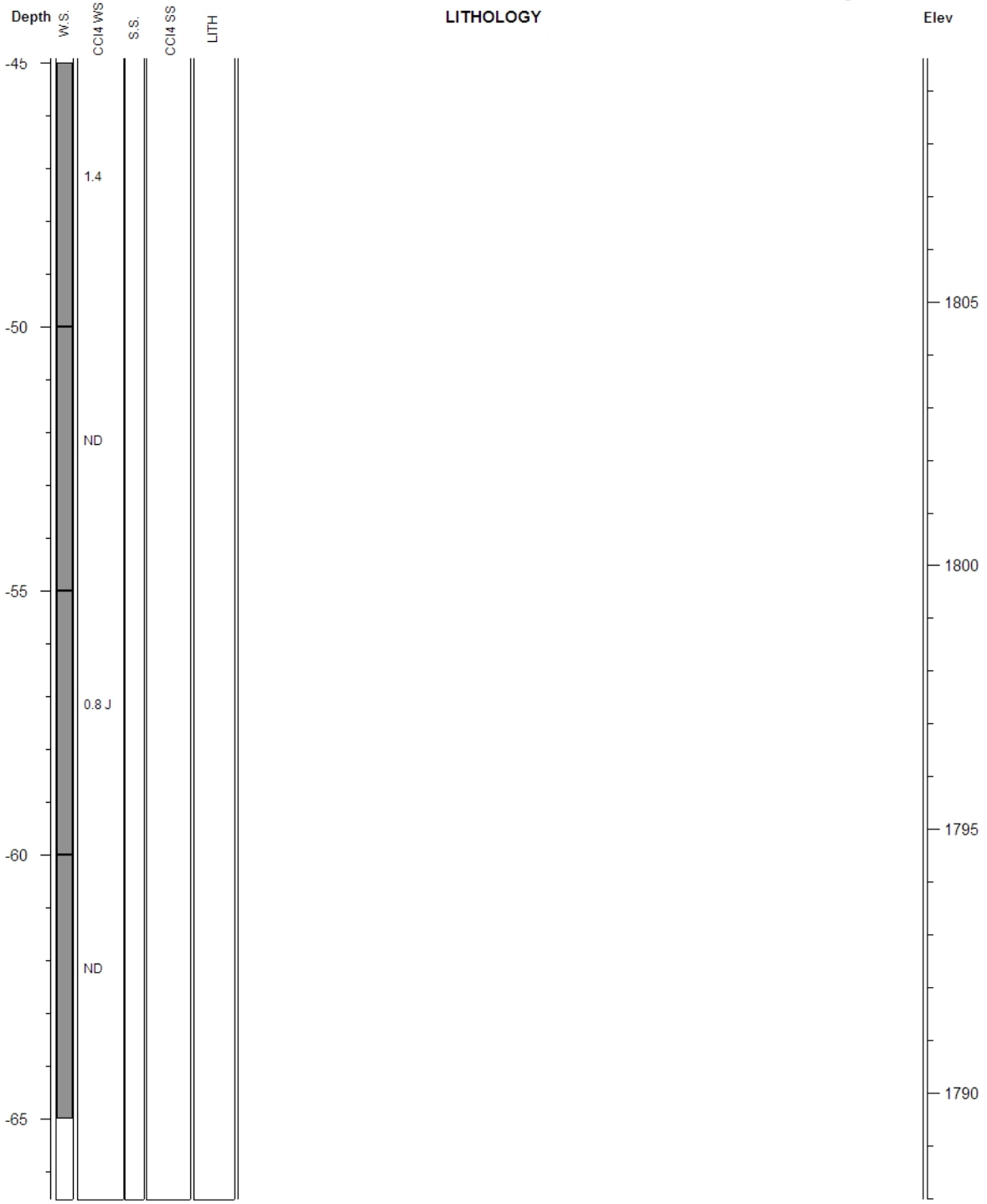
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB54 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						SILT, CLAYEY: Lense of highly oxidized silt, clayey with minor fine sand. Moist to damp.	
						SILT, CLAYEY: Silt is coarse to very fine, non-calcareous, light olive-brown (2.5 YR). Evidence of oxidation throughout. Small inclusions of oxidized sand at base.	
				ND		SAND: Basal contact at < 0.25". Sand, well sorted, very fine grained. Light gray (10 YR).	
-25						CLAY, SILTY WITH SAND: Abrupt color change. Heavily oxidized clay, very silty with sand. Sand fine grained, slightly calcareous, weak plasticity. Sand content increasing with depth. Dark yellow-brown (10 YR), damp.	1830
						CLAY, SANDY WITH SILT: Very sandy with silt. Fine sand in clay matrix, well sorted. Dark yellowish-brown (10 YR), non-calcareous, damp.	
						SAND, SILTY: Loose, friable, sub-rounded, quartz grains. Fine to medium grained, fairly well sorted, light yellowish-brown (10 YR). Damp. Sampled grain size.	
						NO RECOVERY	
				ND		SANDY CLAY WITH SILT: Basal contact. Sand at 28' is clear, light gray (10 YR), thin stringers of fine sand. Transition into dark yellowish-brown (10 YR) clay, silty with inclusions of very fine grained sand scattered in basal part of section. Moist, plastic, non-calcareous.	
						SANDY CLAY WITH SILT: As described above with increase in silt content, non-calcareous.	1825
-30						SAND, CLAYEY WITH SILT: Laminated sand, clayey with silt and sand, trace clay content. Repeating color variations of oxidized dark yellowish-brown (10 YR), light yellowish-brown (10 YR), clayey sand, non-calcareous, slightly moist.	
						SAND, CLAYEY: Damp to wet, very poorly sorted, fine to coarse grained sand. Very weak plasticity. Sand coarsens with depth. Highly oxidized, damp to moist, dark yellowish-brown (10 YR). Sampled grain size.	
						NO RECOVERY	
				ND		CLAY, SILTY WITH SAND: Very silty with sand, highly oxidized, dry to moist. Dark yellowish-brown (10 YR). Tiny inclusions of very fine sand, light yellowish-brown (10 YR), in clay matrix. Non-calcareous, moist.	
							1820
-35							
				ND		CLAY AND SAND: Lenses of mixed clay and sand. Sand lenses are loose, clean grains. Sand is fine, very well sorted. Non-calcareous, moist.	
						SILT, CLAYEY: Moist, moderate plasticity, oxidized. Yellowish-brown (10 YR). Non-calcareous, heavily oxidized, scattered medium sand grains. Sampled (37 - 37.5')	
						CLAY, SILTY: Light yellowish-brown (10 YR), highly calcareous. Clay, silty with minor sand scattered throughout, medium grained. Moist. Trace pyrite, moderate plasticity. Trace fine sand inclusions in clay matrix.	
							1815
-40				ND			
				ND			1810

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB54 Pg. 3

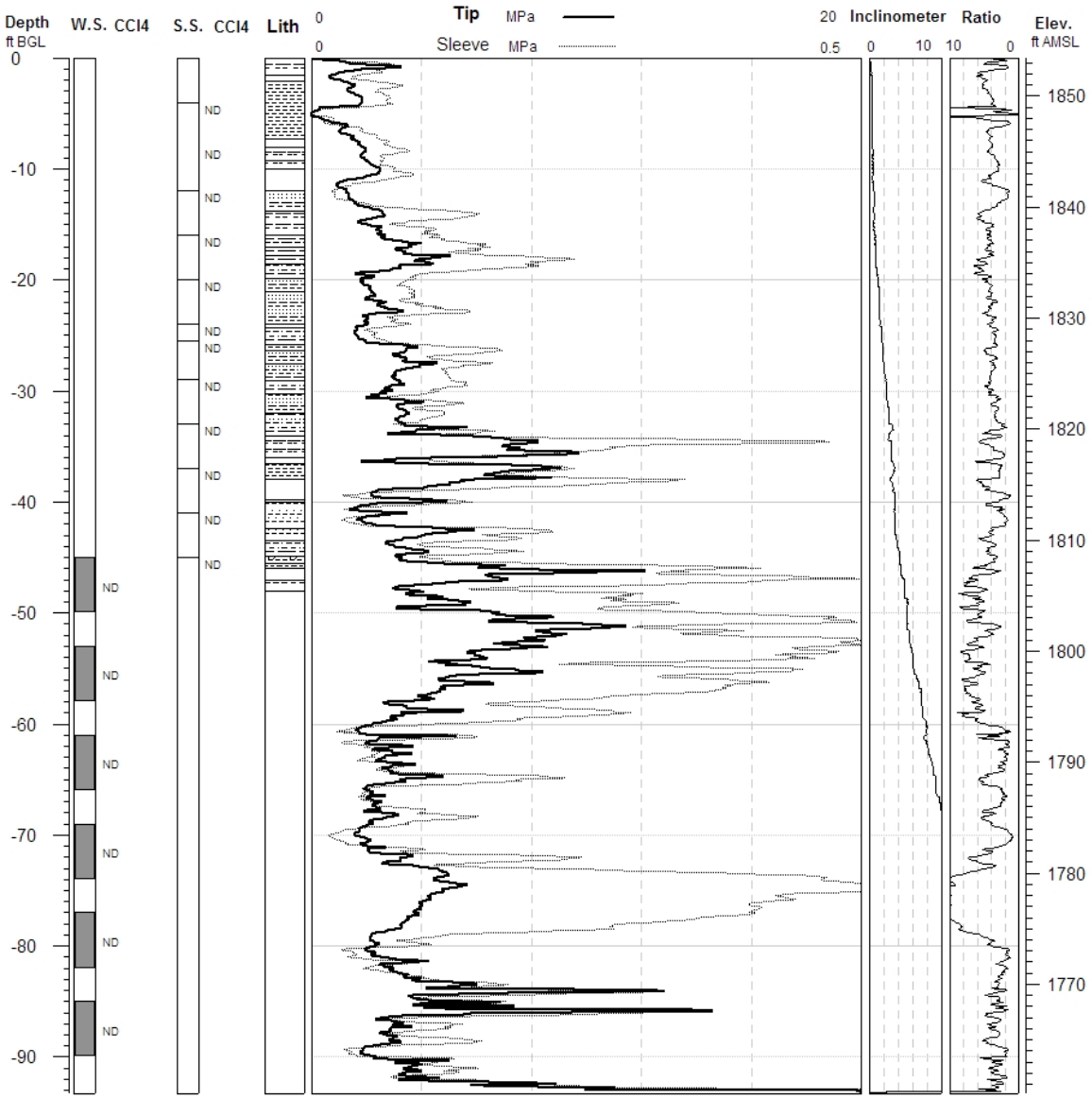


Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS **Elevation:** 1853.44 ft. **Boring ID: SB55**

Geologist: Lorraine LaFreniere **Depth:** 93.31 ft. BGL **Log Date:** 06/02/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1853.44 ft.

Depth: 90 ft. BGL

Boring ID: SB55

Log Date: 06/02/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY, SILTY: Disturbed surface soils and clay, silty with minor sand and gravel road-surfacing materials. Dark grayish-brown (10 YR), non-calcareous. Dry.	
						CLAY, SILTY: Transitional zone. Coarse silt, porous, minor CaCO3 inclusions of indeterminate origin. Crumbly in appearance. Dry to damp, non-calcareous, brown (10 YR). Selectively calcareous, associated inclusions.	
						SILT: Moist, minor clay content, abundant porosity, probably reflecting previous root growth. Pale brown (10 YR), non-calcareous.	1850
				ND			
-5							
						NO RECOVERY	
				ND		SILT, CLAYEY: Increased clay content from above. Damp, pale brown (10 YR), non-calcareous.	1845
						SILT, CLAYEY: Calcareous, pale brown (10 YR). Damp.	
-10						NO RECOVERY	
				ND		CLAY, SILTY WITH SAND & GRAVEL: Minor fine to medium sand of mixed lithology, sub-rounded to sub-angular, calcareous, granular, brown (10 YR), with coarse silt and gravel.	1840
						CLAY, SILTY: With minor clasts of very fine, well sorted sand grains, angular, medium to coarse grained, clear quartz grains scattered throughout matrix, calcareous, dark yellowish-brown (10 YR), oxidized. Damp.	
-15							
				ND		CLAY, SILT AND SAND: Sand content increased markedly, calcareous matrix and calcareous, white fragments present throughout matrix, friable in part, yellowish-brown (10 YR).	
						CLAY, SILTY WITH SAND: As above mottled in appearance, increased silt and sand content. Brown (10 YR).	
						SANDY CLAY WITH SILT: Calcareous, silt very coarse grained, calcareous, white, minute nodules present throughout.	1835
						CLAY, SILTY WITH SAND: Increase in clay content from above. Mottled, calcareous, irregular clasts of very fine sand present, minute, white calcareous nodules present throughout. Sand content and overall grain size increasing with depth. Brown (10 YR), mottled with pale brown (10 YR).	
-20				ND		SAND, CLAYEY WITH SILT: Coarse silt, oxidized, highly calcareous, very pale brown (10 YR). Sand very poorly sorted, fine to coarse grained, no internal structure obvious. Damp.	

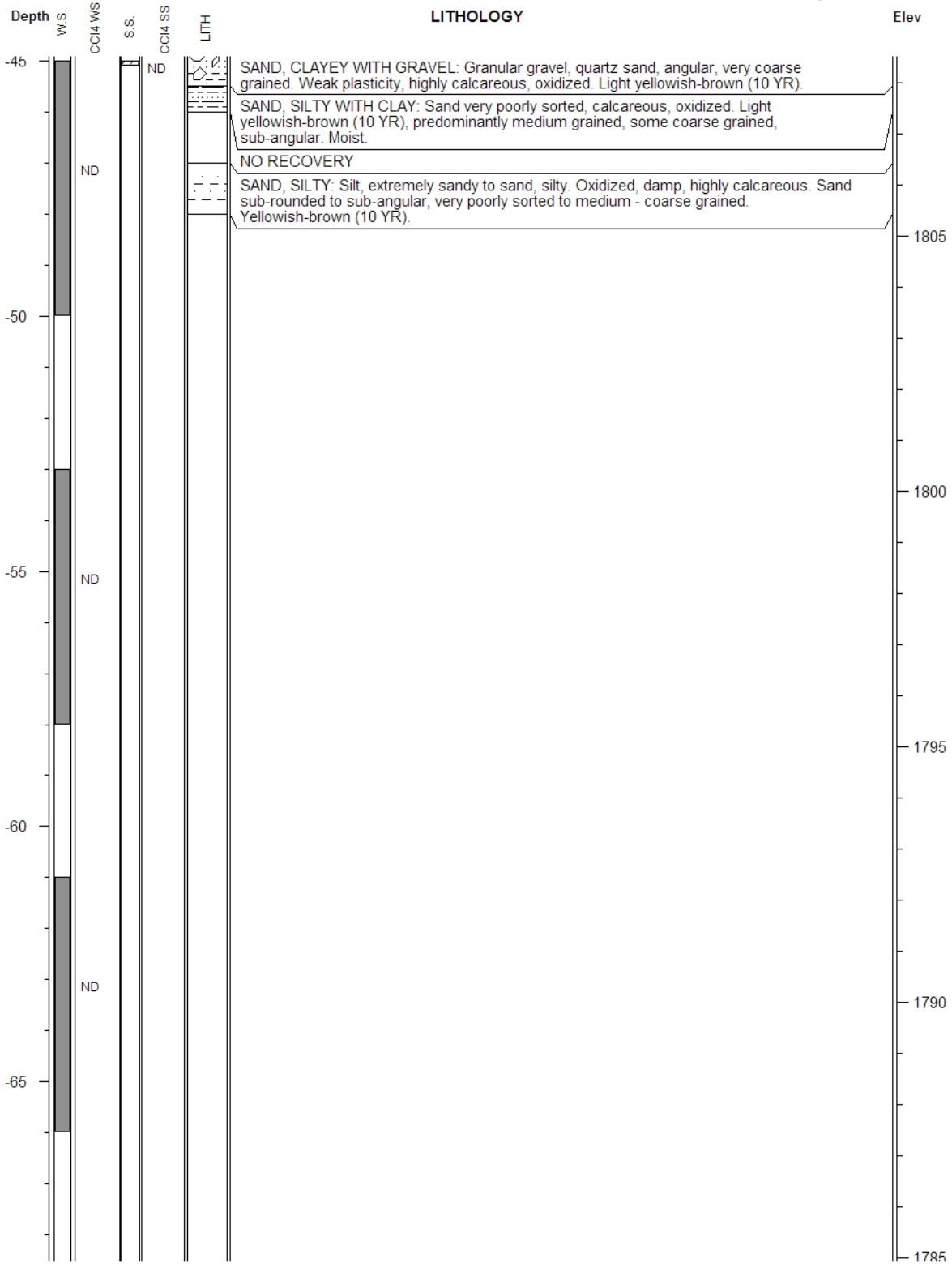
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB55 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						SAND, CLAYEY WITH SILT: Moist, vertical variations in unit with areas of coarse sand and calcareous nodules with irregular areas of well sorted coarse silt. Oxidized, calcareous, light yellowish-brown (10 YR). Sand is very poorly sorted, fine to medium grained with minor clear quartz, coarse grains, sub-rounded sand to sub-angular.	1830
				ND		NO RECOVERY	
-25						CLAY, SILTY WITH SAND: Highly oxidized clay, very silty with sand, fine to medium grained, sub-angular. Yelowish-brown (10 YR), calcareous. Damp.	
				ND		SAND, CLAYEY WITH SILT: Oxidized, friable in part. Calcareous sand, very poorly sorted. Silt very coarse. Light yellowish-brown (10 YR). Sand is sub-rounded ranging from fine to very coarse, some grains frosted. Tiny/minute CaCO3 grains throughout.	
						SILT, SANDY WITH CLAY: Oxidized, calcareous, light yellowish-brown (10 YR), coarse silt, scattered sand grains throughout.	
						CLAY, SANDY WITH SILT: Calcareous, oxidized, mottled due to varying degrees of oxidation related to grain size of sand and silts. Light yellowish-brown (10 YR) with yellowish-brown (10 YR), sand content extremely variable, coarsens with depth, very poorly sorted.	1825
				ND		SANDY CLAY WITH SILT: Oxidized, light yellowish-brown (10 YR), calcareous, very poorly sorted, fine to very coarse grained, coarse grained along partings, sub-angular to sub-rounded. Damp.	
-30						SILT, SANDY WITH CLAY: Very poorly sorted sand to very coarse grained sub-angular, coarse silt matrix, oxidized, calcareous, very pale brown (10 YR).	
						SILT, CLAYEY & SANDY: Moist, oxidized, overall reduction in sand content to minor constituent, white to light pink calcareous grains present. Pale brown (10 YR).	
				ND			1820
						SILT, CLAYEY: Grain size coarser with depth, oxidized, moist, calcareous, pale brown (10 YR).	
-35							
						NO RECOVERY	
				ND		SILT: Fine, loose in part, oxidized, calcareous, very pale brown (10 YR).	
						NO RECOVERY	1815
-40						SILT: Non-calcareous, fine silt, very pale brown (10 YR).	
				ND		SILT, SANDY: Coarsening with depth, sand content varies throughout, fine to very coarse grained. Sub-angular to sub-rounded. Pale brown to very pale brown (10 YR), calcareous. Slightly damp.	
						SILT, SANDY: Moist to damp, oxidized, general coarsening of silt matrix. Sand content variable throughout, as is grain size to very coarse grained, sub-angular to sub-rounded. Light yellowish-brown (10 YR).	1810
						CLAY, SILTY WITH SAND: Moist, calcareous, trace large granular gravel (sandstone), light yellowish-brown (10 YR), oxidized.	

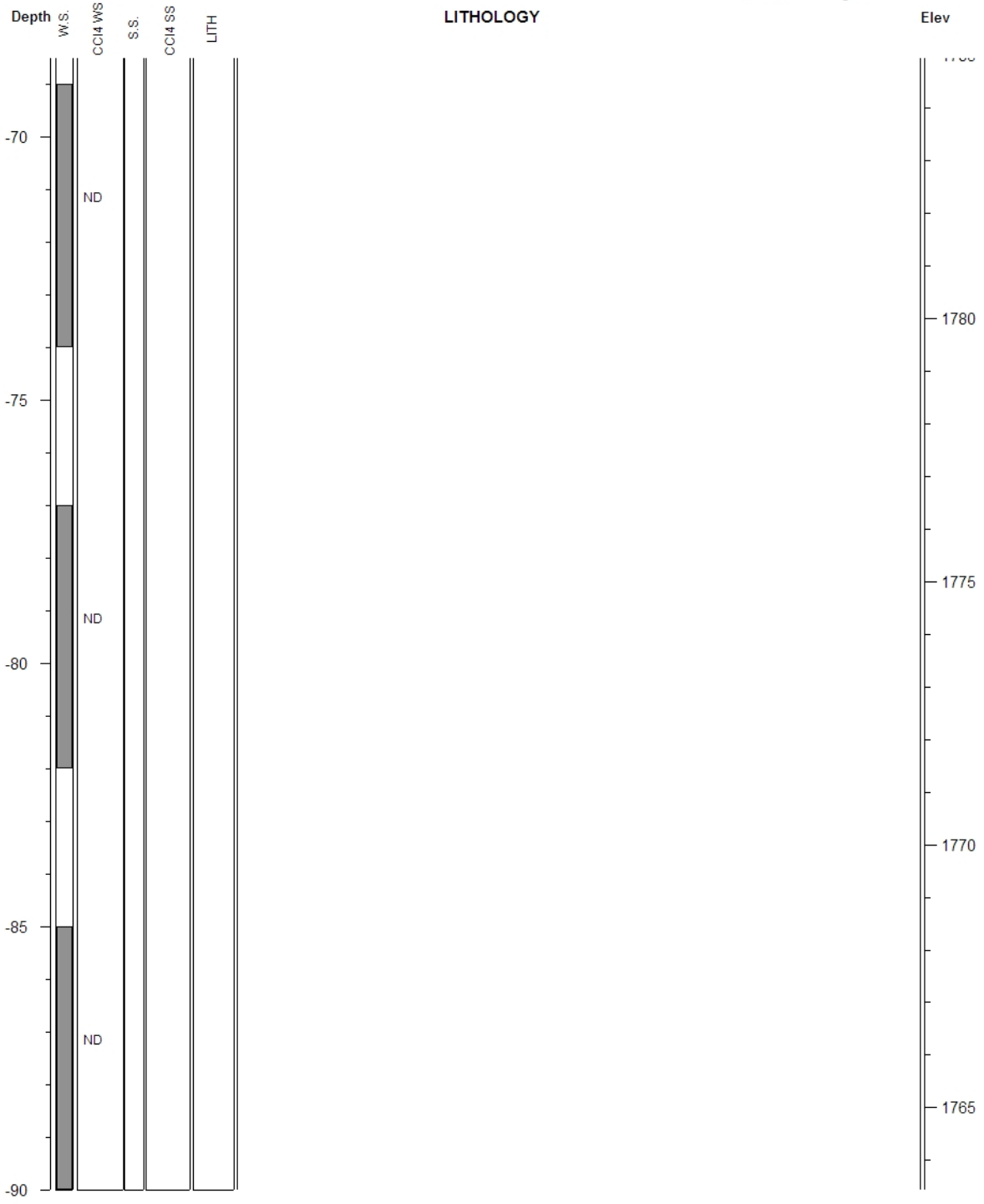
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB55 Pg. 3



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB55 Pg. 4

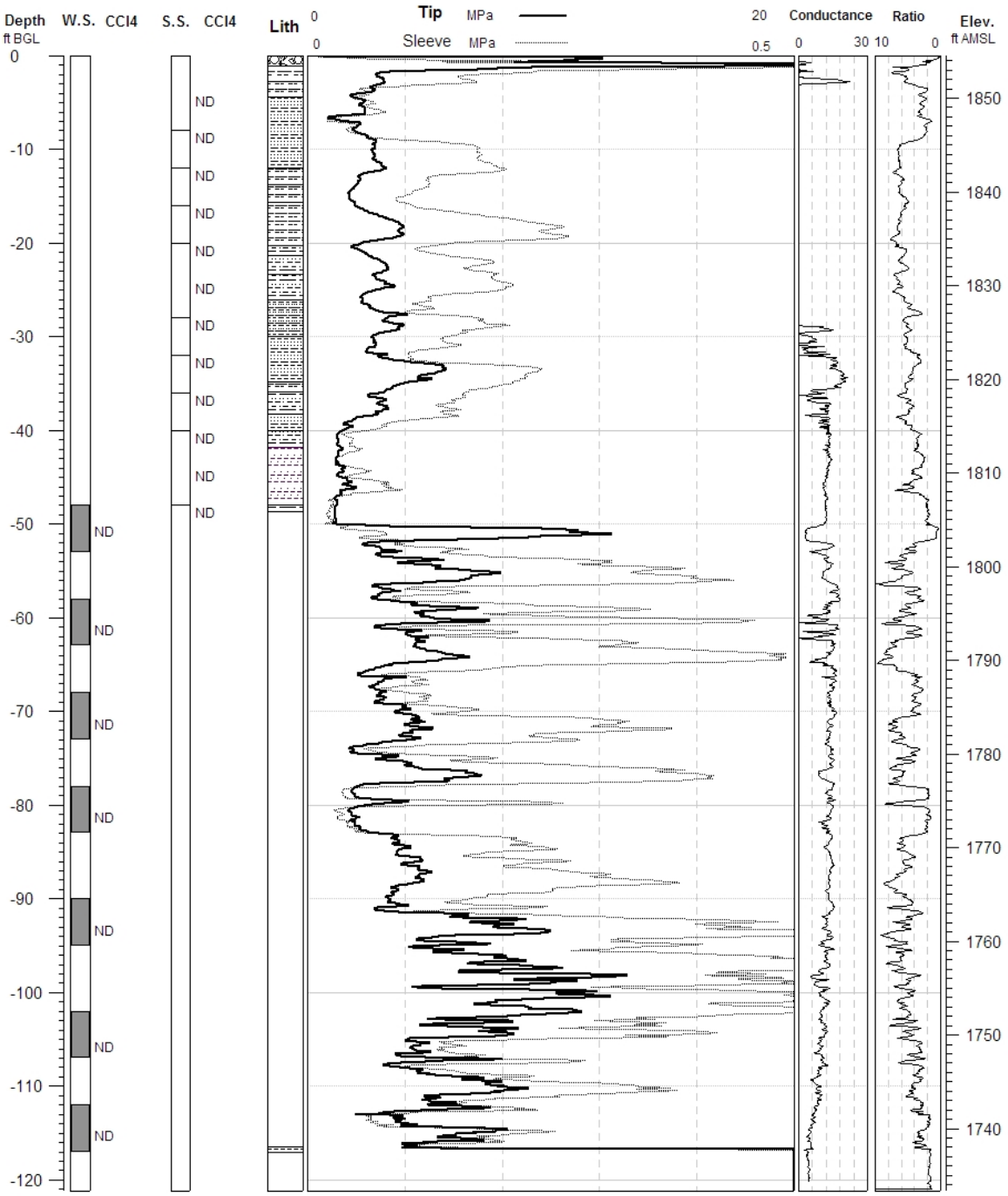


Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory **Boring ID: SB56**

Project: Agra, KS **Elevation:** 1854.52 ft.

Geologist: Lorraine LaFreniere **Depth:** 121.19 ft. BGL **Log Date:** 05/25/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1854.52 ft.

Depth: 121.19 ft. BGL

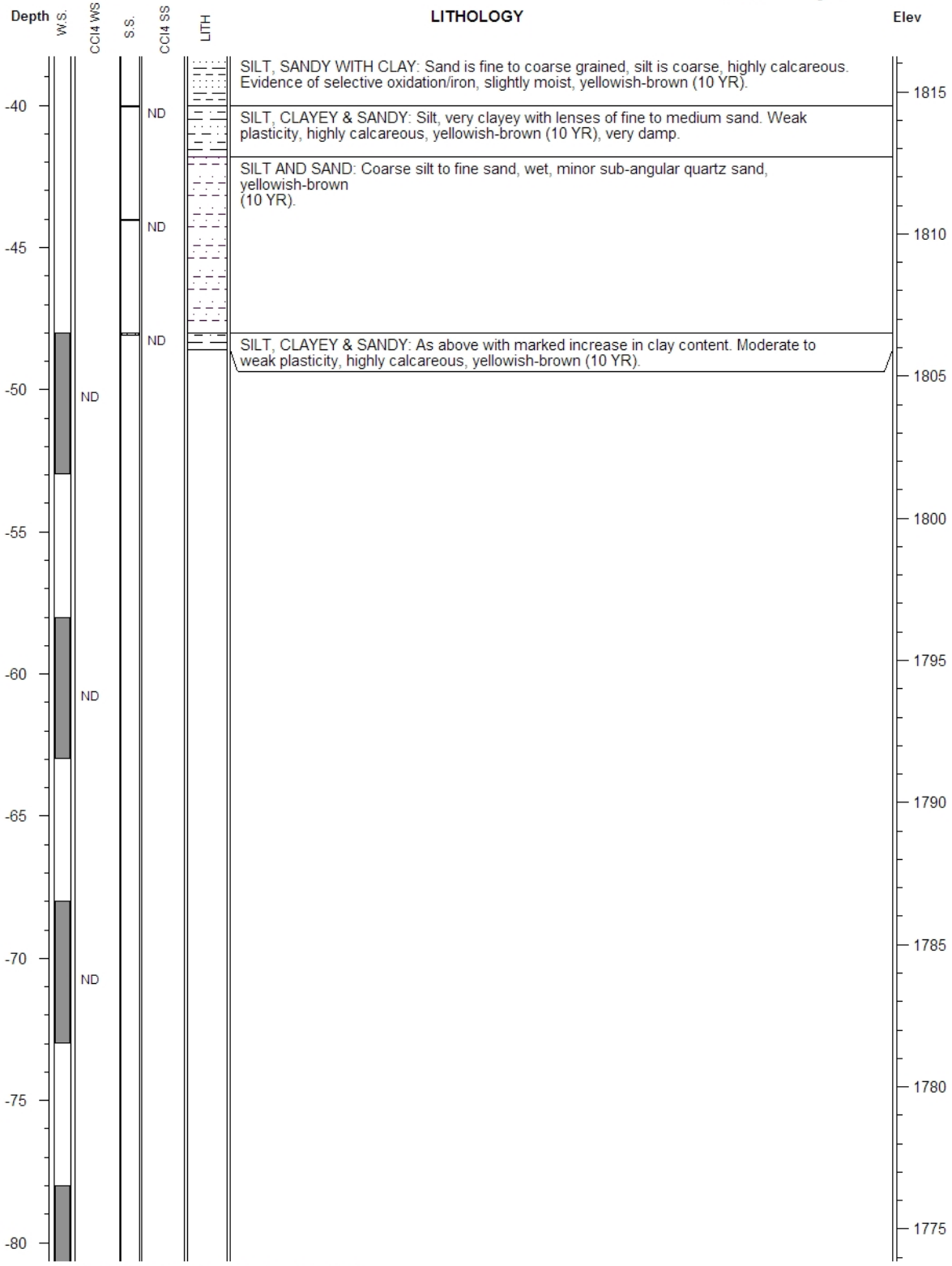
Boring ID: SB56

Log Date: 05/25/2005

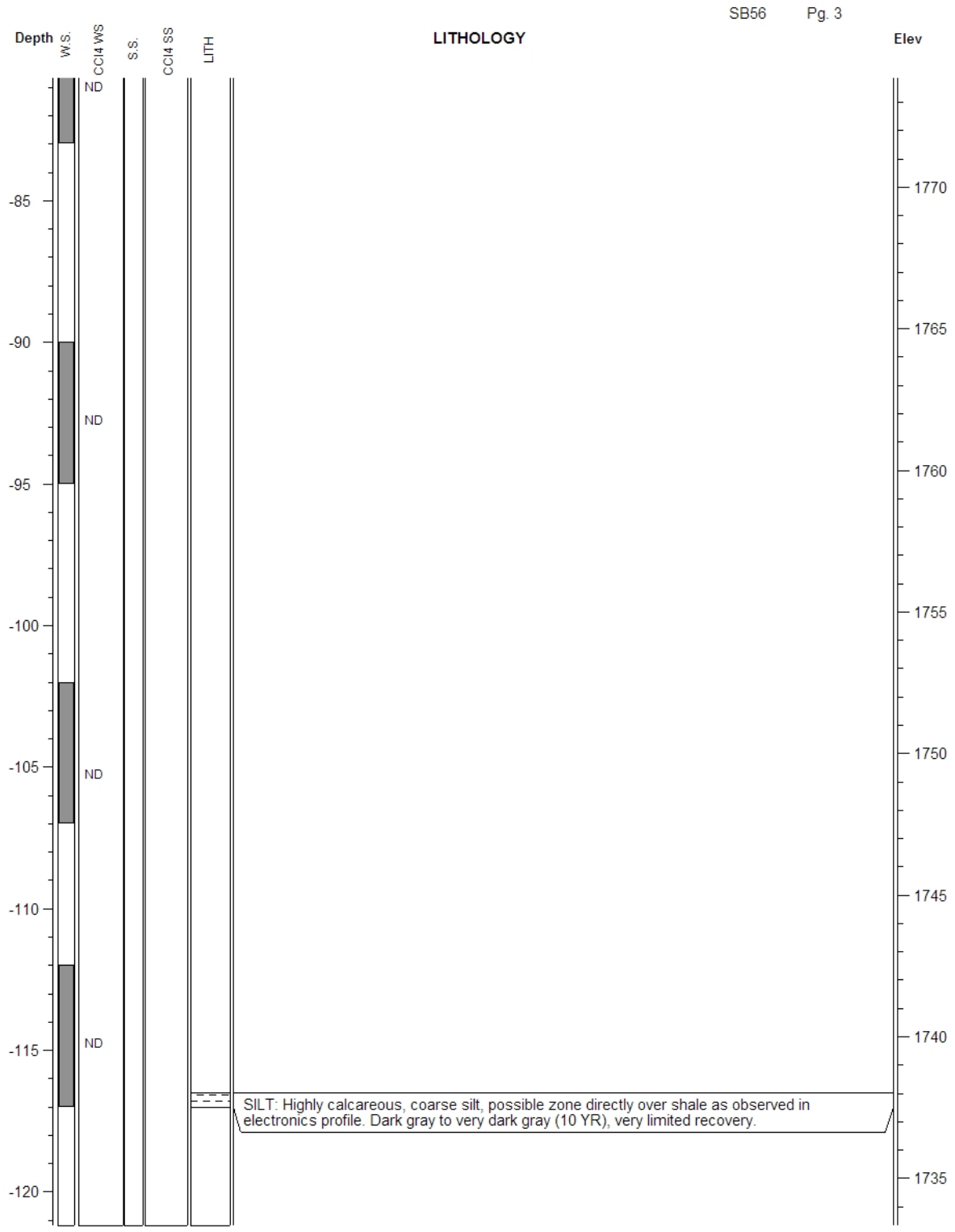
Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						GRAVEL: Slough - mixed road gravel.	
						CLAY, SILTY: Dark brown (7.5 YR), clay, very silty, oxidized, becoming siltier with depth, non-calcareous, moist.	
						SILT, CLAYEY: Slighty moist, trace selective oxidation, yellowish-brown (10 YR), calcareous, moist.	
				ND		SILT, SANDY WITH CLAY: Evidence of weathered white calcareous materials possibly associated with paleosol. Yellowish-brown (10 YR), coarse silt, moist.	1850
-5							
				ND			
-10							1845
				ND		SILT, CLAYEY: Non-plastic to weak plasticity, moist, oxidized, clay content decreases wtih depth, brown (10 YR), slightly calcareous.	
						SILT, CLAYEY: Non-calcareous, brown (10 YR), moist.	1840
-15							
				ND		SILT, CLAYEY: Very clayey, brown (10 YR), distinctively mottled silty clay, mottled dark grayish brown (10 YR) with light yellowish-brown (10 YR). Oxidized zone. Lighter colored areas, highly calcareous; darker clays are slightly to non-calcareous, moist.	1835
-20				ND		CLAY, SILTY WITH SAND: Faintly mottled, very silty clay with sand. Sand is fine to coarse grained increasing with depth. Predominant color yellow-brown (10 YR), calcareous, moist.	
						CLAY, SILTY WITH SAND: Moist, lenses of clayey sand, sand is predominantly fine to medium, highly calcareous, yellowish-brown (10 YR).	
				ND		SILT, CLAYEY WITH SAND: Sand present throughout, increases in general occurrence with depth. Siltier zone becoming more sandy. Moist, yellowish-brown (10 YR), highly calcareous.	1830
-25							
						SAND, SILTY WITH CLAY: Yellowish-brown (10 YR), highly calcareous coarse silt franction with fine sand with sub-rounded medium grained sand scattered throughout. Variable clay content. Entire unit alternating coarse silt and fine sand in minor clay matrix.	
				ND			
-30						SILT, SANDY WITH CLAY: Silt, very sandy with clay. Highly calcareous, silt fine to coarse, variable sand content. Light yellowish-brown (10 YR), moist.	1825
				ND			
-35						SILT, CLAYEY: Marked increase in clay content. Selective oxidation, moist, weak to non-plastic, yellowish-brown (10 YR), moderately calcareous (less than overlying unit).	1820
				ND		SILT, CLAYEY WITH SAND: White, weathered, highly calcareous, coarse-grained silt with scattered sand throughout. Slightly moist, yellowish-brown (10 YR).	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB56 Pg. 2



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

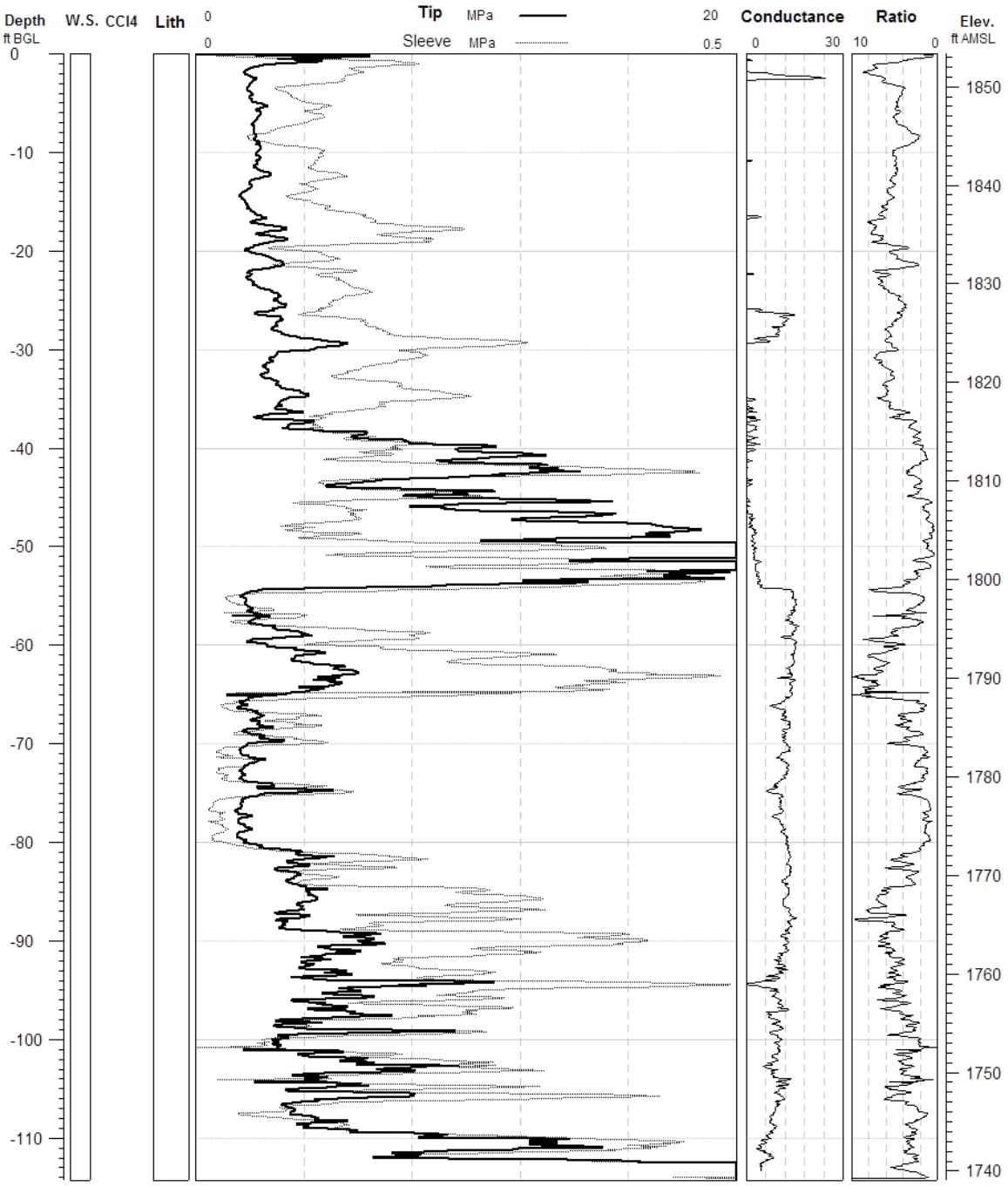


Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory **Boring ID: SB57**

Project: Agra, KS **Elevation:** 1853.34 ft.

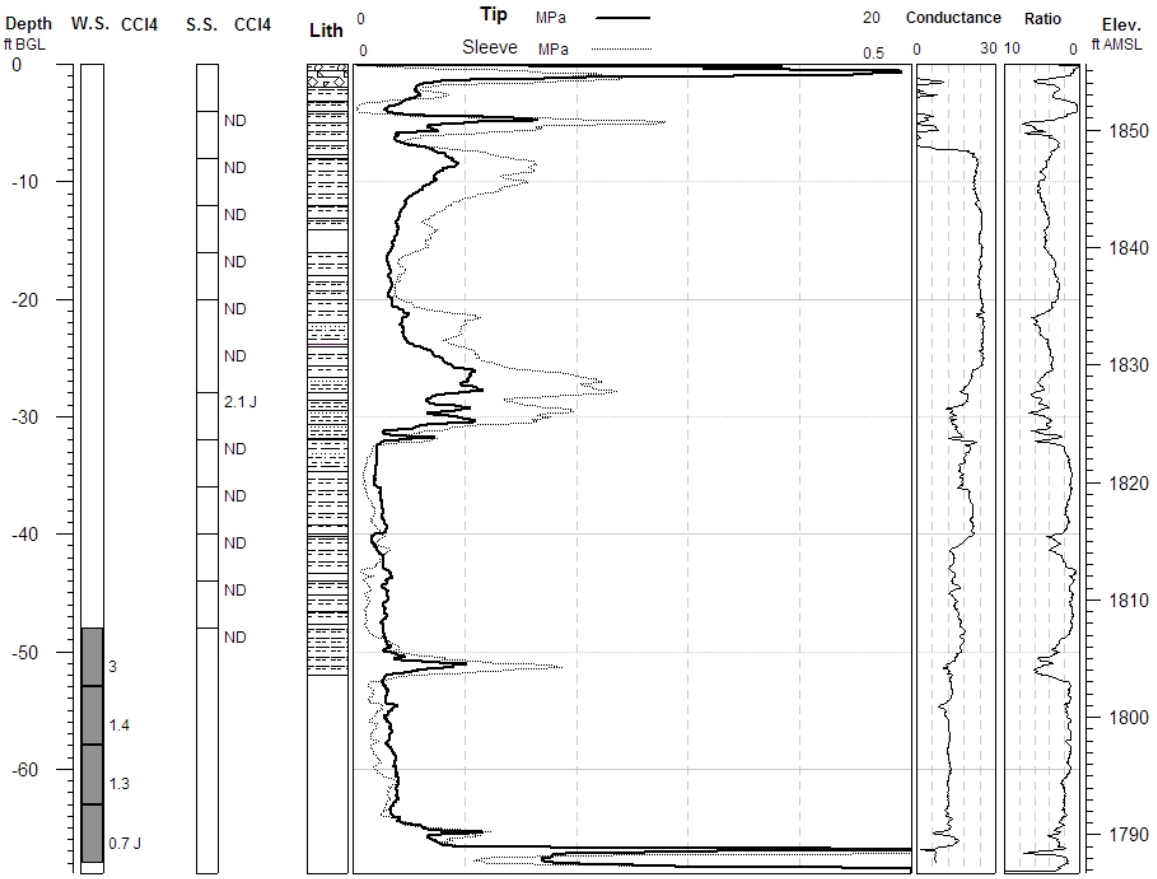
Geologist: Lorraine LaFreniere **Depth:** 114.30 ft. BGL **Log Date:** 05/26/2005



Argonne National Laboratory **Boring ID: SB58**

Project: Agra, KS **Elevation:** 1855.59 ft.

Geologist: Lorraine LaFreniere **Depth:** 68.90 ft. BGL **Log Date:** 05/21/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: SB58

Project: Agra, KS

Elevation: 1855.59 ft.

Geologist: Lorraine LaFreniere

Depth: 68.90 ft. BGL

Log Date: 05/21/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						GRAVEL AND CLAY: Road gravel and clay.	
						GRAVEL AND SILTY CLAY: Disturbed surface soils with road gravel. Black to very dark brown (10 YR) silty clay.	1855
						CLAY, SILTY: Very silty, weak plasticity, dry. Very dark grayish-brown (10 YR).	
						SILT, CLAYEY: Slight plasticity, moist, dark brownish-gray (10 YR), non-calcareous.	
				ND		SILT, CLAYEY: Minor clay content. Very dark grayish-brown (10 YR), dry, non-calcareous.	
-5						SILT, CLAYEY: As described above with slight increase in clay content and slightly dark brownish-gray coloration (10 YR), dry.	1850
						SILT, CLAYEY: Very clayey, slightly moist, increasing clay content with depth, non-calcareous, dark grayish-brown (10 YR).	
				ND		SILT, CLAYEY: Non-calcareous, dark grayish-brown (10 YR), slightly moist.	
						CLAY, SILTY: Very silty, coarse silt, trace of fine sand in thin lenses, non-calcareous, very slightly moist, minor selective oxidation. Brown (10 YR).	
-10							1845
				ND		CLAY, SILTY: Moderate plasticity, moist, non-calcareous, silt less coarse than unit above. Brown (10 YR).	
						SILT, CLAYEY: Minor selective oxidation, non-calcareous, very slightly moist. Brown (10 YR).	
						NO RECOVERY	
-15							1840
				ND		CLAY, SILTY: Moist, moderate to weak plasticity, trace fine sand, non-calcareous, trace selective oxidation. Brown (10 YR).	
						SILT, CLAYEY: Brownish-gray (10 YR), moist, non-calcareous, trace fine sand and selective oxidation.	
-20				ND		CLAY, SILTY: Very slightly moist, non-calcareous, trace fine to medium sand, sub-angular, poorly sorted sand, non-plastic to weak plasticity, sand content increases in depth as does silt size. Brown (10 YR).	1835

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB58 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						SILT, CLAYEY & SANDY: Marked increase in sand content, sand very poorly sorted ranging in size from fine to medium grained, brown (10 YR) matrix clays and silts, slightly moist, non-plastic.	
				ND		SILT AND SAND: Minor clay matrix, dry and crumbly in appearance. Coarse silt and sand (fine to medium grained), very slightly moist, friable. Brown (10 YR).	
-25						CLAY, SILTY: Clay matrix, dense, non-plastic, oxidized, dark grayish-brown (10 YR). Selective inclusions of heavily oxidized coarse silt and fine to medium sand of mixed lithology. Gradational contact with underlying zone, marked by slight gradational color changes to a lighter brownish-gray (10 YR), non-calcareous.	1830
						CLAY, SILTY: Clay, silty, coarse silt throughout, areas of selective oxidation, very slightly moist to dry, non-calcareous. Yellowish-brown (10 YR).	
						SILT, SANDY WITH CLAY: Coarse silt and fine sand in clay matrix, friable, very slightly moist, yellowish-brown (10 YR), non-calcareous.	
				2.1 J		CLAY, SILTY: Lenses of coarse silt, non-calcareous, brown (10 YR), moist.	
						SILT, SANDY WITH CLAY: Very sandy with clay, sand is fine to medium grained, sand content increases with depth, yellowish-brown (10 YR).	
-30						SILT, SANDY WITH CLAY: As above with marked increase in sand content, non-calcareous, slightly moist, gradational contact zone with underlying unit, yellowish-brown (10 YR).	1825
						SILT, SANDY WITH CLAY: Mottled-gray to brownish-gray (10 YR), due to selective and varying degrees of oxidation. Damp, silt with very fine sand in clay matrix (minor).	
				ND		CLAY, SILTY WITH SAND: Fine sand, slightly oxidized, moist, brownish-gray (10 YR).	
						CLAY, SILTY WITH SAND: Moderate plasticity, non-calcareous, oxidized, minor sand throughout. Sand content increases with depth, medium-grained, moist to damp, lenses with increased sand content throughout. Medium sand, sub-angular. Increase in silt content with depth, light grayish-brown (10 YR).	
-35						CLAY, SILTY: Moderate plasticity, damp, oxidized, non-calcareous, light grayish-brown (10 YR).	1820
				ND			
						CLAY, SILTY: As above, increased plasticity, highly calcareous, light grayish-brown (10 YR).	
-40				ND		SILT, CLAYEY: Transitional zone, damp, grayish-brown, slightly calcareous.	1815
						CLAY, SILTY: Minor sand, light yellowish-gray (10 YR), highly calcareous.	
						NO RECOVERY	
				ND		CLAY, SILTY: Slightly darker than above, brownish-yellow (10 YR), moderate plasticity, highly calcareous, damp to slightly wet, somewhat mottled in appearance.	
-45						SILTY CLAY: Very silty clay, damp. Moderate plasticity, light brownish-gray (10 YR), highly calcareous.	1810

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB58 Pg. 3

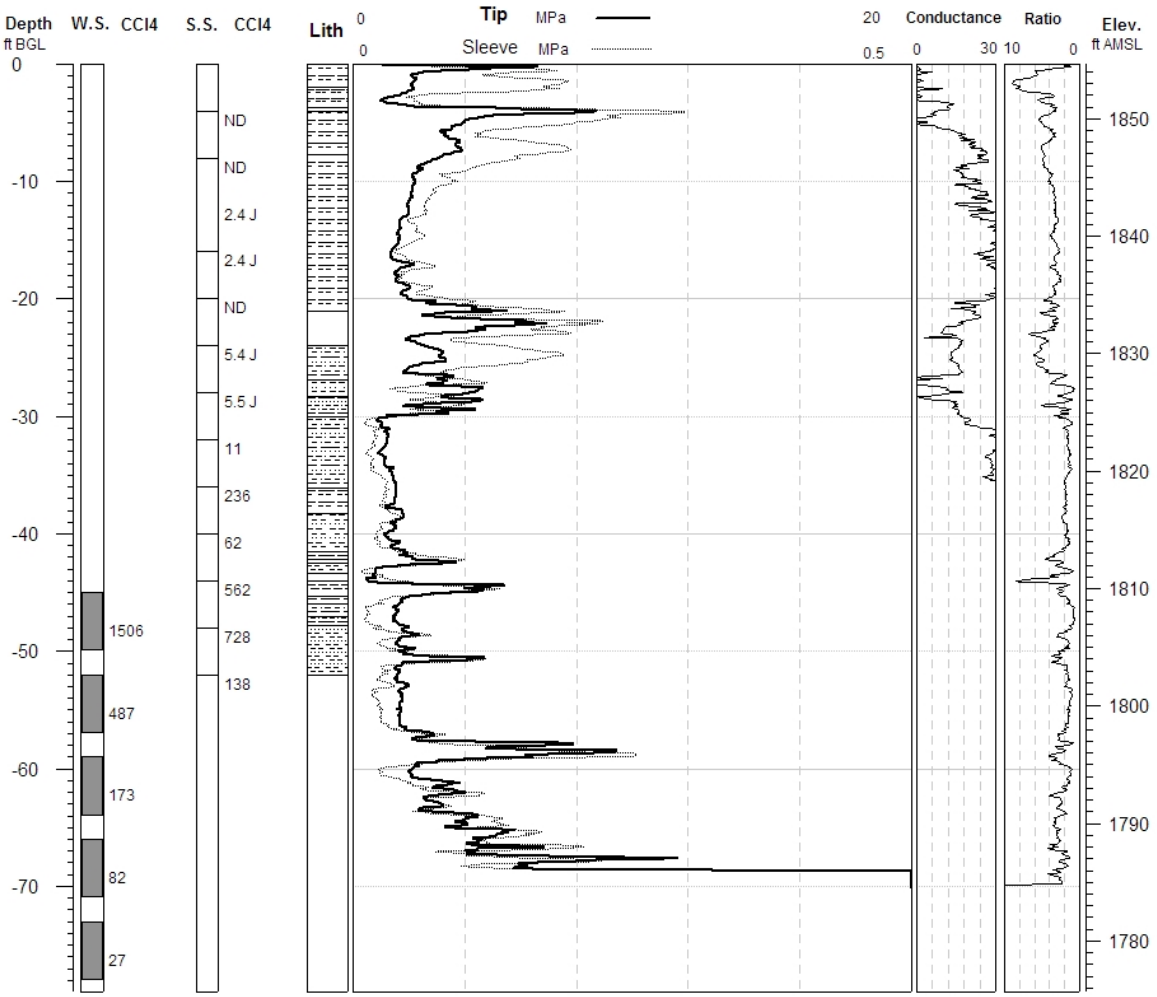
Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						SILTY CLAY: As described above with increase in clay content, damp, highly calcareous.	
				ND		SILT, CLAYEY: Gradational contact with underlying unit. Coarse silt, very damp, highly calcareous, oxidized, coarse silt to very fine grained sand in parts, becoming sandier with depth. Slightly darker yellowish-brown (10 YR).	
-50		3					1805
-55		1.4					1800
-60		1.3					1795
-65		0.7 J					1790

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory **Boring ID: SB59**

Project: Agra, KS **Elevation:** 1854.66 ft.

Geologist: Lorraine LaFreniere **Depth:** 78 ft. BGL **Log Date:** 05/27/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1854.66 ft.

Depth: 78 ft. BGL

Boring ID: SB59

Log Date: 05/27/2005

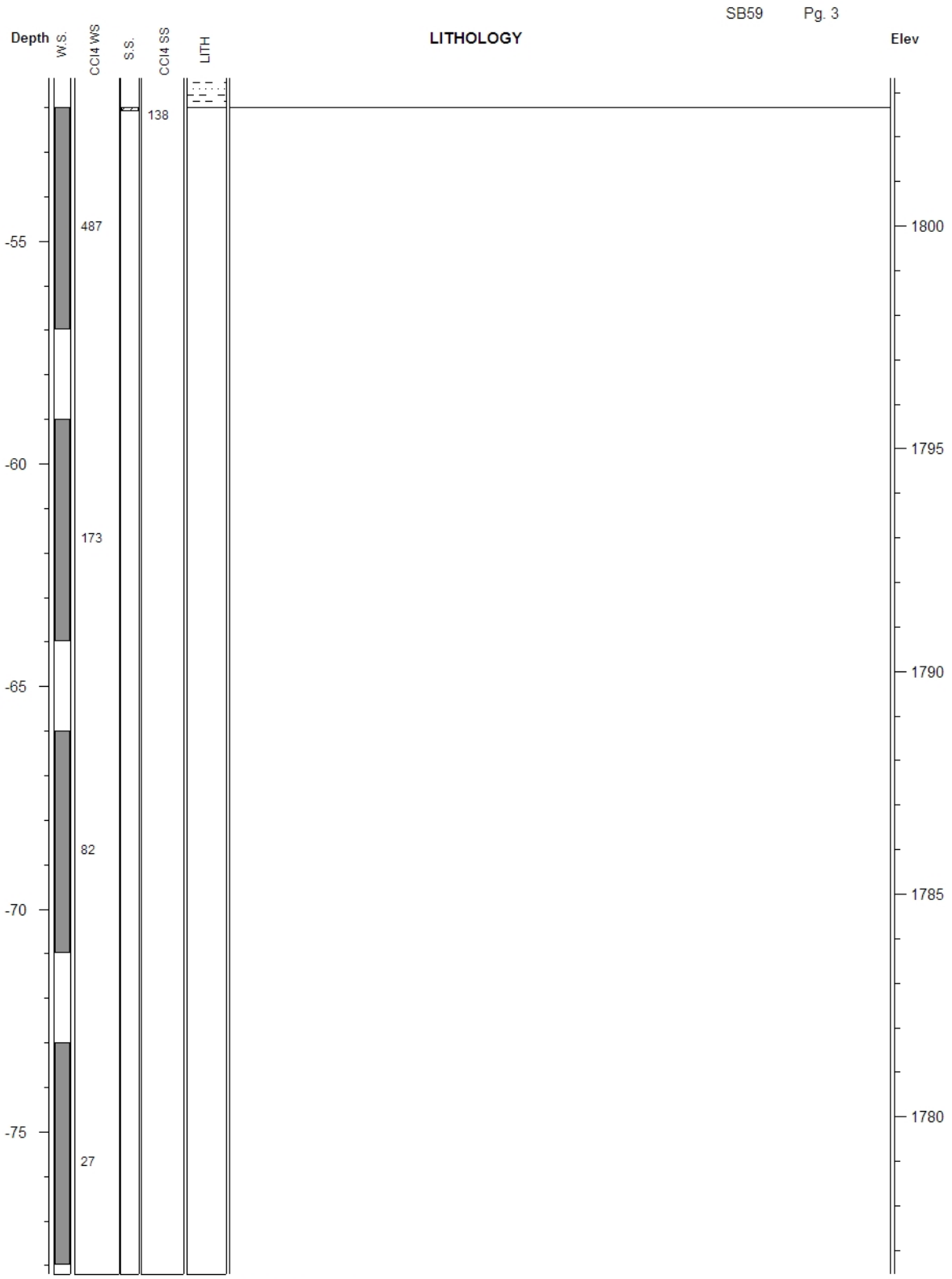
Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY, SILTY: Dark brown (7.5 YR), moist, non-calcareous.	
						SILT, CLAYEY: Very slightly clayey, non-calcareous, moist to damp, dark grayish-brown (10 YR).	
				ND		SILT, CLAYEY: Contact zone. Highly calcareous, dry and crumbly in appearance, dark grayish-brown (10 YR).	
-5						CLAY, SILTY: Very silty, clay content increasing with depth, slightly moist, non-calcareous. Dark grayish-brown (10 YR).	1850
						CLAY, SILTY: Very silty, mottled in appearance, clay matrix with areas of selective coarse silt. Clay is dark grayish-brown (10 YR), silt areas are brown (10 YR).	
				ND		CLAY, SILTY: Erosional contact with overlying unit marked by oxidation - black (10 YR) contact. Clay, silty with evidence of oxidation throughout associated with areas of coarse silt. Trace pyrite present, oxidation associated with iron nodules (very tiny pyrite). Non to very slightly calcareous, light olive-brown (2.5 YR), weak to non-plastic. Wide variation in silt content becoming siltier with depth, moist.	
-10							1845
				2.4 J			
-15							1840
				2.4 J			
-20				ND			1835
						NOT CORED	
				5.4 J			

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB59 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
-25						SANDY CLAY WITH SILT: Very sandy, oxidized throughout, very poorly sorted, fine to very coarse grained quartz, sub-angular to sub-rounded clear grains, non-calcareous, yellowish-brown (10 YR), moist to damp, increasing sand and silt content with depth.	1830
						SILTY SAND: Very silty, yellowish-brown (10 YR), moist to damp, oxidized throughout. Sand is fine to medium grained with some coarse grains, clear quartz predominates, sub-rounded with some sub-angular, non-calcareous.	
			5.5 J			CLAY, SANDY WITH SILT: Very sandy, non-calcareous, oxidized throughout, yellowish-brown (10 YR), damp to wet. Moderate plasticity, predominantly well sorted fine sand with trace sub-angular medium grained quartz and feldspar. Sub-rounded medium grains, non-calcareous.	1825
-30						CLAY, SILTY WITH SAND: Heavily oxidized, clay, very silty with sand, moist to damp, moderate plasticity, non-calcareous, dark yellowish-brown (10 YR). Sand content increasing with depth as does moisture with increased sand content. Fine sand.	
			11				
-35							1820
			236			CLAY, SILTY: Moderate to good plasticity, damp, heavily oxidized, non-calcareous, dark yellowish-brown (10 YR).	
						CLAY WITH SAND: Very fine sand, mottled, highly plastic, damp, non-calcareous. Mottled yellowish-brown (10 YR) and light yellowish-brown (10 YR).	1815
-40			62				
						CLAY, SANDY WITH SILT: Very sandy, poorly sorted, fine to coarse grained of mixed lithology, predominantly quartz. Non-calcareous, mottled as described above, light yellowish-brown (10 YR).	
						SAND, CLAYEY: Lense of very coarse, highly oxidized sand, sub-angular to sub-rounded, medium to very coarse sand, predominantly clear quartz, poorly sorted. Minimum clay matrix, yellowish-brown (10 YR).	
			562			CLAY, SANDY: Slightly sandy, highly calcareous, wet, plastic when wet, hard when dry, very pale brown (10 YR). Grain size sample.	1810
-45						NOT CORED	
						CLAY: Mottled as above, wet, non-calcareous, very plastic, light yellowish-brown (10 YR).	
						CLAY, SILTY WITH SAND: Occasional angular quartz grains, moist to damp, moderate to good plasticity, increasing sand content, calcareous, light yellowish-brown (10 YR).	
						CLAY, SILTY WITH SAND: Scattered sand throughout clay matrix, moderate plasticity, calcareous, light yellowish-brown (10 YR).	
		1506					
			728			CLAY, SANDY WITH SILT: Wet sand, poorly sorted, fine to coarse grained, predominantly quartz, calcareous, yellowish-brown (10 YR). Sand increasing with depth, damp.	
						CLAY, SANDY: Wet, fine to medium grained, high sand content, moderate to good plasticity, calcareous, yellowish-brown (10 YR), sand oxidized grains. End of core.	
-50							1805

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

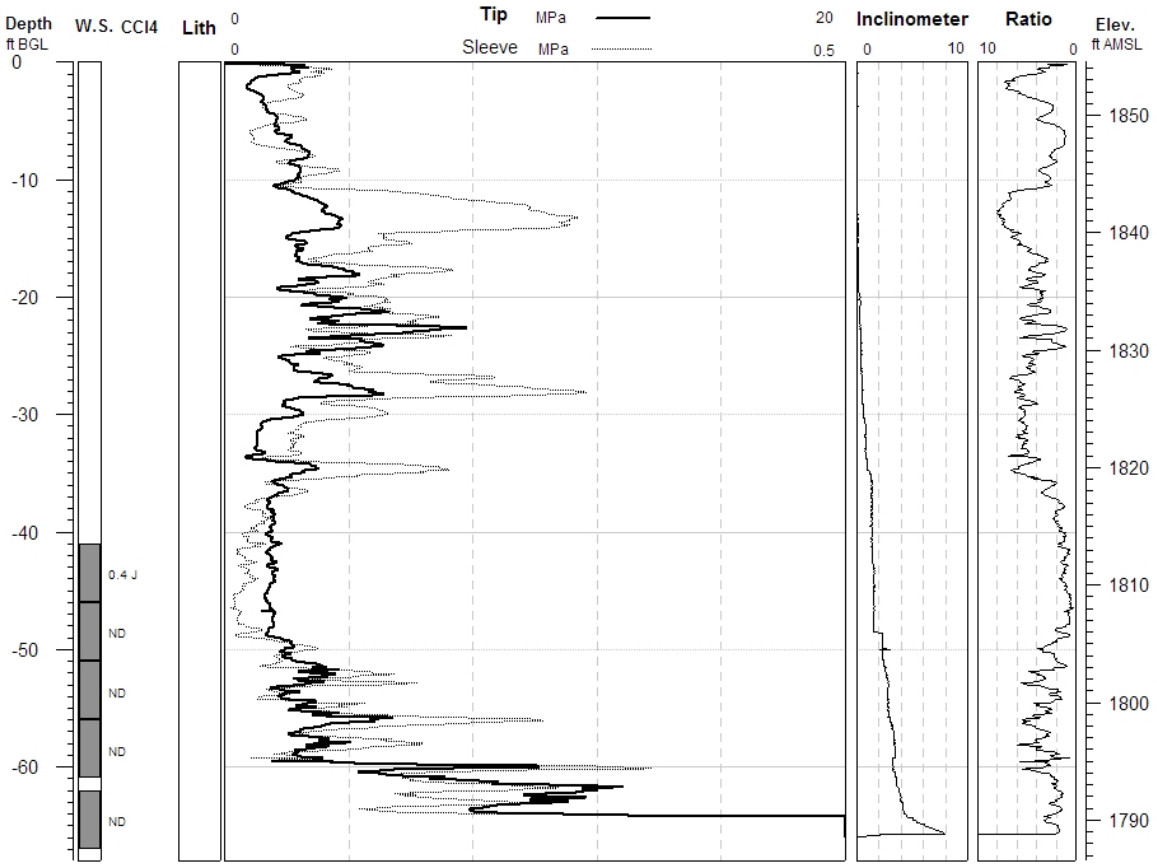
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.52 ft.

Geologist: Lorraine LaFreniere **Depth:** 67 ft. BGL

Boring ID: SB60

Log Date: 06/09/2005



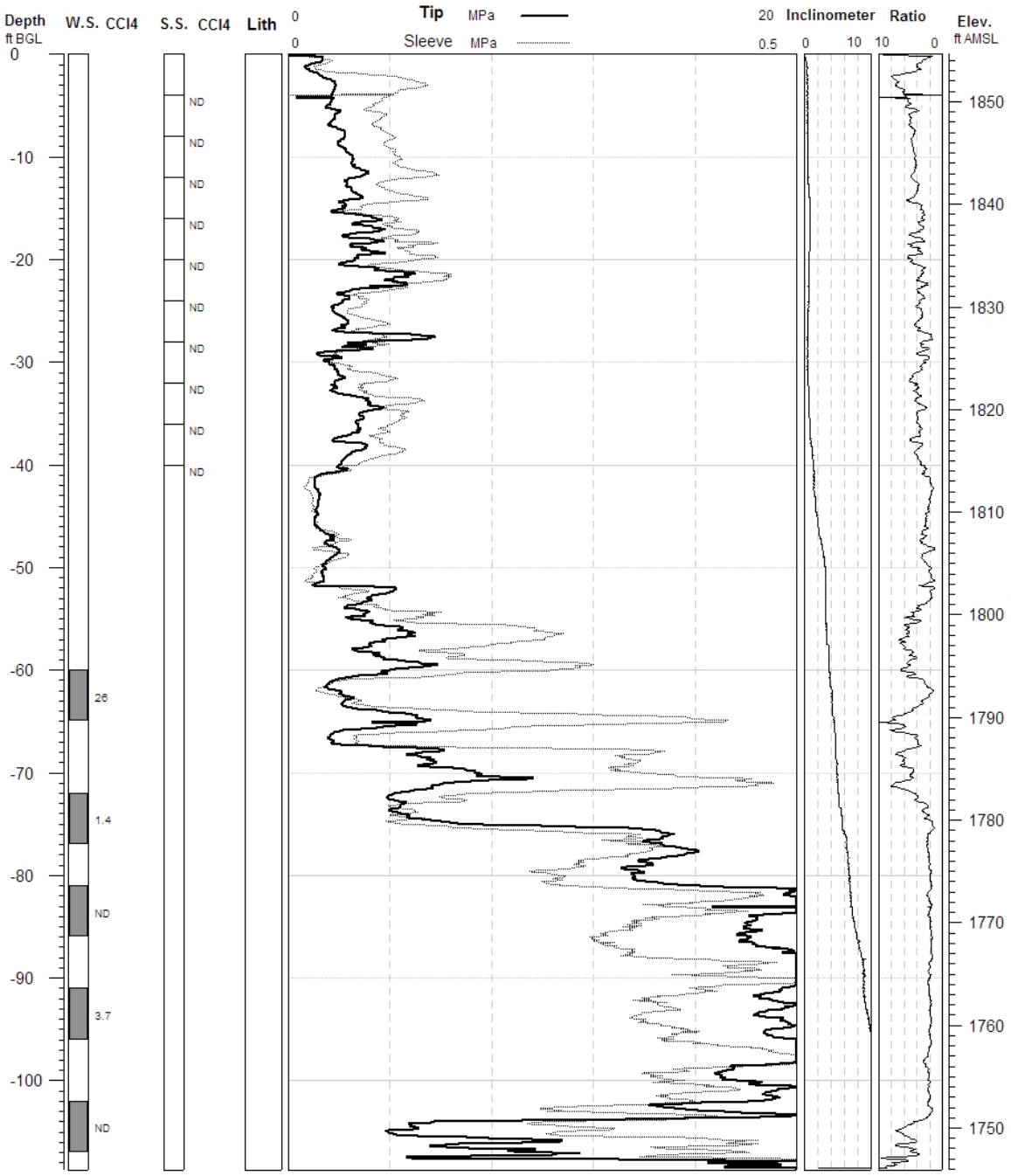
Carbon tetrachloride in water sample = micrograms/L

Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.61 ft.

Boring ID: SB61

Geologist: Lorraine LaFreniere **Depth:** 108.73 ft. BGL **Log Date:** 06/02/2005

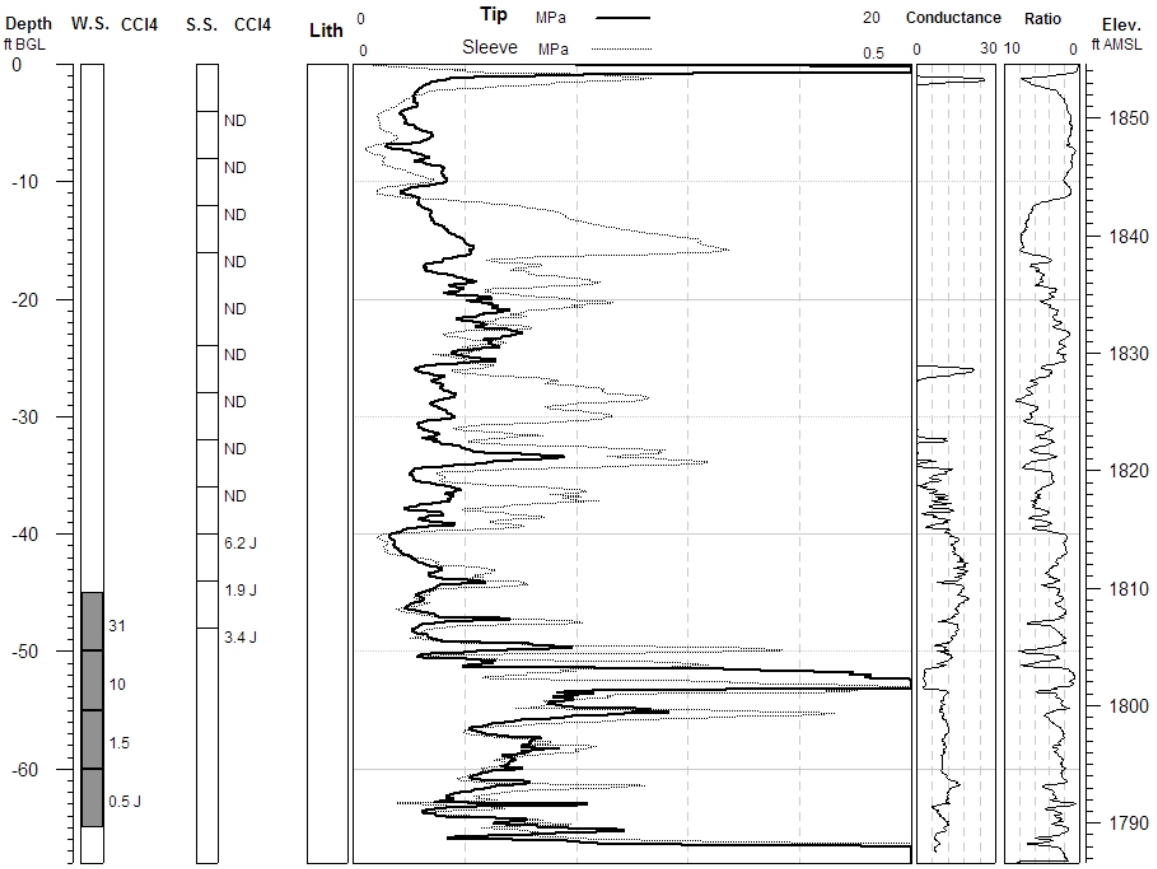


Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory **Boring ID: SB62**

Project: Agra, KS **Elevation:** 1854.6 ft.

Geologist: Lorraine LaFreniere **Depth:** 68.04 ft. BGL **Log Date:** 05/23/2005



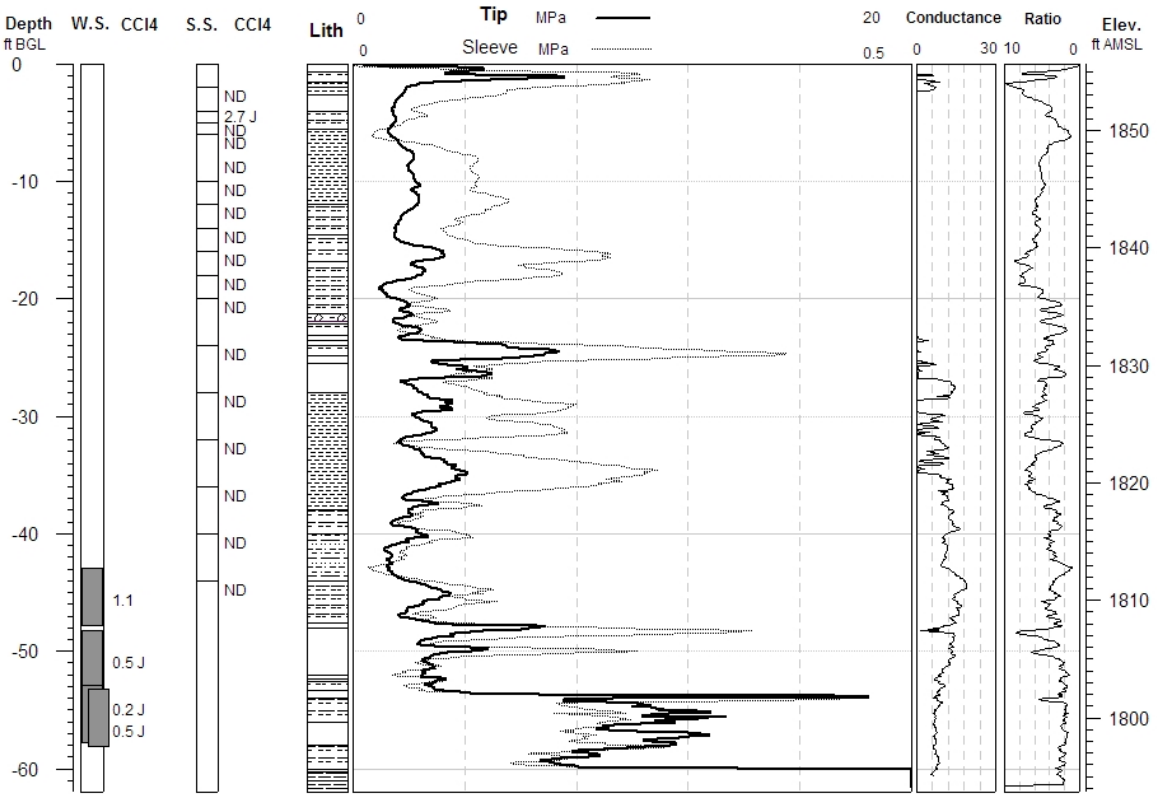
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: SB63

Project: Agra, KS **Elevation:** 1855.67 ft.

Geologist: Lorraine LaFreniere **Depth:** 61.61 ft. BGL **Log Date:** 05/18/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1855.67 ft.

Depth: 62 ft. BGL

Boring ID: SB63

Log Date: 05/18/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY, SILTY: Grayish-brown (10 YR) clay, silty - disturbed sediments mixed with granular gravel of mixed lithology. Designated as "fill" materials, non-calcareous, dry.	
						SILTY CLAY: Dark brownish-gray (10 YR), silty clay, silt coarse to fine sand, dense, hard, non-calcareous, dry.	1855
			ND			SILT WITH CLAY: Gradational contact with above, silt, with clay. Coarse silt, grayish-brown (10 YR), non-calcareous, slight oxidation, dry.	
						SILT: Light grayish-brown (10 YR) silt, coarse silt, very friable, non-calcareous, slight oxidation, dry.	
						NO RECOVERY	
			2.7 J			SILT, CLAYEY: Grayish-brown (10 YR), silt, clayey. Highly calcareous, slightly oxidized, dry.	
-5			ND				
			ND			SILT: Grayish-brown (10 YR) silt, minor clay content, non-calcareous, friable, dry to slightly moist with increasing soil moisture with depth. Silt fraction non-calcareous, clay matrix highly calcareous, overall highly calcareous in more clayey parts of unit.	1850
			ND				
-10			ND				1845
			ND			SILT, CLAYEY: Oxidized, dark brown (10 YR), silt, clayey, slightly coarse silt, friable, non-calcareous, variable clay content decreasing with depth, dry.	
			ND				
-15						CLAYEY SILT: Gradational color change to less oxidized, dark brownish-gray (10 YR), very clayey silt with increased clay content with depth. Medium to coarse-grained silt, non-calcareous, slight oxidation, dry.	1840
			ND				
						SILT, CLAYEY: Very light grayish-brown (10 YR), slightly oxidized silt, clayey. Highly calcareous, variable clay content decreasing with depth, dry.	
			ND				

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB63 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
-20				ND			1835
						SILT AND GRAVEL: As described above. Zone of minor calcareous gravel in slightly oxidized silt. Gravel to 1 cm in length (angular). Grayish-brown (10 YR). Dry.	
						SILT AND SAND: Highly calcareous, very coarse silt to very fine sand. Slightly oxidized light grayish-brown (10 YR), dry.	
						SAND, SILTY: Fine sand, highly calcareous, mixed sand with fine and coarse silt, slightly oxidized, light grayish-brown (10 YR), dry, highly calcareous.	
						SAND, SILTY: Very silty, unconsolidated, slightly oxidized light grayish-brown (10 YR), dry, highly calcareous.	
				ND		SAND AND SILT: Very fine sand and silt, very coarse, slightly oxidized, highly calcareous, light grayish-brown (10 YR), dry.	
-25						CLAYEY SILT: Highly calcareous, slightly oxidized, light grayish-brown (10 YR), dry to very slightly moist.	
						SILT, SANDY: Coarse grained silt with fine to medium sand scattered throughout. Sand is sub-angular to sub-rounded, clear quartz grains. Highly calcareous, light grayish-brown (10 YR).	1830
						NO RECOVERY	
				ND		SILT: Slightly clayey, well sorted light grayish-brown (10 YR) with very thin white lenses of weathered calcareous material. Dry.	
-30							1825
				ND			
-35							1820
				ND			
						SILTY CLAY: Very silty clay, slightly oxidized, light grayish-brown (10 YR), moderate to limited plasticity, slightly moist becoming increasingly silty with depth.	
-40				ND		SILT, CLAYEY & SANDY: With sand and trace granular gravel, grayish-brown to light grayish-brown(10 YR), moderate to low plasticity, slightly moist, slight oxidation.	1815

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB63 Pg. 3

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
				ND		SILT, CLAYEY: Slightly moist, non-plastic to moderate plasticity depending on slit content, very clayey, grayish-brown (10 YR).	
-45		1.1					1810
						SILT, CLAYEY: As described above with marked increase in thin calcareous lenses, moderate plasticity, slightly moist, brown (10 YR).	
						NOT CORED: No core taken.	
-50		0.5 J					1805
						CLAY, SILTY: Slightly moist, highly calcareous, light gray (10 YR); transitional zone.	
						CLAY, SILT AND GRAVEL: Contact zone with possible "caliche" gravel, fibrous structure/layer, extremely calcareous, abrupt color change also to very light grayish-brown (10 YR) (3" contact zone). Dry. Gravel to 4.5" in length.	
						SILT, CLAYEY: Slightly moist, very light grayish-brown (10 YR), non-plastic.	
		0.2 J				CLAY, SILTY: Gradual color transition, very light gray (10 YR), clay, silty. Highly calcareous, dry to very slightly moist.	
-55						CLAY, SILTY: Laminated clay, silty, light grayish-brown (10 YR), limited plasticity, trace fine sand scattered throughout. Highly calcareous, laminated (potentially varved in appearance). Alternating light gray (10 YR) and light brownish-gray (10 YR) silty clay, highly calcareous.	1800
		0.5 J					
						CLAYEY SILT: Very clayey silt, silt coarse, slight evidence of oxidation. Alternating more clay-rich laminae present in part. Some possible evidence of bioturbation of sediments. Less internal structure visible than above. Highly calcareous; color as described above.	
-60						CLAYEY SILT: Transition zone between clayey silt and shale.	
						SHALE: Dark gray (10 YR) to black (10 YR) shale bedrock - shale fissile. Highly calcareous.	1795

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

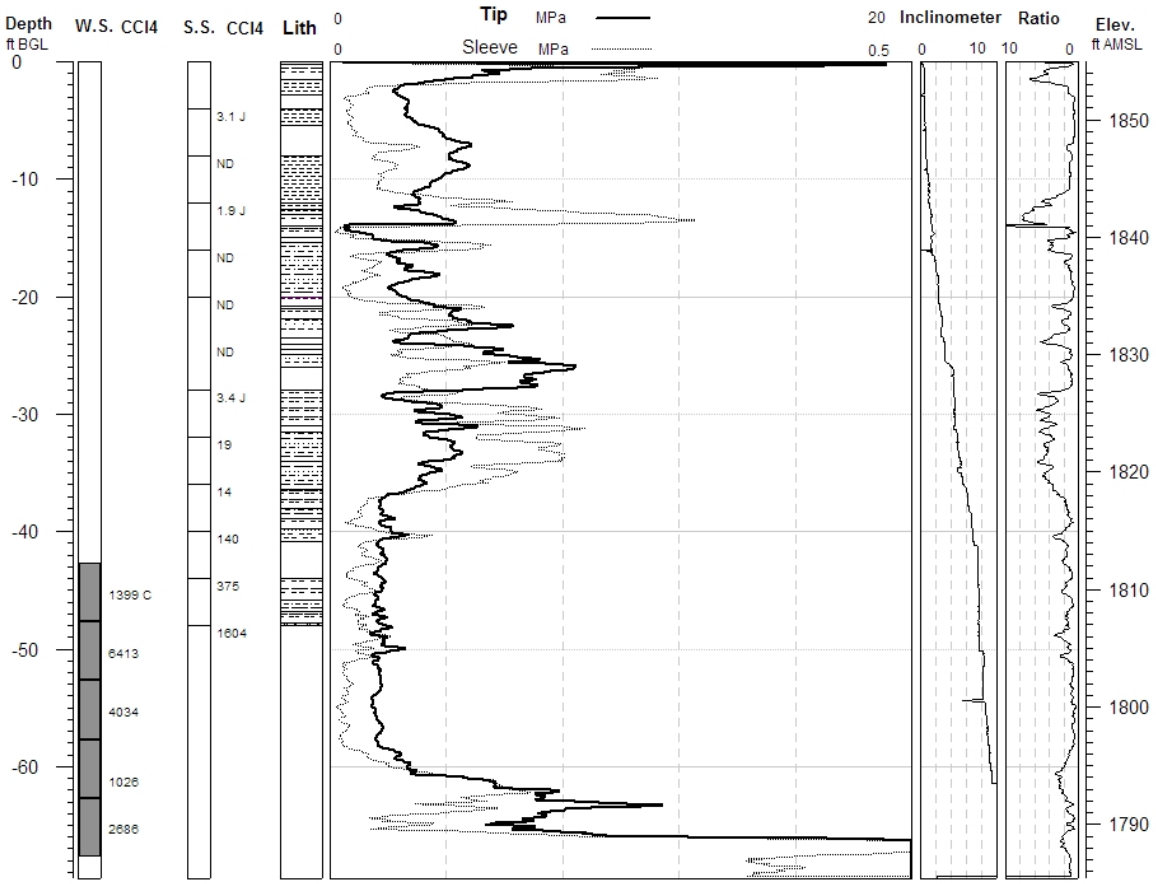
Elevation: 1854.94 ft.

Boring ID: SB64

Geologist: Lorraine LaFreniere

Depth: 69.55 ft. BGL

Log Date: 06/06/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1854.94 ft.

Depth: 67.7 ft. BGL

Boring ID: SB64

Log Date: 06/06/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY: With road material.	
						SILTY CLAY: Trace gravel, possibly disturbed material, non-calcareous, grayish-brown (10 YR). Damp to dry.	
						SILT: Non-calcareous, porous, root tubules possibly, pale brown (10 YR).	
						NO RECOVERY	
				3.1 J		SILT: Non-calcareous, porous, possible root tubules present, pale brown (10 YR) as described above. Damp.	
-5							1850
						NO RECOVERY	
				ND		SILT: Coarse, porous, light yellowish-brown (10 YR), non-calcareous. Damp.	
-10							1845
				1.9 J		SILT: Heavily oxidized, coarse silt, non-calcareous, brown (10 YR). Porous, damp.	
						SILT: Finer grained, non-calcareous, pale brown (10 YR).	
						CLAYEY SILT: Heavily oxidized, non-calcareous, brown (10 YR). Porous, damp.	
						SILT, CLAYEY: Abrupt change in color. Oxidized, non-calcareous, pale brown (10 YR).	
-15						CLAY, SILTY WITH SAND: Very silty, coarse silt, minute white grains CaCO3 throughout, calcareous, pale brown (10 YR). Sand is fine to occasionally medium, increasing in occurrence with depth.	1840
				ND		CLAY, SILTY WITH SAND: Very silty, marked increase in sand content from unit described above. Oxidized, very pale brown (10 YR), marked color change from overlying unit. Sand is very fine to coarse grained, scattered throughout. Sub-angular grains. Very poorly sorted. Highly calcareous, coarse silt.	
-20				ND		SILT AND SAND: Coarse silt, oxidized, calcareous. Sand occasionally medium grained, angular grains, scattered throughout. Very pale brown (10 YR).	1835
						SAND, SILT, AND CLAY: Sharp contact with zone above. Very silty, clay "rip up" clasts. Highly calcareous, transition zone. Pale brown (10 YR).	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB64 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						SILT, SANDY: Very sandy, highly calcareous, pale brown (10 YR). Marked increase in sand content. Coarse silt with fine sand and occasional angular, medium sized grains scattered throughout. Dry.	
						SAND, SILTY: Very poorly sorted sands with varying silt content. Sands fine to very coarse grained, sub-angular predominantly, oxidized, light yellowish-brown (10 YR), calcareous. Dry.	
				ND		NO RECOVERY	
						SAND, SILTY: As described above (21.9' to 23.5').	
-25						SAND, SILTY: Loose sand, significant reduction in silt content, very poorly sorted sand, fine to very coarse grained, sub-rounded. Becomes coarser with marked reduction in silt content with depth. Very pale brown (10 YR). Dry.	1830
						SANDY SILT: Fine sand to coarse silt, well sorted, alternating with areas of sand to very coarse grained, clear, sub-rounded to rounded grains - occurs as partings, calcareous, very pale brown (10 YR). Dry.	
						NO RECOVERY	
				3.4 J		SILT, CLAYEY: Oxidized, highly calcareous, light yellowish-brown (10 YR).	
-30							1825
						SILT, SANDY: Very sandy, light yellowish-brown (10 YR), calcareous, oxidized. Marked increase in sand content, sand is variable grain size to coarse grained, sub-angular. Damp.	
				19		CLAY, SILTY WITH SAND: Oxidized, moderately calcareous, areas of concentrated FeO2. Damp. Light yellowish-brown (10 YR).	
						CLAY, SILTY WITH SAND: Very silty, sand occurs in inclusions throughout. Damp, clay stiff oxidized. Light yellowish-brown (10 YR). Highly calcareous with white CaCO3 inclusions occasionally increasing in size and frequency with depth.	
-35							1820
				14		SILT, CLAYEY: Very clayey, damp, calcareous, coarse silt, light yellowish-brown (10 YR), oxidized.	
						CLAY, SILTY WITH SAND: Damp, oxidized, coarse silt with medium grained sand grains scattered throughout. Light yellowish-brown (10 YR).	
						CLAY, SILTY: Silt fine and increasing with depth, stiff clay, calcareous. Light yellowish-brown (10 YR).	
-40				140		CLAY, SANDY: To sand, clayey. Areas of medium to very coarse sand with trace granular gravel. Moderately calcareous, yellowish-brown (10 YR). Damp.	1815
						SILT, CLAY, WITH SAND: Lenses of sand, medium to coarse grained, sub-angular, oxidized, damp, yellowish-brown (10 YR).	
						SILT, CLAY, WITH SAND: Disaggregated in part, moist to very moist, oxidized, calcareous, yellowish-brown (10 YR), minor sub-angular medium to fine quartz sand throughout.	
				375		CLAY, SILTY: Very silty, moist, minor sand content increasing slightly with depth. Moderately calcareous, oxidized, yellowish-brown (10 YR). Non-plastic.	
-45		1399 C					1810

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB64 Pg. 3

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						CLAY, SANDY WITH SILT: Moist, calcareous, oxidized, yellowish-brown (10 YR), sand is fine to medium grained scattered throughout.	
						SILT, CLAYEY: Trace gastropod shell fragments. Damp to moist, stiff, hard. Highly calcareous.	
				1604		CLAY, SAND WITH GRAVEL: Very sandy, highly calcareous. Sand content high, minor granular gravel. Sand medium to very coarse grained, sub-angular, coarse silt present. Wet.	
-50		6413					1805
-55		4034					1800
-60		1026					1795
-65		2686					1790

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

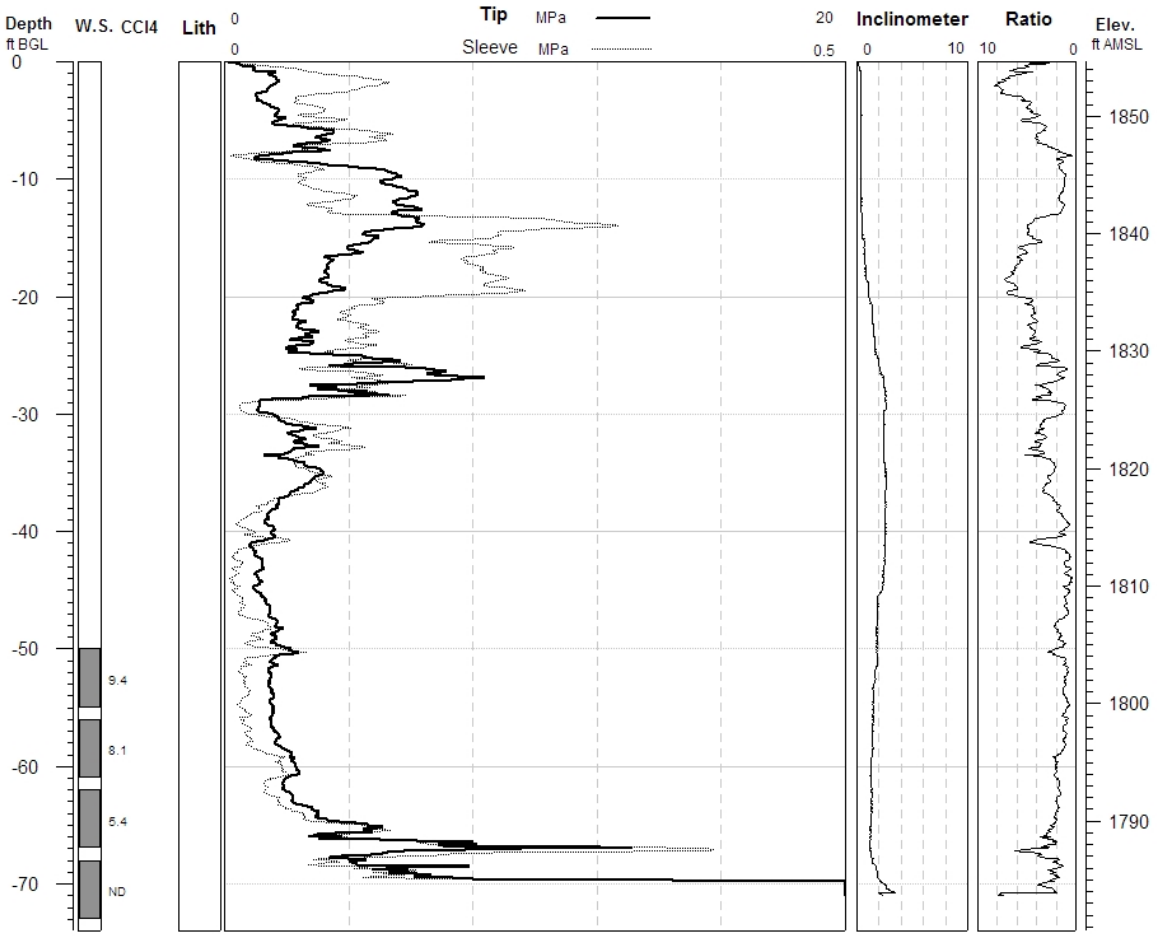
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.65 ft.

Geologist: Lorraine LaFreniere **Depth:** 73 ft. BGL

Boring ID: SB65

Log Date: 06/05/2005



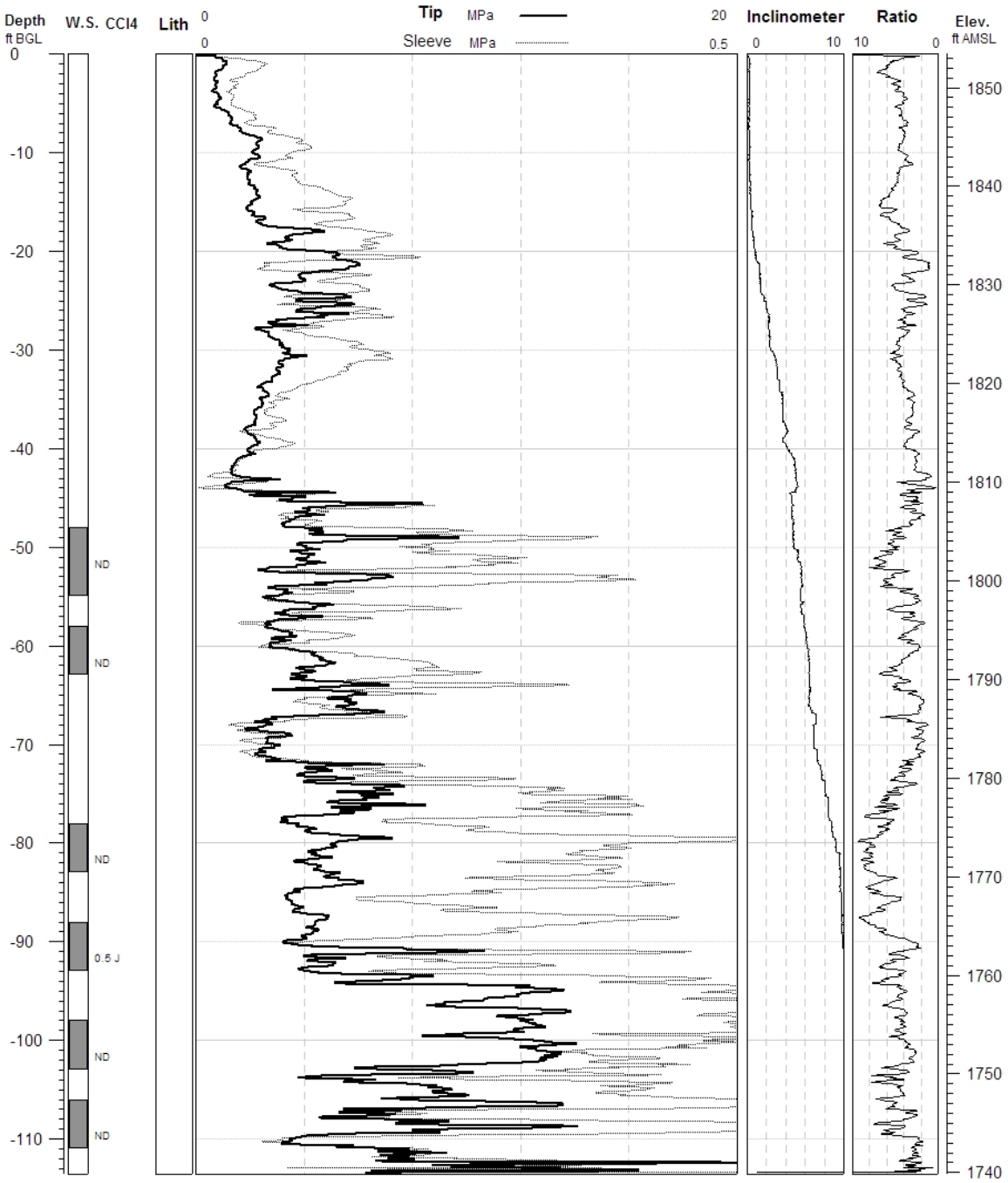
Carbon tetrachloride in water sample = micrograms/L

Argonne National Laboratory

Project: Agra, KS **Elevation:** 1853.39 ft.

Boring ID: SB66

Geologist: Lorraine LaFreniere **Depth:** 113.58 ft. BGL **Log Date:** 06/05/2005



Carbon tetrachloride in water sample = micrograms/L

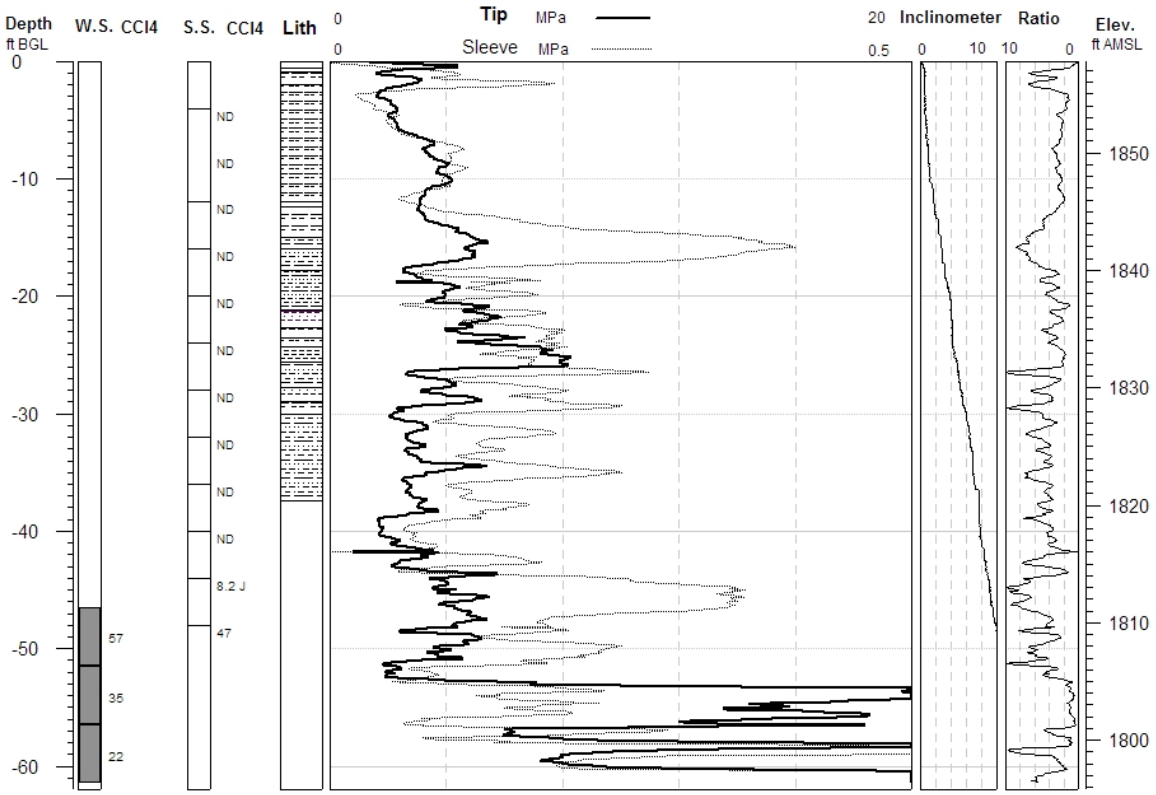
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1857.79 ft.

Geologist: Lorraine LaFreniere **Depth:** 61.5 ft. BGL

Boring ID: SB67

Log Date: 07/11/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lorraine LaFreniere

Elevation: 1857.79 ft.

Depth: 61.5 ft. BGL

Boring ID: SB67

Log Date: 07/11/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY: With disturbed sediment, dark grayish-brown (10 YR), abundant roots.	
						SAND: Very pale brown, probably fill.	
						CLAY, SILTY: Stiff, hard, damp, non-calcareous. Dark grayish-brown (10 YR).	
						SILT, CLAYEY: With abundant evidence of roots. Damp, porous, non-calcareous, pale brown (10 YR).	1855
				ND			
-5							
				ND			1850
-10							
				ND		NO RECOVERY	
						CLAY, SILTY: Very silty, non-calcareous, damp, porous, coarse silt. Brown (10 YR).	1845
-15						CLAY, SILTY WITH SAND: Very silty, minor traces of sand, medium grained, scattered throughout. Damp, coarse silt, yellowish-brown (10 YR), non-calcareous.	
				ND		CLAY, SILTY WITH SAND: Silt very coarse grained to very fine sand. Non-calcareous, very porous with abundant tubules present. Oxidized, light yellowish-brown (10 YR).	
						CLAY, SANDY WITH SILT: Gradational contact and color change. Silt is coarse, sand is fine to coarse grained, sub-angular grains, small calcareous, white clasts (angular) present increasing significantly with depth. Oxidized brownish-yellow (10 YR).	1840

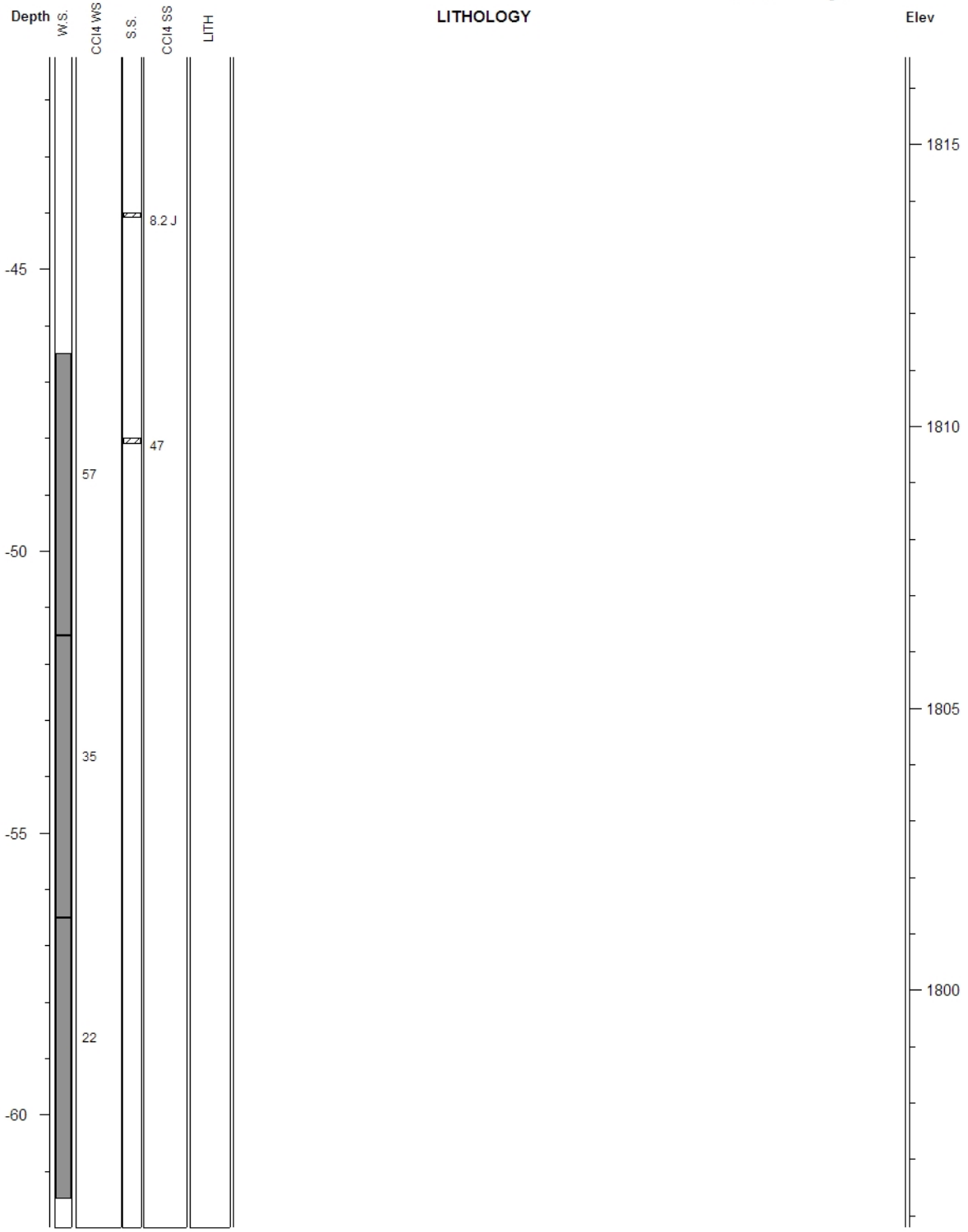
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB67 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
-20				ND			
						SAND AND GRAVEL: Lense of sand with minor silt and clay and granular gravel. Very poorly sorted, sand to very coarse grained, thin silt layer bounds upper and lower limit of zone. Very porous, highly calcareous, oxidized, brownish-yellow (10 YR).	
						SILT AND SAND: With minor clay. Highly calcareous with abundant minute, white CaCO3 grains throughout. Oxidized, brownish-yellow (10 YR). Silt coarse, sand is fine grained to medium grained increasing in frequency with depth.	1835
						SAND, SILTY: With minor clay. Very poorly sorted, fine to medium grained with white CaCO3 grains throughout. Yellowish-brown (10 YR), root tubules, highly calcareous.	
				ND		SILT, CLAYEY: Coarse silt, very porous. Yellowish-brown (10 YR), calcareous.	
						SILT: Fine grained. Yellowish-brown (10 YR), calcareous, damp.	
-25							
						CLAY, SILTY WITH SAND: Coarse silt, sand throughout, some in lenses or irregular clasts, calcareous. Yellowish-brown (10 YR), sand fine to medium grained. Yellowish-brown (10 YR).	
							1830
				ND		SILT, SANDY: Very sandy, calcareous. Yellowish-brown (10 YR), sand very poorly sorted, fine to coarse grained, sub-angular, porous.	
						CLAY, SILTY: With minor traces of fine sand. Yellowish-brown (10 YR), coarse silt, calcareous.	
-30						CLAY, SILTY WITH SAND: Occasional coarse grained, sub-angular quartz grains present. Scattered evidence of calcareous shell fragments. Zone predominantly clay with varying amounts of sand present throughout.	
				ND			
							1825
-35							
				ND			
							1820
-40				ND			

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB67 Pg. 3



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

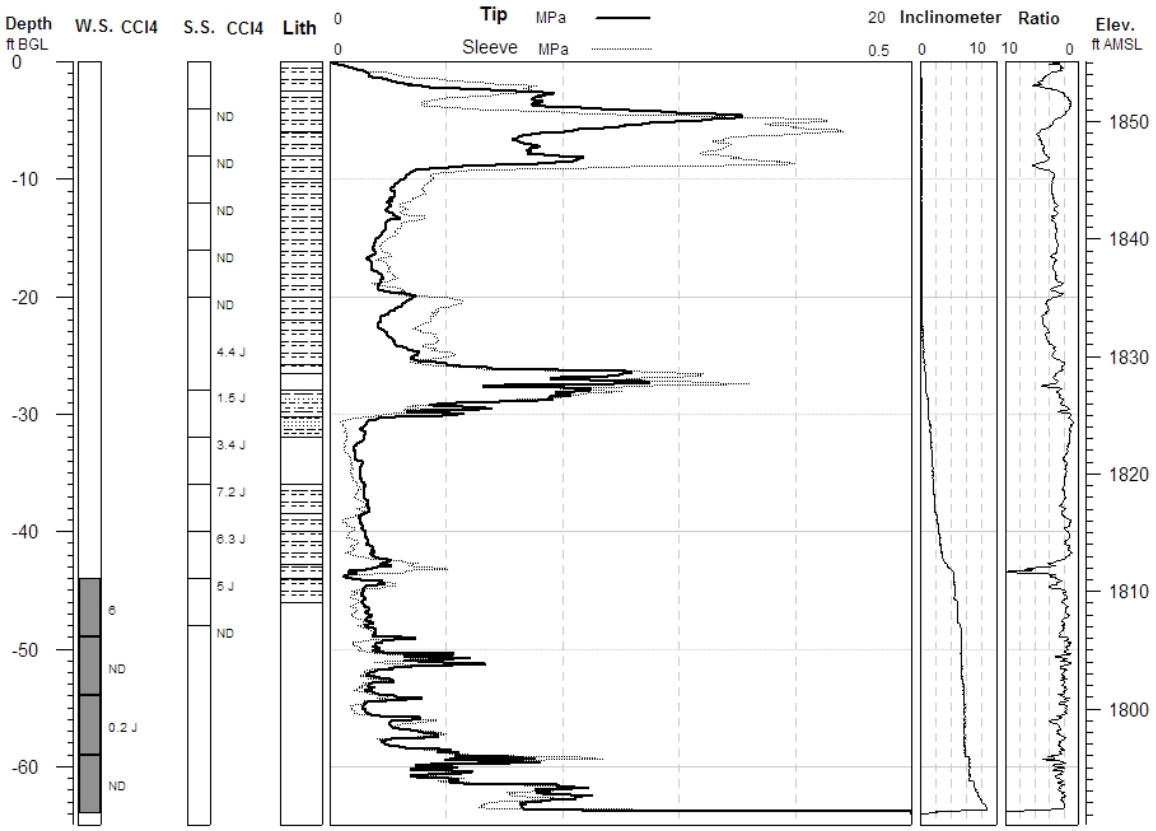
Geologist: Lisa Larsen

Elevation: 1855.09 ft.

Depth: 64 ft. BGL

Boring ID: SB68

Log Date: 07/09/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lisa Larsen

Elevation: 1855.09 ft.

Depth: 64 ft. BGL

Boring ID: SB68

Log Date: 07/09/2005

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						SILTY CLAY: Very dark grayish-brown (10 YR), abundant roots, highly organic, non-calcareous.	1855
						SILTY CLAY: Dark gray-brown (10 YR), gray-brown 3.5-4 ft., dark-gray 4-6 ft., trace roots, organic, non-calcareous.	
				ND			
-5							1850
						SILTY CLAY: Grayish-brown (10 YR), non-calcareous, mottled.	
				ND		SILTY CLAY: Coarse silt, pale brown (10 YR), occasional pinpoint oxidation evident, non-calcareous.	
-10						SILTY CLAY: Coarse silt, pale brown (10 YR), increase in silt content, pinpoint oxidation evident, non-calcareous, very silty, trace occasional sand grain.	1845
				ND			
-15							1840
				ND			
-20				ND		SILTY CLAY: Abundant clay, brown (10 YR), non-calcareous, oxidized, moist.	1835
						SILTY CLAY: Dark grayish-brown (10 YR), oxidized, occasional sand grain, sub-angular, non-calcareous, moist.	
				4.4 J			
-25							1830
						SILTY CLAY: Pale brown (10 YR), mottled, increase in silt content, oxidized.	
						SILT, CLAY, WITH SAND: Coarse, sub-angular, poorly sorted, dark yellow-brown (10 YR), becoming lighter with depth (yellowish-brown (10 YR)), oxidized, increase in sand with depth.	
				1.5 J		CLAY, SILTY WITH SAND: Abundant silt, fine sand, yellowish-brown (10 YR), oxidized, non-calcareous.	
-30							1825
						SILT, CLAY, AND SAND: Very fine sand, yellowish-brown (10 YR), occasional coarse sand grain, non-calcareous, oxidized, clay content increases with depth.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB68 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						grain, non-calcareous, oxidized, clay content increases with depth.	
				3.4 J		SILT, CLAY, WITH SAND: Abundant silt, fine - coarse sand from 32-32.5 ft., clay content increases with depth, trace sand throughout, dark yellow-brown (10 YR), non-calcareous, moist, oxidized.	
-35						SILT, CLAY, WITH SAND: Coarse sand, yellowish-brown (10 YR), non-calcareous, oxidized.	1820
				7.2 J		SILT, CLAY, WITH SAND: Coarse silt, very fine sand, yellowish-brown (10 YR), non-calcareous, oxidized.	
						SILTY CLAY: Abundant clay, yellowish-brown (10 YR), non-calcareous, oxidized, non-calcareous, plastic.	
						SILTY CLAY: Brownish-yellow (10 YR), white calcareous material throughout, highly calcareous, oxidized.	
-40				6.3 J		SILTY CLAY: Very pale brown (10 YR), white calcareous material throughout, occasional sand grain, oxidized, occurrence of calcareous material increases with depth, large calcareous nodules at base (up to 1/4" sub-angular), highly calcareous.	1815
						SILTY CLAY: Very pale brown (10 YR), trace calcareous material, highly calcareous, oxidized.	
				5 J		SILTY CLAY: Pale brown, white calcareous material throughout, highly calcareous, oxidized.	
-45		6				SILT, CLAY, WITH SAND: Very silty with fine - coarse sand scattered throughout, yellowish-brown (10 YR), oxidized, calcareous.	1810
				ND			
-50		ND					1805
-55		0.2 J					1800
-60		ND					1795
-65							

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

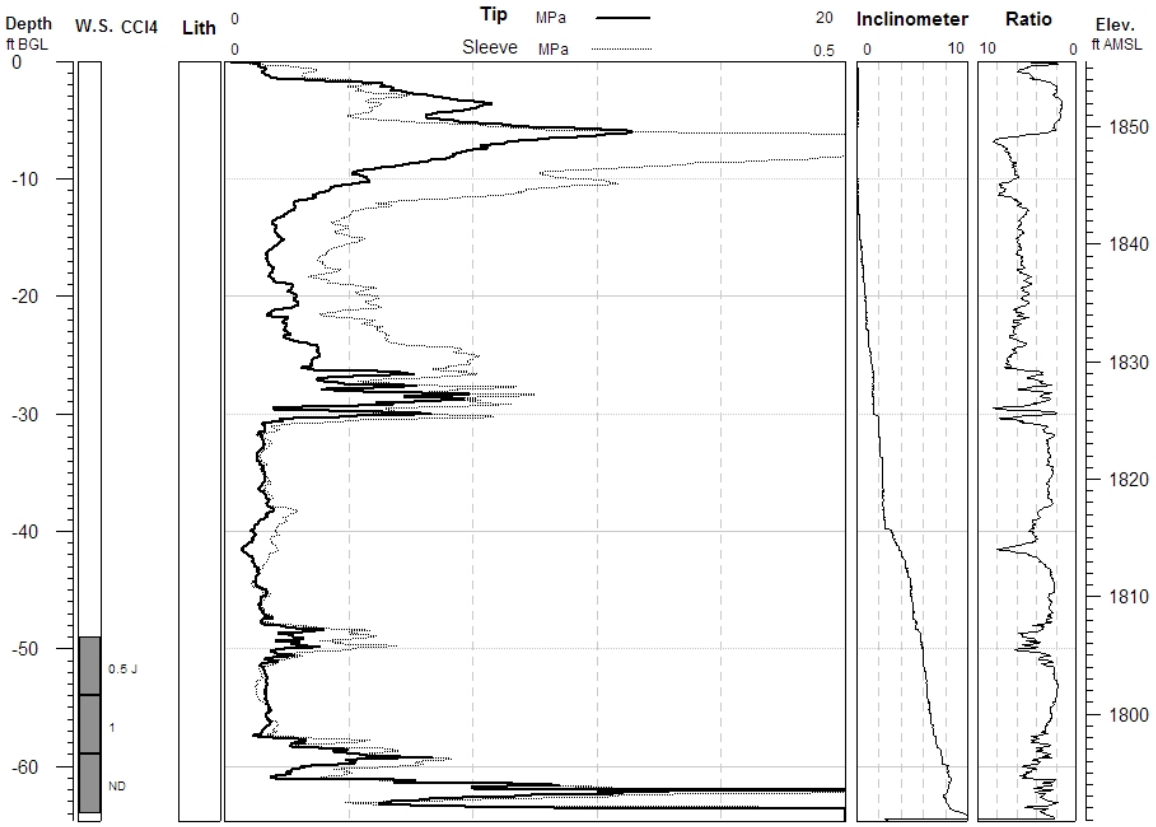
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1855.56 ft.

Geologist: Lorraine LaFreniere **Depth:** 64.70 ft. BGL

Boring ID: SB69

Log Date: 07/07/2005



Carbon tetrachloride in water sample = micrograms/L

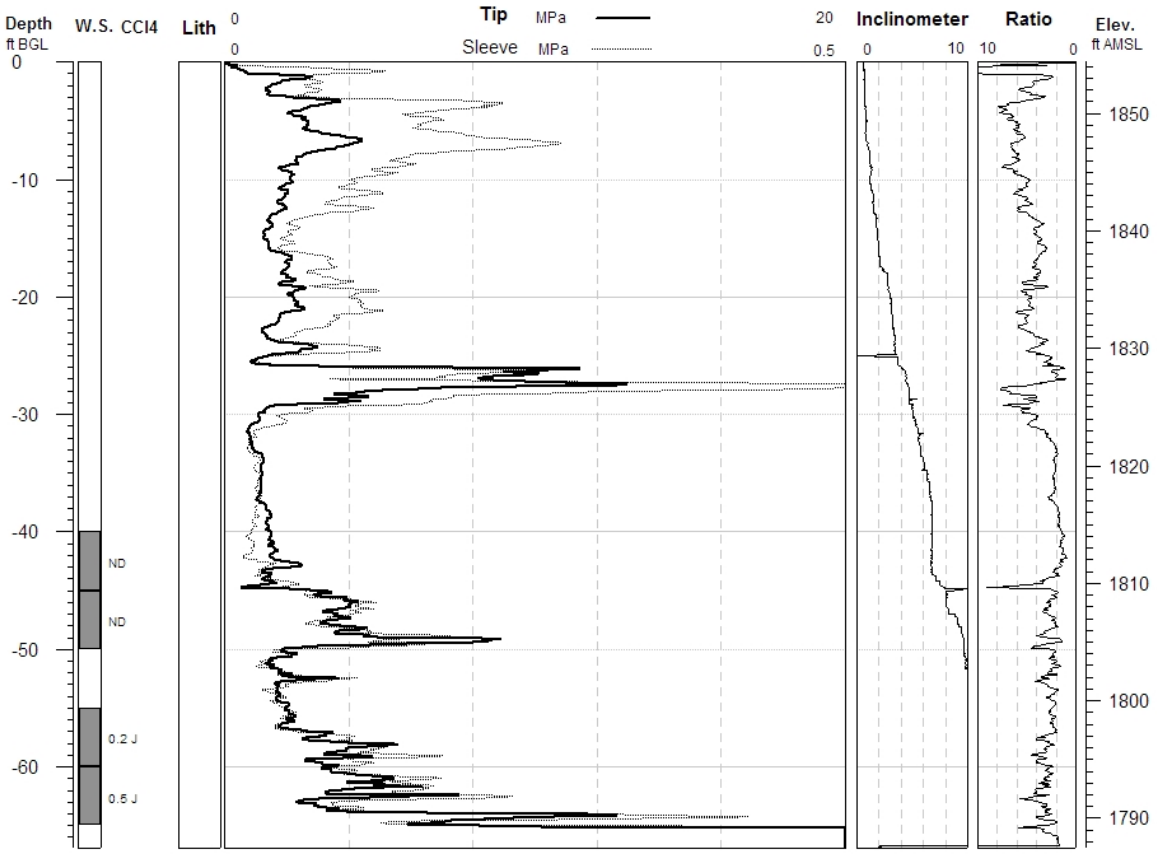
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.38 ft.

Geologist: Lorraine LaFreniere **Depth:** 66.93 ft. BGL

Boring ID: SB70

Log Date: 07/08/2005



Carbon tetrachloride in water sample = micrograms/L

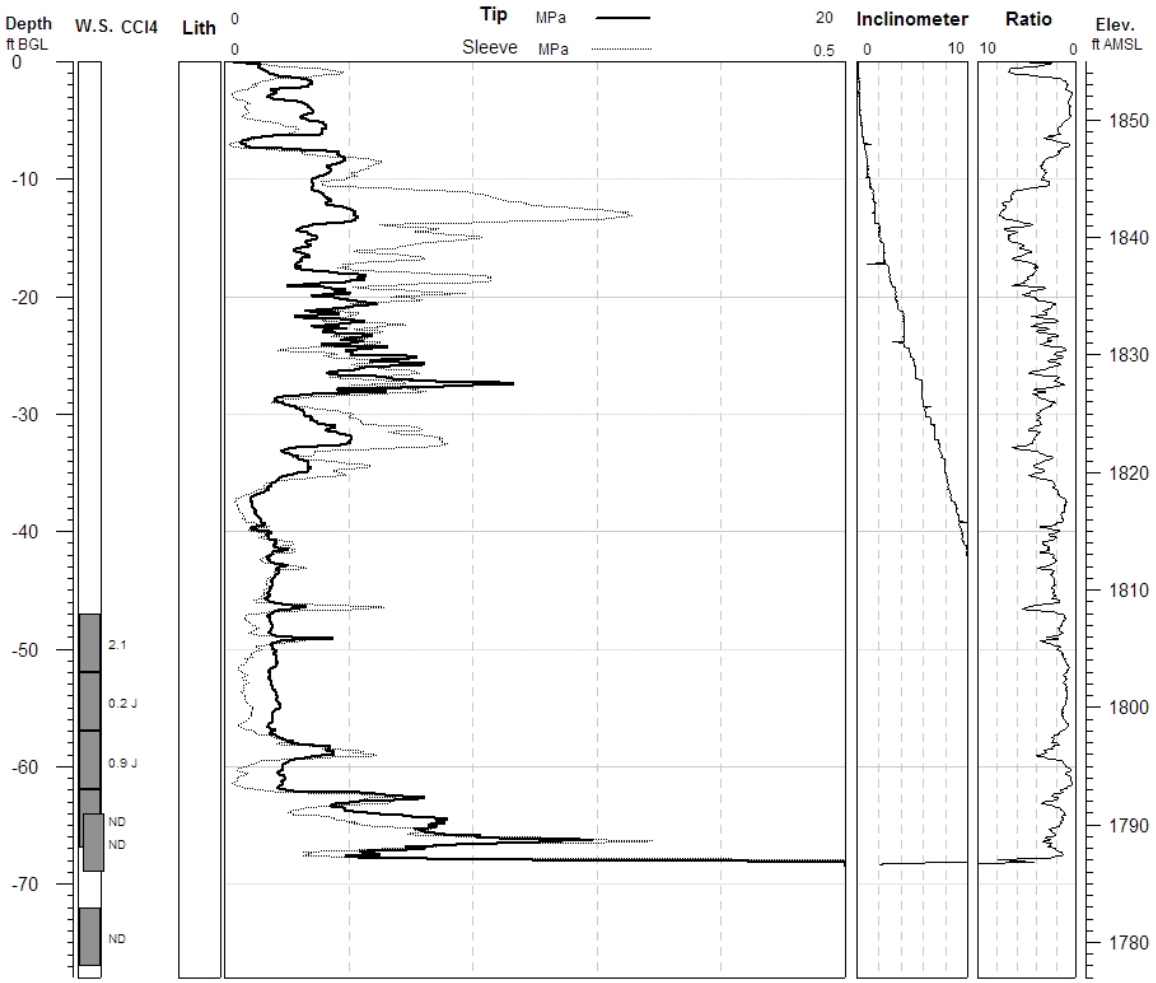
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.97 ft.

Geologist: Lorraine LaFreniere **Depth:** 77 ft. BGL

Boring ID: SB71

Log Date: 06/09/2005



Carbon tetrachloride in water sample = micrograms/L

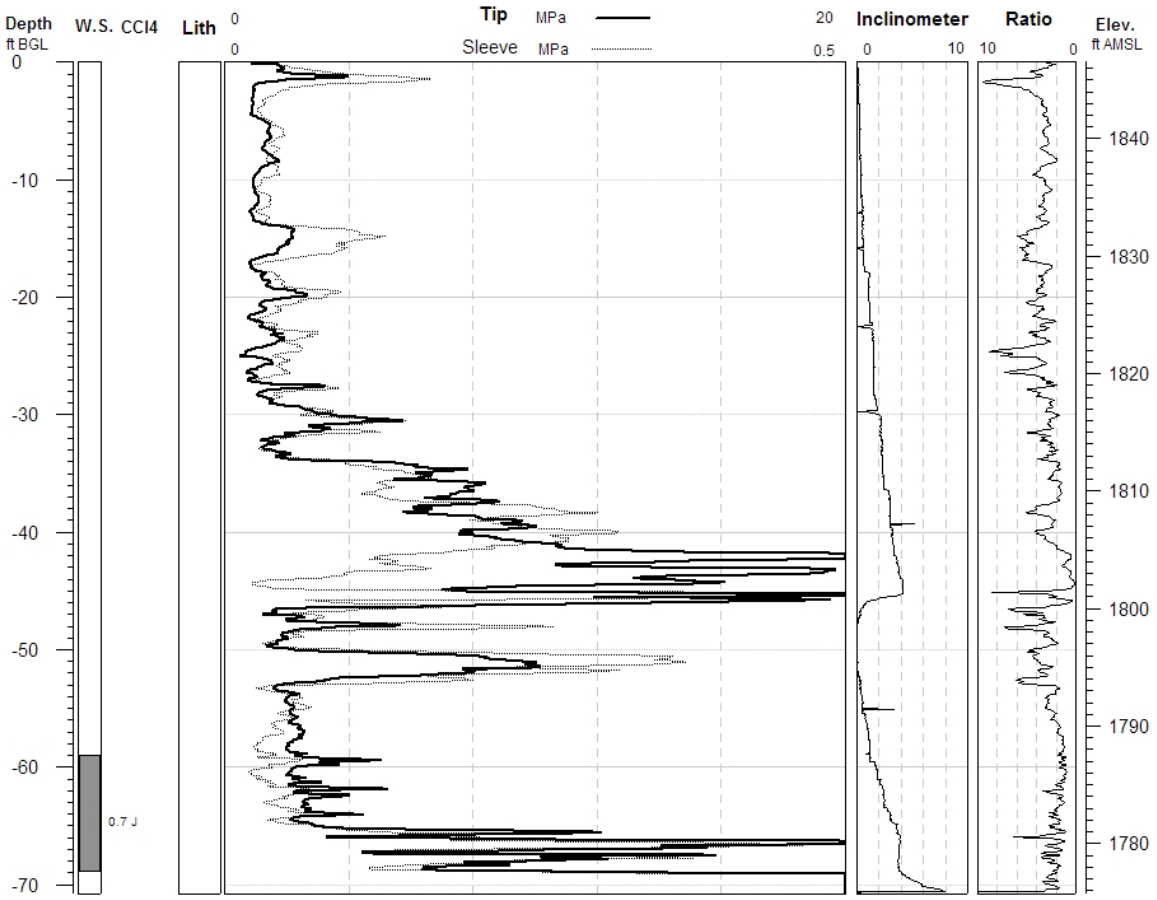
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1846.5 ft.

Geologist: Lorraine LaFreniere **Depth:** 70.80 ft. BGL

Boring ID: SB72

Log Date: 06/13/2005



Carbon tetrachloride in water sample = micrograms/L

Argonne National Laboratory

Project: Agra, KS

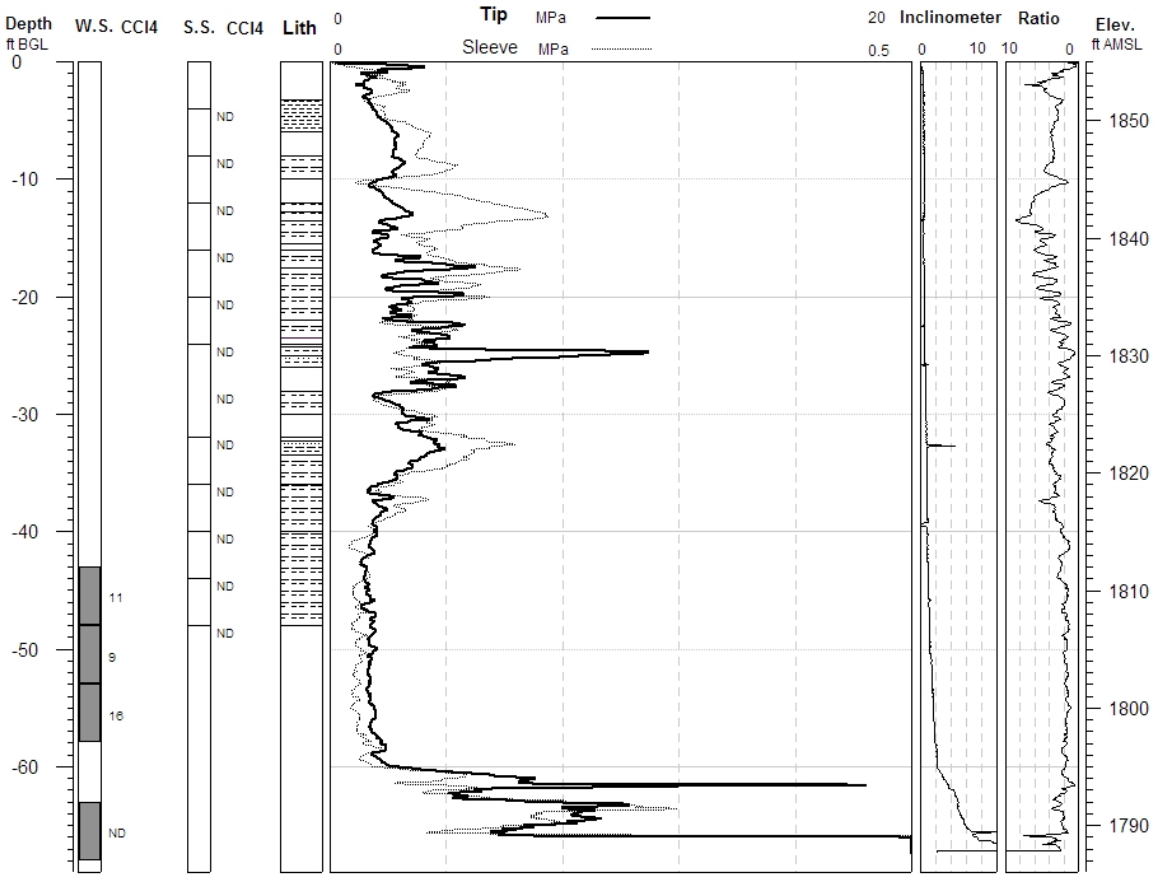
Geologist: Lisa Larsen

Elevation: 1855.01 ft.

Depth: 68 ft. BGL

Boring ID: SB73

Log Date: 06/11/2005



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Agra, KS

Geologist: Lisa Larsen

Elevation: 1855.01 ft.

Depth: 68 ft. BGL

Boring ID: SB73

Log Date: 06/11/2005

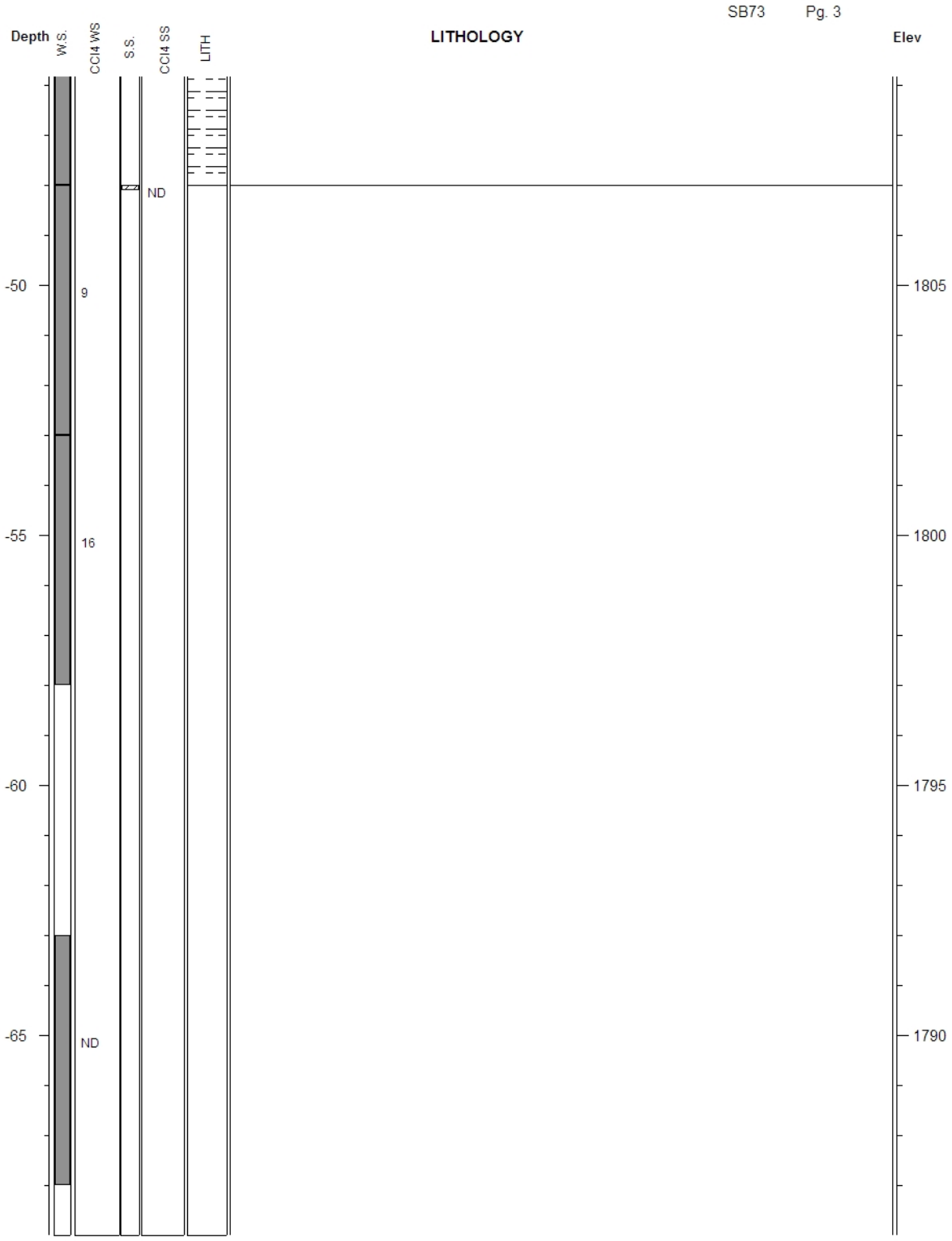
Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						NOT CORED	1855
						SILT: Light yellowish-brown (10 YR), porous, slightly calcareous.	
				ND			
-5							1850
						NOT CORED	
				ND		CLAYEY SILT: Light yellowish-brown (10 YR), porous, slightly calcareous.	
-10						NOT CORED	1845
				ND		SILTY CLAY: Trace coarse sand, non-calcareous, porous.	
						SILTY CLAY: Calcareous material (weathered), root holes, very calcareous, very pale brown (10 YR).	
						SILTY CLAY: Pale brown (10 YR) with white calcareous material throughout, highly calcareous.	
-15							1840
						NOT CORED	
				ND		SILTY CLAY: Very pale brown (10 YR) with white calcareous material throughout, highly calcareous, becoming coarser with depth.	
						SILTY CLAY: Pale brown (10 YR), root holes, highly calcareous with calcareous material throughout, trace sand, oxidized.	
-20				ND			1835

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

SB73 Pg. 2

Depth	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev
						SILTY CLAY: Light yellowish-brown (10 YR), color change with depth to yellowish-brown (10 YR), oxidized, highly calcareous, white calcareous material, trace sand.	
						SILT AND SAND: Very fine sand, light yellowish-brown (10 YR), oxidized, highly calcareous.	
				ND		SILTY CLAY: Light yellowish-brown (10 YR), trace calcareous material, oxidized.	
-25						SILTY SAND: Very poorly sorted, sub-angular, fine - coarse grained, light yellowish-brown (10 YR), highly calcareous.	1830
						SANDY SILT: Very fine sand, light yellowish-brown (10 YR), highly calcareous.	
						NOT CORED	
				ND		SILTY CLAY: Very pale brown (10 YR), highly calcareous, oxidized.	
-30						NOT CORED	1825
				ND		SILTY SAND: Light yellowish-brown (10 YR), poorly sorted, fine - coarse grained, highly calcareous, sub-angular.	
						SILT, CLAY, AND SAND: Abundant sand grains throughout, sub-angular, light yellowish-brown (10 YR), oxidized, highly calcareous.	
						SILTY CLAY: White calcareous material throughout, light yellowish-brown (10 YR), oxidized, highly calcareous, very silty in upper zone (to 34.5'), increase in clay content with depth.	
-35							1820
				ND		SILTY CLAY: High clay content, yellowish-brown (10 YR), trace calcareous material, moist, oxidized, highly calcareous.	
-40				ND		SILTY CLAY: Abundant silt, yellowish-brown (10 YR), moist, clay content increases at ~43.5', non-calcareous to 43', calcareous to 48'.	1815
				ND			
-45		11					1810

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

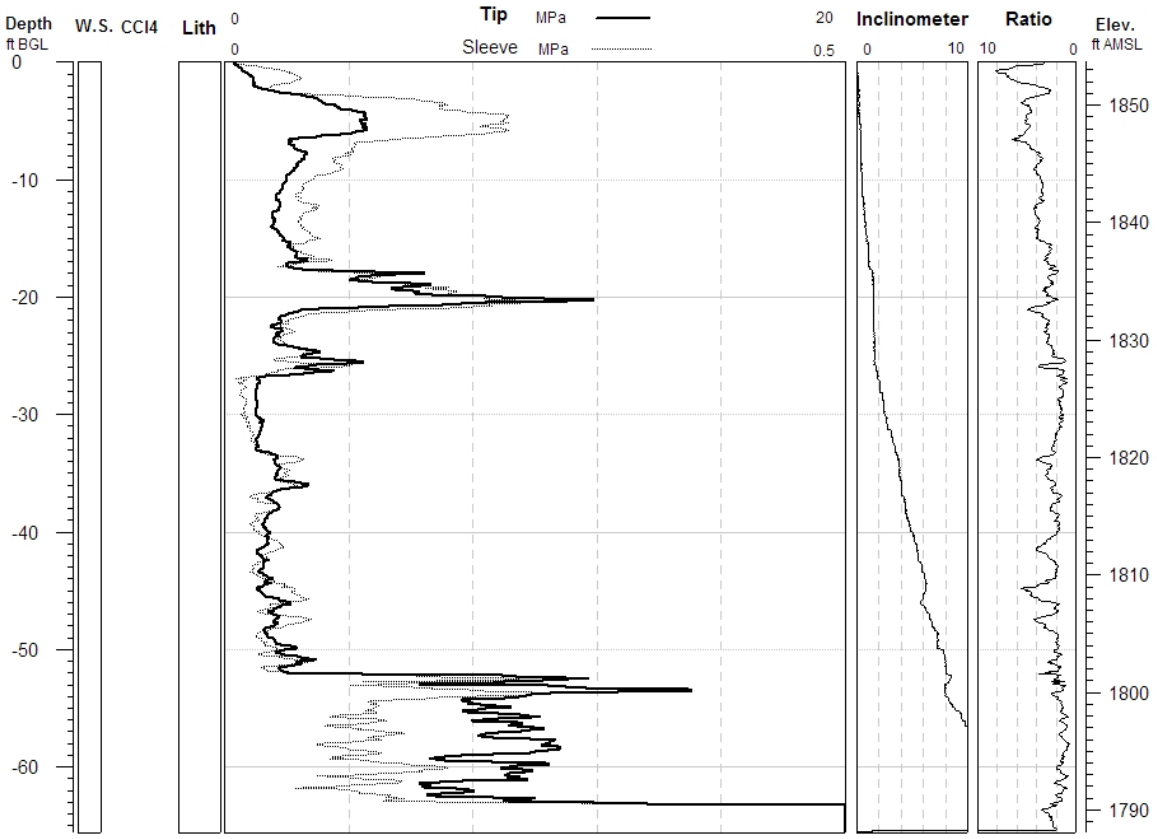
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1853.66 ft.

Geologist: Lorraine LaFreniere **Depth:** 65.62 ft. BGL

Boring ID: SB74

Log Date: 06/13/2005



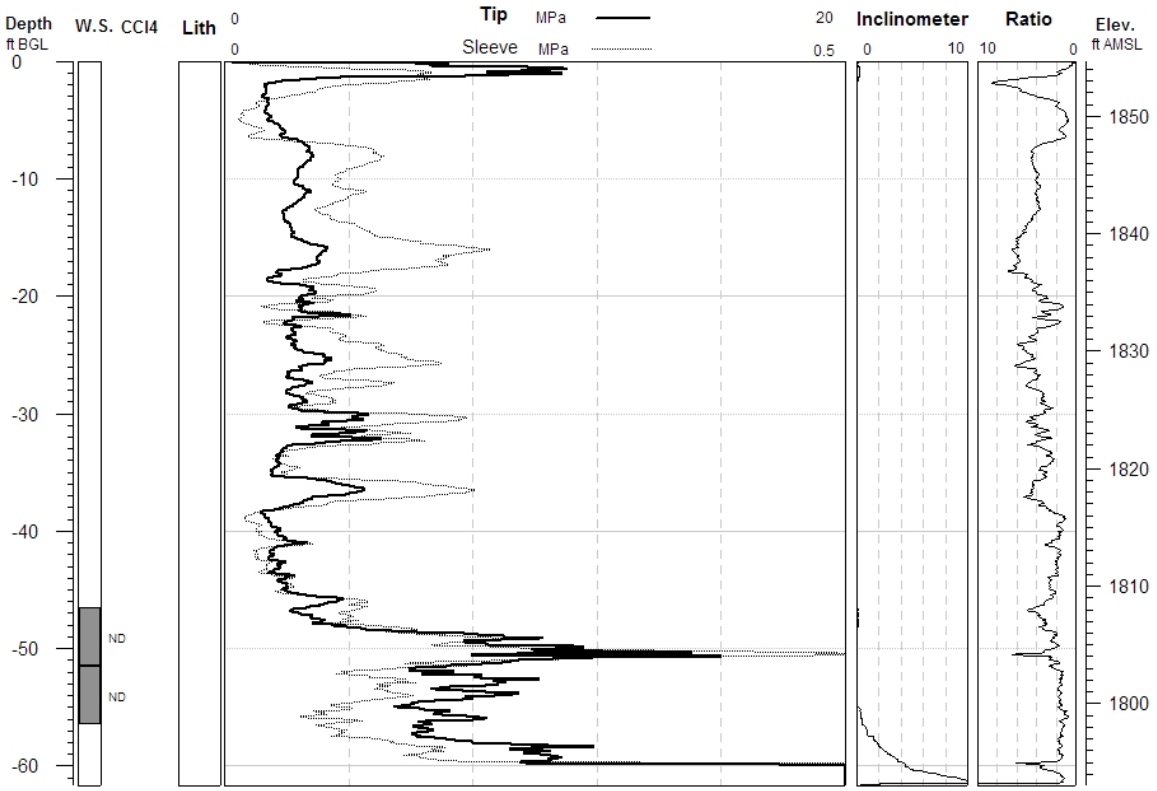
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.68 ft.

Geologist: Lorraine LaFreniere **Depth:** 61.68 ft. BGL

Boring ID: SB75

Log Date: 06/13/2005



Carbon tetrachloride in water sample = micrograms/L

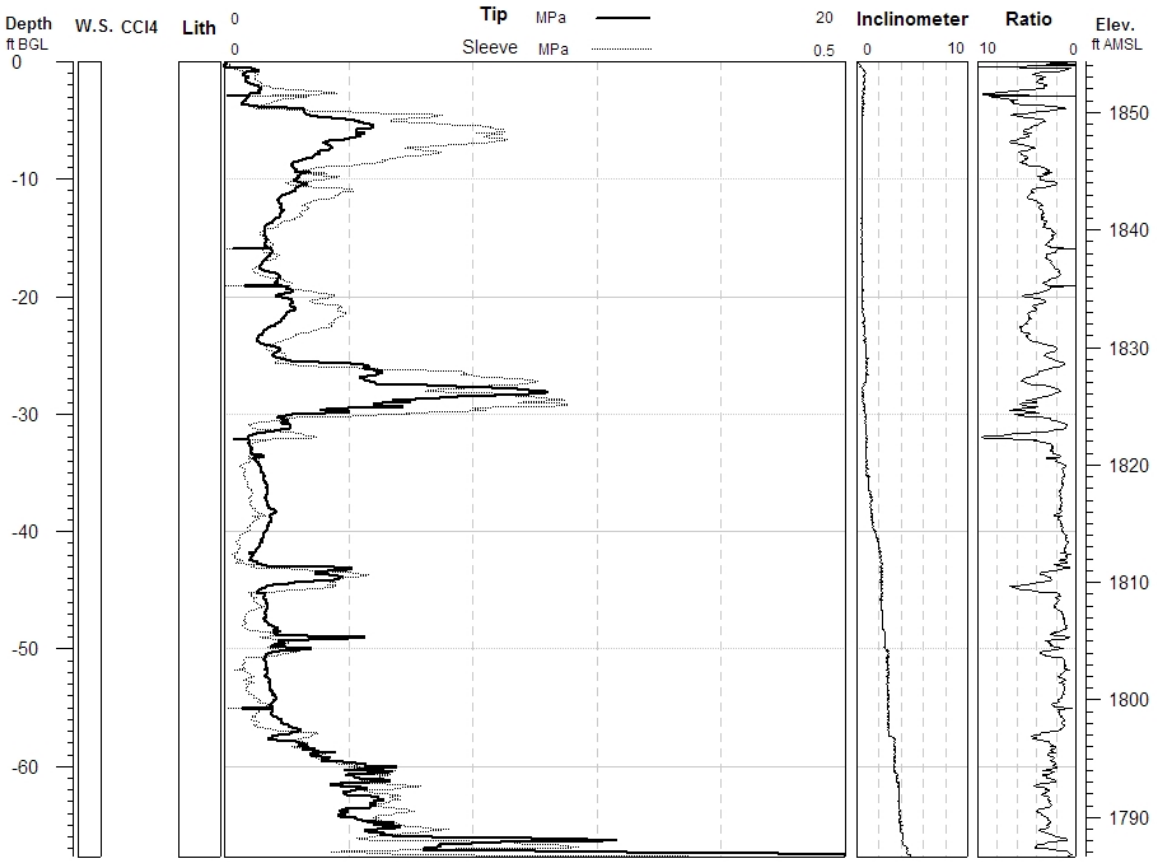
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.33 ft.

Geologist: Lorraine LaFreniere **Depth:** 67.72 ft. BGL

Boring ID: SB76

Log Date: 07/11/2005



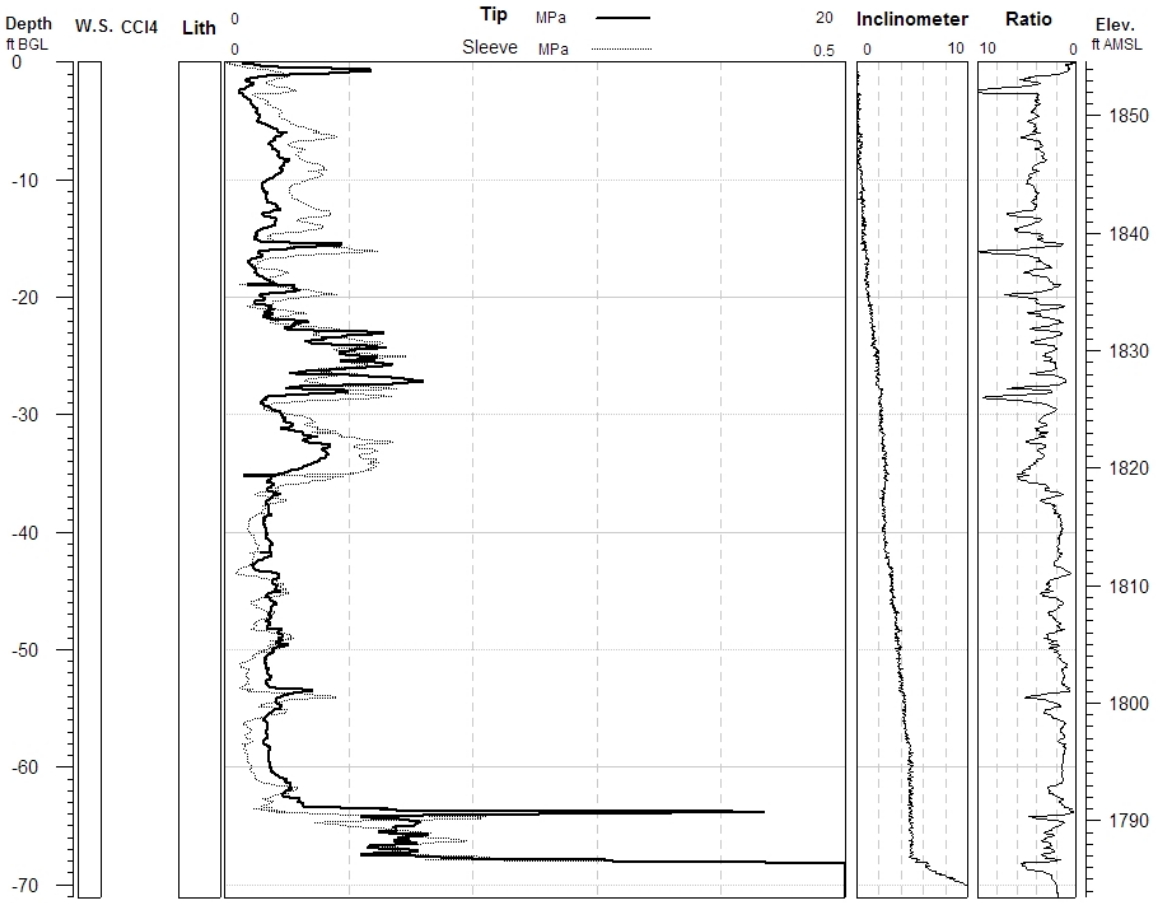
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.55 ft.

Geologist: Lorraine LaFreniere **Depth:** 71.13 ft. BGL

Boring ID: SB77

Log Date: 07/11/2005



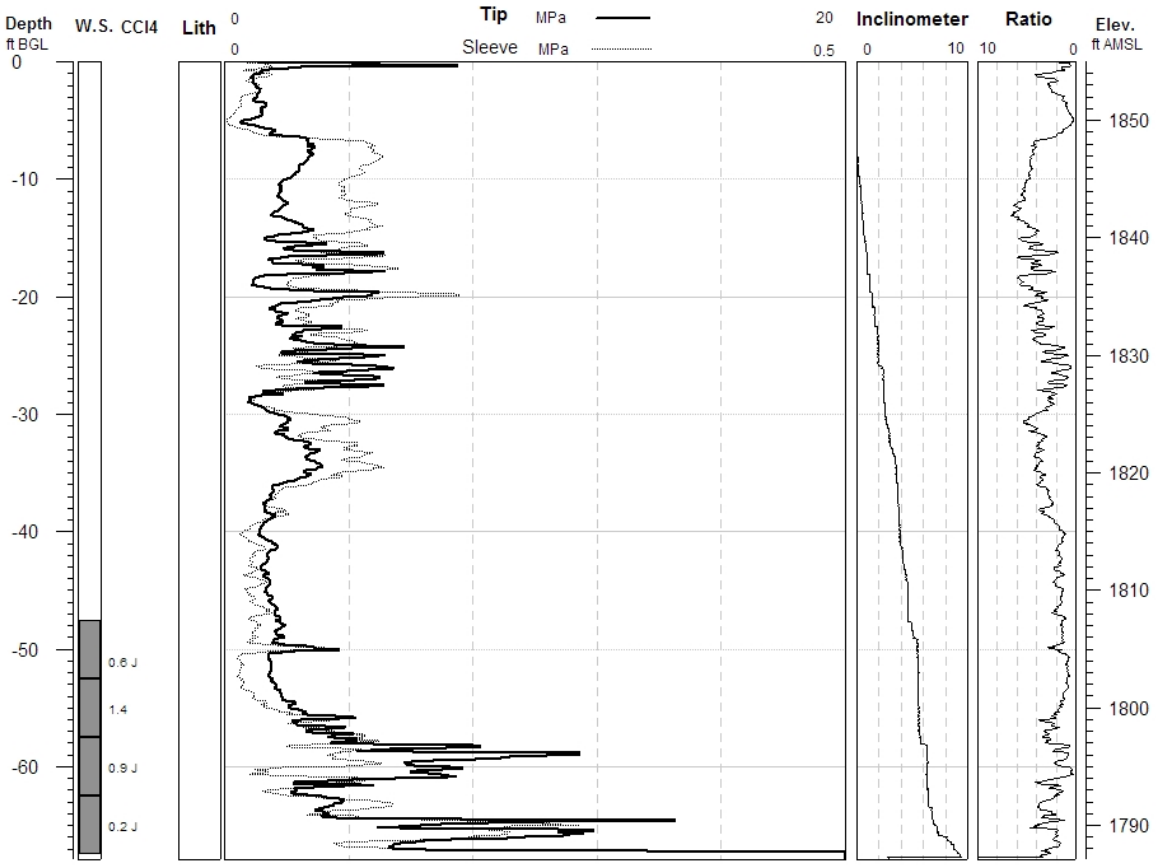
Argonne National Laboratory

Project: Agra, KS **Elevation:** 1854.99 ft.

Geologist: Lorraine LaFreniere **Depth:** 67.91 ft. BGL

Boring ID: SB78

Log Date: 07/12/2005



Carbon tetrachloride in water sample = micrograms/L

Appendix B:

Well Construction Information for SB72

Piezometer (Sand Point Well) SB72: Agra, KS

SE 1/4 of NE 1/4 of SW 1/4 of Section 27, Twp. 3 South, Rge. 16 West
Phillips County, State of Kansas

Date: 8/10/2005

WELL HEAD PROTECTION
12" Morrison Brothers, Co. Model 418XA flush mount cover. Top of casing fitted with a (J-Plug) Morrison Brothers, Co. Model 678XA and a screened vent with a locking pipe plug and padlock.

CONCRETE PAD
Must be a minimum of 8" thick and extend at least 8" larger than the flush mount (28" minimum). Sloped to prevent pooling of water and vegetation around well and to allow for placement of a surveyor pin.

IMPERVIOUS GROUT
The well must be grouted with impervious grout and must be tremied in the hole, with clean fresh water, to have a minimum density of 9.4 lbs. per gallon. Grout must extend from the top of the bentonite chips to 3' BGL.

WELL CASING
Well casing shall terminate as high as possible inside the flush mount and be capped with a (J-Plug) Morrison Brothers, Co. Model 678XA locking plug and padlock.

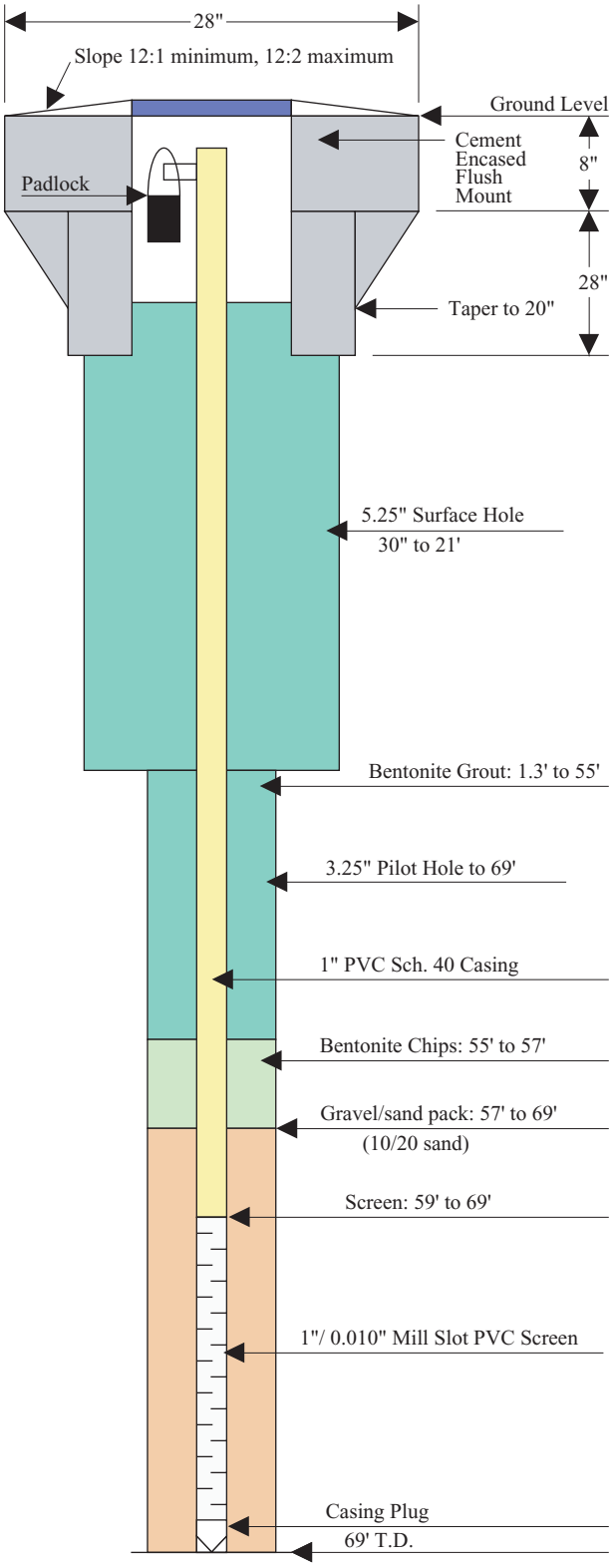
1" PVC Schedule 40 threaded casing and Mill Slot (0.010") well screen.

HOLE SIZE
The hole must be at least 5.25" in diameter for the top 20' and grouted to the base of the flush mount.

GRAVEL / SAND PACK
Gravel/sand pack screen size and gradation shall be determined based upon the grain size and gradation of portion or portions of the aquifer to be screened. Gravel pack shall be designed to stabilize the aquifer material and permit the fine fraction to move into the well during development. Gravel/sand pack shall extend to at least 2' above screen.

CONTRACTOR LICENSING
All wells must be constructed under the direction of a licensed water well contractor as specified under the Kansas Department of Health and Environment.

REGISTRATION
All wells must be registered with the Kansas Department of Health and Environment on form WWC-5 provided by that Department.



(NOT TO SCALE)

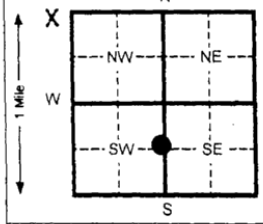
WATER WELL RECORD Form WWC-5 KSA 82a-1212 ID No. SB-72

1 LOCATION OF WATER WELL:	Fraction	Section Number	Township Number	Range Number
County: Phillips	SE ¼ NE ¼ SW ¼	27	T 3 S	R 16 W

Distance and direction from nearest town or city street address of well if located within city?

2 WATER WELL OWNER: United States Department of Agriculture
RR#, St. Address, Box # : Stop 0513, Room 4717-S, 1400 Independence Ave, SW
City, State, ZIP Code : Washington, DC 20250-0513
Board of Agriculture, Division of Water Resources Application Number:

3 LOCATE WELL'S LOCATON WITH AN "X" IN SECTION BOX:



4 DEPTH OF COMPLETED WELL 69 ft. ELEVATION: 1842'
Depth(s) Groundwater Encountered 1 59' ft. 2 ft. 3 ft.
WELL'S STATIC WATER LEVEL 41.54 ft. below land surface measured on mo/day/yr 08/10/05
Pump test data: Well water was None ft. after hours pumping gpm
Est. Yield gpm: Well water was ft. after hours pumping gpm
Bore Hole Diameter 5.25 in. to 21 ft. and 3.25 in. to Pilot Hole 69 ft.
WELL WATER TO BE USED AS: 1 Domestic 2 Irrigation 3 Feed lot 4 Industrial 5 Public water supply 6 Oil field water supply 7 Lawn and garden (domestic) 8 Air conditioning 9 Dewatering 10 Monitoring well 11 Injection well 12 Other (Specify below) Sand Point Well
Was a chemical/bacteriological sample submitted to Department? Yes No X If yes, mo/day/yr sample was submitted
Water Well Disinfected? Yes No X

OFFICE USE ONLY

5 TYPE OF BLANK CASING USED: 1 Steel 2 PVC 3 RMP (SR) 4 ABS 5 Wrought Iron 6 Asbestos-Cement 7 Fiberglass 8 Concrete tile 9 Other (specify below)
CASING JOINTS: Glued Clamped Welded Threaded X
Blank casing diameter 1 in. to 59 ft., Dia N/A in. to ft., Dia N/A in. to N/A ft.
Casing height above land surface Flush Mount in., weight Schedule 40 lbs./ft. Wall thickness or gauge No. .133"
TYPE OF SCREEN OR PERFORATION MATERIAL: 1 Steel 2 Brass 3 Stainless steel 4 Galvanized steel 5 Fiberglass 6 Concrete tile 7 PVC 8 RMP (SR) 9 ABS 10 Asbestos-cement 11 Other (specify) 12 None used (open hole)
SCREEN OR PERFORATION OPENINGS ARE: 1 Continuous slot 2 Louvered shutter 3 Mill slot 4 Key punched 5 Gauzed wrapped 6 Wire wrapped 7 Torch cut 8 Saw cut 9 Drilled holes 10 Other (specify) 11 None (open hole)
SCREEN-PERFORATED INTERVALS: From 59 ft. to 69 ft. From ft. to ft.
From ft. to ft. From ft. to ft.
GRAVEL PACK INTERVALS: From 57 ft. to 69 ft. From ft. to ft.
From ft. to ft. From ft. to ft.

T R

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other
Grout Intervals From 0 ft. to 55 ft. From Bent Chips 55 ft. to 57 ft. From N/A ft. to N/A ft.
What is the nearest source of possible contamination: 1 Septic tank 2 Sewer lines 3 Watertight sewer lines 4 Lateral lines 5 Cess pool 6 Seepage pit 7 Pit privy 8 Sewage lagoon 9 Feedyard 10 Livestock pens 11 Fuel storage 12 Fertilizer storage 13 Insecticide storage 14 Abandoned water well 15 Oil well/ Gas well 16 Other (specify below)
Direction from well? SW How many feet? 56'

FROM	TO	CODE	LITHOLOGIC LOG	FROM	TO	PLUGGING INTERVALS
0	3'		Top Soil			
3'	32'		Clay and Silt			
32'	59'		Sandy Silt			
59'	69'		Sand			

SEC

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/yr) August 10, 2005 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 680 This Water Well Record was completed on (mo/day/yr) 01/09/06 under the business name of Delta Environmental Services by (signature)

INSTRUCTIONS: Please fill in blanks and circle the correct answers. Send three copies to Kansas Department of Health and Environment, Bureau of Water, 1000 S.W. Jackson St., Ste. 420, Topeka, Kansas 66612-1367. Telephone: 913-296-5545. Send one to WATER WELL OWNER and retain one for your records.

Form provided by Forms-On-A-Disk, Inc. · Dallas, Texas · (214) 340-9429

K A N S A S

RODERICK L. BREMBY, SECRETARY — DEPARTMENT OF HEALTH AND ENVIRONMENT — KATHLEEN SEBELIUS, GOVERNOR

June 14, 2005

Delta Environmental
David Surgnier
6950 Country Road 3610
Ada, Oklahoma 74820

Re: Waiver request for flush mount monitoring well for **USDA/CCC Agra, Kansas.** Located in the SE 1/4 of the SE 1/4 of the SE 1/4 of the SW 1/4 of Section 27, Township 3 South, Range 16 West, Phillips County.

Dear Mr. Surgnier:

In accordance with Kansas Administrative Regulations **(K.A.R.) 28-30-9**, appealing regulations as stated in Article 30, your request for an exception to **K.A.R. 28-30-6(b)(1) and (e)** for authorization of **14** geotechnical wells to be constructed less than 12 inches above the **finished ground level** and less than 20 feet of grout if ground **water encountered less than 20' below the surface**, at the above-mentioned site is hereby granted subject to the following stipulations:

1. Monitoring wells included in this request will be grouted from a maximum of two feet below a ground surface to within one foot above the screened section.

2. The wellhead will be encased in an approved water resistant/proof manhole. The manhole will be encased in cement, which is to be domed or sloped to allow drainage away from the manhole, (refer to the attached diagram page 2).

DIVISION OF ENVIRONMENT
Bureau of Water
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE 420, TOPEKA, KS 66612-1367
Voice 785-296-5500 Fax 785-296-0086 http://www.kdhe.state.ks.us
Printed on Recycled Paper

June 14, 2005
Page two

3. The casing of the monitoring well will be sealed with an approved water- tight lock able monitoring well caps (refer to the attached diagram).

4. A copy of this KDHE letter, approving your request for waiver of **K.A.R. 28-30-6(e)**, will be sent to KDHE attached to the water well record (WWC-5 Form) of the first well drilled under the granted waiver.

5. Upon completion of the project the wells covered by the waiver shall be plugged in accordance with **K.A.R. 28-30-7 (d).**

The decision to grant this waiver is based almost entirely on the data provided in your request. This waiver is to cover only the **14** wells. This waiver will become null and void if any of the information submitted in the request is found to be false or if the wells are not constructed in strict conformity to Kansas rules and regulations and the above mentioned, stipulations. Please contact Don Taylor, (785) 296-5522, if you have any questions or concerns pertaining to this matter.

Sincerely,

Don Taylor
Environmental Technician
Bureau of Water
Geology Section

DT: jf

cc: Cochran/Harper III
North Central District Office

c:/taylor/Slurry Explosive Corporation

Appendix C:

Coordinates Survey Data

TABLE C.1 Coordinates survey data for the 2005 investigation at Agra, Kansas.

	Horizontal Location[a] (ft)		Elevation[b] (ft AMSL)	
Location	Northing	Easting	Ground	Top of Casing[c]
KMW-01	522702.23	997915.07	1855.15	1857.71
KMW-02	522716.10	998603.61	1853.59	1855.42
KMW-03	523065.04	998534.46	1855.40	1857.03
MW-1	522704.82	997831.23	NS[d]	1856.90
MW-2	522639.56	997891.93	1854.26	1856.88
MW-B	522741.51	997691.33	1852.74	1852.59
MW-C	522534.23	997551.76	1851.89	1851.54
MW-F	522542.72	997920.05	1853.60	1856.14
MW-G	522429.92	998145.61	1854.79	1854.56
MW-H	522837.38	997729.04	1855.56	1855.22
MW-I	522730.33	998192.65	1855.38	1855.26
MW-J	522914.29	998339.17	1854.44	1854.29
MW-K	522915.14	997919.96	1855.18	1854.86
MW-L	522250.99	998157.22	1853.17	1852.93
MW-M	522241.80	998726.89	1851.82	1851.52
MW-O	522815.92	997906.06	1855.15	1855.10
MW-P	522969.87	998271.33	1854.50	1857.11
MW-Q	522970.92	998034.34	1854.80	1857.78
MW-R	523132.94	998105.42	1856.51	1859.43
SB15	521178.14	999074.29	1840.87	1843.08
SB23	520269.44	999489.22	1830.77	1830.32
SB23S	520270.39	999486.97	1830.84	1830.46
SB28	520640.19	998516.15	1840.01	1839.40
SB28S	520645.53	998515.66	1839.91	1839.38
SB36	520770.63	999115.00	1838.54	1837.93
SB38D	520931.83	999229.18	1838.65	1838.19
SB38S	520927.03	999227.15	1838.75	1838.28
SB40	522549.41	997914.99	1853.72	NA[e]
SB41	522236.41	998729.99	1851.54	NA
SB42	520775.85	999264.10	1837.71	NA
SB43	523071.37	998225.25	1855.90	NA
SB44	523070.47	998403.32	1855.07	NA
SB45	523029.67	998175.78	1855.93	NA
SB46	523027.90	998259.78	1855.42	NA
SB47	522974.08	998083.52	1854.88	NA
SB48	522974.45	998163.07	1855.13	NA
SB49	522967.56	998282.62	1854.27	NA
SB50	522968.03	998374.33	1853.43	NA
SB51	522916.90	998319.54	1854.34	NA
SB52	522898.43	998142.94	1854.59	NA
SB53	522855.12	997975.04	1855.92	NA
SB54	522917.67	998442.96	1854.52	NA
SB55	522895.43	998599.81	1853.44	NA
SB56	522817.77	998743.87	1854.52	NA
SB57	522865.42	998840.84	1853.34	NA
SB58	522815.38	998257.41	1855.59	NA
SB59	522794.55	998398.83	1854.66	NA
SB60	522967.35	997891.87	1854.52	NA
SB61	522793.61	998551.30	1854.61	NA
SB62	522779.35	997898.93	1854.60	NA

TABLE C.1 (Cont.)

	Horizontal Location[a] (ft)		Elevation[b] (ft AMSL)	
Location	Northing	Easting	Ground	Top of Casing[c]
SB63	522810.87	997899.00	1855.67	NA
SB64	522779.57	997979.56	1854.94	NA
SB65	522741.34	998187.09	1854.65	NA
SB66	522739.10	998600.20	1853.39	NA
SB67	522690.62	997932.28	1857.79	NA
SB68	523026.53	998329.53	1855.09	NA
SB69	523073.10	998305.50	1855.56	NA
SB70	522905.23	998377.82	1854.38	NA
SB71	522971.15	997989.29	1854.98	NA
SB72	522232.97	999214.35	1846.50	1845.79
SB73	522915.12	997941.54	1855.01	NA
SB74	522970.97	998495.15	1853.66	NA
SB75	522908.98	997828.42	1854.68	NA
SB76	522885.32	998317.89	1854.33	NA
SB77	522884.06	998054.73	1854.55	NA
SB78	522913.85	998054.44	1854.99	NA
SB79[f]	521820.5	999283.6	–	–
SB80[f]	521491.3	999275.3	–	–

[a] Coordinates are in the State Plane, Kansas northern zone. Horizontal datum is North American Datum (NAD) 83.

[b] Vertical datum is North American Vertical Datum (NAVD) 29.

[c] Reference for measurement of water levels.

[d] NS, not surveyed.

[e] NA, not applicable.

[f] Estimated coordinates; location not surveyed.

Appendix D:

Historical Data Summary for Permanent Monitoring Points at Agra

TABLE D.1 Historical data summary for permanent monitoring points at Agra.

Well	Well Owner	Location		Completion Date	WWC-5 Record	Well Diameter (in.)	Well Use[a]	Elevation (ft AMSL)		Depth (ft BGL)	Screen Interval (ft BGL)			Filter Pack Interval (ft BGL)			Depth to (ft BGL)			Sample Date	Concentration (µg/L)					Nitrate as N (mg/L)	Other Compounds (µg/L)
		Northing	Easting					Surface	Reference		Top	Bottom	Total	Top	Bottom	Total	Bedrock	Water Bearing Unit	Water		Carbon Tetrachloride	Chloroform	Methylene Chloride	1,2-Dichloro-ethane	Trichloro-ethene		
KMW01	KDHE	522690.09	1685676.33	10/07/87	Yes	2	M	1853.90	1856.55	65	43	53	10	20	63	43	61	54	55.00	10/17/87	10.9	2.5	< 0.9[b]	< 0.6	< 0.6	NA[c]	Toluene 0.4
																				12/03/87	16.5	2	< 0.9	< 0.6	< 0.6	NA	
																				02/12/88	25.6					NA	
																				06/24/88	29.7					8.37	
																				11/01/93	36.3	0.92 J[d]	< 50	< 25	< 1	12.3	
																				03/23/95	190	5.2	< 12	< 2.5	< 6	7.49	
																				06/02/95	180	< 5					
																				08/27/97	210	< 10	< 10	< 10	< 10	6.63	
																				03/31/98	190	3	< 1	< 1	< 1	6.59	
																				09/01/98	160	3.5	< 1	< 1	< 1	6.16	
																				04/22/99	200	4.2	< 12	< 2.5	< 6	6.73	
																				05/18/05	54.4	2.7	< 0.1	< 0.1		6.73	
KMW02	KDHE	522693.74	1686364.76	09/30/87	Yes	2	M	1852.20	1854.09	99	57	97	40	20	97	77	NE[e]	43	60.00	10/17/87	8.2	< 0.5	< 0.9	< 0.6	< 0.6	NA	
																				12/03/87	7.6	< 0.5	< 0.9	< 0.6	< 0.6	NA	
																				02/12/88	6.7					NA	
																				06/24/88	8.4					17.2	
																				11/01/93	8.05	0.39 J	< 50	< 25	< 1	15.5	
																				03/23/95	9.9	2	< 2.5	< 0.5	< 1.2	NA	
																				06/02/95	8	< 5					
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				03/31/98	4.8	< 1	< 1	< 1	< 1	7.07	
																				09/01/98	2.4	< 1	< 1	< 1	< 1	20.3	
																				04/22/99	1.7	0.64	< 2.5	< 0.5	< 1.2	15.8	
																				05/19/05	0.4 J	0.3 J	< 0.1	< 0.1		20.7	
KMW03	KDHE	523060.56	1686291.43	10/02/87	Yes	2	M	1854.04	1855.71	89	74	89	15	24	89	65	82	46	55.00	10/17/87	< 0.7	< 0.5	< 0.9	< 0.6	< 0.6	NA	
																				12/03/87	< 0.7	< 0.5	< 0.9	< 0.6	< 0.6	NA	
																				02/12/88	< 0.5	< 0.5				NA	
																				06/24/88	< 0.5	< 0.5				4.36	
																				06/02/95	< 5	< 5					
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				03/31/98	< 1	< 1	< 1	< 1	< 1	4.91	
																				09/01/98	1.4	< 1	< 1	< 1	< 1	4.22	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	5.62	
																				05/21/05	< 0.1	< 0.1	< 0.1	< 0.1		6.14	
MW-1	KDHE			05/30/97	Yes	2	M	1854.00	1856.59	53	41	51	10	39	53	14	51	41	44.88	06/03/97	< 5	< 5	7.5 B[f]	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	9.29	
																				03/31/98	3.1	< 1	< 1	< 1	< 1	10.1	
																				09/01/98	2	< 1	< 1	< 1	< 1	9.21	
																				04/22/99	2.5	0.57	< 2.5	< 0.5	< 1.2	10.3	
																				05/19/05	0.5 J	< 0.1	< 0.1	< 0.1		10.1	
MW-2	KDHE			05/31/97	Yes	2	M	1853.86	1856.87	60	40	60	20	38	60	22	59	37	45.55	06/03/97	30	< 5	7.6 B	< 5	< 5	NA	
																				08/27/97	41	< 5	< 5	< 5	< 5	5.85	
																				09/01/98	91	2.9	< 1	< 1	< 1	6.21	
																				04/22/99	110	3.2	< 6.2	< 1.2	< 3	7.18	
																				05/24/05	59	2.4	< 0.1	< 0.1		7.71	
MW-A	KDHE			05/31/97	Yes	2	M	1852.63	1852.42	53.5	38	53	15	36	53.5	17.5	51	37-41	40.39	06/03/97	< 5	< 5	7.7 B	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	5.83	
																				09/02/98	< 1	< 1	< 1	< 1	< 1	6.92	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	6.95	
MW-B	KDHE			06/02/97	Yes	2	M	1851.36	1851.21	54.5	39	54	15	37	54.5	17.5	51	36-40	39.40	06/04/97	< 5	< 5	< 5	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				09/02/98	< 1	< 1	< 1	< 1	< 1	< 0.5	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	4	
																				05/19/05	< 0.1	0.3 J	< 0.1	< 0.1		13.9	
MW-C	KDHE			06/03/97	Yes	2	M	1850.95	1850.79	55	35	55	20	33	55	22	NE	33	39.65	06/04/97	< 5	< 5	< 5	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				09/02/98	< 1	< 1	< 1	< 1	< 1	45.9	
																				04/22/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	54.5	
																				05/22/05	< 0.1	< 0.1	< 0.1	< 0.1		11.3	

TABLE D.1 (Cont.)

Well	Well Owner	Location		Completion Date	WWC-5 Record	Well Diameter (in.)	Well Use[a]	Elevation (ft AMSL)		Depth (ft BGL)	Screen Interval (ft BGL)			Filter Pack Interval (ft BGL)			Depth to (ft BGL)			Sample Date	Concentration (µg/L)					Nitrate as N (mg/L)	Other Compounds (µg/L)
		Northing	Easting					Surface	Reference		Top	Bottom	Total	Top	Bottom	Total	Bedrock	Water Bearing Unit	Water		Carbon Tetrachloride	Chloroform	Methylene Chloride	1,2-Dichloro-ethane	Trichloro-ethene		
MW-F	KDHE			06/02/97	Yes	2	M	1853.39	1855.92	85	65	75	10	63	85	22	NE	42-45	45.02	06/03/97	180	8.9	7.4 B	< 5	< 5	NA	
																				08/27/97	97	94	< 5	< 5	< 5	4.31	
																				09/01/98	82	74	< 1	< 1	< 1	3.86	
																				04/22/99	180	3.2	< 2.5	< 0.5	< 1.2	8.46	
																				05/25/05	445	4.4	< 0.1	< 0.1		21.9	
MW-G	KDHE			06/13/97	Yes	2	M	1854.40	1854.15	100	89	99	10	87	100	13	99	31-42	44.02	06/13/97	< 5	< 5	< 5	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				09/01/98	< 1	< 1	< 1	< 1	< 1	19.1	
																				04/22/99	5.3	0.54	< 2.5	< 0.5	< 1.2	32.6	
																				05/24/05	25	2.3	< 0.1	< 0.1		29.6	
MW-H	KDHE			06/05/97	Yes	2	M	1855.23	1854.93	53	43	53	10	41	53	12	52	37-44	42.75	06/06/97	< 5	< 5	< 5	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				09/01/98	< 1	< 1	< 1	< 1	< 1	4.45	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	4.02	
																				05/25/05	< 0.1	0.7 J	< 0.1	< 0.1		7.28	
MW-I	KDHE			06/04/97	Yes	2	M	1855.06	1854.92	71	36	71	35	34	71	37	71	31-42	43.45	06/04/97	< 5	< 5	< 5	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				03/31/98	< 1	< 1	< 1	< 1	< 1	14.3	
																				09/01/98	< 1	< 1	< 1	< 1	< 1	7.16	
																				04/22/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	11.2	
																				05/19/05	0.2 J	< 0.1	< 0.1	< 0.1		6.47	
MW-J	KDHE			06/13/97	Yes	2	M	1854.21	1853.94	66	56	66	10	54	66	12	65	31-42	41.43	06/16/97	11	< 5	< 5	< 5	< 5	NA	
																				08/27/97	16	< 5	< 5	< 5	< 5	NA	
																				03/31/98	1.7	< 1	< 1	< 1	< 1	40.1	
																				09/01/98	23	< 1	< 1	< 1	< 1	21.2	
																				04/22/99	15	< 0.5	< 2.5	< 0.5	< 1.2	13.5	
																				05/21/05	13	< 0.1	< 0.1	< 0.1		25.3	
MW-K	KDHE			06/12/97	Yes	2	M	1854.86	1854.44	65	55	65	10	53	65	12	65	26-42	40.72	06/12/97	< 5	< 5	< 5	< 5	< 5	NA	
																				08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				03/31/98	1.8	< 1	< 1	< 1	< 1	5.72	
																				09/01/98	1.7	< 1	< 1	< 1	< 1	5.03	
																				04/21/99	1.5	< 0.5	< 2.5	< 0.5	1.4	5.68	
																				05/21/05	< 0.1	< 0.1	< 0.1	< 0.1		5.82	
MW-L	KDHE			06/14/97	Yes	2	M	1852.83	1852.64	80	70	80	10	68	80	12	76	29-38	42.87	06/16/97	< 5	< 5	< 5	< 5	< 5	NA	
																				08/27/97	8.1	< 5	< 5	< 5	< 5	NA	
																				09/01/98	9.5	< 1	< 1	< 1	< 1	36	
																				04/22/99	26	1.1	< 2.5	< 0.5	< 1.2	32.7	
																				05/22/05	64	1.7	< 0.1	< 0.1		37.2	
MW-M	KDHE			06/15/97	Yes	2	M	1851.35	1851.19	75	59	69	10	57	75	18	73	41	45.15	06/16/97	90	< 5	< 5	< 5	< 5	NA	
																				08/27/97	37	9	< 5	< 5	< 5	12.5	
																				09/01/98	38	4.5	< 1	< 1	< 1	11.6	
																				04/22/99	91	2	< 2.5	< 0.5	3	12.3	
																				05/25/05	112	1.9	< 0.1	< 0.1		16.2	
MW-N	KDHE			06/16/97	Yes	2	M	1850.44	1850.12	90	80	90	10	78	90	12	88	31	39.16	08/27/97	< 5	< 5	< 5	< 5	< 5	NA	
																				09/02/98	< 1	< 1	< 1	< 1	< 1	37.5	
																				04/22/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	35.8	
																				07/12/05	< 0.1	< 0.1	< 0.1	< 0.1		NA	
MW-O	KDHE			08/29/97	Yes	2	M	UNK[g]	1855.14	58	38	58	20	38	58	20	56	41	42.37	08/29/97	31	< 5	< 5	< 5	< 5	NA	
																				03/31/98	79	3.4	< 1	< 1	< 1	6.98	
																				09/01/98	14	< 1	< 1	< 1	< 1	5.95	
																				04/22/99	21	1.2	< 2.5	< 0.5	< 1.2	6.37	
																				05/22/05	0.9 J	< 0.1	< 0.1	< 0.1		7.67	
MW-P	KDHE			02/25/98	Yes	2	M	1853.69	1856.72	59	35.42	54.92	19.5	31	59	28	NE	NE	42.90	02/26/98	52	0.62	< 1	< 1	< 1	5.74	Naphthalene 1.4
																				03/31/98	280	3.9	1.8	< 1	< 1	16.4	
																				09/01/98	180	4	< 1	< 1	< 1	18.7	
																				04/22/99	95	2.5	< 12	< 2.5	< 6	11.3	
																				06/13/05	423	3.5	< 0.1	< 0.1		13.9	
MW-Q	KDHE			02/25/98	Yes	2	M	1854.50	1857.48	69	43.28	62.78	19.5	38	69	31	NE	47	43.03	02/26/98	< 1	< 1	< 1			5.24	
																				03/31/98	1.2	< 1	2.4 B	< 1	< 1	4.8	
																				09/01/98	3	< 1	< 1	1.8	< 1	3.16	
																				04/21/99	< 1.2	< 0.5	< 2.5	0.67	< 1.2	4.62	
																				05/21/05	0.5 J	< 0.1	< 0.1	< 0.1		4.36	

TABLE D.1 (Cont.)

Well	Well Owner	Location		Completion Date	WWC-5 Record	Well Diameter (in.)	Well Use[a]	Elevation (ft AMSL)		Depth (ft BGL)	Screen Interval (ft BGL)			Filter Pack Interval (ft BGL)			Depth to (ft BGL)			Sample Date	Concentration (µg/L)					Nitrate as N (mg/L)	Other Compounds (µg/L)
		Northing	Easting					Surface	Reference		Top	Bottom	Total	Top	Bottom	Total	Bedrock	Water Bearing Unit	Water		Carbon Tetrachloride	Chloroform	Methylene Chloride	1,2-Dichloro-ethane	Trichloro-ethene		
MW-R	KDHE			02/25/98	Yes	2	M	1856.10	1859.11	66	44.45	63.95	19.5	38	66	28	NE	63	43.34	02/26/98	< 1	< 1	< 1	< 1	< 1	4.87	Xylene 0.76; 1,2,4-trimethylbenzene 0.47
																				03/31/98	< 1	< 1	2.4 B	< 1	< 1	5.98	
																				09/01/98	< 1	< 1	< 1	< 1	< 1	1.81	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	5.24	
																				05/20/05	< 0.1	< 0.1	< 0.1	< 0.1		5.53	
SB15	USDA/CCC	521161.72	1686835.81	06/07/95	Yes	2	M	1839.66	1841.92	109	98.5	108.5	10	94	108.8	14.8		UNK		06/14/95	72	< 5					
																				08/27/97	88	< 5	< 5	< 5	< 5	NA	
																				09/01/98	68	2	< 1	< 1	< 1	8.76	
																				04/22/99	67	1.5	< 2.5	< 0.5	< 1.2	9.21	
																				06/02/05	23	1.4	< 0.1	< 0.1		5.60	
SB16	USDA/CCC	521173.73	1686826.01	06/07/95	Yes	1	P	1839.81	1839.32	56	51	56	5	49	56	7	NE	UNK		Not Sampled							
SB23	USDA/CCC	520255.14	1687250.14	10/22/95	Yes	1	P	1831.69	1863.34	106	100	106	6	99	106	7	NE	UNK	34.66	11/05/95	< 5	< 5					
																				08/27/97	< 5	< 5	< 5			3.56	
																				05/05/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	< 0.5	
																				05/20/05	0.7 J	< 0.1	< 0.1	< 0.1		3.85	
SB23S	USDA/CCC	520256.24	1687247.45	11/05/95	Yes	1	P	1831.5	1831.25	55	49	55	6	48	55	7	NE	UNK	35.54	11/06/95	< 5	< 5					
																				05/20/05	1.5	< 0.1	< 0.1	< 0.1		7.00	
SB28	USDA/CCC	520626.18	1686276.83	10/21/95	Yes	1	P	1838.92	1838.35	106	100	106	6	99	106	7	105		39.25	11/06/95	< 5	< 5					
																				08/27/97	< 5	< 5	< 5			NA	
																				09/01/98	< 1	< 1	< 1	< 1	< 1	5.3	
																				05/05/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	15.7	
																				05/24/05	< 0.1	< 0.1	< 0.1	< 0.1		11.4	
SB28S	USDA/CCC	520631.42	1686276.11	11/06/95	Yes	1	P	1838.94	1838.33	65	59	65	6	58	65	7	NE	UNK	38.84	11/06/95	< 5	< 5					
																				05/23/05	< 0.1	< 0.1	< 0.1	< 0.1		NA	
SB36	USDA/CCC	520756.54	1686875.8	06/19/96	Yes	4	M	1837.48	1836.87	62.7	42.7	62.7	20	40	64.7	24.7		UNK		07/15/96	< 5	< 5	< 5	< 5	< 5	5.8	
																				07/16/96						12.1	
																				07/16/96						10.7	
																				06/02/05	5.1	0.4 J	< 0.1	< 0.1		17.5	
SB37	USDA/CCC	520832.33	1686934.85	06/20/96	Yes	1	P	1837.71	1837.35	63	57	63	6	56	63	7	62	UNK		Not Sampled							
SB38	USDA/CCC	520912.96	1686987.81	06/21/96	Yes	1	P	1837.55	1837.09	101	95	101	6	94	101	7	100	UNK		Not Sampled							
																				06/03/05	57	1.0	< 0.1	< 0.1		10.7	
SB38S	USDA/CCC	520917.71	1686989.77	06/20/96	Yes	1	P	1837.54	1836.99	63	57	63	6	56	63	7	62	UNK		Not Sampled							
																				06/03/05	37	0.7 J	< 0.1	< 0.1		NA	
SB72	USDA/CCC			07/12/05	Yes	1	P	1846.50	1845.79	69	59	69	10	57	69	12				07/12/05	0.7 J	0.2 J	< 0.1	< 0.1		4.62	
DW07	McCormick	522421.65	1687171.87			12	None	1842.86	1844.08									UNK		06/24/88	< 0.5					3.41	Dichloromethane 1.3
																				06/03/95	< 5	< 5					
																				06/04/95	7	< 5					
	(abandoned)																										
DW07A	McCormick			09/16/02	Yes	5	Lawn			70	50	70	20	30	70	40				06/02/05	< 0.1	< 0.1	< 0.1	< 0.1		8.24	
DW08	Wallace	522360.68	1686531.73					1851.77	1852.26									UNK		08/26/97	14	< 5	< 5	< 5	< 5	NA	
DW09	Diericks	522082.72	1686431.07			12	None	1851.69	1852.04									UNK	47.15	06/24/88	92.1					12.2	
																				03/23/95	22	< 0.5	< 2.5	< 0.5	< 1.2	NA	
																				06/03/95	15	< 5					
																				08/26/97	6.9	< 5	< 5	< 5	< 5	9.55	
																				09/02/98	6.9	< 1	< 1	< 1	< 1	9.88	
																				05/04/99	6.7	0.91	< 2.5	< 0.5	< 1.2	9.88	
DW10	Townsend	522355.72	1686048.17			6	None	1854.85	1854.93									UNK	46.71	06/24/88	7.9						
																				03/22/95						11.1	
																				06/05/95	< 5	< 5					
	(Coffin)																			08/26/97	< 5	< 5	< 5	< 5	< 5	14.5	
DW12	Smith	520728.13	1686171.91					1840.58	1841.77									UNK		06/24/88	4						
																				06/03/95	< 5	< 5					
																				08/26/97	< 5	< 5	< 5	< 5	< 5	11.9	

TABLE D.1 (Cont.)

Well	Well Owner	Location		Completion Date	WWC-5 Record	Well Diameter (in.)	Well Use[a]	Elevation (ft AMSL)		Depth (ft BGL)	Screen Interval (ft BGL)			Filter Pack Interval (ft BGL)			Depth to (ft BGL)			Sample Date	Concentration (µg/L)					Nitrate as N (mg/L)	Other Compounds (µg/L)
		Northing	Easting					Surface	Reference		Top	Bottom	Total	Top	Bottom	Total	Bedrock	Water Bearing Unit	Water		Carbon Tetrachloride	Chloroform	Methylene Chloride	1,2-Dichloro-ethane	Trichloro-ethene		
DW17	B. Wallace	522395.73	1686787.23	05/19/05		6	Lawn	1847.79	1848.73	72								UNK		09/18/86	0.6	1.1	< 0.9	< 0.6	< 0.6	NA	
																				02/12/88	0.6						
																				06/24/88	1.2					9.18	
																				03/23/95	12	< 0.5	< 2.5	< 0.5	< 1.2		
																				06/04/95	< 5	< 5					
	(Klein-schmidt)																			08/26/97	< 5	< 5	< 5	< 5	< 5	NA	
																				09/02/98	12	< 1	< 1	< 1	< 1	7.44	
																				05/05/99	11	0.68	< 2.5	< 0.5	< 1.2	7.81	
DW18	L. Atchison	522010.45	1685978.72					1850.83	1850.85									UNK	43.42	06/24/88	19.7					14.7	Dichloromethane 7.8
																				03/23/95	18	5.2	< 2.5	< 0.5	< 1.2	23.5	
																				06/04/95	< 5	< 5					
																				08/26/97	16	5.3	< 5	< 5	< 5	NA	
DW19		520093.57	1688965					1826.31	1826.48	53.3								UNK		06/06/95	< 5	< 5					
DW20	Johnson	520944.14	1686471.86					1840.67	1841.97	73								UNK		06/07/95	15	< 5					
																				08/26/97	< 5	< 5	< 5	< 5	< 5	NA	
DW21		521272.1	1685589.79					1843.29	1843.33									UNK	39.23	06/08/95	< 5	< 5					
DW98	J. Atchison					6	Stock		1845.17									UNK	42.72	06/24/88	< 5						
																				09/02/98	< 1	< 1	< 1	< 1	< 1	26.2	
																				06/03/05	0.3 J	0.2 J	< 0.1	< 0.1		28.2	
DW99	Molzhan								1859.33									UNK	38.00	08/26/97	< 5	< 5	< 5	< 5	< 5	< 0.1	
																				09/02/98	< 1	< 1	< 1	< 1	< 1	< 0.5	
PSW#1	City of Agra	522534.2	1684831.62	10/18/39		8	PWS	1848.33	1850.13	91	82	91	9				91	55	55.00	09/04/85	ND[h]	ND					
																				09/19/85	ND	ND					
																				02/12/88	ND	ND					
																				06/24/88	ND	ND					
																				06/06/95	< 5	< 5					
																				08/26/97	< 5	< 5	< 5	< 5	< 5	NA	
																				09/02/98	< 1	< 1	< 1	< 1	< 1	4.25	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	3.86	
																				06/09/05	0.6 J	3.5	< 0.1	< 0.1		10.6	
PSW#2	City of Agra	522495.81	1685091.46	10/28/39		8	PWS	1850.07	1851.79	82	73	82	9					55	55.00	09/04/85	ND	ND					
																				09/19/85	ND	ND					
																				02/12/88	ND	1.8					
																				06/24/88	ND	ND					
																				06/06/95	< 5	< 5					
																				08/26/97	< 5	< 5	< 5	< 5	< 5	8.76	
																				09/02/98	< 1	< 1	< 1	< 1	< 1	7.99	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	8.33	
																				06/09/05	< 0.1	3.4	< 0.1	< 0.1		9.63	
PSW#3	City of Agra	520998.72	1687062.08	04/30/54		12	EM	1839.28	1840.53	125										09/04/85	3	< 0.5	< 0.9	< 0.6	< 0.6	NA	
																				09/19/85	0.7					NA	
																				02/11/86	< 1	NA	NA	NA	NA	NA	
																				03/19/86	1.3					NA	
																				08/05/86	12	NA	NA	NA	NA	NA	
																				02/12/88	3					NA	
																				06/24/88	3.3					4.62	
																				11/01/93	10.8	< 1	< 50	< 25	< 1	6.11	
																				06/06/95	22	< 5					
																				08/26/97	14	< 5	< 5	< 5	< 5	7.52	
																				09/02/98	1.9	< 1	< 1	< 1	< 1	2.29	
																				04/21/99	8.8	< 0.5	< 2.5	< 0.5	< 1.2	2.89	
																				06/03/05	< 0.1	< 0.1	< 0.1	< 0.1		3.03	
PSW#4	Agra Public School	520931.94	1686875.63	08/21/82	Yes	12	IRR	1840.77	1841.88	127	88	127	39				127			09/04/85	1.2	< 0.5	< 0.9	< 0.6	< 0.6	NA	Trihalomethanes 14.0
																				09/19/85	1.4	1.5	< 0.9	< 0.6	< 0.6	NA	Trihalomethanes 18.2
																				02/11/86	18	NA	NA	NA	NA	NA	
																				05/13/86	3.5					NA	
																				07/02/86	1.6					NA	
																				08/05/86	3.4	NA	NA	NA	NA	NA	
																				02/12/88	3.3					NA	
																				06/24/88	5.8					6.25	

TABLE D.1 (Cont.)

Well	Well Owner	Location		Completion Date	WWC-5 Record	Well Diameter (in.)	Well Use[a]	Elevation (ft AMSL)		Depth (ft BGL)	Screen Interval (ft BGL)			Filter Pack Interval (ft BGL)			Depth to (ft BGL)			Sample Date	Concentration (µg/L)					Nitrate as N (mg/L)	Other Compounds (µg/L)
		Northing	Easting					Surface	Reference		Top	Bottom	Total	Top	Bottom	Total	Bedrock	Water Bearing Unit	Water		Carbon Tetrachloride	Chloroform	Methylene Chloride	1,2-Dichloro-ethane	Trichloro-ethene		
																				11/01/93	17.6	0.42 J	< 50	< 25	< 1	9.23	
																				06/06/95	48						
																				08/26/97	8.1	< 5	< 5	< 5	< 5	NA	
																				09/02/98	22	< 1	< 1	< 1	< 1	7.34	
PSW#5	City of Agra	520418.25	1690945.49	11/16/88	Yes	10	PWS	1827.76	1829.34	108	78	108	30	20	108	88	108		43.50	11/01/93	< 0.2	< 1	< 50	< 25	< 1	0.94	
																				06/04/95	< 5	< 5					
																				09/02/98	< 1	< 1	< 1	< 1	< 1	1.71	
																				04/21/99	< 1.2	< 0.5	< 2.5	< 0.5	< 1.2	2.07	

[a] Well use: EM, emergency; IRR, irrigation; M, monitoring well; P, piezometer; PWS, public water supply; Stock, livestock.

[b] Not detected at the indicated quantitation limit.

[c] NA, not analyzed.

[d] Qualifier J indicates an estimated value below the method quantitation limit.

[e] NE, not encountered.

[f] Qualifier B indicates that the analyte was present in the associated laboratory blank.

[g] UNK, unknown.

[h] ND, not detected at a quantitation limit not specified in the original report.

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A U.S. Department of Energy laboratory
managed by The University of Chicago

Supplement 1:

Soil Sample Data

TABLE S1.1 Analytical results for soil samples collected with the cone penetrometer during the 2005 investigation of contaminant sources at Agra, Kansas.

				Concentration (µg/kg)		
Location	Sample	Sample Date	Depth (ft BGL)	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB43	AGSB43-S-17537	7/11/05	4.0	ND[a]	ND	ND
SB43	AGSB43-S-17740	7/11/05	8.0	ND	ND	ND
SB43	AGSB43-S-17741	7/11/05	11.0	1.5 J[b]	ND	ND
SB43	AGSB43-S-17742	7/11/05	12.0	2.6 J	1.3 J	ND
SB43	AGSB43-S-17743	7/11/05	16.0	2.6 J	ND	ND
SB43	AGSB43-S-17744	7/11/05	20.0	1.5 J	0.8 J	ND
SB43	AGSB43-S-17745	7/11/05	24.0	2.6 J	1.3 J	ND
SB43	AGSB43-S-17747	7/11/05	28.0	ND	ND	ND
SB43	AGSB43-S-17998	7/11/05	32.0	ND	ND	ND
SB43	AGSB43-S-17999	7/11/05	36.0	5.9 J	ND	ND
SB43	AGSB43-S-18000	7/11/05	40.0	11	ND	ND
SB43	AGSB43-S-18001	7/11/05	44.0	10	1.3 J	ND
SB43	AGSB43-S-18002	7/11/05	48.0	ND	ND	ND
SB45	AGSB45-S-17520	7/11/05	2.0	ND	ND	ND
SB45	AGSB45-S-17521	7/11/05	4.0	ND	ND	ND
SB45	AGSB45-S-17522	7/11/05	8.0	ND	ND	ND
SB45	AGSB45-S-17523	7/11/05	12.0	ND	ND	ND
SB45	AGSB45-S-17525	7/11/05	16.0	ND	ND	ND
SB45	AGSB45-S-17526	7/11/05	18.0	ND	ND	ND
SB45	AGSB45-S-17527	7/11/05	20.0	ND	ND	ND
SB45	AGSB45-S-17528	7/11/05	24.0	ND	ND	ND
SB45	AGSB45-S-17529	7/11/05	28.0	ND	ND	ND
SB45	AGSB45-S-17530	7/11/05	29.2	ND	ND	ND
SB45	AGSB45-S-17531	7/11/05	32.0	ND	ND	ND
SB45	AGSB45-S-17532	7/11/05	34.0	ND	ND	ND
SB45	AGSB45-S-17533	7/11/05	36.0	ND	ND	ND
SB45	AGSB45-S-17534	7/11/05	40.0	ND	ND	ND
SB45	AGSB45-S-17535	7/11/05	44.0	ND	ND	ND
SB45	AGSB45-S-17536	7/11/05	48.0	ND	ND	ND
SB46	AGSB46-S-17466	7/10/05	4.0	ND	ND	ND
SB46	AGSB46-S-17467	7/10/05	8.0	29	5.7 J	ND
SB46	AGSB46-S-17508	7/10/05	12.0	27	3.6 J	ND
SB46	AGSB46-S-17509	7/10/05	16.0	73	1.2 J	ND
SB46	AGSB46-S-17510	7/10/05	20.0	85	11	ND
SB46	AGSB46-S-17511	7/10/05	24.0	79	13	ND
SB46	AGSB46-S-17512	7/10/05	28.0	213	17	ND
SB46	AGSB46-S-17513	7/10/05	32.0	742	10	ND
SB46	AGSB46-S-17514	7/10/05	36.0	127	10	ND
SB46	AGSB46-S-17515	7/10/05	40.0	705	8.3 J	ND
SB46	AGSB46-S-17517	7/10/05	44.0	2,273	7.7 J	ND
SB46	AGSB46-S-17518	7/10/05	48.0	856	17	ND
SB46	AGSB46-S-17519	7/10/05	52.0	801	2 J	ND
SB48	AGSB48-S-18018	7/12/05	4.0	ND	ND	ND
SB48	AGSB48-S-18019	7/12/05	8.0	ND	ND	ND
SB48	AGSB48-S-18020	7/12/05	12.0	ND	ND	ND
SB48	AGSB48-S-18021	7/12/05	16.0	ND	ND	ND
SB48	AGSB48-S-18022	7/12/05	20.0	ND	ND	ND

TABLE S1.1 (Cont.)

				Concentration (µg/kg)		
Location	Sample	Sample Date	Depth (ft BGL)	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB48	AGSB48-S-18023	7/13/05	24.0	ND	ND	ND
SB48	AGSB48-S-18025	7/13/05	28.0	ND	ND	ND
SB48	AGSB48-S-18026	7/13/05	32.0	ND	ND	ND
SB48	AGSB48-S-18027	7/13/05	36.0	ND	ND	ND
SB48	AGSB48-S-18028	7/13/05	40.0	ND	ND	ND
SB48	AGSB48-S-18029	7/13/05	44.0	ND	ND	ND
SB48	AGSB48-S-18030	7/13/05	48.0	ND	ND	ND
SB49	AGSB49-S-18004	7/12/05	4.0	ND	ND	ND
SB49	AGSB49-S-18005	7/12/05	8.0	ND	0.3 J	ND
SB49	AGSB49-S-18006	7/12/05	12.0	ND	ND	ND
SB49	AGSB49-S-18007	7/12/05	16.0	ND	0.9 J	ND
SB49	AGSB49-S-18009	7/12/05	20.0	ND	ND	ND
SB49	AGSB49-S-18010	7/12/05	24.0	ND	ND	ND
SB49	AGSB49-S-18011	7/12/05	28.0	ND	ND	ND
SB49	AGSB49-S-18012	7/12/05	32.0	ND	ND	ND
SB49	AGSB49-S-18013	7/12/05	34.0	4.1 J	ND	ND
SB49	AGSB49-S-18014	7/12/05	36.0	ND	ND	ND
SB49	AGSB49-S-18015	7/12/05	40.0	ND	ND	ND
SB49	AGSB49-S-18016	7/12/05	44.0	33	ND	ND
SB49	AGSB49-S-18017	7/12/05	48.0	481	8.5 J	ND
SB51	AGSB51-S-17613	5/23/05	4.0	ND	ND	ND
SB51	AGSB51-S-17614	5/23/05	8.0	ND	ND	ND
SB51	AGSB51-S-17620	5/23/05	12.0	ND	ND	ND
SB51	AGSB51-S-17621	5/23/05	16.0	ND	ND	ND
SB51	AGSB51-S-17622	5/23/05	20.0	ND	ND	ND
SB51	AGSB51-S-17623	5/23/05	24.0	ND	ND	ND
SB51	AGSB51-S-17624	5/23/05	28.0	ND	ND	ND
SB51	AGSB51-S-17625	5/23/05	32.0	ND	ND	ND
SB51	AGSB51-S-17626	5/23/05	36.0	ND	ND	ND
SB51	AGSB51-S-17627	5/23/05	40.0	ND	ND	ND
SB51	AGSB51-S-17616	5/23/05	44.0	ND	ND	ND
SB51	AGSB51-S-17617	5/23/05	48.0	ND	ND	ND
SB52	AGSB52-S-17588	5/21/05	4.0	ND	ND	ND
SB52	AGSB52-S-17589	5/21/05	8.0	ND	ND	ND
SB52	AGSB52-S-17590	5/21/05	12.0	ND	ND	ND
SB52	AGSB52-S-17591	5/21/05	16.0	ND	ND	ND
SB52	AGSB52-S-17592	5/21/05	20.0	ND	ND	ND
SB52	AGSB52-S-17593	5/21/05	24.0	ND	ND	ND
SB52	AGSB52-S-17594	5/21/05	28.0	ND	ND	ND
SB52	AGSB52-S-17596	5/21/05	32.0	ND	ND	ND
SB52	AGSB52-S-17597	5/21/05	36.0	ND	ND	ND
SB52	AGSB52-S-04512	5/21/05	40.5	ND	ND	ND
SB52	AGSB52-S-04513	5/21/05	42.6	ND	ND	ND
SB52	AGSB52-S-04514	5/21/05	44.0	ND	ND	ND
SB52	AGSB52-S-04515	5/21/05	46.0	ND	ND	ND
SB53	AGSB53-S-17574	5/20/05	4.0	ND	ND	ND
SB53	AGSB53-S-17575	5/20/05	8.0	ND	ND	ND
SB53	AGSB53-S-17576	5/20/05	12.0	16	2.1 J	ND

TABLE S1.1 (Cont.)

				Concentration (µg/kg)		
Location	Sample	Sample Date	Depth (ft BGL)	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB53	AGSB53-S-17577	5/20/05	16.0	ND	ND	ND
SB53	AGSB53-S-17579	5/20/05	20.0	ND	ND	ND
SB53	AGSB53-S-17580	5/20/05	20.2	ND	ND	ND
SB53	AGSB53-S-17581	5/20/05	24.0	ND	ND	ND
SB53	AGSB53-S-17582	5/20/05	28.0	ND	ND	ND
SB53	AGSB53-S-17583	5/20/05	32.0	ND	ND	ND
SB53	AGSB53-S-17584	5/20/05	36.0	10	3.4 J	ND
SB53	AGSB53-S-17585	5/20/05	40.0	52	5.9 J	5.9 J
SB54	AGSB54-S-17480	6/7/05	4.0	ND	ND	ND
SB54	AGSB54-S-17481	6/7/05	8.0	ND	ND	ND
SB54	AGSB54-S-17482	6/7/05	12.0	ND	ND	ND
SB54	AGSB54-S-17483	6/7/05	16.0	ND	ND	ND
SB54	AGSB54-S-17484	6/7/05	20.0	ND	ND	ND
SB54	AGSB54-S-17486	6/7/05	24.0	ND	ND	ND
SB54	AGSB54-S-17487	6/7/05	28.0	ND	ND	ND
SB54	AGSB54-S-17488	6/7/05	32.0	ND	ND	ND
SB54	AGSB54-S-17489	6/7/05	36.0	ND	ND	ND
SB54	AGSB54-S-17490	6/7/05	40.0	ND	ND	ND
SB54	AGSB54-S-17491	6/7/05	44.0	ND	ND	ND
SB55	AGSB55-S-17689	6/3/05	4.0	ND	ND	ND
SB55	AGSB55-S-17690	6/3/05	8.0	ND	ND	ND
SB55	AGSB55-S-17691	6/3/05	12.0	ND	ND	ND
SB55	AGSB55-S-17692	6/3/05	16.0	ND	ND	ND
SB55	AGSB55-S-17693	6/3/05	20.0	ND	ND	ND
SB55	AGSB55-S-17694	6/3/05	24.0	ND	ND	ND
SB55	AGSB55-S-17702	6/3/05	25.5	ND	ND	ND
SB55	AGSB55-S-17695	6/3/05	29.0	ND	ND	ND
SB55	AGSB55-S-17696	6/3/05	33.0	ND	ND	ND
SB55	AGSB55-S-17698	6/3/05	37.0	ND	ND	ND
SB55	AGSB55-S-17699	6/3/05	41.0	ND	4 J	ND
SB55	AGSB55-S-17700	6/3/05	45.0	ND	ND	ND
SB56	AGSB56-S-17659	5/26/05	4.0	ND	ND	ND
SB56	AGSB56-S-17660	5/26/05	8.0	ND	ND	ND
SB56	AGSB56-S-17661	5/26/05	12.0	ND	ND	ND
SB56	AGSB56-S-17662	5/26/05	16.0	ND	ND	ND
SB56	AGSB56-S-17663	5/26/05	20.0	ND	ND	ND
SB56	AGSB56-S-17664	5/26/05	24.0	ND	ND	ND
SB56	AGSB56-S-17665	5/26/05	28.0	ND	ND	ND
SB56	AGSB56-S-17667	5/26/05	32.0	ND	ND	ND
SB56	AGSB56-S-17678	5/26/05	36.0	ND	ND	ND
SB56	AGSB56-S-17679	5/26/05	40.0	ND	4.1 J	ND
SB56	AGSB56-S-17680	5/26/05	44.0	ND	ND	ND
SB56	AGSB56-S-17681	5/26/05	48.0	ND	ND	ND
SB58	AGSB58-S-17599	5/22/05	4.0	ND	ND	ND
SB58	AGSB58-S-17600	5/22/05	8.0	ND	ND	ND
SB58	AGSB58-S-17601	5/22/05	12.0	ND	ND	ND
SB58	AGSB58-S-17602	5/22/05	16.0	ND	ND	ND
SB58	AGSB58-S-17604	5/22/05	20.0	ND	ND	ND

TABLE S1.1 (Cont.)

				Concentration (µg/kg)		
Location	Sample	Sample Date	Depth (ft BGL)	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB58	AGSB58-S-17605	5/22/05	24.0	ND	ND	ND
SB58	AGSB58-S-17606	5/22/05	28.0	2.1 J	ND	ND
SB58	AGSB58-S-17607	5/22/05	32.0	ND	ND	ND
SB58	AGSB58-S-17608	5/22/05	36.0	ND	ND	ND
SB58	AGSB58-S-17609	5/22/05	40.0	ND	ND	ND
SB58	AGSB58-S-17610	5/22/05	44.0	ND	ND	ND
SB58	AGSB58-S-17611	5/22/05	48.0	ND	ND	ND
SB59	AGSB59-S-17714	6/6/05	4.0	ND	ND	ND
SB59	AGSB59-S-17715	6/6/05	8.0	ND	ND	ND
SB59	AGSB59-S-17716	6/6/05	12.0	2.4 J	1.4 J	ND
SB59	AGSB59-S-17717	6/6/05	16.0	2.4 J	ND	ND
SB59	AGSB59-S-17469	6/6/05	20.0	ND	ND	ND
SB59	AGSB59-S-17470	6/6/05	24.0	5.4 J	1.9 J	ND
SB59	AGSB59-S-17471	6/6/05	28.0	5.5 J	2 J	ND
SB59	AGSB59-S-17472	6/6/05	32.0	11	2.8 J	ND
SB59	AGSB59-S-17473	6/6/05	36.0	236	5.5 J	ND
SB59	AGSB59-S-17474	6/6/05	40.0	62	6 J	ND
SB59	AGSB59-S-17475	6/6/05	44.0	562	6.4 J	ND
SB59	AGSB59-S-17476	6/6/05	48.0	728	5 J	ND
SB59	AGSB59-S-17477	6/6/05	52.0	138	3.4 J	ND
SB61	AGSB61-S-17669	6/4/05	4.0	ND	ND	ND
SB61	AGSB61-S-17670	6/4/05	8.0	ND	ND	ND
SB61	AGSB61-S-17671	6/4/05	12.0	ND	ND	ND
SB61	AGSB61-S-17672	6/4/05	16.0	ND	ND	ND
SB61	AGSB61-S-17673	6/4/05	20.0	ND	ND	ND
SB61	AGSB61-S-17674	6/4/05	24.0	ND	ND	ND
SB61	AGSB61-S-17675	6/4/05	28.0	ND	ND	ND
SB61	AGSB61-S-17676	6/4/05	32.0	ND	ND	ND
SB61	AGSB61-S-17677	6/4/05	36.0	ND	ND	ND
SB61	AGSB61-S-17703	6/4/05	40.0	ND	ND	ND
SB62	AGSB62-S-17633	5/24/05	4.0	ND	ND	ND
SB62	AGSB62-S-17634	5/24/05	8.0	ND	ND	ND
SB62	AGSB62-S-17635	5/24/05	12.0	ND	ND	ND
SB62	AGSB62-S-17636	5/24/05	16.0	ND	ND	ND
SB62	AGSB62-S-17637	5/24/05	20.0	ND	ND	ND
SB62	AGSB62-S-17638	5/24/05	24.0	ND	ND	ND
SB62	AGSB62-S-17639	5/24/05	28.0	ND	ND	ND
SB62	AGSB62-S-17640	5/24/05	32.0	ND	ND	ND
SB62	AGSB62-S-17641	5/24/05	36.0	ND	ND	ND
SB62	AGSB62-S-17642	5/24/05	40.0	6.2 J	1.1 J	ND
SB62	AGSB62-S-17643	5/24/05	44.0	1.9 J	ND	ND
SB62	AGSB62-S-17644	5/24/05	48.0	3.4 J	ND	ND
SB63	AGSB63-S-17544	5/18/05	2.0	ND	ND	ND
SB63	AGSB63-S-17547	5/19/05	4.0	2.7 J	1.5 J	ND
SB63	AGSB63-S-17545	5/19/05	5.0	ND	ND	ND
SB63	AGSB63-S-17546	5/19/05	6.0	ND	ND	ND
SB63	AGSB63-S-17558	5/19/05	8.0	ND	ND	ND
SB63	AGSB63-S-17559	5/19/05	10.0	ND	ND	ND

TABLE S1.1 (Cont.)

				Concentration (µg/kg)		
Location	Sample	Sample Date	Depth (ft BGL)	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB63	AGSB63-S-17560	5/19/05	12.0	ND	ND	ND
SB63	AGSB63-S-17561	5/19/05	14.0	ND	ND	ND
SB63	AGSB63-S-17562	5/19/05	16.0	ND	ND	ND
SB63	AGSB63-S-17563	5/19/05	18.0	ND	ND	ND
SB63	AGSB63-S-17564	5/19/05	20.0	ND	ND	ND
SB63	AGSB63-S-17565	5/19/05	24.0	ND	ND	ND
SB63	AGSB63-S-17566	5/19/05	28.0	ND	ND	ND
SB63	AGSB63-S-17567	5/19/05	32.0	ND	ND	ND
SB63	AGSB63-S-17568	5/19/05	36.0	ND	ND	ND
SB63	AGSB63-S-17569	5/19/05	40.0	ND	ND	ND
SB63	AGSB63-S-17570	5/19/05	44.0	ND	ND	ND
SB64	AGSB64-S-17499	6/12/05	4.0	3.1 J	ND	ND
SB64	AGSB64-S-17500	6/12/05	8.0	ND	ND	ND
SB64	AGSB64-S-17501	6/12/05	12.0	1.9 J	ND	ND
SB64	AGSB64-S-17502	6/12/05	16.0	ND	ND	ND
SB64	AGSB64-S-17503	6/12/05	20.0	ND	ND	ND
SB64	AGSB64-S-17504	6/12/05	24.0	ND	ND	ND
SB64	AGSB64-S-17505	6/12/05	28.0	3.4 J	ND	ND
SB64	AGSB64-S-17506	6/12/05	32.0	19	1.8 J	ND
SB64	AGSB64-S-17750	6/13/05	36.0	14	ND	ND
SB64	AGSB64-S-17751	6/13/05	40.0	140	3 J	ND
SB64	AGSB64-S-17752	6/13/05	44.0	375	9.2 J	ND
SB64	AGSB64-S-17808	6/13/05	48.0	1,604	4.2 J	
SB67	AGSB67-S-18044	7/14/05	4.0	ND	ND	ND
SB67	AGSB67-S-18045	7/14/05	8.0	ND	ND	ND
SB67	AGSB67-S-18046	7/14/05	12.0	ND	ND	ND
SB67	AGSB67-S-18048	7/14/05	16.0	ND	ND	ND
SB67	AGSB67-S-18049	7/14/05	20.0	ND	ND	ND
SB67	AGSB67-S-18050	7/14/05	24.0	ND	ND	ND
SB67	AGSB67-S-18051	7/14/05	28.0	ND	ND	ND
SB67	AGSB67-S-18052	7/14/05	32.0	ND	ND	ND
SB67	AGSB67-S-18053	7/14/05	36.0	ND	ND	ND
SB67	AGSB67-S-18054	7/14/05	40.0	ND	ND	ND
SB67	AGSB67-S-18055	7/14/05	44.0	8.2 J	ND	ND
SB67	AGSB67-S-18056	7/14/05	48.0	47	ND	ND
SB68	AGSB68-S-18031	7/13/05	4.0	ND	ND	ND
SB68	AGSB68-S-18032	7/13/05	8.0	ND	ND	ND
SB68	AGSB68-S-18034	7/13/05	12.0	ND	1.8 J	ND
SB68	AGSB68-S-18035	7/13/05	16.0	ND	1.6 J	ND
SB68	AGSB68-S-18036	7/13/05	20.0	ND	ND	ND
SB68	AGSB68-S-18037	7/13/05	24.0	4.4 J	2.7 J	ND
SB68	AGSB68-S-18038	7/13/05	28.0	1.5 J	ND	ND
SB68	AGSB68-S-18039	7/13/05	32.0	3.4 J	2.3 J	ND
SB68	AGSB68-S-18040	7/13/05	36.0	7.2 J	1.7 J	ND
SB68	AGSB68-S-18041	7/13/05	40.0	6.3 J	1.4 J	ND
SB68	AGSB68-S-18042	7/13/05	44.0	5 J	ND	ND
SB68	AGSB68-S-18043	7/13/05	48.0	ND	ND	ND

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg)		
				Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB73	AGSB73-S-17809	6/13/05	4.0	ND	ND	ND
SB73	AGSB73-S-17810	6/13/05	8.0	ND	ND	ND
SB73	AGSB73-S-17811	6/13/05	12.0	ND	ND	ND
SB73	AGSB73-S-17812	6/13/05	16.0	ND	ND	ND
SB73	AGSB73-S-17814	6/13/05	20.0	ND	ND	ND
SB73	AGSB73-S-17815	6/13/05	24.0	ND	ND	ND
SB73	AGSB73-S-17816	6/13/05	28.0	ND	ND	ND
SB73	AGSB73-S-17817	6/13/05	32.0	ND	ND	ND
SB73	AGSB73-S-17818	6/13/05	36.0	ND	ND	ND
SB73	AGSB73-S-17819	6/13/05	40.0	ND	ND	ND
SB73	AGSB73-S-17820	6/13/05	44.0	ND	ND	ND
SB73	AGSB73-S-17821	6/13/05	48.0	ND	ND	ND

[a] ND, contaminant not detected.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 10 µg/kg.

TABLE S1.2 Results of particle size analyses on surface soil samples collected during the 2005 investigation of contaminant sources at Agra, Kansas.

		Particle Passing through Sieve Size (%)												Composition (%)			
Location	Depth (ft BGL)	#4	#10	#18	#35	#40	#60	#100	#120	#140	#200	#230	#270	Gravel	Sand	Silt	Clay
SB46	30–32	100	100	99.9	99.7	99.3	97.6	94.5	93.3	90.1	84.9	84	83.7	0	15.1	37.9	47
SB46	34–36	100	100	99.8	99.6	99.2	97.4	95.3	94.6	92.7	90.4	89.9	89.8	0	9.6	59.3	31.1
SB46	40–42	100	100	99.9	99.7	99.2	93.7	83.9	82	79.9	77	76.6	76.6	0	23	42.8	34.2
SB46	43–75	100	100	99.6	99.5	99.4	98.6	96.4	95.8	94.5	93.1	93	93	0	6.9	44.1	49
SB46	46–48	100	100	99.9	99.8	99.8	98.7	96.8	96.2	94.9	92.3	91.9	91.8	0	7.7	55.2	37.1
SB54	10–11	100	100	99.9	99.7	99.7	99.5	99.4	99.3	99.2	98.8	96.6	93.4	0	1.2	67.3	31.5
SB54	23–24	100	100	100	99.7	99.6	97.5	94.7	93.4	91.7	84.3	76.6	67.2	0	15.7	66.4	17.9
SB54	26.7–27.1	100	100	99.4	95.8	91.8	67.2	46.1	42.4	39.2	30.4	26.2	22.4	0	69.6	21.5	8.9
SB54	30–31.3	100	100	99.8	98.1	96.6	90.2	84.3	82.6	80.4	70.9	63.5	54.8	0	29.1	52.9	18
SB54	37–37.5	100	100	100	99.9	99.9	99.8	99.6	99.4	99.3	98.6	97.2	94.1	0	1.4	56.9	41.7
SB58	32.5	100	100	99.9	99.7	99.6	98.8	97.6	97.1	96.2	91.3	86.7	80.7	0	8.7	61.7	29.6
SB58	41–42	100	100	100	100	100	99.9	99.7	99.4	99.1	97.6	95.7	92.4	0	2.4	50.3	47.3
SB58	49	100	100	100	100	100	99.6	94.2	91.5	87.9	73.8	63.9	54	0	26.2	55.1	18.7
SB59	27–27.5	100	100	99.6	98.2	96.5	79.1	60	54.7	49.6	36.9	31.1	26.2	0	63.1	26.9	10
SB59	33–33.5	100	100	99.9	99.1	98.3	91.8	81.5	77.7	73.9	64.5	59.6	54.4	0	35.5	40.2	24.3
SB59	47–47.5	100	100	99.9	99.1	98.3	89.6	75.9	72.5	69.8	63	58.6	53.6	0	37	40.1	22.9
SB59	48.5–49	100	100	100	99.7	99.2	89.8	76.6	74.4	72.8	66.9	62.7	57.9	0	33.1	39.4	27.5
SB59	50.7–51	100	100	100	100	100	99.7	97.2	96	94	84.1	75.2	65.3	0	15.9	60.4	23.7
SB64	20–20.6	100	100	99.2	98.4	97.6	94.5	91	90	88	83.3	82.3	81.8	0	16.7	59.3	24
SB64	24.5–24.9	100	100	99.5	97.9	93.4	51.9	27	24.9	23	20.3	20.1	20.1	0	79.7	13	7.3
SB64	25–26	100	100	99.7	96.6	93.2	84.1	78.4	75.2	69.1	57.9	56.1	54.2	0	42.1	39.8	18.1
SB64	32–32.5	100	100	100	99.8	99.5	98.4	97	96.5	95.7	93.2	92.7	92.6	0	6.8	58.8	34.4
SB64	36–36.5	100	100	99.8	99.7	99.5	98.7	97.6	97.2	96.4	93.7	93	92.8	0	6.3	65.1	28.6
SB64	44–44.5	100	100	100	99.8	99.7	99.2	98.8	98.6	98.3	97.4	97.3	97.2	0	2.6	50.9	46.5
SB64	48	100	100	99.8	99.4	99	97.6	96.1	95.6	94.7	92.5	92.3	92.1	0	7.5	62.8	29.7

TABLE S1.3 Percent moisture and percent volatiles in soil samples collected during the 2005 investigation of contaminant sources at Agra, Kansas.

				Weight (g)						Estimated Solids[a] (%)		
Location	Sample	Depth (ft BGL)	Sample Date	Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Volatile	Fixed	Total
SB43	AGSB43-S-17537	4.0	7/11/05	30.629	55.4062	24.777	53.300	52.606	8.50	3.06	96.94	91.50
SB43	AGSB43-S-17740	8.0	7/11/05	28.974	64.888	35.914	59.441	58.583	15.20	2.82	97.18	84.83
SB43	AGSB43-S-17741	11.0	7/11/05	29.888	56.035	26.147	51.482	50.992	17.40	2.27	97.73	82.59
SB43	AGSB43-S-17742	12.0	7/11/05	28.467	63.965	35.498	57.815	57.188	17.30	2.14	97.86	82.68
SB43	AGSB43-S-17743	16.0	7/11/05	29.191	53.869	24.678	50.228	49.710	14.80	2.46	97.54	85.25
SB43	AGSB43-S-17744	20.0	7/11/05	30.592	54.170	23.578	50.884	50.329	13.90	2.74	97.26	86.06
SB43	AGSB43-S-17745	24.0	7/11/05	29.958	64.560	34.602	59.886	59.391	13.50	1.65	98.35	86.49
SB43[b]	AGSB43-S-17746	24.0	7/11/05	29.619	47.916	18.297	45.661	45.375	12.30	1.78	98.22	87.68
SB43	AGSB43-S-17747	28.0	7/11/05	29.924	50.935	21.011	49.164	48.946	8.40	1.13	98.87	91.57
SB43	AGSB43-S-17998	32.0	7/11/05	29.658	53.036	23.378	47.490	47.040	23.72	2.52	97.48	76.28
SB43	AGSB43-S-17999	36.0	7/11/05	28.145	58.669	30.524	53.305	52.843	17.57	1.84	98.16	82.43
SB43	AGSB43-S-18000	40.0	7/11/05	30.810	57.868	27.058	53.518	53.117	16.08	1.77	98.23	83.92
SB43	AGSB43-S-18001	44.0	7/11/05	29.190	54.344	25.154	49.487	48.996	19.30	2.42	97.58	80.69
SB43	AGSB43-S-18002	48.0	7/11/05	29.556	53.589	24.033	49.102	48.739	18.67	1.86	98.14	81.33
SB45	AGSB45-S-17520	2.0	7/11/05	30.321	55.865	25.544	53.072	52.366	10.93	3.10	96.90	89.07
SB45	AGSB45-S-17521	4.0	7/11/05	29.184	62.512	33.328	58.121	57.201	13.18	3.18	96.82	86.82
SB45	AGSB45-S-17522	8.0	7/11/05	31.013	50.545	19.532	47.459	47.075	15.80	2.33	97.67	84.20
SB45	AGSB45-S-17523	12.0	7/11/05	29.797	56.158	26.361	51.853	51.259	16.33	2.69	97.31	83.67
SB45[b]	AGSB45-S-17524	12.0	7/11/05	30.027	55.133	25.106	51.529	50.666	14.36	4.01	95.99	85.64
SB45	AGSB45-S-17525	16.0	7/11/05	30.160	51.776	21.616	47.929	47.491	17.80	2.46	97.54	82.20
SB45	AGSB45-S-17526	18.0	7/11/05	30.060	59.473	29.413	54.746	54.051	16.07	2.82	97.18	83.93
SB45	AGSB45-S-17527	20.0	7/11/05	29.356	55.991	26.635	51.998	50.885	14.99	4.92	95.08	85.01
SB45	AGSB45-S-17528	24.0	7/11/05	30.424	58.002	27.578	55.473	54.802	9.17	2.68	97.32	90.83
SB45	AGSB45-S-17529	28.0	7/11/05	30.002	52.561	22.559	49.790	49.555	12.28	1.19	98.81	87.72
SB45	AGSB45-S-17530	29.2	7/11/05	30.151	49.288	19.137	47.421	47.010	9.76	2.38	97.62	90.24
SB45	AGSB45-S-17531	32.0	7/11/05	30.589	57.846	27.257	52.767	52.337	18.63	1.94	98.06	81.37
SB45	AGSB45-S-17532	34.0	7/11/05	30.166	55.120	24.954	50.663	50.259	17.86	1.97	98.03	82.14
SB45	AGSB45-S-17533	36.0	7/11/05	29.641	62.309	32.668	55.667	55.096	20.33	2.19	97.81	79.67
SB45	AGSB45-S-17534	40.0	7/11/05	29.593	58.941	29.348	52.696	52.142	21.28	2.40	97.60	78.72
SB45	AGSB45-S-17535	44.0	7/11/05	28.842	73.470	44.628	64.561	63.711	19.96	2.38	97.62	80.04
SB45	AGSB45-S-17536	48.0	7/11/05	30.717	51.208	20.491	47.266	46.946	19.24	1.93	98.07	80.76

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB46	AGSB46-S-17466	4.0	7/10/05	29.744	51.482	21.738	48.105	47.176	15.54	5.06	94.94	84.46
SB46	AGSB46-S-17467	8.0	7/10/05	28.951	62.569	33.618	53.990	53.446	25.52	2.17	97.83	74.48
SB46	AGSB46-S-17508	12.0	7/10/05	29.694	50.642	20.948	46.215	45.419	21.13	4.82	95.18	78.87
SB46	AGSB46-S-17509	16.0	7/10/05	28.997	67.197	38.200	60.149	58.982	18.45	3.75	96.25	81.55
SB46	AGSB46-S-17510	20.0	7/10/05	29.557	57.318	27.761	51.887	51.537	19.56	1.57	98.43	80.44
SB46	AGSB46-S-17511	24.0	7/10/05	29.957	52.363	22.406	48.105	47.193	19.00	5.03	94.97	81.00
SB46	AGSB46-S-17512	28.0	7/10/05	29.514	53.928	24.414	50.013	49.615	16.04	1.94	98.06	83.96
SB46[b]	AGSB46-S-17516	28.0	7/10/05	29.626	54.553	24.927	49.466	48.578	20.41	4.48	95.52	79.59
SB46	AGSB46-S-17513	32.0	7/10/05	29.871	53.732	23.861	49.129	48.308	19.29	4.26	95.74	80.71
SB46	AGSB46-S-17514	36.0	7/10/05	30.485	53.851	23.366	48.892	48.071	21.22	4.46	95.54	78.78
SB46	AGSB46-S-17515	40.0	7/10/05	28.652	60.538	31.886	55.112	54.168	17.02	3.57	96.43	82.98
SB46	AGSB46-S-17517	44.0	7/10/05	30.584	54.359	23.775	49.996	49.235	18.35	3.92	96.08	81.65
SB46	AGSB46-S-17518	48.0	7/10/05	29.598	55.088	25.490	50.552	49.664	17.80	4.24	95.76	82.20
SB46	AGSB46-S-17519	52.0	7/10/05	29.439	64.206	34.767	57.534	56.955	19.19	2.06	97.94	80.81
SB48	AGSB48-S-18018	4.0	7/12/05	31.456	58.871	27.415	55.553	54.968	12.10	2.43	97.57	87.90
SB48	AGSB48-S-18019	8.0	7/12/05	31.160	60.873	29.713	56.614	55.140	14.33	5.79	94.21	85.67
SB48	AGSB48-S-18020	12.0	7/12/05	30.315	46.874	16.559	44.319	43.595	15.43	5.17	94.83	84.57
SB48	AGSB48-S-18021	16.0	7/12/05	29.128	49.746	20.618	46.255	45.870	16.93	2.25	97.75	83.07
SB48	AGSB48-S-18022	20.0	7/12/05	29.831	57.477	27.646	52.939	52.500	16.41	1.90	98.10	83.59
SB48	AGSB48-S-18023	24.0	7/13/05	29.259	55.094	25.835	51.398	51.030	14.31	1.66	98.34	85.69
SB48[b]	AGSB48-S-18024	24.0	7/13/05	29.960	59.932	29.972	55.580	55.162	14.52	1.63	98.37	85.48
SB48	AGSB48-S-18025	28.0	7/13/05	29.524	56.753	27.229	52.683	52.432	14.95	1.08	98.92	85.05
SB48	AGSB48-S-18026	32.0	7/13/05	29.393	59.706	30.313	54.357	53.949	17.65	1.63	98.37	82.35
SB48	AGSB48-S-18027	36.0	7/13/05	29.937	53.950	24.013	50.855	49.699	12.89	5.53	94.47	87.11
SB48	AGSB48-S-18028	40.0	7/13/05	28.842	56.946	28.104	52.138	50.764	17.11	5.90	94.10	82.89
SB48	AGSB48-S-18029	44.0	7/13/05	28.467	54.739	26.272	49.700	49.294	19.18	1.91	98.09	80.82
SB48	AGSB48-S-18030	48.0	7/13/05	30.578	55.864	25.286	51.052	50.744	19.03	1.50	98.50	80.97
SB49	AGSB49-S-18004	4.0	7/12/05	29.355	56.676	27.321	52.284	51.517	16.10	3.35	96.65	83.92
SB49	AGSB49-S-18005	8.0	7/12/05	28.808	58.605	29.797	53.276	52.661	17.88	2.51	97.49	82.12
SB49	AGSB49-S-18006	12.0	7/12/05	29.390	68.191	38.801	60.781	60.021	19.10	2.42	97.58	80.90
SB49	AGSB49-S-18007	16.0	7/12/05	29.994	60.334	30.340	54.046	53.561	20.70	2.02	97.98	79.27

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB49[b]	AGSB49-S-18008	16.0	7/12/05	30.061	65.440	35.379	58.023	57.342	20.96	2.44	97.56	79.04
SB49	AGSB49-S-18009	20.0	7/12/05	29.577	54.839	25.262	49.722	49.121	20.26	2.98	97.02	79.74
SB49	AGSB49-S-18010	24.0	7/12/05	29.605	63.350	33.745	57.783	57.303	16.50	1.70	98.30	83.50
SB49	AGSB49-S-18011	28.0	7/12/05	28.836	57.330	28.494	51.613	51.013	20.06	2.63	97.37	79.94
SB49	AGSB49-S-18012	32.0	7/12/05	29.611	59.057	29.446	53.098	52.580	20.24	2.21	97.79	79.76
SB49	AGSB49-S-18013	34.0	7/12/05	30.158	54.130	23.972	48.693	48.322	22.70	2.00	98.00	77.32
SB49	AGSB49-S-18014	36.0	7/12/05	29.350	58.833	29.483	52.169	51.725	22.60	1.95	98.05	77.40
SB49	AGSB49-S-18015	40.0	7/12/05	29.832	63.247	33.415	56.159	55.599	21.21	2.13	97.87	78.79
SB49	AGSB49-S-18016	44.0	7/12/05	30.840	61.855	31.015	55.297	54.685	21.14	2.50	97.50	78.86
SB49	AGSB49-S-18017	48.0	7/12/05	29.103	64.314	35.211	58.454	58.200	16.64	0.87	99.13	83.36
SB51	AGSB51-S-17613	4.0	5/23/05	29.922	54.978	25.056	50.555	49.899	17.65	3.18	96.82	82.35
SB51	AGSB51-S-17614	8.0	5/23/05	29.872	55.843	25.971	50.786	50.127	19.47	3.15	96.85	80.53
SB51	AGSB51-S-17620	12.0	5/23/05	29.993	55.239	25.246	50.080	49.483	20.43	2.97	97.03	79.57
SB51	AGSB51-S-17621	16.0	5/23/05	29.223	56.346	27.123	50.586	49.998	21.24	2.75	97.25	78.76
SB51	AGSB51-S-17622	20.0	5/23/05	29.616	54.504	24.888	49.165	48.615	21.45	2.81	97.19	78.55
SB51	AGSB51-S-17623	24.0	5/23/05	30.319	49.269	18.950	45.296	44.836	20.97	3.07	96.93	79.03
SB51	AGSB51-S-17624	28.0	5/23/05	29.789	57.722	27.933	53.580	53.132	14.83	1.88	98.12	85.17
SB51	AGSB51-S-17625	32.0	5/23/05	30.158	55.765	25.607	51.169	50.628	17.95	2.57	97.43	82.05
SB51	AGSB51-S-17626	36.0	5/23/05	28.967	47.935	18.968	43.621	43.342	22.74	1.90	98.10	77.26
SB51	AGSB51-S-17627	40.0	5/23/05	30.627	60.834	30.207	55.003	54.581	19.30	1.73	98.27	80.70
SB51[b]	AGSB51-S-17615	40.0	5/23/05	29.994	54.037	24.043	49.482	49.436	18.95	0.24	99.76	81.05
SB51	AGSB51-S-17616	44.0	5/23/05	30.246	53.691	23.445	49.145	49.059	19.39	0.46	99.54	80.61
SB51	AGSB51-S-17617	48.0	5/23/05	28.832	48.919	20.087	44.594	44.299	21.53	1.87	98.13	78.47
SB52	AGSB52-S-17588	4.0	5/21/05	30.158	59.184	29.026	53.528	53.249	19.49	1.19	98.81	80.51
SB52	AGSB52-S-17589	8.0	5/21/05	29.998	58.266	28.268	52.681	51.953	19.76	3.21	96.79	80.24
SB52	AGSB52-S-17590	12.0	5/21/05	29.625	61.454	31.829	55.146	54.408	19.82	2.89	97.11	80.18
SB52	AGSB52-S-17591	16.0	5/21/05	28.835	55.757	26.922	50.571	50.445	19.26	0.58	99.42	80.74
SB52	AGSB52-S-17592	20.0	5/21/05	30.318	46.980	16.662	44.073	43.656	17.45	3.03	96.97	82.55
SB52	AGSB52-S-17593	24.0	5/21/05	29.608	58.199	28.591	53.726	53.754	15.64	-0.12	100.12	84.36
SB52	AGSB52-S-17594	28.0	5/21/05	30.027	59.926	29.899	54.493	54.120	18.17	1.52	98.48	81.83
SB52[b]	AGSB52-S-17595	28.0	5/21/05	29.507	49.320	19.813	46.440	46.241	14.54	1.18	98.82	85.46

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB52	AGSB52-S-17596	32.0	5/21/05	30.128	49.510	19.382	45.993	45.606	18.15	2.44	97.56	81.85
SB52	AGSB52-S-17597	36.0	5/21/05	29.191	59.938	30.747	54.048	53.985	19.16	0.25	99.75	80.84
SB52	AGSB52-S-04512	40.5	5/21/05	28.652	58.486	29.834	52.832	51.980	18.95	3.52	96.48	81.05
SB52	AGSB52-S-04513	42.6	5/21/05	29.888	45.739	15.851	42.369	42.319	21.26	0.40	99.60	78.74
SB52	AGSB52-S-04514	44.0	5/21/05	28.995	58.794	29.799	53.794	53.026	16.78	3.10	96.90	83.22
SB52	AGSB52-S-04515	46.0	5/21/05	30.793	59.166	28.373	53.604	53.576	19.60	0.12	99.88	80.40
SB53	AGSB53-S-17574	4.0	5/20/05	29.653	38.110	8.457	36.738	36.688	16.22	0.71	99.29	83.78
SB53	AGSB53-S-17575	8.0	5/20/05	30.839	42.545	11.706	40.508	40.481	17.40	0.28	99.72	82.60
SB53[b]	AGSB53-S-17578	8.0	5/20/05	28.968	50.084	21.116	46.331	46.219	17.77	0.65	99.35	82.23
SB53	AGSB53-S-17576	12.0	5/20/05	30.592	65.306	34.714	59.224	58.839	17.52	1.34	98.66	82.48
SB53	AGSB53-S-17577	16.0	5/20/05	29.611	59.036	29.425	55.235	55.161	12.92	0.29	99.71	87.08
SB53	AGSB53-S-17579	20.0	5/20/05	29.576	42.997	13.421	41.433	41.407	11.65	0.22	99.78	88.35
SB53	AGSB53-S-17580	20.2	5/20/05	30.048	47.683	17.635	45.698	45.685	11.26	0.08	99.92	88.74
SB53	AGSB53-S-17581	24.0	5/20/05	28.148	45.414	17.266	43.108	43.118	13.36	-0.07	100.07	86.64
SB53	AGSB53-S-17582	28.0	5/20/05	29.573	38.712	9.139	38.154	38.136	6.11	0.21	99.79	93.89
SB53	AGSB53-S-17583	32.0	5/20/05	29.112	48.799	19.687	46.425	46.428	12.06	-0.02	100.02	87.94
SB53	AGSB53-S-17584	36.0	5/20/05	28.806	43.639	14.833	41.393	41.838	15.14	-3.54	103.54	84.86
SB53	AGSB53-S-17585	40.0	5/20/05	29.389	50.707	21.318	48.392	48.364	10.86	0.15	99.85	89.14
SB53[b]	AGSB53-S-17586	40.0	5/20/05	29.350	52.959	23.609	49.565	49.504	14.38	0.30	99.70	85.62
SB54	AGSB54-S-17480	4.0	6/7/05	29.608	49.423	19.815	46.136	45.509	16.59	3.79	96.21	83.41
SB54	AGSB54-S-17481	8.0	6/7/05	30.839	53.958	23.119	49.721	49.149	18.33	3.03	96.97	81.67
SB54	AGSB54-S-17482	12.0	6/7/05	29.611	53.443	23.832	48.647	48.104	20.12	2.85	97.15	79.88
SB54	AGSB54-S-17483	16.0	6/7/05	29.112	54.128	25.016	48.840	48.285	21.14	2.81	97.19	78.86
SB54	AGSB54-S-17484	20.0	6/7/05	29.832	52.583	22.751	48.408	47.914	18.35	2.66	97.34	81.65
SB54[b]	AGSB54-S-17485	20.0	6/7/05	30.048	56.987	26.939	51.700	50.914	19.63	3.63	96.37	80.37
SB54	AGSB54-S-17486	24.0	6/7/05	28.148	60.756	32.608	56.032	55.700	14.49	1.19	98.81	85.51
SB54	AGSB54-S-17487	28.0	6/7/05	30.793	53.332	22.539	50.515	50.286	12.50	1.16	98.84	87.50
SB54	AGSB54-S-17488	32.0	6/7/05	29.994	61.547	31.553	55.943	55.600	17.76	1.32	98.68	82.24
SB54	AGSB54-S-17489	36.0	6/7/05	29.044	52.667	23.623	47.415	46.972	22.23	2.41	97.59	77.77
SB54	AGSB54-S-17490	40.0	6/7/05	28.806	64.875	36.069	58.159	57.093	18.62	3.63	96.37	81.38
SB54	AGSB54-S-17491	44.0	6/7/05	29.653	59.400	29.747	54.093	53.270	17.84	3.37	96.63	82.16

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB55	AGSB55-S-17689	4.0	6/3/05	30.128	43.089	12.961	40.331	40.136	21.28	1.91	98.09	78.72
SB55	AGSB55-S-17690	8.0	6/3/05	29.751	52.202	22.451	47.583	47.290	20.57	1.64	98.36	79.43
SB55	AGSB55-S-17691	12.0	6/3/05	30.584	58.455	27.871	53.844	53.429	16.54	1.78	98.22	83.46
SB55	AGSB55-S-17692	16.0	6/3/05	30.485	43.147	12.662	40.352	40.102	22.07	2.53	97.47	77.93
SB55	AGSB55-S-17693	20.0	6/3/05	29.998	54.925	24.927	51.065	50.727	15.49	1.60	98.40	84.51
SB55	AGSB55-S-17694	24.0	6/3/05	29.625	51.042	21.417	47.532	47.352	16.39	1.01	98.99	83.61
SB55	AGSB55-S-17702	25.5	6/3/05	29.507	51.284	21.777	49.245	49.071	9.36	0.88	99.12	90.64
SB55	AGSB55-S-17695	29.0	6/3/05	29.872	57.155	27.283	53.334	52.974	14.01	1.53	98.47	85.99
SB55	AGSB55-S-17696	33.0	6/3/05	29.577	52.898	23.321	47.515	47.265	23.08	1.39	98.61	76.92
SB55[b]	AGSB55-S-17697	33.0	6/3/05	29.176	54.165	24.989	49.363	49.077	19.22	1.42	98.58	80.78
SB55	AGSB55-S-17698	37.0	6/3/05	28.652	48.184	19.532	44.594	44.339	18.38	1.60	98.40	81.62
SB55	AGSB55-S-17699	41.0	6/3/05	30.027	59.660	29.633	52.906	52.523	22.79	1.67	98.33	77.21
SB55	AGSB55-S-17700	45.0	6/3/05	29.868	60.098	30.230	52.072	51.737	26.55	1.51	98.49	73.45
SB56	AGSB56-S-17659	4.0	5/26/05	28.835	52.362	23.527	48.617	48.140	15.92	2.41	97.59	84.08
SB56	AGSB56-S-17660	8.0	5/26/05	30.839	49.796	18.957	46.336	45.952	18.25	2.48	97.52	81.75
SB56	AGSB56-S-17661	12.0	5/26/05	28.148	45.453	17.305	42.493	42.134	17.10	2.50	97.50	82.90
SB56	AGSB56-S-17662	16.0	5/26/05	29.426	43.853	14.427	41.661	41.384	15.19	2.26	97.74	84.81
SB56	AGSB56-S-17663	20.0	5/26/05	28.995	52.572	23.577	48.652	48.132	16.63	2.65	97.35	83.37
SB56	AGSB56-S-17664	24.0	5/26/05	28.832	57.485	28.653	54.333	54.048	11.00	1.12	98.88	89.00
SB56[b]	AGSB56-S-17666	24.0	5/26/05	29.616	60.427	30.811	57.361	57.067	9.95	1.06	98.94	90.05
SB56	AGSB56-S-17665	28.0	5/26/05	28.002	51.897	23.895	48.994	48.700	12.15	1.40	98.60	87.85
SB56	AGSB56-S-17667	32.0	5/26/05	29.608	54.440	24.832	51.728	51.324	10.92	1.83	98.17	89.08
SB56	AGSB56-S-17678	36.0	5/26/05	30.793	60.606	29.813	56.427	55.941	14.02	1.90	98.10	85.98
SB56	AGSB56-S-17679	40.0	5/26/05	29.573	68.016	38.443	61.478	60.988	17.01	1.54	98.46	82.99
SB56	AGSB56-S-17680	44.0	5/26/05	30.246	57.955	27.709	57.574	57.465	1.38	0.40	99.60	98.62
SB56	AGSB56-S-17681	48.0	5/26/05	30.318	57.821	27.503	51.759	51.463	22.04	1.38	98.62	77.96
SB58	AGSB58-S-17599	4.0	5/22/05	29.968	48.027	18.059	44.605	44.523	18.95	0.56	99.44	81.05
SB58	AGSB58-S-17600	8.0	5/22/05	29.619	56.618	26.999	51.739	51.153	18.07	2.65	97.35	81.93
SB58	AGSB58-S-17601	12.0	5/22/05	30.089	51.293	21.204	47.375	46.855	18.48	3.01	96.99	81.52
SB58	AGSB58-S-17602	16.0	5/22/05	29.350	53.233	23.883	48.506	48.101	19.79	2.11	97.89	80.21
SB58[b]	AGSB58-S-17603	16.0	5/22/05	29.868	50.086	20.218	46.181	45.685	19.31	3.04	96.96	80.69

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB58	AGSB58-S-17604	20.0	5/22/05	29.958	51.128	21.170	46.809	46.465	20.40	2.04	97.96	79.60
SB58	AGSB58-S-17605	24.0	5/22/05	29.797	59.972	30.175	54.349	53.417	18.63	3.80	96.20	81.37
SB58	AGSB58-S-17606	28.0	5/22/05	29.751	59.087	29.336	55.064	54.565	13.71	1.97	98.03	86.29
SB58	AGSB58-S-17607	32.0	5/22/05	29.190	59.210	30.020	53.542	53.248	18.88	1.21	98.79	81.12
SB58	AGSB58-S-17608	36.0	5/22/05	29.426	56.298	26.872	50.418	49.884	21.88	2.54	97.46	78.12
SB58	AGSB58-S-17609	40.0	5/22/05	30.592	50.618	20.026	46.653	46.367	19.80	1.78	98.22	80.20
SB58	AGSB58-S-17610	44.0	5/22/05	30.627	49.250	18.623	45.640	45.600	19.38	0.27	99.73	80.62
SB58	AGSB58-S-17611	48.0	5/22/05	28.948	57.497	28.549	51.500	50.699	21.01	3.55	96.45	78.99
SB59	AGSB59-S-17714	4.0	6/6/05	28.967	51.020	22.053	47.408	46.795	16.38	3.32	96.68	83.62
SB59	AGSB59-S-17715	8.0	6/6/05	29.350	62.288	32.938	56.263	55.451	18.29	3.02	96.98	81.71
SB59[b]	AGSB59-S-17468	8.0	6/6/05	29.191	53.173	23.982	48.790	48.197	18.28	3.03	96.97	81.72
SB59	AGSB59-S-17716	12.0	6/6/05	29.576	48.144	18.568	44.621	44.179	18.97	2.94	97.06	81.03
SB59	AGSB59-S-17717	16.0	6/6/05	28.467	47.868	19.401	43.846	43.433	20.73	2.69	97.31	79.27
SB59	AGSB59-S-17469	20.0	6/6/05	30.592	57.301	26.709	52.037	51.342	19.71	3.24	96.76	80.29
SB59	AGSB59-S-17470	24.0	6/6/05	29.389	46.612	17.223	44.418	44.153	12.74	1.76	98.24	87.26
SB59	AGSB59-S-17471	28.0	6/6/05	29.190	52.654	23.464	48.745	48.427	16.66	1.63	98.37	83.34
SB59	AGSB59-S-17472	32.0	6/6/05	29.958	48.435	18.477	45.169	44.887	17.68	1.85	98.15	82.32
SB59	AGSB59-S-17473	36.0	6/6/05	29.922	63.566	33.644	56.475	55.843	21.08	2.38	97.62	78.92
SB59	AGSB59-S-17474	40.0	6/6/05	30.158	52.178	22.020	47.907	47.529	19.40	2.13	97.87	80.60
SB59	AGSB59-S-17475	44.0	6/6/05	29.619	50.887	21.268	44.746	44.091	28.87	4.33	95.67	71.13
SB59	AGSB59-S-17476	48.0	6/6/05	29.888	63.284	33.396	57.362	56.718	17.73	2.34	97.66	82.27
SB59	AGSB59-S-17477	52.0	6/6/05	30.627	52.961	22.334	48.563	48.169	19.69	2.20	97.80	80.31
SB61	AGSB61-S-17669	4.0	6/4/05	29.797	52.156	22.359	47.832	47.563	19.34	1.49	98.51	80.66
SB61	AGSB61-S-17670	8.0	6/4/05	29.576	45.771	16.195	42.802	42.571	18.33	1.75	98.25	81.67
SB61	AGSB61-S-17671	12.0	6/4/05	30.319	57.643	27.324	52.652	52.263	18.27	1.74	98.26	81.73
SB61	AGSB61-S-17672	16.0	6/4/05	31.010	54.717	23.707	50.470	49.816	17.91	3.36	96.64	82.09
SB61	AGSB61-S-17673	20.0	6/4/05	29.993	58.625	28.632	54.403	53.987	14.75	1.70	98.30	85.25
SB61	AGSB61-S-17674	24.0	6/4/05	29.691	53.967	24.276	50.669	50.430	13.59	1.14	98.86	86.41
SB61	AGSB61-S-17675	28.0	6/4/05	30.157	51.563	21.406	47.436	47.153	19.28	1.64	98.36	80.72
SB61	AGSB61-S-17676	32.0	6/4/05	30.424	55.005	24.581	50.586	50.273	17.98	1.55	98.45	82.02
SB61	AGSB61-S-17677	36.0	6/4/05	30.089	57.526	27.437	53.143	52.766	15.97	1.64	98.36	84.03

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB61	AGSB61-S-17703	40.0	6/4/05	30.158	59.585	29.427	55.098	54.859	15.25	0.96	99.04	84.75
SB61[b]	AGSB61-S-17704	40.0	6/4/05	29.596	52.974	23.378	49.567	49.333	14.57	1.17	98.83	85.43
SB62	AGSB62-S-17633	4.0	5/24/05	29.611	57.242	27.631	52.844	52.258	15.92	2.52	97.48	84.08
SB62	AGSB62-S-17634	8.0	5/24/05	28.806	50.191	21.385	46.827	46.372	15.73	2.52	97.48	84.27
SB62	AGSB62-S-17635	12.0	5/24/05	29.653	50.228	20.575	46.782	46.330	16.75	2.64	97.36	83.25
SB62	AGSB62-S-17636	16.0	5/24/05	28.467	54.928	26.461	51.625	51.199	12.48	1.84	98.16	87.52
SB62	AGSB62-S-17637	20.0	5/24/05	29.389	50.944	21.555	48.491	48.170	11.38	1.68	98.32	88.62
SB62	AGSB62-S-17638	24.0	5/24/05	30.158	53.800	23.642	50.731	50.350	12.98	1.85	98.15	87.02
SB62	AGSB62-S-17639	28.0	5/24/05	29.888	69.665	39.777	64.422	63.871	13.18	1.60	98.40	86.82
SB62	AGSB62-S-17640	32.0	5/24/05	30.048	52.215	22.167	48.904	48.615	14.94	1.53	98.47	85.06
SB62	AGSB62-S-17641	36.0	5/24/05	29.211	40.568	11.357	39.077	38.905	13.13	1.74	98.26	86.87
SB62	AGSB62-S-17642	40.0	5/24/05	29.994	53.884	23.890	49.627	49.254	17.82	1.90	98.10	82.18
SB62	AGSB62-S-17643	44.0	5/24/05	29.576	55.860	26.284	51.650	51.209	16.02	2.00	98.00	83.98
SB62[b]	AGSB62-S-17645	44.0	5/24/05	29.832	55.631	25.799	51.351	51.019	16.59	1.54	98.46	83.41
SB62	AGSB62-S-17644	48.0	5/24/05	29.344	56.369	27.025	51.522	51.201	17.94	1.45	98.55	82.06
SB63	AGSB63-S-17544	2.0	5/18/05	29.922	46.386	16.464	43.431	43.289	17.95	1.05	98.95	82.05
SB63	AGSB63-S-17547	4.0	5/19/05	30.485	54.102	23.617	49.652	48.977	18.84	3.52	96.48	81.16
SB63	AGSB63-S-17545	5.0	5/19/05	29.691	44.473	14.782	41.824	41.407	17.92	3.44	96.56	82.08
SB63	AGSB63-S-17546	6.0	5/19/05	31.010	45.070	14.060	42.734	42.396	16.61	2.88	97.12	83.39
SB63	AGSB63-S-17558	8.0	5/19/05	30.584	46.615	16.031	43.618	43.203	18.70	3.18	96.82	81.30
SB63	AGSB63-S-17559	10.0	5/19/05	29.576	49.327	19.751	45.596	45.095	18.89	3.13	96.87	81.11
SB63	AGSB63-S-17560	12.0	5/19/05	29.958	46.901	16.943	44.056	43.987	16.79	0.49	99.51	83.21
SB63	AGSB63-S-17561	14.0	5/19/05	29.176	48.486	19.310	45.264	44.653	16.69	3.80	96.20	83.31
SB63	AGSB63-S-17562	16.0	5/19/05	30.424	61.328	30.904	55.880	54.804	17.63	4.23	95.77	82.37
SB63	AGSB63-S-17563	18.0	5/19/05	29.596	58.817	29.221	53.878	52.761	16.90	4.60	95.40	83.10
SB63	AGSB63-S-17564	20.0	5/19/05	28.467	62.608	34.141	57.715	57.666	14.33	0.17	99.83	85.67
SB63	AGSB63-S-17565	24.0	5/19/05	29.344	48.006	18.662	46.053	46.046	10.47	0.04	99.96	89.53
SB63	AGSB63-S-17566	28.0	5/19/05	29.577	52.186	22.609	50.143	49.829	9.04	1.53	98.47	90.96
SB63	AGSB63-S-17567	32.0	5/19/05	30.157	51.309	21.152	47.954	47.295	15.86	3.70	96.30	84.14
SB63	AGSB63-S-17568	36.0	5/19/05	29.190	45.571	16.381	43.056	43.059	15.35	-0.02	100.02	84.65

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB63	AGSB63-S-17569	40.0	5/19/05	28.002	56.135	28.133	51.342	50.729	17.04	2.63	97.37	82.96
SB63	AGSB63-S-17570	44.0	5/19/05	29.832	51.142	21.310	47.595	47.586	16.64	0.05	99.95	83.36
SB64	AGSB64-S-17499	4.0	6/12/05	30.708	56.387	25.679	52.734	52.181	14.20	2.51	97.49	85.77
SB64	AGSB64-S-17500	8.0	6/12/05	29.998	50.182	20.184	46.850	46.361	16.50	2.90	97.10	83.49
SB64	AGSB64-S-17501	12.0	6/12/05	30.170	55.530	25.360	51.760	51.135	14.87	2.89	97.11	85.13
SB64	AGSB64-S-17502	16.0	6/12/05	29.425	54.178	24.753	51.011	50.272	12.79	3.42	96.58	87.21
SB64	AGSB64-S-17503	20.0	6/12/05	30.319	53.206	22.887	50.624	50.070	11.30	2.73	97.27	88.72
SB64	AGSB64-S-17504	24.0	6/12/05	29.625	43.899	14.274	42.543	42.218	9.50	2.52	97.48	90.50
SB64	AGSB64-S-17505	28.0	6/12/05	29.596	57.833	28.237	53.119	52.452	16.70	2.84	97.16	83.31
SB64	AGSB64-S-17506	32.0	6/12/05	29.797	65.325	35.528	59.250	58.655	17.10	2.02	97.98	82.90
SB64[b]	AGSB64-S-17507	32.0	6/12/05	29.507	50.937	21.430	48.080	47.541	13.30	2.90	97.10	86.67
SB64	AGSB64-S-17750	36.0	6/13/05	30.315	54.344	24.029	50.775	50.368	14.85	1.99	98.01	85.15
SB64	AGSB64-S-17751	40.0	6/13/05	28.840	61.364	32.524	55.775	55.118	17.18	2.44	97.56	82.82
SB64	AGSB64-S-17752	44.0	6/13/05	29.993	55.458	25.465	51.191	50.807	16.80	1.81	98.19	83.24
SB64	AGSB64-S-17808	48.0	6/13/05	30.584	58.249	27.665	53.216	52.689	18.20	2.33	97.67	81.81
SB67	AGSB67-S-18044	4.0	7/14/05	29.761	51.627	21.866	48.305	47.917	15.19	2.09	97.91	84.81
SB67	AGSB67-S-18045	8.0	7/14/05	29.486	48.079	18.593	45.838	45.496	12.05	2.09	97.91	87.95
SB67	AGSB67-S-18046	12.0	7/14/05	29.170	63.962	34.792	58.983	58.227	14.31	2.54	97.46	85.69
SB67[b]	AGSB67-S-18047	12.0	7/14/05	30.993	45.067	14.074	43.159	42.796	13.56	2.98	97.02	86.44
SB67	AGSB67-S-18048	16.0	7/14/05	29.950	53.695	23.745	50.573	50.261	13.15	1.51	98.49	86.85
SB67	AGSB67-S-18049	20.0	7/14/05	30.112	55.325	25.213	52.606	52.262	10.78	1.53	98.47	89.22
SB67	AGSB67-S-18050	24.0	7/14/05	29.003	59.219	30.216	56.613	56.292	8.62	1.16	98.84	91.38
SB67	AGSB67-S-18051	28.0	7/14/05	28.490	67.957	39.467	62.811	62.317	13.04	1.44	98.56	86.96
SB67	AGSB67-S-18052	32.0	7/14/05	29.058	57.047	27.989	53.227	52.839	13.65	1.61	98.39	86.35
SB67	AGSB67-S-18053	36.0	7/14/05	29.199	57.764	28.565	52.995	52.478	16.70	2.17	97.83	83.30
SB67	AGSB67-S-18054	40.0	7/14/05	29.877	53.773	23.896	51.250	50.978	10.56	1.27	98.73	89.44
SB67	AGSB67-S-18055	44.0	7/14/05	30.125	53.499	23.374	48.540	48.028	21.22	2.78	97.22	78.78
SB67	AGSB67-S-18056	48.0	7/14/05	29.803	46.107	16.304	41.265	40.906	29.70	3.13	96.87	70.30
SB68	AGSB68-S-18031	4.0	7/13/05	28.834	52.772	23.938	50.829	50.296	8.12	2.42	97.58	91.88
SB68	AGSB68-S-18032	8.0	7/13/05	29.218	54.687	25.469	51.206	50.839	13.67	1.67	98.33	86.33

TABLE S1.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Weight (g) Vial	Vial + Wet Sample	Wet Sample	Vial + Dry Sample	Dry Sample	Moisture (%)	Estimated Solids[a] (%) Volatile	Fixed	Total
SB68[b]	AGSB68-S-18033	8.0	7/13/05	30.321	59.569	29.248	56.041	54.654	12.06	5.39	94.61	87.94
SB68	AGSB68-S-18034	12.0	7/13/05	29.641	60.591	30.950	55.260	53.847	17.22	5.52	94.48	82.78
SB68	AGSB68-S-18035	16.0	7/13/05	29.439	78.245	48.806	69.726	67.688	17.45	5.06	94.94	82.55
SB68	AGSB68-S-18036	20.0	7/13/05	30.010	65.209	35.199	59.103	57.732	17.35	4.71	95.29	82.65
SB68	AGSB68-S-18037	24.0	7/13/05	29.797	54.318	24.521	50.475	49.005	15.67	7.11	92.89	84.33
SB68	AGSB68-S-18038	28.0	7/13/05	28.149	49.279	21.130	47.086	46.856	10.38	1.21	98.79	89.62
SB68	AGSB68-S-18039	32.0	7/13/05	31.036	62.943	31.907	57.255	55.912	17.83	5.12	94.88	82.17
SB68	AGSB68-S-18040	36.0	7/13/05	30.717	58.539	27.822	53.495	52.371	18.13	4.93	95.07	81.87
SB68	AGSB68-S-18041	40.0	7/13/05	29.594	57.124	27.530	52.427	51.222	17.06	5.28	94.72	82.94
SB68	AGSB68-S-18042	44.0	7/13/05	29.891	64.739	34.848	58.630	58.218	17.53	1.43	98.57	82.47
SB68	AGSB68-S-18043	48.0	7/13/05	30.056	51.707	21.651	48.158	47.914	16.39	1.35	98.65	83.61
SB73	AGSB73-S-17809	4.0	6/13/05	30.485	44.219	13.734	41.486	41.107	19.90	3.45	96.55	80.10
SB73	AGSB73-S-17810	8.0	6/13/05	30.157	45.792	15.635	42.879	42.540	18.60	2.66	97.34	81.37
SB73	AGSB73-S-17811	12.0	6/13/05	31.010	56.698	25.688	52.589	51.934	16.00	3.04	96.96	84.00
SB73	AGSB73-S-17813	16.0	6/13/05	30.158	55.369	25.211	52.274	51.551	12.30	3.27	96.73	87.72
SB73[b]	AGSB73-S-17812	16.0	6/13/05	29.576	50.470	20.894	47.576	46.819	13.90	4.21	95.79	86.15
SB73	AGSB73-S-17814	20.0	6/13/05	30.424	59.161	28.737	55.441	54.728	12.90	2.85	97.15	87.06
SB73	AGSB73-S-17815	24.0	6/13/05	30.128	50.014	19.886	47.686	47.380	11.70	1.74	98.26	88.29
SB73	AGSB73-S-17816	28.0	6/13/05	29.176	52.091	22.915	48.544	47.998	15.50	2.82	97.18	84.52
SB73	AGSB73-S-17817	32.0	6/13/05	29.616	55.167	25.551	51.411	50.752	14.70	3.02	96.98	85.30
SB73	AGSB73-S-17818	36.0	6/13/05	30.027	50.339	20.312	47.310	46.733	14.90	3.34	96.66	85.09
SB73	AGSB73-S-17819	40.0	6/13/05	29.872	54.437	24.565	50.396	49.897	16.50	2.43	97.57	83.55
SB73	AGSB73-S-17820	44.0	6/13/05	28.652	59.952	31.300	54.204	53.561	18.40	2.52	97.48	81.64
SB73	AGSB73-S-17821	48.0	6/13/05	29.577	66.560	36.983	59.455	58.775	19.20	2.28	97.72	80.79

[a] Volatile solids, fixed solids, and total solids are *estimated* values determined after a single combustion. The method recommends three combustions. The analytical method conformed to the ASTM D2216 ("Test Method for Laboratory Determination of Water [Moisture] Content of Soil and Rock"). Moisture content of the soil sample, expressed as a percentage, was determined as the ratio of the weight of water to the weight of the solids in a given mass of soil.

[b] Quality control replicate sample.

Supplement 2:

Water Sample Data

TABLE S2.1 Groundwater samples collected during the 2005 investigation of contaminant sources at Agra, Kansas.

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Sample Description
Domestic Wells					
DW07A	AGDW07A-W-04565	50–70	6/2/05	DW	McCormick replacement well.
DW98	AGDW98-W-04567	Unknown	6/3/05	DW	Windmill well sampled after purging of approximately 125 gal.
KDHE Monitoring Wells					
KMW01	AGKMW01-W-04375	43–53	5/18/05	MW	Depth to water from top of casing (TOC) = 49.34 ft BGL. Depth of well = 66.22 ft BGL. Sample collected after purging of of > 9 gal. Sample cloudy.
KMW02	AGKMW02-W-04382	57–97	5/19/05	MW	Depth to water from TOC = 47.70 ft BGL. Depth of well = 98.34 ft BGL. Sample collected after purging of approximately 25 gal. Water clear throughout purge.
KMW03	AGKMW03-W-04390	74–89	5/21/05	MW	Depth to water from TOC = 46.71 ft BGL. Depth of well = 89.92 ft BGL. Sample collected after purging of 22 gal.
MW-1	AGMW1-W-04378	41–51	5/19/05	MW	Depth to water from TOC = 48.38 ft BGL. Depth of well = 58.19 ft BGL. Sample collected after purging of approximately 40 gal at 1 gpm. Sample clear after purging.
MW-2	AGMW2-W-04551	40–60	5/24/05	MW	Depth to water from TOC = 48.93 ft BGL. Depth of well = 58.19 ft BGL. Sample collected after purging of 11 gal.
MW-B	AGMWB-W-04383	39–54	5/19/05	MW	Depth to water from TOC = 44.25 ft BGL. Depth of well = 50.25 ft BGL. Sample collected after purging of 5 gal. Purged with bailer due to very low water volume. Sample cloudy.
MW-C	AGMWC-W-04394	35–55	5/22/05	MW	Depth to water from TOC = 43.59 ft BGL. Depth of well = 52.93 ft BGL. Sample collected after purging of 10.5 gal.
MW-F	AGMWF-W-04553	65–75	5/25/05	MW	Depth to water from TOC = 48.83 ft BGL. Depth of well = 76.58 ft BGL. Sample collected after purging of 14 gal.
MW-G	AGMWG-W-04539	89–99	5/24/05	MW	Depth to water from TOC = 47.30 ft BGL. Depth of well = 76.17 ft BGL. Sample collected after purging of 20 gal.
MW-H	AGMWH-W-04557	43–53	5/25/05	MW	Depth to water from TOC = 46.26 ft BGL. Depth of well = 51.95 ft BGL.
MW-I	AGMWI-W-04381	36–71	5/19/05	MW	Depth to water from TOC = 46.51 ft BGL. Depth of well = 78.98 ft BGL. Sample collected after purging of approximately 20 gal. Pump stopped repeatedly because of sand in line; sample milky.
MW-J	AGMWJ-W-04393	56–66	5/21/05	MW	Depth to water from TOC = 44.20 ft BGL. Depth of well = 65.14 ft BGL. Sample collected after purging of 18 gal.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
KDHE Monitoring Wells (Cont.)					
MW-K	AGMWK-W-04392	55–65	5/21/05	MW	Depth to water from TOC = 43.86 ft BGL. Depth of well = 61.97 ft BGL. Sample collected after purging of 20 gal.
MW-L	AGMWL-W-04520	70–80	5/22/05	MW	Depth to water from TOC = 46.21 ft BGL. Depth of well = 74.50 ft BGL. Sample collected after purging of 17 gal.
MW-M	AGMWM-W-04556	59–69	5/25/05	MW	Depth to water from TOC = 46.52 ft BGL. Depth of well = 66.52 ft BGL. Sample collected after purging of 23 gal.
MW-N	AGMWN-W-17798	80–90	7/12/05	MW	Check screen. Depth to water = 42 ft BGL below TOC. Depth of well approximately 85 ft BGL, difficult to measure due to silting. Sample collected after purging of 60+ gal. Initial 20 gal very silty. Sample cloudy white with very fine particles in suspension.
MW-O	AGMWO-W-04521	38–58	5/22/05	MW	Depth to water from TOC = 45.75 ft BGL. Depth of well = 57.52 ft BGL. Sample collected after purging of 11 gal.
MW-P	AGMWP-W-17757	35.42–54.92	6/13/05	MW	Second sampling of MW-P. Depth to water from TOC = 46.38 ft BGL. Depth of well = 58.7 ft BGL. Sample collected after purging of 10 gal.
MW-Q	AGMWQ-W-04391	43.28–62.78	5/21/05	MW	Depth to water from TOC = 46.58 ft BGL. Depth of well = 66.36 ft BGL. Sample collected after purging of 12 gal.
MW-R	AGMWR-W-04387	44.45–63.95	5/20/05	MW	Depth to water from TOC = 46.88 ft BGL. Depth of well = 65.5 ft BGL. Sample collected after purging of 10 gal. Purged with difficulty. Sample silty.
Public Water Supply Wells					
PWS-1	AGPW1-W-04606	82–91	6/9/05	PW	Public well PWS-1 was turned on prior to sampling.
PWS-2	AGPW2-W-04607	73–82	6/9/05	PW	Public well PWS-2 was in production mode at the time of sampling.
PWS-3	AGPWS3-W-04568	65–125	6/3/05	PW	Public well PWS-3 was not in use at time of sampling, but it pumped extensively several days prior to sampling. Purged only to clear piping. Screen interval reported in CAS report Table 3 (BE&K/Terranext 1998a).
Existing Argonne Piezometers and Monitoring Wells					
SB15	AGSB15-W-04563	98.5–108.5	6/2/05	MW	Depth to water from TOC = 45.00 ft BGL. Depth of well = approximately 110 ft BGL. Sample collected after purging of 35 gal.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
Existing Argonne Piezometers and Monitoring Wells (Cont.)					
SB23S	AGSB23S-W-04384	49–55	5/20/05	CPT/P	Depth to water from TOC = 34.00 ft BGL. Depth of well = 51.10 ft BGL. Sample collected after purging of 2 gal. Water cloudy.
SB23	AGSB23-W-04385	100–106	5/20/05	CPT/P	Depth to water from TOC = 34.02 ft BGL. Depth of well = 102.25 ft BGL. Sample collected after purging of 9 gal.
SB28S	AGSB28S-W-04534	59–65	5/23/05	CPT/P	Depth to water from TOC = 41.52 ft BGL. Depth of well = 48.35 ft BGL. Sample collected after purging of 1 gal.
SB28	AGSB28-W-04537	100–106	5/24/05	CPT/P	Depth to water from TOC = 41.71 ft BGL. Depth of well = 106.90 ft BGL. Sample collected after purging of 5 gal.
SB36	AGSB36-W-04566	42.7–62.7	6/2/05	MW	Depth to water from TOC = 40.73 ft BGL. Depth of well = 61.25 ft BGL. Sample collected after purging of 40 gal.
SB38S	AGSB38S-W-04570	57–63	6/3/05	CPT/P	Depth to water from TOC = 41.0 ft BGL. Depth of well = 62.37 ft BGL. Sample collected after purging of 2.6 gal.
SB38	AGSB38-W-04571	95–101	6/3/05	CPT/P	Depth to water from TOC = 40.89 ft BGL. Depth of well = 100.80 ft BGL. Sample collected after purging of 7 gal.
2005 Cone Penetrometer Locations					
SB40	AGSB40-W-17461	50–55	6/10/05	CPT	Turbid sample material settled quickly.
SB40	AGSB40-W-17460	60–65	6/10/05	CPT	Sample mostly clear; collected after break for lunch.
SB40	AGSB40-W-17459	70–75	6/10/05	CPT	Very silty.
SB40	AGSB40-W-17458	80–85	6/10/05	CPT	Very silty.
SB40	AGSB40-W-17729	100–105	6/11/05	CPT	No description recorded.
SB41	AGSB41-W-04540	48–53	6/9/05	CPT	Series of screened CPT temporary wells on north side of Kansas Avenue, near MW-M.
SB41	AGSB41-W-04541	58–63	6/9/05	CPT	No description recorded.
SB41	AGSB41-W-04542	63–68	6/9/05	CPT	No description recorded.
SB41	AGSB41-W-17749	68–73	6/8/05	CPT	No description recorded.
SB41	AGSB41-W-17748	73–78	6/8/05	CPT	Basal unit sample, slightly turbid.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB42	AGSB42-W-17868	50–55	7/9/05	CPT	Screened CPT sample about 10 ft east of Sixth Street and 200 ft south of well PWS-3. Field measurements were made the morning after sampling by using an aliquot held overnight on ice.
SB42	AGSB42-W-17841	65–70	7/8/05	CPT	Slightly turbid.
SB42	AGSB42-W-17840	80–85	7/8/05	CPT	Clear to slightly turbid.
SB42	AGSB42-W-17839	95–100	7/8/05	CPT	Slightly turbid; material settled quickly.
SB42	AGSB42-W-17726	110–115	7/7/05	CPT	Sample collected through Waterra tubing.
SB42	AGSB42-W-17838	125–130	7/7/05	CPT	Water level at 113 ft BGL and rising. Sample turbid, grayish color, settled quickly.
SB42	AGSB42-W-17465	140–145	7/7/05	CPT	Depth to water from ground surface = 43.3 ft BGL.
SB43	AGSB43-W-17878	42–47	7/11/05	CPT	Series of 0.5-in. temporary wells in wheat field at the former CCC/USDA facility. Wells are 2 ft apart along east-west line from shallow (west) to deep (east). Wells replaced the earlier wells at location SB43T, which were potentially compromised. (KDHE split taken.)
SB43	AGSB43-W-17879	47–52	7/11/05	CPT	Series of 0.5-in. temporary wells.
SB43	AGSB43-W-17880	52–57	7/11/05	CPT	Series of 0.5-in. temporary wells.
SB43	AGSB43-W-17881	57–62	7/11/05	CPT	Series of 0.5-in. temporary wells.
SB43	AGSB43-W-17882	62–67	7/11/05	CPT	Series of 0.5-in. temporary wells.
SB44	AGSB44-W-17877	53.5–58.5	7/10/05	CPT	Depth to water from ground level = 44.55. Depth of well from ground level = 58.5 ft BGL. Only a single screened hole was present at this location.
SB45	AGSB45-W-17836	44–49	7/8/05	CPT	Series of 0.5-in. temporary wells at former CCC/USDA facility, about 75 ft west of SB46. Wells are 2 ft apart along east-west line from shallow (west) to deep (east).
SB45	AGSB45-W-17835	49–54	7/7/05	CPT	Series of 0.5-in. temporary wells.
SB45	AGSB45-W-17834	54–59	7/7/05	CPT	Series of 0.5-in. temporary wells.
SB45	AGSB45-W-17724	59–64	7/7/05	CPT	Water level at 54 ft BGL and rising. Sample turbid, but material settled quickly.
SB45	AGSB45-W-17833	64–69	7/7/05	CPT	No description recorded.
SB46	AGSB46-W-17832	45–50	7/6/05	CPT	Series of 0.5-in. temporary wells in wheat field at former CCC/USDA facility site. Wells are 2 ft apart along an east-west line from shallow (east) to deep (west).
SB46	AGSB46-W-17831	50–55	7/6/05	CPT	Sample slightly milky with less silt than at other depths at this location.
SB46	AGSB46-W-17830	55–60	7/6/05	CPT	No description recorded.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB46	AGSB46-W-17462	60–65	7/6/05	CPT	Initially dry. After 1 hr, water level at approximately 53 ft BGL. Sample turbid, but material settled quickly.
SB46	AGSB46-W-17829	65–70	7/6/05	CPT	No description recorded.
SB47	AGSB47-W-17764	44.5–49.5	6/11/05	CPT	No description recorded.
SB47	AGSB47-W-17763	49.5–54.5	6/11/05	CPT	No description recorded.
SB47	AGSB47-W-17762	54.5–59.5	6/11/05	CPT	No description recorded.
SB47	AGSB47-W-17761	59.5–64.5	6/11/05	CPT	No description recorded.
SB47	AGSB47-W-17760	64.5–69.5	6/11/05	CPT	No description recorded.
SB47	AGSB47-W-17759	67–72	6/11/05	CPT	No description recorded.
SB48	AGSB48-W-17788	45.5–50.5	6/12/05	CPT	No description recorded.
SB48	AGSB48-W-17786	50.5–55.5	6/13/05	CPT	No description recorded.
SB48	AGSB48-W-17785	55.5–60.5	6/12/05	CPT	No description recorded.
SB48	AGSB48-W-17784	60.5–65.5	6/12/05	CPT	No description recorded.
SB48	AGSB48-W-17783	65.5–70.5	6/12/05	CPT	No description recorded.
SB49	AGSB49-W-17756	43–48	6/13/05	CPT	No description recorded.
SB49	AGSB49-W-17755	48–53	6/13/05	CPT	Insufficient water for field parameters.
SB49	AGSB49-W-17754	53–58	6/13/05	CPT	Insufficient water for field parameters.
SB49	AGSB49-W-04609	58–63	6/13/05	CPT	No description recorded.
SB49	AGSB49-W-17794	63–68	6/13/05	CPT	No description recorded.
SB49	AGSB49-W-17793	68–73	6/13/05	CPT	Sample collected after overnight pause.
SB50	AGSB50-W-17825	45.5–50.5	6/13/05	CPT	No description recorded.
SB50	AGSB50-W-17824	50.5–55.5	6/13/05	CPT	No description recorded.
SB50	AGSB50-W-17753	55.5–60.5	6/13/05	CPT	Initial aliquot slightly turbid but others clear.
SB50	AGSB50-W-17823	60.5–65.5	6/13/05	CPT	No description recorded.
SB51	AGSB51-W-17631	46–51	5/23/05	CPT	Slightly turbid, material settled quickly.
SB51	AGSB51-W-04536	51–56	5/24/05	CPT	Depth to water from TOC = 45.41 ft BGL. Depth of well = 56.66 ft BGL.
SB51	AGSB51-W-17630	56–61	5/23/05	CPT	Turbid.
SB51	AGSB51-W-17628	61–66	5/23/05	CPT	Sample collected from unit immediately above bedrock. Turbid. Sediment settled quickly.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB52	AGSB52-W-no sample	39–44	5/21/05	CPT	No sample collected.
SB52	AGSB52-no sample	39–44	5/22/05	CPT	Depth to water = 56.23 ft BGL. Insufficient water to sample. No sample collected.
SB52	AGSB52-W-04526	44–49	5/22/05	CPT	Depth to water = 49.31 ft BGL.
SB52	AGSB52-W-04525	49–54	5/22/05	CPT	Depth to water = 44.93 ft BGL.
SB52	AGSB52-W-04524	54–59	5/22/05	CPT	Depth to water = 44.49 ft BGL.
SB52	AGSB52-W-04523	59–64	5/22/05	CPT	Depth to water = 44.29 ft BGL.
SB52	AGSB52-W-04522	63.45–68.45	5/22/05	CPT	Depth to water = 40.53 ft BGL. The six temporary wells at the SB52 location were purged dry in the morning and sampled that evening.
SB53	AGSB53-W-no sample	43–48	5/20/05	CPT	No water at indicated depth interval.
SB53	AGSB53-W-04511	48–53	5/21/05	CPT	Cased and left overnight prior to sampling.
SB53	AGSB53-W-17573	53–58	5/20/05	CPT	Water recovery based on tip/sleeve ratio and drop in conductance. Slow water recovery overnight. Turbid, but material settled out quickly.
SB53	AGSB53-W-04388	58–63	5/20/05	CPT	Depth to water from TOC = 52.34 ft BGL. Depth of well = 63.0 ft BGL. Sample collected without purging.
SB53	AGSB53-W-17556	63–68	5/20/05	CPT	Turbid, but silt settled quickly.
SB54	AGSB54-W-no sample	40–45	6/9/05	CPT	No water at indicated sampling interval.
SB54	AGSB54-W-04586	45–50	6/9/05	CPT	No description recorded.
SB54	AGSB54-W-04587	50–55	6/9/05	CPT	No description recorded.
SB54	AGSB54-W-04588	55–60	6/9/05	CPT	No description recorded.
SB54	AGSB54-W-17493	60–65	6/8/05	CPT	Basal unit sample, slightly turbid.
SB55	AGSB55-W-17686	45–50	6/3/05	CPT	Very silty, but material settled quickly.
SB55	AGSB55-W-17684	53–58	6/3/05	CPT	Slightly turbid; material settled quickly.
SB55	AGSB55-W-17687	61–66	6/3/05	CPT	No description recorded.
SB55	AGSB55-W-17683	69–74	6/3/05	CPT	Turbid, light brown; material settled quickly.
SB55	AGSB55-W-17682	77–82	6/2/05	CPT	Turbid sample, dark brown. Approximately 20 ft of water in casing.
SB55	AGSB55-W-17688	85–90	6/3/05	CPT	Slightly turbid basal unit sample.
SB56	AGSB56-W-17652	48–53	5/25/05	CPT	Very turbid, silty brown; material settled quickly. Necessary to wait for recharge between collection of sample aliquots.
SB56	AGSB56-W-17656	58–63	5/26/05	CPT	Turbid sample, but material settled quickly. Approximately 3.5 ft of water and rising in the casing at time of sampling.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB56	AGSB56-W-17654	68–73	5/25/05	CPT	Abundant recovery; immediate water.
SB56	AGSB56-W-17651	78–83	5/25/05	CPT	Immediate water recovery; rapidly rising with 32 ft of water in hole through 5-ft screen.
SB56	AGSB56-W-17657	90–95	5/26/05	CPT	Slightly turbid, brown.
SB56	AGSB56-W-17655	102–107	5/25/05	CPT	15 ft of water upon opening of screen to formation.
SB56	AGSB56-W-17649	112–117	5/25/05	CPT	Immediate water recovery. Dark gray in color.
SB58	AGSB58-W-no sample	43–48	5/23/05	CPT	No water at indicated depth interval.
SB58	AGSB58-W-17618	48–53	5/22/05	CPT	Very turbid, thick with silt, but material settled quickly.
SB58	AGSB58-W-04528	53–58	5/23/05	CPT	No description recorded.
SB58	AGSB58-W-04529	58–63	5/23/05	CPT	No description recorded.
SB58	AGSB58-W-04530	63–68	5/23/05	CPT	No description recorded.
SB59	AGSB59-W-04595	45–50	6/7/05	CPT	No description recorded.
SB59	AGSB59-W-17479	52–57	6/6/05	CPT	No description recorded.
SB59	AGSB59-W-17478	59–64	6/6/05	CPT	Turbid sample, but material settled quickly.
SB59	AGSB59-W-04596	66–71	6/7/05	CPT	No description recorded.
SB59	AGSB59-W-04597	73–78	6/7/05	CPT	No description recorded.
SB60	AGSB60-W-17728	41–46	6/10/05	CPT	No description recorded.
SB60	AGSB60-W-04548	46–51	6/10/05	CPT	Series of screened CPT temporary wells north of railroad, across from Co-op shed and elevator tower.
SB60	AGSB60-W-04547	51–56	6/10/05	CPT	Series of screened CPT temporary wells.
SB60	AGSB60-W-04546	56–61	6/10/05	CPT	Series of screened CPT temporary wells.
SB60	AGSB60-W-04545	62–67	6/10/05	CPT	Series of screened CPT temporary wells.
SB61	AGSB61-W-17710	60–65	6/5/05	CPT	Aliquots for VOCs analyses and field measurements.
SB61	AGSB61-W-04580	60–65	6/5/05	CPT	Aliquots for inorganic analyses.
SB61	AGSB61-W-17708	72–77	6/5/05	CPT	Slightly turbid, but material settled quickly.
SB61	AGSB61-W-17712	81–86	6/5/05	CPT	Slighty silty/turbid.
SB61	AGSB61-W-17709	91–96	6/5/05	CPT	Slightly turbid.
SB61	AGSB61-W-17706	102–107	6/4/05	CPT	Turbid sample, gray-brown, from basal unit.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB62	AGSB62-W-17647	45–50	5/25/05	CPT	Waited overnight for water; highly turbid, carrying heavy sediment load.
SB62	AGSB62-W-17646	50–55	5/24/05	CPT	Immediate water recovery.
SB62	AGSB62-W-04554	55–60	5/25/05	CPT	Depth to water from TOC = 46.87 ft BGL with TOC 6 in. above ground level. Depth of well = 60 ft BGL. Sample collected without purging.
SB62	AGSB62-W-04555	60–65	5/25/05	CPT	Depth to water from TOC = 47.56 ft BGL. Depth of well = 65 ft BGL. Sample collected without purging.
SB63	AGSB63-W-17538	41.2–46.2	5/18/05	CPT	No sample collected.
SB63	AGSB63-W-04377	42.9–47.9	5/19/05	CPT	Temporary CPT well with 5-ft screen Depth to water from TOC = 46.65 ft BGL. Sample collected for VOCs only after overnight recharge.
SB63	AGSB63-W-17539	48.2–53.2	5/18/05	CPT	No description recorded.
SB63	AGSB63-W-04376	52.9–57.9	5/19/05	CPT	Temporary CPT well with 5-ft screen. Depth to water from TOC = 46.59 ft BGL. Depth of well = 57.93 BGL. Sample collected for VOCs only after overnight recharge.
SB63	AGSB63-W-17542	53.2–58.2	5/18/05	CPT	Immediate water recovery, moderate turbidity, material settled quickly.
SB64	AGSB64-W-04604	42.7–47.7	6/9/05	CPT	No description recorded.
SB64	AGSB64-W-04603	47.7–52.7	6/7/05	CPT	No description recorded.
SB64	AGSB64-W-04601	52.7–57.7	6/7/05	CPT	No description recorded.
SB64	AGSB64-W-04600	57.7–62.7	6/7/05	CPT	No description recorded.
SB64	AGSB64-W-04602	62.7–67.7	6/7/05	CPT	No description recorded.
SB65	AGSB65-W-no sample	42–47	6/6/05	CPT	No water at indicated depth interval.
SB65	AGSB65-no sample	42–47	6/6/05	CPT	No water at indicated depth interval.
SB65	AGSB65-W-04592	50–55	6/6/05	CPT	No description recorded.
SB65	AGSB65-W-04591	56–61	6/6/05	CPT	No description recorded.
SB65	AGSB65-W-04590	62–67	6/6/05	CPT	No description recorded.
SB65	AGSB65-W-17718	68–73	6/5/05	CPT	Aliquot for VOCs analysis collected on June 5. Aliquots for field measurements and inorganic analyses collected on June 6. Depth to water on June 6 = 45.97 ft BGL.
SB66	AGSB66-W-04583	48–55	6/9/05	CPT	Series of screened CPT temporary wells on the south shoulder of Railroad Avenue, on line with grain bins 4 and 5.
SB66	AGSB66-W-17739	58–63	6/8/05	CPT	Series of screened CPT temporary wells. Slighty turbid.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB66	AGSB66-W-17738	78–83	6/7/05	CPT	Series of screened CPT temporary wells.
SB66	AGSB66-W-17492	88–93	6/7/05	CPT	Series of screened CPT temporary wells.
SB66	AGSB66-W-04582	98–103	6/9/05	CPT	Series of screened CPT temporary wells.
SB66	AGSB66-W-04581	106–111	6/9/05	CPT	Series of screened CPT temporary wells.
SB67	AGSB67-W-no sample	41.5–46.5	7/12/05	CPT	Interval dry; no sample collected.
SB67	AGSB67-W-17884	46.5–51.5	7/12/05	CPT	Located in area of former store south of Railroad Avenue, between Main Street and alley (adjacent to alley). Limited water available.
SB67	AGSB67-W-17883	51.5–56.5	7/12/05	CPT	Limited water available.
SB67	AGSB67-W-17804	56.5–61.5	7/13/05	CPT	No description recorded.
SB68	AGSB68-W-17869	44–49	7/10/05	CPT	Series of 0.5-in. temporary wells in wheat field at former CCC/USDA facility.
SB68	AGSB68-W-17870	49–54	7/10/05	CPT	Series of 0.5-in. temporary wells.
SB68	AGSB68-W-17871	54–59	7/10/05	CPT	Series of 0.5-in temporary wells.
SB68	AGSB68-W-17872	59–64	7/10/05	CPT	Series of 0.5-in temporary wells.
SB69	AGSB69-W-no sample	44–49	7/8/05	CPT	Could not collect sample because of apparent crimp in top joint of screen.
SB69	AGSB69-W-17851	49–54	7/8/05	CPT	Series of 0.5-in. temporary wells in wheat field at former CCC/USDA facility, sampled after overnight recharge.
SB69	AGSB69-W-17850	54–59	7/8/05	CPT	Series of 0.5-in. temporary wells in wheat field at former CCC/USDA facility, sampled after overnight recharge.
SB69	AGSB69-W-17849	59–64	7/8/05	CPT	Series of 0.5-in. temporary wells in wheat field at former CCC/USDA facility, sampled after overnight recharge.
SB70	AGSB70-W-17873	40–45	7/11/05	CPT	Series of 0.5-in. temporary temp wells in alleyway between the main Kyle Railroad line and the siding track north of the Co-op bins. Wells replaced earlier wells at SB70T, which were potentially compromised. No well at 50–55 ft.
SB70	AGSB70-W-17874	45–50	7/11/05	CPT	Series of 0.5-in temporary wells in alleyway.
SB70	AGSB70-W-17875	55–60	7/11/05	CPT	Series of 0.5-in temporary wells in alleyway.
SB70	AGSB70-W-17876	60–65	7/11/05	CPT	Series of 0.5-in temporary wells in alleyway. KDHE split collected at this sample interval.
SB71	AGSB71-W-17736	47–52	6/11/05	CPT	No description recorded.
SB71	AGSB71-W-17758	52–57	6/11/05	CPT	No description recorded.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB71	AGSB71-W-17735	57–62	6/11/05	CPT	No description recorded.
SB71	AGSB71-W-17734	62–67	6/11/05	CPT	No description recorded.
SB71	AGSB71-W-17733	64–69	6/11/05	CPT	No description recorded.
SB71	AGSB71-W-17732	72–77	6/11/05	CPT	No description recorded.
SB72	AGSB72-W-17886	59–69	7/12/05	CPT/P	Depth to water from TOC = 41.54 ft BGL. Depth of 1-in. well = 66.54 ft BGL. Sample collected after purging of dry twice with Waterra pump. Collection time for all aliquots was approximately 45 min.
SB73	AGSB73-W-17792	43–48	6/12/05	CPT	No description recorded.
SB73	AGSB73-W-17791	48–53	6/12/05	CPT	No description recorded.
SB73	AGSB73-W-17790	53–58	6/12/05	CPT	No description recorded.
SB73	AGSB73-W-17722	63–68	6/11/05	CPT	Aliquots for VOCs analyses and field measurements. Sample clear with trace of silt.
SB73	AGSB73-W-17789	63–68	6/12/05	CPT	Aliquots for inorganic analyses.
SB75	AGSB75-W-no sample1	41.5–46.5	7/12/05	CPT	Interval dry; no sample collected.
SB75	AGSB75-W-no sample2	46.5–51.5	7/12/05	CPT	Obstruction at 48 ft BGL; sample not collected.
SB75	AGSB75-W-17891	46.5–51.5	7/13/05	CPT	Second push adjacent to obstructed hole. Water had organic blackish appearance. Sampler noted possibility of former coal pile site next to tracks.
SB75	AGSB75-W-17888	51.5–56.5	7/12/05	CPT	Located east of Main Street, south of Kyle Railroad, north of Railroad Avenue at northwest corner of Co-op building.
SB78	AGSB78-W-17799	47.5–52.5	7/13/05	CPT	Series of 0.5-in. temporary wells approximately 25 ft south of Kyle Railroad and approximately 45 ft north of Co-op scale office. Just south of railroad's sign for Agra.
SB78	AGSB78-W-17800	52.5–57.5	7/13/05	CPT	Series of 0.5-in. temporary wells.
SB78	AGSB78-W-17801	57.5–62.5	7/13/05	CPT	Series of 0.5-in. temporary wells.
SB78	AGSB78-W-17802	62.5–67.5	7/13/05	CPT	Series of 0.5-in. temporary wells.
SB79	AGSB79-W-17496	50–55	7/14/05	CPT	No description recorded.
SB79	AGSB79-W-17727	55–60	7/14/05	CPT	Collected with Waterra pump.
SB79	AGSB79-W-17845	60–65	7/14/05	CPT	Insufficient water for field measurements. Aliquots collected for VOCs analyses only.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type	Sample Description
2005 Cone Penetrometer Locations (Cont.)					
SB80	AGSB80-W-17847	50–55	7/14/05	CPT	No description recorded.
SB80	AGSB80-W-17843	55–60	7/14/05	CPT	No description recorded.
SB80	AGSB80-W-17844	60–64.75	7/14/05	CPT	No description recorded.

[a] Sample types: CPT, cone penetrometer; CPT/P, piezometer; DW, domestic well; MW, monitoring well; PW, public water supply well.

TABLE S2.2 Field measurements made during collection of groundwater samples in the 2005 investigation of contaminant sources at Agra, Kansas.

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
Domestic Wells							
DW07A	AGDW07A-W-04565	50–70	6/2/05	DW	17.3	7.11	1,236
DW98	AGDW98-W-04567	Unknown	6/3/05	DW	14.6	6.92	1,378
KDHE Monitoring Wells							
KMW01	AGKMW01-W-04375	43–53	5/18/05	MW	21.9	6.88	773
KMW02	AGKMW02-W-04382	57–97	5/19/05	MW	16.4	7.13	1,029
KMW03	AGKMW03-W-04390	74–89	5/21/05	MW	19.0	7.18	738
MW-1	AGMW1-W-04378	41–51	5/19/05	MW	20.6	7.10	964
MW-2	AGMW2-W-04551	40–60	5/24/05	MW	19.0	7.16	900
MW-B	AGMWB-W-04383	39–54	5/19/05	MW	22.7	7.06	1,167
MW-C	AGMWC-W-04394	35–55	5/22/05	MW	17.9	7.07	1,340
MW-F	AGMWF-W-04553	65–75	5/25/05	MW	18.3	7.21	936
MW-G	AGMWG-W-04539	89–99	5/24/05	MW	17.7	7.10	1,054
MW-H	AGMWH-W-04557	43–53	5/25/05	MW	18.2	6.99	1,338
MW-I	AGMWI-W-04381	36–71	5/19/05	MW	19.5	7.15	799
MW-J	AGMWJ-W-04393	56–66	5/21/05	MW	15.0	6.88	1,122
MW-K	AGMWK-W-04392	55–65	5/21/05	MW	19.7	7.17	781
MW-L	AGMWL-W-04520	70–80	5/22/05	MW	17.7	7.07	1,294
MW-M	AGMWM-W-04556	59–69	5/25/05	MW	16.6	7.18	915
MW-N	AGMWN-W-17798	80–90	7/12/05	MW	16.8	7.00	1,104
MW-O	AGMWO-W-04521	38–58	5/22/05	MW	27.0	7.32	757
MW-P	AGMWP-W-17757	35.42–54.92	6/13/05	MW	17.1	7.01	1,052
MW-Q	AGMWQ-W-04391	43.28–62.78	5/21/05	MW	20.1	7.18	746
MW-R	AGMWR-W-04387	44.45–63.95	5/20/05	MW	21.2	7.26	754
Public Water Supply Wells							
PWS-1	AGPW1-W-04606	82–91	6/9/05	PW	16.1	6.91	1,427
PWS-2	AGPW2-W-04607	73–82	6/9/05	PW	14.7	6.87	1,455
PWS-3	AGPWS3-W-04568	65–125	6/3/05	PW	15.1	7.22	651
Existing Argonne Piezometers and Monitoring Wells							
SB15	AGSB15-W-04563	98.5–108.5	6/2/05	MW	15.7	7.08	824
SB23S	AGSB23S-W-04384	49–55	5/20/05	CPT/P	22.6	6.85	846
SB23	AGSB23-W-04385	100–106	5/20/05	CPT/P	22.6	7.16	764
SB28S	AGSB28S-W-04534	59–65	5/23/05	CPT/P	29.2	6.51	1,023
SB28	AGSB28-W-04537	100–106	5/24/05	CPT/P	18.3	7.06	1,152
SB36	AGSB36-W-04566	42.7–62.7	6/2/05	MW	15.8	7.15	993
SB38S	AGSB38S-W-04570	57–63	6/3/05	CPT/P	22.3	7.03	932
SB38	AGSB38-W-04571	95–101	6/3/05	CPT/P	16.3	7.03	959

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
2005 Cone Penetrometer Locations							
SB40	AGSB40-W-17461	50–55	6/10/05	CPT	19.3	7.31	1,273
SB40	AGSB40-W-17460	60–65	6/10/05	CPT	19.1	7.19	1,164
SB40	AGSB40-W-17459	70–75	6/10/05	CPT	18.0	7.25	912
SB40	AGSB40-W-17458	80–85	6/10/05	CPT	18.2	7.35	454
SB40	AGSB40-W-17729	100–105	6/11/05	CPT	15.4	7.01	707
SB41	AGSB41-W-04540	48–53	6/9/05	CPT	22.6	7.06	965
SB41	AGSB41-W-04541	58–63	6/9/05	CPT	NA[b]	NA	NA
SB41	AGSB41-W-04542	63–68	6/9/05	CPT	NA	NA	NA
SB41	AGSB41-W-17749	68–73	6/8/05	CPT	19.8	7.00	893
SB41	AGSB41-W-17748	73–78	6/8/05	CPT	19.9	6.85	910
SB42	AGSB42-W-17868	50–55	7/9/05	CPT	14.4	7.35	931
SB42	AGSB42-W-17841	65–70	7/8/05	CPT	NR[c]	6.92	910
SB42	AGSB42-W-17840	80–85	7/8/05	CPT	20.4	6.36	1,200
SB42	AGSB42-W-17839	95–100	7/8/05	CPT	22.6	6.79	892
SB42	AGSB42-W-17726	110–115	7/7/05	CPT	21.6	6.98	851
SB42	AGSB42-W-17838	125–130	7/7/05	CPT	22.5	7.53	694
SB42	AGSB42-W-17465	140–145	7/7/05	CPT	23.7	7.15	695
SB43	AGSB43-W-17878	42–47	7/11/05	CPT	24.3	7.16	950
SB43	AGSB43-W-17879	47–52	7/11/05	CPT	23.3	7.27	1,017
SB43	AGSB43-W-17880	52–57	7/11/05	CPT	21.4	7.30	1,003
SB43	AGSB43-W-17881	57–62	7/11/05	CPT	23.2	7.44	977
SB43	AGSB43-W-17882	62–67	7/11/05	CPT	21.8	7.27	1,045
SB44	AGSB44-W-17877	53.5–58.5	7/10/05	CPT	26.7	6.66	1,076
SB45	AGSB45-W-17836	44–49	7/8/05	CPT	23.8	7.31	765
SB45	AGSB45-W-17835	49–54	7/7/05	CPT	26.1	7.20	779
SB45	AGSB45-W-17834	54–59	7/7/05	CPT	26.9	7.24	787
SB45	AGSB45-W-17724	59–64	7/7/05	CPT	21.8	6.13	817
SB45	AGSB45-W-17833	64–69	7/7/05	CPT	27.7	7.08	840
SB46	AGSB46-W-17832	45–50	7/6/05	CPT	22.3	7.05	823
SB46	AGSB46-W-17831	50–55	7/6/05	CPT	27.5	7.04	768
SB46	AGSB46-W-17830	55–60	7/6/05	CPT	34.8	6.32	761
SB46	AGSB46-W-17462	60–65	7/6/05	CPT	21.9	6.52	1,037
SB46	AGSB46-W-17829	65–70	7/6/05	CPT	30.3	6.67	864
SB47	AGSB47-W-17764	44.5–49.5	6/11/05	CPT	25.8	7.11	637
SB47	AGSB47-W-17763	49.5–54.5	6/11/05	CPT	NA	NA	NA
SB47	AGSB47-W-17762	54.5–59.5	6/11/05	CPT	24.8	7.28	637
SB47	AGSB47-W-17761	59.5–64.5	6/11/05	CPT	25.8	7.12	798
SB47	AGSB47-W-17760	64.5–69.5	6/11/05	CPT	27.0	7.14	658
SB47	AGSB47-W-17759	67–72	6/11/05	CPT	26.1	7.25	636
SB48	AGSB48-W-17788	45.5–50.5	6/12/05	CPT	22.4	7.15	1,078
SB48	AGSB48-W-17786	50.5–55.5	6/13/05	CPT	23.3	7.09	1,044
SB48	AGSB48-W-17785	55.5–60.5	6/12/05	CPT	19.2	7.37	686

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
2005 Cone Penetrometer Locations (Cont.)							
SB48	AGSB48-W-17784	60.5–65.5	6/12/05	CPT	17.8	7.01	1,004
SB48	AGSB48-W-17783	65.5–70.5	6/12/05	CPT	18.8	6.97	970
SB49	AGSB49-W-17756	43–48	6/13/05	CPT	19.7	7.33	967
SB49	AGSB49-W-17755	48–53	6/13/05	CPT	NA	NA	NA
SB49	AGSB49-W-17754	53–58	6/13/05	CPT	NA	NA	NA
SB49	AGSB49-W-04609	58–63	6/13/05	CPT	16.7	7.34	1,240
SB49	AGSB49-W-17794	63–68	6/13/05	CPT	16.3	7.04	1,252
SB49	AGSB49-W-17793	68–73	6/13/05	CPT	14.5	6.93	1,042
SB50	AGSB50-W-17825	45.5–50.5	6/13/05	CPT	17.3	7.05	1,202
SB50	AGSB50-W-17824	50.5–55.5	6/13/05	CPT	16.1	6.97	1,380
SB50	AGSB50-W-17753	55.5–60.5	6/13/05	CPT	18.2	7.33	1,072
SB50	AGSB50-W-17823	60.5–65.5	6/13/05	CPT	22.6	7.06	1,041
SB51	AGSB51-W-17631	46–51	5/23/05	CPT	23.0	6.93	968
SB51	AGSB51-W-04536	51–56	5/24/05	CPT	23.8	6.91	816
SB51	AGSB51-W-17630	56–61	5/23/05	CPT	20.3	6.98	1,076
SB51	AGSB51-W-17628	61–66	5/23/05	CPT	19.1	7.19	1,010
SB52	AGSB52-W-04526	44–49	5/22/05	CPT	NA	NA	NA
SB52	AGSB52-W-04525	49–54	5/22/05	CPT	NA	NA	NA
SB52	AGSB52-W-04524	54–59	5/22/05	CPT	NA	NA	NA
SB52	AGSB52-W-04523	59–64	5/22/05	CPT	NA	NA	NA
SB52	AGSB52-W-04522	63.45–68.45	5/22/05	CPT	NA	NA	NA
SB53	AGSB53-W-04511	48–53	5/21/05	CPT	20.3	6.65	1,258
SB53	AGSB53-W-17573	53–58	5/20/05	CPT	19.9	6.58	1,656
SB53	AGSB53-W-04388	58–63	5/20/05	CPT	NA	NA	NA
SB53	AGSB53-W-17556	63–68	5/20/05	CPT	21.2	6.73	960
SB54	AGSB54-W-04586	45–50	6/9/05	CPT	NA	NA	NA
SB54	AGSB54-W-04587	50–55	6/9/05	CPT	NA	NA	NA
SB54	AGSB54-W-04588	55–60	6/9/05	CPT	23.7	7.07	1,090
SB54	AGSB54-W-17493	60–65	6/8/05	CPT	20.3	6.94	937
SB55	AGSB55-W-17686	45–50	6/3/05	CPT	16.2	7.23	863
SB55	AGSB55-W-17684	53–58	6/3/05	CPT	17.1	7.33	805
SB55	AGSB55-W-17687	61–66	6/3/05	CPT	18.1	7.27	823
SB55	AGSB55-W-17683	69–74	6/3/05	CPT	16.2	7.31	768
SB55	AGSB55-W-17682	77–82	6/2/05	CPT	17.6	7.36	701
SB55	AGSB55-W-17688	85–90	6/3/05	CPT	17.5	7.29	681
SB56	AGSB56-W-17652	48–53	5/25/05	CPT	18.1	7.25	1000
SB56	AGSB56-W-17656	58–63	5/26/05	CPT	13.6	7.34	1009
SB56	AGSB56-W-17654	68–73	5/25/05	CPT	17.2	7.30	856
SB56	AGSB56-W-17651	78–83	5/25/05	CPT	16.9	7.34	812
SB56	AGSB56-W-17657	90–95	5/26/05	CPT	14.5	7.26	824
SB56	AGSB56-W-17655	102–107	5/25/05	CPT	16.8	7.29	778
SB56	AGSB56-W-17649	112–117	5/25/05	CPT	17.8	7.40	599

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
2005 Cone Penetrometer Locations (Cont.)							
SB58	AGSB58-W-17618	48–53	5/22/05	CPT	20.7	6.85	1,502
SB58	AGSB58-W-04528	53–58	5/23/05	CPT	17.8	6.46	1,368
SB58	AGSB58-W-04529	58–63	5/23/05	CPT	16.9	6.70	1,108
SB58	AGSB58-W-04530	63–68	5/23/05	CPT	17.1	6.45	853
SB59	AGSB59-W-04595	45–50	6/7/05	CPT	28.1	6.90	2,660
SB59	AGSB59-W-17479	52–57	6/6/05	CPT	20.9	6.53	1,152
SB59	AGSB59-W-17478	59–64	6/6/05	CPT	19.8	7.10	1,244
SB59	AGSB59-W-04596	66–71	6/7/05	CPT	28.2	7.08	1,137
SB59	AGSB59-W-04597	73–78	6/7/05	CPT	32.5	7.12	1,034
SB60	AGSB60-W-17728	41–46	6/10/05	CPT	20.7	7.28	1,214
SB60	AGSB60-W-04548	46–51	6/10/05	CPT	19.3	7.30	929
SB60	AGSB60-W-04547	51–56	6/10/05	CPT	17.3	7.30	893
SB60	AGSB60-W-04546	56–61	6/10/05	CPT	17.0	7.07	789
SB60	AGSB60-W-04545	62–67	6/10/05	CPT	18.4	6.92	868
SB61	AGSB61-W-17710	60–65	6/5/05	CPT	19.9	6.98	1,876
SB61	AGSB61-W-17708	72–77	6/5/05	CPT	17.4	6.92	1,306
SB61	AGSB61-W-17712	81–86	6/5/05	CPT	18.9	7.19	905
SB61	AGSB61-W-17709	91–96	6/5/05	CPT	19.1	7.13	959
SB61	AGSB61-W-17706	102–107	6/4/05	CPT	20.1	6.52	657
SB62	AGSB62-W-17647	45–50	5/25/05	CPT	17.8	7.33	936
SB62	AGSB62-W-17646	50–55	5/24/05	CPT	21.7	7.16	884
SB62	AGSB62-W-04554	55–60	5/25/05	CPT	23.0	7.45	889
SB62	AGSB62-W-04555	60–65	5/25/05	CPT	21.8	7.46	846
SB63	AGSB63-W-04377	42.9–47.9	5/19/05	CPT	NA	NA	NA
SB63	AGSB63-W-17539	48.2–53.2	5/18/05	CPT	22.4	6.77	848
SB63	AGSB63-W-04376	52.9–57.9	5/19/05	CPT	18.0	6.99	900
SB63	AGSB63-W-17542	53.2–58.2	5/18/05	CPT	28.4	NR	1251
SB64	AGSB64-W-04604	42.7–47.7	6/9/05	CPT	NA	NA	NA
SB64	AGSB64-W-04603	47.7–52.7	6/7/05	CPT	31.9	7.01	2760
SB64	AGSB64-W-04601	52.7–57.7	6/7/05	CPT	NA	NA	NA
SB64	AGSB64-W-04600	57.7–62.7	6/7/05	CPT	31.1	7.21	1936
SB64	AGSB64-W-04602	62.7–67.7	6/7/05	CPT	29.6	7.02	2310
SB65	AGSB65-W-04592	50–55	6/6/05	CPT	24.5	7.11	1405
SB65	AGSB65-W-04591	56–61	6/6/05	CPT	22.2	7.11	1305
SB65	AGSB65-W-04590	62–67	6/6/05	CPT	24.1	7.29	1218
SB65	AGSB65-W-17718	68–73	6/5/05	CPT	19.0	6.80	970
SB66	AGSB66-W-04583	48–55	6/9/05	CPT	18.9	7.06	1,145
SB66	AGSB66-W-17739	58–63	6/8/05	CPT	18.3	6.79	902
SB66	AGSB66-W-17738	78–83	6/7/05	CPT	20.3	6.94	937
SB66	AGSB66-W-17492	88–93	6/7/05	CPT	21.4	6.78	942
SB66	AGSB66-W-04582	98–103	6/9/05	CPT	18.9	7.11	779
SB66	AGSB66-W-04581	106–111	6/9/05	CPT	20.6	6.97	764

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
2005 Cone Penetrometer Locations (Cont.)							
SB67	AGSB67-W-17884	46.5–51.5	7/12/05	CPT	NA	NA	NA
SB67	AGSB67-W-17883	51.5–56.5	7/12/05	CPT	NA	NA	NA
SB67	AGSB67-W-17804	56.5–61.5	7/13/05	CPT	24.8	7.00	946
SB68	AGSB68-W-17869	44–49	7/10/05	CPT	25.6	6.66	966
SB68	AGSB68-W-17870	49–54	7/10/05	CPT	22.7	6.86	1,183
SB68	AGSB68-W-17871	54–59	7/10/05	CPT	20.6	6.98	1,176
SB68	AGSB68-W-17872	59–64	7/10/05	CPT	20.2	7.20	1,124
SB69	AGSB69-W-17851	49–54	7/8/05	CPT	21.0	7.28	1,306
SB69	AGSB69-W-17850	54–59	7/8/05	CPT	19.1	7.19	978
SB69	AGSB69-W-17849	59–64	7/8/05	CPT	18.5	7.14	1,149
SB70	AGSB70-W-17873	40–45	7/11/05	CPT	NA	NA	NA
SB70	AGSB70-W-17874	45–50	7/11/05	CPT	22.0	6.62	1,527
SB70	AGSB70-W-17875	55–60	7/11/05	CPT	20.5	6.89	1,120
SB70	AGSB70-W-17876	60–65	7/11/05	CPT	23.4	7.01	1,134
SB71	AGSB71-W-17736	47–52	6/11/05	CPT	NA	NA	NA
SB71	AGSB71-W-17758	52–57	6/11/05	CPT	17.3	7.12	729
SB71	AGSB71-W-17735	57–62	6/11/05	CPT	17.0	7.12	809
SB71	AGSB71-W-17734	62–67	6/11/05	CPT	17.8	7.23	769
SB71	AGSB71-W-17733	64–69	6/11/05	CPT	18.9	6.30	812
SB71	AGSB71-W-17732	72–77	6/11/05	CPT	17.7	7.07	765
SB72	AGSB72-W-17886	59–69	7/12/05	CPT/P	25.8	7.09	862
SB73	AGSB73-W-17792	43–48	6/12/05	CPT	17.0	7.03	1,389
SB73	AGSB73-W-17791	48–53	6/12/05	CPT	19.6	7.23	926
SB73	AGSB73-W-17790	53–58	6/12/05	CPT	NA	NA	NA
SB73	AGSB73-W-17722	63–68	6/11/05	CPT	19.8	6.88	873
SB75	AGSB75-W-17891	46.5–51.5	7/13/05	CPT	26.7	7.33	1,328
SB75	AGSB75-W-17888	51.5–56.5	7/12/05	CPT	20.0	7.13	1,090
SB78	AGSB78-W-17799	47.5–52.5	7/13/05	CPT	19.6	6.95	845
SB78	AGSB78-W-17800	52.5–57.5	7/13/05	CPT	21.4	NR	924
SB78	AGSB78-W-17801	57.5–62.5	7/13/05	CPT	18.7	7.07	929
SB78	AGSB78-W-17802	62.5–67.5	7/13/05	CPT	18.2	7.23	827
SB79	AGSB79-W-17496	50–55	7/14/05	CPT	16.4	6.89	1,005
SB79	AGSB79-W-17727	55–60	7/14/05	CPT	16.9	6.92	990

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
2005 Cone Penetrometer Locations (Cont.)							
SB80	AGSB80-W-17847	50–55	7/14/05	CPT	18.6	6.86	996
SB80	AGSB80-W-17843	55–60	7/14/05	CPT	19.6	6.79	1069
SB80	AGSB80-W-17844	60–64.75	7/14/05	CPT	17.8	6.80	1036

[a] Sample types: CPT, cone penetrometer; CPT/P, piezometer; DW, domestic well; MW, monitoring well; PW, public water supply well.

[b] NA, not analyzed.

[c] NR, not recorded.

TABLE S2.3 Results of organic analyses on groundwater samples collected during the 2005 investigation of contaminant sources at Agra, Kansas.[a]

					Concentration (µg/L)		
Location	Sample	Depth (ft BGL)	Sample Type[b]	Sample Date	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
Domestic Wells							
DW07A	AGDW07A-W-04565	50–70	DW	6/2/05	ND[c]	ND	ND
DW98	AGDW98-W-04567	Unknown	DW	6/3/05	0.3 J[d]	0.2 J	ND
KDHE Monitoring Wells							
KMW01	AGKMW01-W-04375	43–53	MW	5/18/05	54.4	2.7	ND
KMW02	AGKMW02-W-04382	57–97	MW	5/19/05	0.4 J	0.3 J	ND
KMW03	AGKMW03-W-04390	74–89	MW	5/21/05	ND	ND	ND
MW-1	AGMW1-W-04378	41–51	MW	5/19/05	0.5 J	ND	ND
MW-2	AGMW2-W-04551	40–60	MW	5/24/05	59	2.4	ND
MW-B	AGMWB-W-04383	39–54	MW	5/19/05	ND	0.3 J	ND
MW-C	AGMWC-W-04394	35–55	MW	5/22/05	ND	ND	ND
MW-F	AGMWF-W-04553	65–75	MW	5/25/05	445	4.4	ND
MW-G	AGMWG-W-04539	89–99	MW	5/24/05	25	2.3	ND
MW-H	AGMWH-W-04557	43–53	MW	5/25/05	ND	0.7 J	ND
MW-I	AGMWI-W-04381	36–71	MW	5/19/05	0.2 J	ND	ND
MW-J	AGMWJ-W-04393	56–66	MW	5/21/05	13	ND	ND
MW-K	AGMWK-W-04392	55–65	MW	5/21/05	ND	ND	ND
MW-L	AGMWL-W-04520	70–80	MW	5/22/05	64	1.7	ND
MW-M	AGMWM-W-04556	59–69	MW	5/25/05	112	1.9	ND
MW-N	AGMWN-W-17798	80–90	MW	7/12/05	ND	ND	ND
MW-O	AGMWO-W-04521	38–58	MW	5/22/05	0.9 J	ND	ND
MW-P	AGMWP-W-17757	35.42–54.92	MW	6/13/05	423	3.5	ND
MW-Q	AGMWQ-W-04391	43.28–62.78	MW	5/21/05	0.5 J	ND	ND
MW-R	AGMWR-W-04387	44.45–63.95	MW	5/20/05	ND	ND	ND
Public Water Supply Wells							
PWS-1	AGPW1-W-04606	82–91	PW	6/9/05	0.6 J	3.5	ND
PWS-2	AGPW2-W-04607	73–82	PW	6/9/05	ND	3.4	ND
PWS-3	AGPWS3-W-04568	65–125	PW	6/3/05	ND	ND	ND
Existing Argonne Piezometers and Monitoring Wells							
SB15	AGSB15-W-04563	98.5–108.5	MW	6/2/05	23	1.4	ND
SB23S	AGSB23S-W-04384	49–55	CPT/P	5/20/05	1.5	ND	ND
SB23	AGSB23-W-04385	100–106	CPT/P	5/20/05	0.7 J	ND	ND
SB28S	AGSB28S-W-04534	59–65	CPT/P	5/23/05	ND	ND	ND
SB28	AGSB28-W-04537	100–106	CPT/P	5/24/05	ND	ND	ND
SB36	AGSB36-W-04566	42.7–62.7	MW	6/2/05	5.1	0.4 J	ND
SB38S	AGSB38S-W-04570	57–63	CPT/P	6/3/05	37	0.7 J	ND
SB38	AGSB38-W-04571	95–101	CPT/P	6/3/05	57	1.0	ND

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Type[b]	Sample Date	Concentration (µg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
2005 Cone Penetrometer Locations							
SB40	AGSB40-W-17461	50–55	CPT	6/10/05	595	7.8	ND
SB40	AGSB40-W-17460	60–65	CPT	6/10/05	297	37	ND
SB40	AGSB40-W-17459	70–75	CPT	6/10/05	301	7.1	ND
SB40	AGSB40-W-17458	80–85	CPT	6/10/05	74	5.5	ND
SB40	AGSB40-W-17729	100–105	CPT	6/11/05	164	21	ND
SB41	AGSB41-W-04540	48–53	CPT	6/9/05	50	1.4	ND
SB41	AGSB41-W-04541	58–63	CPT	6/9/05	43	5.4	ND
SB41	AGSB41-W-04542	63–68	CPT	6/9/05	78	2.3	ND
SB41	AGSB41-W-17749	68–73	CPT	6/8/05	94	2.2	ND
SB41	AGSB41-W-17748	73–78	CPT	6/8/05	105	1.6	ND
SB42	AGSB42-W-17868	50–55	CPT	7/9/05	43	1.3	ND
SB42	AGSB42-W-17841	65–70	CPT	7/8/05	60	1.3	ND
SB42	AGSB42-W-17840	80–85	CPT	7/8/05	0.8 J	ND	ND
SB42	AGSB42-W-17839	95–100	CPT	7/8/05	ND	ND	ND
SB42	AGSB42-W-17726	110–115	CPT	7/7/05	ND	ND	ND
SB42	AGSB42-W-17838	125–130	CPT	7/7/05	ND	ND	ND
SB42	AGSB42-W-17465	140–145	CPT	7/7/05	0.2 J	ND	ND
SB43	AGSB43-W-17878	42–47	CPT	7/11/05	3.2	0.8 J	ND
SB43	AGSB43-W-17879	47–52	CPT	7/11/05	1.7	0.3 J	ND
SB43	AGSB43-W-17880	52–57	CPT	7/11/05	0.8 J	ND	ND
SB43	AGSB43-W-17881	57–62	CPT	7/11/05	0.4 J	ND	ND
SB43	AGSB43-W-17882	62–67	CPT	7/11/05	0.5 J	ND	ND
SB44	AGSB44-W-17877	53.5–58.5	CPT	7/10/05	ND	ND	ND
SB45	AGSB45-W-17836	44–49	CPT	7/8/05	0.3 J	0.2 J	ND
SB45	AGSB45-W-17835	49–54	CPT	7/7/05	ND	ND	ND
SB45	AGSB45-W-17834	54–59	CPT	7/7/05	ND	ND	ND
SB45	AGSB45-W-17724	59–64	CPT	7/7/05	ND	ND	ND
SB45	AGSB45-W-17833	64–69	CPT	7/7/05	ND	ND	ND
SB46	AGSB46-W-17832	45–50	CPT	7/6/05	1710	49	ND
SB46	AGSB46-W-17831	50–55	CPT	7/6/05	35	2.1	ND
SB46	AGSB46-W-17830	55–60	CPT	7/6/05	65	4.6	ND
SB46	AGSB46-W-17462	60–65	CPT	7/6/05	2.0	0.4 J	ND
SB46	AGSB46-W-17829	65–70	CPT	7/6/05	2.0	0.4 J	ND
SB47	AGSB47-W-17764	44.5–49.5	CPT	6/11/05	0.4 J	ND	ND
SB47	AGSB47-W-17763	49.5–54.5	CPT	6/11/05	ND	ND	ND
SB47	AGSB47-W-17762	54.5–59.5	CPT	6/11/05	0.9 J	ND	ND
SB47	AGSB47-W-17761	59.5–64.5	CPT	6/11/05	0.3 J	ND	ND
SB47	AGSB47-W-17760	64.5–69.5	CPT	6/11/05	0.3 J	ND	ND
SB47	AGSB47-W-17759	67–72	CPT	6/11/05	ND	ND	ND

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Type[b]	Sample Date	Concentration (µg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
2005 Cone Penetrometer Locations (Cont.)							
SB48	AGSB48-W-17788	45.5–50.5	CPT	6/12/05	35	1.4	ND
SB48	AGSB48-W-17786	50.5–55.5	CPT	6/13/05	8.5	1.1	ND
SB48	AGSB48-W-17785	55.5–60.5	CPT	6/12/05	23	1.7	ND
SB48	AGSB48-W-17784	60.5–65.5	CPT	6/12/05	76	2.8	ND
SB48	AGSB48-W-17783	65.5–70.5	CPT	6/12/05	2.3	1.0	ND
SB49	AGSB49-W-17756	43–48	CPT	6/13/05	2.0	ND	ND
SB49	AGSB49-W-17755	48–53	CPT	6/13/05	731	5.5	ND
SB49	AGSB49-W-17754	53–58	CPT	6/13/05	228	2.3	ND
SB49	AGSB49-W-04609	58–63	CPT	6/13/05	428	4.5	ND
SB49	AGSB49-W-17794	63–68	CPT	6/13/05	287	3.2	ND
SB49	AGSB49-W-17793	68–73	CPT	6/13/05	2.9	ND	ND
SB50	AGSB50-W-17825	45.5–50.5	CPT	6/13/05	ND	ND	ND
SB50	AGSB50-W-17824	50.5–55.5	CPT	6/13/05	ND	ND	ND
SB50	AGSB50-W-17753	55.5–60.5	CPT	6/13/05	ND	ND	ND
SB50	AGSB50-W-17823	60.5–65.5	CPT	6/13/05	ND	ND	ND
SB51	AGSB51-W-17631	46–51	CPT	5/23/05	9.6	0.3 J	ND
SB51	AGSB51-W-04536	51–56	CPT	5/24/05	10	0.5 J	ND
SB51	AGSB51-W-17630	56–61	CPT	5/23/05	9.1	ND	ND
SB51	AGSB51-W-17628	61–66	CPT	5/23/05	6.4	ND	ND
SB52	AGSB52-W-04526	44–49	CPT	5/22/05	ND	ND	ND
SB52	AGSB52-W-04525	49–54	CPT	5/22/05	0.4 J	ND	ND
SB52	AGSB52-W-04524	54–59	CPT	5/22/05	0.7 J	0.3 J	ND
SB52	AGSB52-W-04523	59–64	CPT	5/22/05	ND	ND	ND
SB52	AGSB52-W-04522	63.45–68.45	CPT	5/22/05	ND	ND	ND
SB53	AGSB53-W-04511	48–53	CPT	5/21/05	294	18	3.0
SB53	AGSB53-W-17573	53–58	CPT	5/20/05	168	11	ND
SB53	AGSB53-W-04388	58–63	CPT	5/20/05	350	14	1.3
SB53	AGSB53-W-17556	63–68	CPT	5/20/05	5.4	0.9 J	ND
SB54	AGSB54-W-04586	45–50	CPT	6/9/05	1.4	0.4 J	ND
SB54	AGSB54-W-04587	50–55	CPT	6/9/05	ND	ND	ND
SB54	AGSB54-W-04588	55–60	CPT	6/9/05	0.8 J	ND	ND
SB54	AGSB54-W-17493	60–65	CPT	6/8/05	ND	ND	ND
SB55	AGSB55-W-17686	45–50	CPT	6/3/05	ND	ND	ND
SB55	AGSB55-W-17684	53–58	CPT	6/3/05	ND	ND	ND
SB55	AGSB55-W-17687	61–66	CPT	6/3/05	ND	ND	ND
SB55	AGSB55-W-17683	69–74	CPT	6/3/05	ND	ND	ND
SB55	AGSB55-W-17682	77–82	CPT	6/2/05	ND	ND	ND
SB55	AGSB55-W-17688	85–90	CPT	6/3/05	ND	ND	ND

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Type[b]	Sample Date	Concentration (µg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
2005 Cone Penetrometer Locations (Cont.)							
SB56	AGSB56-W-17652	48–53	CPT	5/25/05	ND	ND	ND
SB56	AGSB56-W-17656	58–63	CPT	5/26/05	ND	ND	ND
SB56	AGSB56-W-17654	68–73	CPT	5/25/05	ND	ND	ND
SB56	AGSB56-W-17651	78–83	CPT	5/25/05	ND	ND	ND
SB56	AGSB56-W-17657	90–95	CPT	5/26/05	ND	ND	ND
SB56	AGSB56-W-17655	102–107	CPT	5/25/05	ND	ND	ND
SB56	AGSB56-W-17649	112–117	CPT	5/25/05	ND	ND	ND
SB58	AGSB58-W-17618	48–53	CPT	5/22/05	3.0	0.6 J	ND
SB58	AGSB58-W-04528	53–58	CPT	5/23/05	1.4	0.6 J	ND
SB58	AGSB58-W-04529	58–63	CPT	5/23/05	1.3	0.2 J	ND
SB58	AGSB58-W-04530	63–68	CPT	5/23/05	0.7 J	ND	ND
SB59	AGSB59-W-04595	45–50	CPT	6/7/05	1506	23	ND
SB59	AGSB59-W-17479	52–57	CPT	6/6/05	487	18	ND
SB59	AGSB59-W-17478	59–64	CPT	6/6/05	173	3.8	0.6 J
SB59	AGSB59-W-04596	66–71	CPT	6/7/05	82	2.6	ND
SB59	AGSB59-W-04597	73–78	CPT	6/7/05	27	2.4	ND
SB60	AGSB60-W-17728	41–46	CPT	6/10/05	0.4 J	0.5 J	ND
SB60	AGSB60-W-04548	46–51	CPT	6/10/05	ND	ND	ND
SB60	AGSB60-W-04547	51–56	CPT	6/10/05	ND	ND	ND
SB60	AGSB60-W-04546	56–61	CPT	6/10/05	ND	ND	ND
SB60	AGSB60-W-04545	62–67	CPT	6/10/05	ND	ND	ND
SB61	AGSB61-W-17710	60–65	CPT	6/5/05	26	16	ND
SB61	AGSB61-W-17708	72–77	CPT	6/5/05	1.4	1.3	ND
SB61	AGSB61-W-17712	81–86	CPT	6/5/05	ND	ND	ND
SB61	AGSB61-W-17709	91–96	CPT	6/5/05	3.7	2.0	ND
SB61	AGSB61-W-17706	102–107	CPT	6/4/05	ND	ND	ND
SB62	AGSB62-W-17647	45–50	CPT	5/25/05	31	5.7	ND
SB62	AGSB62-W-17646	50–55	CPT	5/24/05	10	1.0	ND
SB62	AGSB62-W-04554	55–60	CPT	5/25/05	1.5	0.4 J	ND
SB62	AGSB62-W-04555	60–65	CPT	5/25/05	0.5 J	0.4 J	ND
SB63	AGSB63-W-04377	42.9–47.9	CPT	5/19/05	1.1	1.1	ND
SB63	AGSB63-W-17539	48.2–53.2	CPT	5/18/05	0.5 J	ND	ND
SB63	AGSB63-W-04376	52.9–57.9	CPT	5/19/05	0.2 J	ND	ND
SB63	AGSB63-W-17542	53.2–58.2	CPT	5/18/05	0.5 J	ND	ND
SB64	AGSB64-W-04604	42.7–47.7	CPT	6/9/05	1399 C[e]	49	ND
SB64	AGSB64-W-04603	47.7–52.7	CPT	6/7/05	6413	49	0.9 J
SB64	AGSB64-W-04601	52.7–57.7	CPT	6/7/05	4034	31	0.7 J
SB64	AGSB64-W-04600	57.7–62.7	CPT	6/7/05	1026	31	1.1
SB64	AGSB64-W-04602	62.7–67.7	CPT	6/7/05	2686	66	0.9 J

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Type[b]	Sample Date	Concentration (µg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
2005 Cone Penetrometer Locations (Cont.)							
SB65	AGSB65-W-04592	50–55	CPT	6/6/05	9.4	0.6 J	ND
SB65	AGSB65-W-04591	56–61	CPT	6/6/05	8.1	0.4 J	ND
SB65	AGSB65-W-04590	62–67	CPT	6/6/05	5.4	0.3 J	ND
SB65	AGSB65-W-17718	68–73	CPT	6/5/05	ND	ND	ND
SB66	AGSB66-W-04583	48–55	CPT	6/9/05	ND	ND	ND
SB66	AGSB66-W-17739	58–63	CPT	6/8/05	ND	ND	ND
SB66	AGSB66-W-17738	78–83	CPT	6/7/05	ND	ND	ND
SB66	AGSB66-W-17492	88–93	CPT	6/7/05	0.5 J	ND	ND
SB66	AGSB66-W-04582	98–103	CPT	6/9/05	ND	ND	ND
SB66	AGSB66-W-04581	106–111	CPT	6/9/05	ND	ND	ND
SB67	AGSB67-W-17884	46.5–51.5	CPT	7/12/05	57	3.0	ND
SB67	AGSB67-W-17883	51.5–56.5	CPT	7/12/05	35	2.3	ND
SB67	AGSB67-W-17804	56.5–61.5	CPT	7/13/05	22	3.8	ND
SB68	AGSB68-W-17869	44–49	CPT	7/10/05	6.0	0.4 J	ND
SB68	AGSB68-W-17870	49–54	CPT	7/10/05	ND	ND	ND
SB68	AGSB68-W-17871	54–59	CPT	7/10/05	0.2 J	ND	ND
SB68	AGSB68-W-17872	59–64	CPT	7/10/05	ND	ND	ND
SB69	AGSB69-W-17851	49–54	CPT	7/8/05	0.5 J	ND	ND
SB69	AGSB69-W-17850	54–59	CPT	7/8/05	1.0	ND	ND
SB69	AGSB69-W-17849	59–64	CPT	7/8/05	ND	ND	ND
SB70	AGSB70-W-17873	40–45	CPT	7/11/05	ND	ND	ND
SB70	AGSB70-W-17874	45–50	CPT	7/11/05	ND	ND	ND
SB70	AGSB70-W-17875	55–60	CPT	7/11/05	0.2 J	ND	ND
SB70	AGSB70-W-17876	60–65	CPT	7/11/05	0.5 J	ND	ND
SB71	AGSB71-W-17736	47–52	CPT	6/11/05	2.1	0.7 J	ND
SB71	AGSB71-W-17758	52–57	CPT	6/11/05	0.2 J	ND	ND
SB71	AGSB71-W-17735	57–62	CPT	6/11/05	0.9 J	ND	ND
SB71	AGSB71-W-17734	62–67	CPT	6/11/05	ND	ND	ND
SB71	AGSB71-W-17733	64–69	CPT	6/11/05	ND	ND	ND
SB71	AGSB71-W-17732	72–77	CPT	6/11/05	ND	ND	ND
SB72	AGSB72-W-17886	59–69	CPT/P	7/12/05	0.7 J	0.2 J	ND
SB73	AGSB73-W-17792	43–48	CPT	6/12/05	11	2.6	ND
SB73	AGSB73-W-17791	48–53	CPT	6/12/05	9.0	1.0	ND
SB73	AGSB73-W-17790	53–58	CPT	6/12/05	16	2.3	ND
SB73	AGSB73-W-17722	63–68	CPT	6/11/05	ND	ND	ND
SB75	AGSB75-W-17891	46.5–51.5	CPT	7/13/05	ND	ND	ND
SB75	AGSB75-W-17888	51.5–56.5	CPT	7/12/05	ND	ND	ND

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Type[b]	Sample Date	Concentration (µg/L) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
2005 Cone Penetrometer Locations (Cont.)							
SB78	AGSB78-W-17799	47.5–52.5	CPT	7/13/05	0.6 J	0.3 J	ND
SB78	AGSB78-W-17800	52.5–57.5	CPT	7/13/05	1.4	0.7 J	ND
SB78	AGSB78-W-17801	57.5–62.5	CPT	7/13/05	0.9 J	0.6 J	ND
SB78	AGSB78-W-17802	62.5–67.5	CPT	7/13/05	0.2 J	ND	ND
SB79	AGSB79-W-17496	50–55	CPT	7/14/05	13	1.3	ND
SB79	AGSB79-W-17727	55–60	CPT	7/14/05	10	0.6 J	ND
SB79	AGSB79-W-17845	60–65	CPT	7/14/05	3.0	0.7 J	ND
SB80	AGSB80-W-17847	50–55	CPT	7/14/05	13	0.6 J	ND
SB80	AGSB80-W-17843	55–60	CPT	7/14/05	9.7	1.1	ND
SB80	AGSB80-W-17844	60–64.75	CPT	7/14/05	4.9	3.8	ND

[a] Methylene chloride was not detected in any of these samples at a method detection limit of 0.1 µg/L.

[b] Sample types: CPT, cone penetrometer; CPT/P, piezometer; DW, domestic well; MW, monitoring well; PW, public water supply well.

[c] ND, contaminant not detected at the instrument detection limit of 0.1 µg/L.

[d] Qualifier J, estimated concentration below the quantitation limit of 1.0 µg/L.

[e] Qualifier C, estimated result outside the calibration range for the analysis.

TABLE S2.4 Results of inorganic analyses on groundwater samples collected during the 2005 investigation of contaminant sources at Agra, Kansas.

					Concentration (mg/L)							
Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Total Alkalinity	Aluminum	Calcium	Chloride	Iron	Magnesium	Manganese	Nitrate
DW07A	AGDW07A-W-04565	50–70	6/2/05	DW	225	< 0.2	190	220	< 0.1	26	< 0.015	8.24
DW98	AGDW98-W-04567	Unknown	6/3/05	DW	312	< 0.2	188	127	< 0.1	27	< 0.015	28.2
KMW01	AGKMW01-W-04375	43–53	5/18/05	MW	235	< 0.2	126	84	< 0.1	19	< 0.015	6.73
KMW02	AGKMW02-W-04382	57–97	5/19/05	MW	255	< 0.2	128	73	< 0.1	18	< 0.015	20.7
KMW03	AGKMW03-W-04390	74–89	5/21/05	MW	80.8	< 0.2	117	65	< 0.1	20	< 0.015	6.14
MW-1	AGMW1-W-04378	41–51	5/19/05	MW	242	< 0.2	142	96	< 0.1	19	< 0.015	10.1
MW-2	AGMW2-W-04551	40–60	5/24/05	MW	236	< 0.2	126	84	< 0.1	20	< 0.015	7.71
MW-B	AGMWB-W-04383	39–54	5/19/05	MW	290	< 0.2	167	138	< 0.1	26	< 0.015	13.9
MW-C	AGMWC-W-04394	35–55	5/22/05	MW	39.4	< 0.2	169	175	< 0.1	24	< 0.015	11.3
MW-F	AGMWF-W-04553	65–75	5/25/05	MW	226	< 0.2	136	76	< 0.1	21	< 0.015	21.9
MW-G	AGMWG-W-04539	89–99	5/24/05	MW	235	< 0.2	156	61	< 0.1	18	< 0.015	29.6
MW-H	AGMWH-W-04557	43–53	5/25/05	MW	296	< 0.2	174	132	< 0.1	25	0.113	7.28
MW-I	AGMWI-W-04381	36–71	5/19/05	MW	223	< 0.2	124	62	< 0.1	19	0.018	6.47
MW-J	AGMWJ-W-04393	56–66	5/21/05	MW	207	< 0.2	169	121	< 0.1	26	< 0.015	25.3
MW-K	AGMWK-W-04392	55–65	5/21/05	MW	220	< 0.2	123	86	< 0.1	20	< 0.015	5.82
MW-L	AGMWL-W-04520	70–80	5/22/05	MW	233	< 0.2	215	108	< 0.1	21	< 0.015	37.2
MW-M	AGMWM-W-04556	59–69	5/25/05	MW	227	< 0.2	122	67	< 0.1	21	< 0.015	16.2
MW-O	AGMWO-W-04521	38–58	5/22/05	MW	218	< 0.2	130	86	< 0.1	19	< 0.015	7.67
MW-P	AGMWP-W-04544	35.42–54.92	6/10/05	MW	208	< 0.2	152	104	< 0.1	22	< 0.015	13.9
MW-Q	AGMWQ-W-04391	43.28–62.78	5/21/05	MW	210	< 0.2	121	72	< 0.1	19	< 0.015	4.36
MW-R	AGMWR-W-04387	44.45–63.95	5/20/05	MW	211	< 0.2	120	74	< 0.1	19	< 0.015	5.53
PWS-1	AGPW1-W-04606	82–91	6/9/05	PW	325	< 0.2	231	118	< 0.1	22	< 0.015	10.6
PWS-2	AGPW2-W-04607	73–82	6/9/05	PW	325	< 0.2	230	118	< 0.1	24	< 0.015	9.63
PWS-3	AGPWS3-W-04568	65–125	6/3/05	PW	231	< 0.2	107	47	< 0.1	15	< 0.015	3.03
SB15	AGSB15-W-04563	98.5–108.5	6/2/05	MW	227	< 0.2	124	66	< 0.1	15	< 0.015	5.60
SB23S	AGSB23S-W-04384	49–55	5/20/05	CPT/P	276	< 0.2	131	68	< 0.1	17	< 0.015	7.00
SB23	AGSB23-W-04385	100–106	5/20/05	CPT/P	117	< 0.2	127	55	< 0.1	17	0.038	3.85
SB28	AGSB28-W-04537	100–106	5/24/05	CPT/P	309	< 0.2	179	112	< 0.1	26	< 0.015	11.4
SB36	AGSB36-W-04566	42.7–62.7	6/2/05	MW	255	< 0.2	146	80	< 0.1	20	< 0.015	17.5
SB38	AGSB38-W-04571	95–101	6/3/05	CPT	228	< 0.2	148	103	< 0.1	20	< 0.015	10.7
SB40	AGSB40-W-17729	100–105	6/11/05	CPT	241	< 0.2	103	58	< 0.1	16	0.054	7.58
SB41	AGSB41-W-04540	48–53	6/9/05	CPT	224	< 0.2	145	83	< 0.1	20	< 0.015	15.8
SB41	AGSB41-W-04541	58–63	6/9/05	CPT	204	< 0.2	128	76	< 0.1	19	0.038	15.3
SB41	AGSB41-W-04542	63–68	6/9/05	CPT	221	< 0.2	132	63	< 0.1	19	< 0.015	14.0
SB45	AGSB45-W-17833	64–69	7/7/05	CPT	220	< 0.2	114	86	< 0.1	19	< 0.015	7.36
SB46	AGSB46-W-17829	65–70	7/6/05	CPT	204	< 0.2	113	116	< 0.1	16	< 0.015	6.99
SB47	AGSB47-W-17759	67–72	6/11/05	CPT	215	< 0.2	88	36	< 0.1	15	< 0.015	2.52

TABLE S2.4 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Concentration (mg/L) Total Alkalinity	Aluminum	Calcium	Chloride	Iron	Magnesium	Manganese	Nitrate
SB48	AGSB48-W-17783	65.5–70.5	6/12/05	CPT	198	< 0.2	110	58	< 0.1	19	< 0.015	6.59
SB49	AGSB49-W-17793	68–73	6/13/05	CPT	220	< 0.2	135	95	< 0.1	23	< 0.015	20.2
SB50	AGSB50-W-17823	60.5–65.5	6/13/05	CPT	NA[b]	NA	NA	NA	NA	NA	NA	NA
SB53	AGSB53-W-17573	53–58	5/20/05	CPT	235	< 0.2	357	12.1	< 0.1	51	0.051	57.1
SB53	AGSB53-W-04388	58–63	5/20/05	CPT	241	< 0.2	214	26	< 0.1	34	< 0.015	70.5
SB53	AGSB53-W-17556	63–68	5/20/05	CPT	260	< 0.2	125	80	< 0.1	20	0.035	7.72
SB54	AGSB54-W-04587	50–55	6/9/05	CPT	365	< 0.2	321	54	< 0.1	34	< 0.015	45.0
SB54	AGSB54-W-04588	55–60	6/9/05	CPT	323	< 0.2	227	74	< 0.1	25	< 0.015	42.2
SB56	AGSB56-W-17649	112–117	5/25/05	CPT	246	< 0.2	81	31	< 0.1	15	0.019	0.341
SB59	AGSB59-W-04595	45–50	6/7/05	CPT	207	< 0.2	420	532	< 0.1	45	< 0.015	216
SB59	AGSB59-W-04596	66–71	6/7/05	CPT	224	< 0.2	170	248	< 0.1	22	< 0.015	65.5
SB59	AGSB59-W-04597	73–78	6/7/05	CPT	215	< 0.2	153	252	< 0.1	24	< 0.015	31.6
SB60	AGSB60-W-04548	46–51	6/10/05	CPT	242	< 0.2	109	84	< 0.1	17	< 0.015	6.73
SB60	AGSB60-W-04547	51–56	6/10/05	CPT	229	< 0.2	112	78	< 0.1	18	< 0.015	6.81
SB60	AGSB60-W-04546	56–61	6/10/05	CPT	214	< 0.2	121	86	< 0.1	22	< 0.015	9.06
SB60	AGSB60-W-04545	62–67	6/10/05	CPT	213	< 0.2	112	82	< 0.1	21	< 0.015	8.42
SB61	AGSB61-W-04580	60–65	6/5/05	CPT	260	< 0.2	277	215	< 0.1	38	0.097	121
SB63	AGSB63-W-17539	48.2–53.2	5/18/05	CPT	216	< 0.2	132	90	< 0.1	18	< 0.015	8.49
SB63	AGSB63-W-17542	53.2–58.2	5/18/05	CPT	226	< 0.2	134	94	< 0.1	19	0.053	7.25
SB64	AGSB64-W-04603	47.7–52.7	6/7/05	CPT	181	< 0.2	476	328	< 0.1	74	< 0.015	310
SB64	AGSB64-W-04600	57.7–62.7	6/7/05	CPT	192	< 0.2	285	217	< 0.1	46	0.068	157
SB64	AGSB64-W-04602	62.7–67.7	6/7/05	CPT	179	< 0.2	372	249	< 0.1	58	0.078	208
SB65	AGSB65-W-04592	50–55	6/6/05	CPT	312	< 0.2	230	257	< 0.1	23	< 0.015	50.8
SB65	AGSB65-W-04591	56–61	6/6/05	CPT	283	< 0.2	177	180	< 0.1	23	0.020	35
SB65	AGSB65-W-04590	62–67	6/6/05	CPT	246	< 0.2	165	132	< 0.1	24	< 0.015	34.2
SB65	AGSB65-W-17718	68–73	6/5/05	CPT	224	< 0.2	122	81	< 0.1	19	0.016	14.1
SB66	AGSB66-W-04583	48–55	6/9/05	CPT	249	< 0.2	141	114	< 0.1	16	< 0.015	17.3
SB66	AGSB66-W-04582	98–103	6/9/05	CPT	232	< 0.2	110	46	< 0.1	17	< 0.015	7.64
SB66	AGSB66-W-04581	106–111	6/9/05	CPT	230	< 0.2	103	45	< 0.1	16	0.086	5.50
SB69	AGSB69-W-17849	59–64	7/8/05	CPT	215	< 0.2	157	133	< 0.1	26	0.019	28.8
SB71	AGSB71-W-17732	72–77	6/11/05	CPT	208	< 0.2	103	66	< 0.1	19	< 0.015	5.45
SB72	AGSB72-W-17886	59–69	7/12/05	CPT/P	230	< 0.2	119	79	< 0.1	18	0.129	4.62
SB73	AGSB73-W-17789	63–68	6/12/05	CPT	223	< 0.2	105	73	< 0.1	18	< 0.015	7.06

TABLE S2.4 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Concentration (mg/L) Nitrate/Nitrite Nitrogen	Phosphate	Phosphorous	Potassium	Silicon	Sodium	Sulfate	Zinc
DW07A	AGDW07A-W-04565	50–70	6/2/05	DW	8.33	0.269	< 0.250	8.72	24.5	36.6	93.7	< 0.02
DW98	AGDW98-W-04567	Unknown	6/3/05	DW	27.5	0.240	< 0.250	8.88	26.9	55.5	178	0.041
KMW01	AGKMW01-W-04375	43–53	5/18/05	MW	6.98	0.261	< 0.250	6.28	18.7	30.4	81.5	< 0.02
KMW02	AGKMW02-W-04382	57–97	5/19/05	MW	21.1	0.345	< 0.250	7.39	19.0	62.0	127	< 0.02
KMW03	AGKMW03-W-04390	74–89	5/21/05	MW	6.62	0.250	< 0.250	5.58	16.4	22.3	61.9	< 0.02
MW-1	AGMW1-W-04378	41–51	5/19/05	MW	9.56	< 0.2	< 0.250	7.72	19.5	38.6	106	< 0.02
MW-2	AGMW2-W-04551	40–60	5/24/05	MW	7.27	0.253	< 0.250	6.32	20.4	32.8	86.1	< 0.02
MW-B	AGMWB-W-04383	39–54	5/19/05	MW	13.5	0.242	< 0.250	9.11	20.4	74.8	133	< 0.02
MW-C	AGMWC-W-04394	35–55	5/22/05	MW	10.9	0.269	< 0.250	10.8	25.4	105	168	< 0.02
MW-F	AGMWF-W-04553	65–75	5/25/05	MW	23.1	0.248	< 0.250	10.2	22.6	37.8	86.6	< 0.02
MW-G	AGMWG-W-04539	89–99	5/24/05	MW	31.5	0.257	< 0.250	7.96	26.5	30.3	116	< 0.02
MW-H	AGMWH-W-04557	43–53	5/25/05	MW	6.13	0.243	< 0.250	9.74	19.9	72.1	176	< 0.02
MW-I	AGMWI-W-04381	36–71	5/19/05	MW	6.34	< 0.2	< 0.250	6.03	17.7	20.9	84.8	< 0.02
MW-J	AGMWJ-W-04393	56–66	5/21/05	MW	26.6	0.248	< 0.250	6.46	17.5	28.3	87.3	< 0.02
MW-K	AGMWK-W-04392	55–65	5/21/05	MW	6.32	0.243	< 0.250	5.90	17.6	26.0	70.9	< 0.02
MW-L	AGMWL-W-04520	70–80	5/22/05	MW	37.6	0.252	< 0.250	91.1	23.3	25.2	107	< 0.02
MW-M	AGMWM-W-04556	59–69	5/25/05	MW	15.5	< 0.2	< 0.250	7.30	23.2	20.3	74.3	< 0.02
MW-O	AGMWO-W-04521	38–58	5/22/05	MW	7.75	0.291	< 0.250	5.74	17.9	32.2	83.3	< 0.02
MW-P	AGMWP-W-04544	35.42–54.92	6/10/05	MW	14.4	< 0.2	< 0.250	6.97	17.6	26.2	75.5	< 0.02
MW-Q	AGMWQ-W-04391	43.28–62.78	5/21/05	MW	4.65	0.258	< 0.250	5.60	18.5	20.1	58.7	< 0.02
MW-R	AGMWR-W-04387	44.45–63.95	5/20/05	MW	5.84	0.251	< 0.250	5.64	17.2	20.0	63.1	< 0.02
PWS-1	AGPW1-W-04606	82–91	6/9/05	PW	10.1	< 0.2	< 0.250	9.34	22.3	63.0	325	0.047
PWS-2	AGPW2-W-04607	73–82	6/9/05	PW	9.33	< 0.2	< 0.250	9.95	23.5	66.8	225	0.038
PWS-3	AGPWS3-W-04568	65–125	6/3/05	PW	3.39	< 0.2	< 0.250	6.62	28.2	34.5	124	< 0.02
SB15	AGSB15-W-04563	98.5–108.5	6/2/05	MW	5.98	< 0.2	< 0.250	6.52	22.9	20.8	69.6	< 0.02
SB23S	AGSB23S-W-04384	49–55	5/20/05	CPT/P	7.05	0.250	< 0.250	7.29	25.2	37.6	72.3	< 0.02
SB23	AGSB23-W-04385	100–106	5/20/05	CPT/P	2.80	< 0.2	< 0.250	8.26	24.0	23.3	86.1	< 0.02
SB28	AGSB28-W-04537	100–106	5/24/05	CPT/P	10.2	0.262	< 0.250	8.84	22.3	45.4	141	< 0.02
SB36	AGSB36-W-04566	42.7–62.7	6/2/05	MW	14.4	< 0.2	< 0.250	7.81	23.6	28.0	74.5	< 0.02
SB38	AGSB38-W-04571	95–101	6/3/05	CPT	9.96	< 0.2	< 0.250	8.76	24.0	22.6	87.8	< 0.02
SB40	AGSB40-W-17729	100–105	6/11/05	CPT	6.89	< 0.2	< 0.250	10.0	22.6	28.5	77.0	< 0.02
SB41	AGSB41-W-04540	48–53	6/9/05	CPT	16.4	< 0.2	< 0.250	6.46	22.3	21.5	66.2	< 0.02
SB41	AGSB41-W-04541	58–63	6/9/05	CPT	15.6	< 0.2	< 0.250	9.27	19.5	25.0	71.1	< 0.02
SB41	AGSB41-W-04542	63–68	6/9/05	CPT	14.6	< 0.2	< 0.250	7.73	21.1	21.2	70.9	< 0.02
SB45	AGSB45-W-17833	64–69	7/7/05	CPT	6.41	0.270	< 0.250	5.55	15.6	20.6	63.6	< 0.02
SB46	AGSB46-W-17829	65–70	7/6/05	CPT	6.66	< 0.2	< 0.250	5.56	16.2	19.1	62.5	< 0.02
SB47	AGSB47-W-17759	67–72	6/11/05	CPT	1.75	< 0.2	< 0.250	5.58	18.4	22.4	42.0	< 0.02
SB48	AGSB48-W-17783	65.5–70.5	6/12/05	CPT	6.24	< 0.2	< 0.250	8.42	16.1	24.2	90.5	< 0.02

TABLE S2.4 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Concentration (mg/L) Nitrate/Nitrite Nitrogen	Phosphate	Phosphorous	Potassium	Silicon	Sodium	Sulfate	Zinc
SB49	AGSB49-W-17793	68–73	6/13/05	CPT	21.4	< 0.2	< 0.250	7.24	17.0	25.4	59.8	< 0.02
SB50	AGSB50-W-17823	60.5–65.5	6/13/05	CPT	18.8	NA	NA	NA	NA	NA	NA	NA
SB53	AGSB53-W-17573	53–58	5/20/05	CPT	47.7	0.248	< 0.250	9.98	21.5	123	836	< 0.02
SB53	AGSB53-W-04388	58–63	5/20/05	CPT	80.6	0.257	< 0.250	10.4	19.6	98.2	393	0.100
SB53	AGSB53-W-17556	63–68	5/20/05	CPT	7.09	0.254	< 0.250	7.55	17.5	35.7	109	0.042
SB54	AGSB54-W-04587	50–55	6/9/05	CPT	53.7	0.363	< 0.250	18.4	11.7	228	735	< 0.02
SB54	AGSB54-W-04588	55–60	6/9/05	CPT	49.5	0.363	< 0.250	14.6	13.8	145	341	< 0.02
SB56	AGSB56-W-17649	112–117	5/25/05	CPT	0.0137	< 0.2	< 0.250	6.65	18.5	29.9	54.6	< 0.02
SB59	AGSB59-W-04595	45–50	6/7/05	CPT	218	0.210	< 0.250	24.1	14.9	76.1	170	< 0.02
SB59	AGSB59-W-04596	66–71	6/7/05	CPT	53.0	< 0.2	< 0.250	10.2	16.7	50.2	274	< 0.02
SB59	AGSB59-W-04597	73–78	6/7/05	CPT	25.0	< 0.2	< 0.250	7.79	16.4	29.2	93.2	< 0.02
SB60	AGSB60-W-04548	46–51	6/10/05	CPT	6.07	0.452	< 0.250	5.51	19.4	54.1	59.4	< 0.02
SB60	AGSB60-W-04547	51–56	6/10/05	CPT	6.59	< 0.2	< 0.250	6.94	19.3	38.3	60.0	< 0.02
SB60	AGSB60-W-04546	56–61	6/10/05	CPT	7.94	< 0.2	< 0.250	5.44	17.0	27.2	64.0	< 0.02
SB60	AGSB60-W-04545	62–67	6/10/05	CPT	7.57	0.243	< 0.250	7.52	16.6	27.8	59.8	< 0.02
SB61	AGSB61-W-04580	60–65	6/5/05	CPT	95.4	0.278	< 0.250	10.9	16.2	76.6	156	< 0.02
SB63	AGSB63-W-17539	48.2–53.2	5/18/05	CPT	8.92	0.259	< 0.250	9.36	16.7	36.3	92.6	< 0.02
SB63	AGSB63-W-17542	53.2–58.2	5/18/05	CPT	7.72	0.245	< 0.250	7.68	15.7	34.0	85.7	< 0.02
SB64	AGSB64-W-04603	47.7–52.7	6/7/05	CPT	327	0.234	< 0.250	20.2	18.2	52.4	143	< 0.02
SB64	AGSB64-W-04600	57.7–62.7	6/7/05	CPT	167	< 0.2	< 0.250	10.2	18.0	49.7	136	< 0.02
SB64	AGSB64-W-04602	62.7–67.7	6/7/05	CPT	251	< 0.2	< 0.250	12.9	19.0	51.7	108	< 0.02
SB65	AGSB65-W-04592	50–55	6/6/05	CPT	49.5	0.251	< 0.250	9.39	20.1	49.2	41.1	< 0.02
SB65	AGSB65-W-04591	56–61	6/6/05	CPT	35.7	0.274	< 0.250	9.26	21.1	45.8	55.9	< 0.02
SB65	AGSB65-W-04590	62–67	6/6/05	CPT	34.7	0.294	< 0.250	10.4	20.7	41.5	66.9	< 0.02
SB65	AGSB65-W-17718	68–73	6/5/05	CPT	14.1	< 0.2	< 0.250	9.89	17.2	26.6	79.1	< 0.02
SB66	AGSB66-W-04583	48–55	6/9/05	CPT	17.5	0.365	< 0.250	9.63	22.3	89.0	103	< 0.02
SB66	AGSB66-W-04582	98–103	6/9/05	CPT	7.34	0.217	< 0.250	6.67	23.0	35.8	69.4	< 0.02
SB66	AGSB66-W-04581	106–111	6/9/05	CPT	5.25	< 0.2	< 0.250	9.17	21.2	34.5	74.8	< 0.02
SB69	AGSB69-W-17849	59–64	7/8/05	CPT	29.1	< 0.2	< 0.250	11.2	16.8	30.4	122	< 0.02
SB71	AGSB71-W-17732	72–77	6/11/05	CPT	5.21	< 0.2	< 0.250	7.41	17.6	22.1	54.3	< 0.02
SB72	AGSB72-W-17886	59–69	7/12/05	CPT/P	5.48	< 0.2	< 0.250	6.69	18.8	22.8	40.7	< 0.02
SB73	AGSB73-W-17789	63–68	6/12/05	CPT	5.91	< 0.2	< 0.250	6.38	17.2	37.7	57.3	< 0.02

[a] Sample types: CPT, cone penetrometer; CPT/P, piezometer; DW, domestic well; MW, monitoring well; PW, public water supply well.

[b] NA, sample not analyzed for this constituent.

TABLE S2.5 Results of tritium analyses on groundwater samples collected during the 2005 investigation of contaminant sources at Agra, Kansas.

Location	Sample	Depth (ft BGL)	Sample Date	Tritium (TU)
SB47	AGSB47-W-17759	67–72	6/11/05	1.59 ± 0.09
SB49	AGSB49-W-17793	68–73	6/13/05	3.66 ± 0.12
SB53	AGSB53-W-17573	53–58	5/20/05	20.1 ± 0.7
SB53	AGSB53-W-17556	63–68	5/20/05	4.32 ± 0.14
SB56	AGSB56-W-17649	112–117	5/25/05	0.11 ± 0.10

Supplement 3:

Water Level Data

TABLE S3.1 Water level data used for groundwater level mapping in the 2005 investigation at Agra.

Well	Top-of-Casing Elevation (ft AMSL)	Level of Water Surface on Date: 05/18/05 Depth (ft BGL)	05/18/05 Elevation (ft AMSL)	07/12/05 Depth (ft BGL)	07/12/05 Elevation (ft AMSL)	09/23/05 Depth (ft BGL)	09/23/05 Elevation (ft AMSL)	01/04/06 Depth (ft BGL)	01/04/06 Elevation (ft AMSL)	Depth (ft BGL): Screen	Depth (ft BGL): Total
MW-B	1852.59	44.25	1808.34	44.02	1808.57	43.73	1808.86	43.71	1808.88	39–54	50.25
MW-C	1851.54	43.67	1807.87							35–55	52.93
MW-F	1856.14	48.80	1807.34							65–75	76.58
MW-G	1854.56	47.34	1807.22							89–99	76.17
MW-H	1855.22	46.25	1808.97							43–53	51.95
MW-I	1855.26	46.51	1808.75	46.46	1808.80	46.20	1809.06	45.25	1810.01	36–71	78.98
MW-O	1855.10	45.72	1809.38							38–58	57.50
MW-P	1857.11	46.59	1810.52							35.42–54.92	58.58
MW-Q	1857.78	46.60	1811.18							43.28–62.78	66.35
MW-R	1859.43	46.82	1812.61	46.87	1812.56	46.70	1812.73	46.50	1812.93	44.45–63.95	65.19
SB15	1843.08	45.54	1797.54							98.5–108.5	110.60
SB16	1839.32[a]									51–56	NS[b]
SB36	1837.93									42.7–62.7	61.25
SB37	1837.35[a]									57–63	NS
SB38D	1838.19			41.04	1797.15	44.15	1794.04	44.56	1793.63	95 –101	100.80
SB38S	1838.28			41.13	1797.15	42.82	1795.46	43.08	1795.20	57–63	62.30
SB72	1845.79			41.54	1804.25	41.15	1804.64	41.27	1804.52	59–69	66.90

[a] Estimated elevation. Well not surveyed as part of 2005 investigation.

[b] Measured depth of well is approximate. Measurement was difficult because of silting.

TABLE S3.2 Automatically measured water levels in May–September 2005 at Agra, Kansas.

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
5/24/2005	16:00	–	–	–	–	41.730	41.459						
5/24/2005	20:00	33.966	33.839	41.348	41.660	41.593	41.272						
5/25/2005	0:00	33.993	33.853	41.360	41.667	41.574	41.270						
5/25/2005	4:00	33.977	33.846	41.335	41.649	41.520	41.238						
5/25/2005	8:00	34.019	33.872	41.354	41.664	41.554	41.258						
5/25/2005	12:00	34.017	33.885	41.352	41.671	41.532	41.257						
5/25/2005	16:00	34.029	33.901	41.362	41.685	41.533	41.272						
5/25/2005	20:00	34.040	33.897	41.360	41.678	41.524	41.258						
5/26/2005	0:00	34.059	33.920	41.381	41.702	41.552	41.286						
5/26/2005	4:00	34.047	33.915	41.371	41.693	41.520	41.270						
5/26/2005	8:00	34.058	33.928	41.371	41.793	42.539	43.290						
5/26/2005	12:00	34.033	33.959	41.360	41.891	43.058	43.746						
5/26/2005	16:00	34.005	33.920	41.335	41.760	42.332	42.491						
5/26/2005	20:00	33.996	33.868	41.316	41.676	41.984	41.510						
5/27/2005	0:00	34.001	33.865	41.319	41.673	41.840	41.422						
5/27/2005	4:00	34.007	33.868	41.314	41.662	41.751	41.375						
5/27/2005	8:00	34.005	33.880	41.312	41.760	42.686	43.362						
5/27/2005	12:00	34.008	33.928	41.322	41.869	43.187	43.808						
5/27/2005	16:00	33.971	33.877	41.295	41.709	42.286	41.726						
5/27/2005	20:00	33.964	33.828	41.279	41.655	42.001	41.486						
5/28/2005	0:00	33.980	33.837	41.293	41.656	41.877	41.429						
5/28/2005	4:00	33.980	33.839	41.287	41.642	41.785	41.379						
5/28/2005	8:00	33.985	33.837	41.283	41.636	41.722	41.343						
5/28/2005	12:00	33.966	33.832	41.272	41.627	41.648	41.307						
5/28/2005	16:00	33.945	33.806	41.253	41.600	41.578	41.253						
5/28/2005	20:00	33.961	33.816	41.255	41.596	41.561	41.241						
5/29/2005	0:00	33.956	33.801	41.247	41.587	41.523	41.212						
5/29/2005	4:00	33.961	33.797	41.243	41.580	41.506	41.191						
5/29/2005	8:00	33.978	33.820	41.255	41.596	41.504	41.207						
5/29/2005	12:00	33.984	33.827	41.257	41.600	41.489	41.200						
5/29/2005	16:00	33.994	33.839	41.262	41.607	41.486	41.203						
5/29/2005	20:00	33.996	33.836	41.260	41.602	41.469	41.188						
5/30/2005	0:00	34.007	33.847	41.266	41.607	41.467	41.191						
5/30/2005	4:00	34.016	33.844	41.270	41.604	41.460	41.179						
5/30/2005	8:00	34.016	33.854	41.264	41.607	41.441	41.179						
5/30/2005	12:00	34.000	33.847	41.253	41.592	41.410	41.160						
5/30/2005	16:00	33.986	33.827	41.236	41.573	41.380	41.129						
5/30/2005	20:00	33.970	33.808	41.222	41.556	41.356	41.105						

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
5/31/2005	0:00	33.966	33.799	41.215	41.547	41.340	41.090						
5/31/2005	4:00	33.954	33.787	41.203	41.534	41.318	41.071						
5/31/2005	8:00	33.965	33.784	41.201	41.529	41.321	41.066						
5/31/2005	12:00	33.965	33.791	41.201	41.531	41.316	41.071						
5/31/2005	16:00	33.949	33.780	41.188	41.512	41.286	41.047						
5/31/2005	20:00	33.950	33.772	41.178	41.502	41.282	41.038						
6/1/2005	0:00	33.954	33.782	41.180	41.505	41.286	41.047						
6/1/2005	4:00	33.942	33.772	41.169	41.492	41.262	41.026						
6/1/2005	8:00	33.947	33.775	41.167	41.498	41.260	41.026						
6/1/2005	12:00	33.942	33.773	41.161	41.492	41.249	41.017						
6/1/2005	16:00	33.919	33.747	41.144	41.469	41.209	40.982						
6/1/2005	20:00	33.919	33.739	41.142	41.465	41.201	40.969						
6/2/2005	0:00	33.915	33.737	41.134	41.460	41.196	40.967						
6/2/2005	4:00	33.903	33.729	41.121	41.451	41.179	40.952						
6/2/2005	8:00	33.950	33.732	41.142	41.452	41.218	40.949						
6/2/2005	12:00	33.915	33.734	41.123	41.452	41.194	40.967						
6/2/2005	16:00	33.891	33.710	41.100	41.420	41.149	40.927						
6/2/2005	20:00	33.878	33.689	41.083	41.400	41.122	40.893						
6/3/2005	0:00	33.873	33.684	41.077	41.391	41.112	40.885						
6/3/2005	4:00	33.875	33.686	41.067	41.387	41.124	40.923						
6/3/2005	8:00	33.882	33.701	41.075	41.396	41.131	40.911						
6/3/2005	12:00	33.892	33.699	41.075	41.385	41.132	40.918						
6/3/2005	16:00	33.875	33.684	41.062	41.369	41.105	40.908						
6/3/2005	20:00	33.864	33.668	41.046	41.354	41.074	40.871						
6/4/2005	0:00	33.868	33.674	41.042	41.347	41.074	40.873						
6/4/2005	4:00	33.843	33.656	41.023	41.331	41.035	40.851						
6/4/2005	8:00	33.871	33.679	41.037	41.352	41.077	40.878						
6/4/2005	12:00	33.868	33.684	41.029	41.349	41.072	40.880						
6/4/2005	16:00	33.864	33.675	41.023	41.338	41.057	40.865						
6/4/2005	20:00	33.848	33.660	41.008	41.327	41.031	40.844						
6/5/2005	0:00	33.876	33.691	41.031	41.358	41.079	40.888						
6/5/2005	4:00	33.896	33.704	41.042	41.371	41.103	40.901						
6/5/2005	8:00	33.919	33.732	41.060	41.396	41.131	40.932						
6/5/2005	12:00	33.924	33.744	41.067	41.409	41.127	40.939						
6/5/2005	16:00	33.913	33.735	41.062	41.400	41.103	40.921						
6/5/2005	20:00	33.912	33.723	41.054	41.391	41.087	40.901						

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
6/6/2005	0:00	33.919	33.734	41.060	41.400	41.094	40.909						
6/6/2005	4:00	33.924	33.734	41.058	41.398	41.088	40.904						
6/6/2005	8:00	33.926	33.736	41.060	41.402	41.087	40.901						
6/6/2005	12:00	33.898	33.718	41.033	41.380	41.039	40.871						
6/6/2005	16:00	33.868	33.682	41.008	41.347	40.992	40.823						
6/6/2005	20:00	33.854	33.658	40.991	41.325	40.976	40.799						
6/7/2005	0:00	33.864	33.672	41.002	41.343	41.002	40.822						
6/7/2005	4:00	33.866	33.663	41.002	41.332	40.991	40.804						
6/7/2005	8:00	33.880	33.686	41.090	41.445	42.046	42.873						
6/7/2005	12:00	33.855	33.735	41.107	41.600	42.637	43.457						
6/7/2005	16:00	33.836	33.710	41.050	41.538	42.202	42.118						
6/7/2005	20:00	33.838	33.660	41.027	41.389	41.639	41.176						
6/8/2005	0:00	33.848	33.666	41.027	41.385	41.465	41.083						
6/8/2005	4:00	33.848	33.663	41.023	41.376	41.358	41.026						
6/8/2005	8:00	33.910	33.725	41.073	41.520	42.376	43.071						
6/8/2005	12:00	33.912	33.797	41.092	41.665	42.919	43.619						
6/8/2005	16:00	33.903	33.801	41.094	41.665	42.616	42.501						
6/8/2005	20:00	33.896	33.748	41.085	41.504	41.994	41.444						
6/9/2005	0:00	33.915	33.748	41.102	41.498	41.779	41.313						
6/9/2005	4:00	33.908	33.732	41.088	41.467	41.628	41.220						
6/9/2005	8:00	33.920	33.763	41.102	41.589	42.594	43.280						
6/9/2005	12:00	33.920	33.806	41.107	41.685	42.672	42.916						
6/9/2005	16:00	33.873	33.746	41.069	41.504	41.957	41.446						
6/9/2005	20:00	33.894	33.710	41.064	41.440	41.753	41.270						
6/10/2005	0:00	33.922	33.732	41.090	41.467	41.654	41.238						
6/10/2005	4:00	33.945	33.760	41.100	41.474	41.606	41.222						
6/10/2005	8:00	33.947	33.773	41.115	41.493	41.537	41.208						
6/10/2005	12:00	33.950	33.763	41.106	41.474	41.484	41.162						
6/10/2005	16:00	33.910	33.732	41.071	41.432	41.390	41.097						
6/10/2005	20:00	33.920	33.739	41.075	41.433	41.371	41.090						
6/11/2005	0:00	33.913	33.727	41.064	41.420	41.334	41.059						
6/11/2005	4:00	33.901	33.711	41.048	41.405	41.286	41.021						
6/11/2005	8:00	33.917	33.718	41.056	41.405	41.279	41.014						
6/11/2005	12:00	33.931	33.737	41.067	41.423	41.282	41.028						
6/11/2005	16:00	33.926	33.737	41.062	41.422	41.255	41.012						
6/11/2005	20:00	33.936	33.739	41.067	41.422	41.247	41.007						

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
6/12/2005	0:00	33.954	33.755	41.083	41.436	41.255	41.016						
6/12/2005	4:00	33.933	33.743	41.062	41.418	41.210	40.988						
6/12/2005	8:00	33.935	33.743	41.062	41.418	41.201	40.980						
6/12/2005	12:00	33.891	33.717	41.037	41.391	41.118	40.933		46.759				
6/12/2005	16:00	33.901	33.689	41.025	41.362	41.122	40.889	47.622	46.779	46.395	44.086		
6/12/2005	20:00	33.894	33.682	41.016	41.356	41.105	40.883	47.615	46.779	46.392	44.082	46.138	41.744
6/13/2005	0:00	33.871	33.672	41.000	41.349	41.070	40.870	47.601	46.761	46.375	44.071	46.124	41.724
6/13/2005	4:00	33.885	33.684	41.008	41.360	41.085	40.880	47.610	46.779	46.390	44.071	46.133	41.730
6/13/2005	8:00	33.896	33.689	41.012	41.365	41.098	40.885	47.618	46.796	46.405	44.069	46.145	41.736
6/13/2005	12:00	33.889	33.681	40.997	41.349	41.072	40.861	47.618	46.783	46.388	44.060	46.131	41.732
6/13/2005	16:00	33.906	33.696	41.016	41.365	41.094	40.880	47.629	46.818	46.421	44.060	46.149	41.734
6/13/2005	20:00	33.940	33.731	41.046	41.398	41.135	40.921	47.653	46.863	46.458	44.067	46.174	41.748
6/14/2005	0:00	33.968	33.758	41.073	41.427	41.166	40.952	47.672	46.900	46.494	44.067	46.195	41.769
6/14/2005	4:00	33.977	33.774	41.083	41.442	41.166	40.966	47.676	46.907	46.505	44.067	46.197	41.760
6/14/2005	8:00	33.998	33.798	41.106	41.467	41.669	41.911	47.686	46.922	46.529	44.069	46.213	41.768
6/14/2005	12:00	33.993	33.848	41.109	41.658	42.615	43.457	47.679	46.907	46.516	44.067	46.201	41.762
6/14/2005	16:00	33.982	33.844	41.115	41.611	42.116	41.801	47.667	46.885	46.494	44.063	46.184	41.756
6/14/2005	20:00	33.984	33.803	41.107	41.502	41.705	41.279	47.658	46.883	46.490	44.058	46.178	41.766
6/15/2005	0:00	33.989	33.801	41.109	41.493	41.548	41.196	47.658	46.885	46.494	44.054	46.178	41.766
6/15/2005	4:00	33.998	33.803	41.111	41.485	41.460	41.147	47.662	46.885	46.494	44.056	46.176	41.768
6/15/2005	8:00	34.003	33.812	41.111	41.560	42.314	42.990	47.662	46.883	46.492	44.056	46.174	41.770
6/15/2005	12:00	33.982	33.848	41.173	41.682	42.868	43.570	47.648	46.858	46.468	44.050	46.153	41.770
6/15/2005	16:00	33.947	33.798	41.291	41.582	42.035	41.544	47.620	46.818	46.423	44.041	46.122	41.758
6/15/2005	20:00	33.949	33.756	41.283	41.527	41.730	41.266	47.617	46.816	46.421	44.039	46.122	41.764
6/16/2005	0:00	33.970	33.760	41.207	41.502	41.606	41.200	47.631	46.838	46.438	44.043	46.135	41.776
6/16/2005	4:00	33.979	33.779	41.186	41.509	41.528	41.177	47.641	46.854	46.453	44.043	46.141	41.776
6/16/2005	8:00	33.973	33.784	41.169	41.505	41.458	41.146	47.639	46.845	46.449	44.041	46.133	41.772
6/16/2005	12:00	33.961	33.765	41.274	41.503	41.390	41.095	47.629	46.832	46.431	44.035	46.122	41.774
6/16/2005	16:00	33.952	33.789	41.203	41.634	42.044	42.040	47.620	46.823	46.414	44.033	46.112	41.774
6/16/2005	20:00	33.945	33.748	41.159	41.494	41.610	41.209	47.613	46.810	46.403	44.033	46.104	41.786
6/17/2005	0:00	33.950	33.756	41.151	41.491	41.495	41.152	47.622	46.830	46.418	44.031	46.112	41.786
6/17/2005	4:00	33.943	33.744	41.130	41.469	41.406	41.093	47.613	46.814	46.405	44.029	46.102	41.776
6/17/2005	8:00	33.979	33.784	41.150	41.591	42.389	43.113	47.641	46.856	46.445	44.035	46.129	41.792
6/17/2005	12:00	33.970	33.832	41.151	41.705	42.646	43.187	47.634	46.850	46.438	44.029	46.120	41.776
6/17/2005	16:00	33.950	33.777	41.129	41.525	41.870	41.384	47.617	46.821	46.408	44.022	46.098	41.762
6/17/2005	20:00	33.957	33.762	41.123	41.494	41.667	41.241	47.620	46.834	46.414	44.022	46.104	41.790

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
6/18/2005	0:00	33.973	33.775	41.134	41.500	41.576	41.204	47.634	46.854	46.434	44.022	46.116	41.796
6/18/2005	4:00	33.979	33.777	41.134	41.496	41.503	41.164	47.636	46.856	46.440	44.024	46.118	41.790
6/18/2005	8:00	33.986	33.784	41.134	41.500	41.453	41.143	47.641	46.860	46.442	44.022	46.120	41.788
6/18/2005	12:00	33.982	33.782	41.127	41.489	41.401	41.112	47.634	46.854	46.436	44.018	46.112	41.784
6/18/2005	16:00	33.968	33.762	41.113	41.467	41.345	41.068	47.627	46.847	46.418	44.014	46.102	41.776
6/18/2005	20:00	33.977	33.763	41.119	41.478	41.325	41.054	47.632	46.860	46.427	44.014	46.108	41.776
6/19/2005	0:00	34.000	33.787	41.140	41.496	41.332	41.071	47.650	46.889	46.458	44.016	46.129	41.782
6/19/2005	4:00	34.001	33.791	41.140	41.492	41.309	41.059	47.650	46.887	46.458	44.016	46.127	41.780
6/19/2005	8:00	34.016	33.805	41.151	41.505	41.305	41.062	47.657	46.898	46.473	44.018	46.135	41.784
6/19/2005	12:00	34.009	33.813	41.157	41.534	41.336	41.627	47.651	46.889	46.464	44.016	46.127	41.778
6/19/2005	16:00	33.993	33.787	41.138	41.489	41.261	41.038	47.641	46.874	46.442	44.010	46.112	41.766
6/19/2005	20:00	34.010	33.789	41.174	41.516	41.261	41.028	47.650	46.900	46.464	44.010	46.127	41.774
6/20/2005	0:00	34.030	33.815	41.232	41.543	41.273	41.050	47.665	46.920	46.486	44.014	46.145	41.820
6/20/2005	4:00	34.035	33.820	41.209	41.534	41.264	41.045	47.665	46.920	46.494	44.014	46.147	41.808
6/20/2005	8:00	34.040	33.825	41.301	41.543	41.255	41.042	47.664	46.916	46.494	44.014	46.147	41.904
6/20/2005	12:00	34.028	33.818	41.377	41.569	41.227	41.025	47.658	46.903	46.479	44.012	46.135	41.900
6/20/2005	16:00	34.003	33.793	41.249	41.524	41.185	40.985	47.639	46.880	46.453	44.005	46.118	41.856
6/20/2005	20:00	34.005	33.779	41.243	41.502	41.176	40.968	47.639	46.887	46.453	44.007	46.120	41.876
6/21/2005	0:00	34.028	33.806	41.232	41.540	41.198	40.997	47.658	46.914	46.479	44.012	46.137	41.930
6/21/2005	4:00	34.053	33.810	41.224	41.524	41.214	40.990	47.664	46.933	46.501	44.018	46.155	41.906
6/21/2005	8:00	34.067	33.839	41.239	41.554	41.244	41.040	47.671	46.942	46.529	44.014	46.166	41.888
6/21/2005	12:00	33.994	33.781	41.176	41.491	41.157	41.216	47.622	46.843	46.436	44.006	46.104	41.846
6/21/2005	16:00	34.007	33.779	41.167	41.476	41.155	40.957	47.634	46.869	46.450	44.006	46.118	41.838
6/21/2005	20:00	33.998	33.765	41.153	41.463	41.133	40.935	47.627	46.863	46.440	44.001	46.114	41.828
6/22/2005	0:00	34.003	33.775	41.151	41.471	41.135	40.942	47.636	46.874	46.448	44.004	46.116	41.826
6/22/2005	4:00	33.993	33.763	41.138	41.454	41.113	40.923	47.627	46.856	46.436	44.001	46.104	41.814
6/22/2005	8:00	33.993	33.763	41.132	41.452	41.111	40.918	47.629	46.858	46.433	44.004	46.106	41.812
6/22/2005	12:00	33.979	33.760	41.119	41.447	41.144	43.266	47.624	46.845	46.418	43.997	46.091	41.806
6/22/2005	16:00	33.961	33.756	41.100	41.440	41.137	41.395	47.610	46.827	46.398	43.993	46.075	41.804
6/22/2005	20:00	33.950	33.734	41.088	41.420	41.102	40.949	47.599	46.823	46.384	43.990	46.071	41.810
6/23/2005	0:00	33.966	33.737	41.107	41.427	41.100	40.904	47.618	46.845	46.408	43.991	46.085	41.818
6/23/2005	4:00	33.956	33.729	41.088	41.416	41.074	40.883	47.612	46.834	46.397	43.987	46.077	41.808
6/23/2005	8:00	33.949	33.720	41.081	41.407	41.052	40.865	47.608	46.823	46.388	43.982	46.071	41.798
6/23/2005	12:00	33.931	33.720	41.064	41.445	41.948	47.946	47.599	46.805	46.377	43.980	46.058	41.792
6/23/2005	16:00	33.913	33.758	41.052	41.522	41.730	41.587	47.584	46.785	46.342	43.971	46.044	41.780
6/23/2005	20:00	33.915	33.694	41.048	41.400	41.384	41.040	47.584	46.790	46.344	43.974	46.046	41.782

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
6/24/2005	0:00	33.924	33.706	41.054	41.407	41.290	40.999	47.598	46.818	46.372	43.972	46.062	41.786
6/24/2005	4:00	33.929	33.703	41.054	41.398	41.222	40.952	47.601	46.814	46.370	43.976	46.060	41.788
6/24/2005	8:00	33.938	33.836	41.060	41.618	42.665	50.307	47.601	46.821	46.377	43.974	46.063	41.786
6/24/2005	12:00	33.942	33.839	41.107	41.562	41.927	41.732	47.606	46.827	46.381	43.974	46.063	41.778
6/24/2005	16:00	33.924	33.739	41.073	41.449	41.602	41.223	47.598	46.821	46.362	43.967	46.052	41.772
6/24/2005	20:00	33.928	33.712	41.062	41.418	41.458	41.107	47.594	46.821	46.353	43.969	46.049	41.784
6/25/2005	0:00	33.975	33.751	41.102	41.471	41.442	41.121	47.631	46.887	46.420	43.976	46.094	41.808
6/25/2005	4:00	33.954	33.741	41.085	41.447	41.351	41.066	47.612	46.852	46.392	43.969	46.071	41.792
6/25/2005	8:00	33.968	33.753	41.096	41.456	41.325	41.057	47.624	46.869	46.414	43.971	46.081	41.792
6/25/2005	12:00	33.961	33.748	41.270	41.482	41.275	41.025	47.620	46.860	46.400	43.969	46.073	41.792
6/25/2005	16:00	33.938	33.727	41.199	41.463	41.216	40.982	47.603	46.841	46.375	43.963	46.053	41.786
6/25/2005	20:00	33.945	33.710	41.151	41.434	41.194	40.947	47.605	46.849	46.377	43.965	46.056	41.804
6/26/2005	0:00	33.968	33.736	41.146	41.454	41.207	40.973	47.624	46.883	46.405	43.967	46.079	41.816
6/26/2005	4:00	33.944	33.722	41.117	41.436	41.155	40.942	47.608	46.849	46.383	43.959	46.058	41.794
6/26/2005	8:00	33.958	33.729	41.115	41.438	41.153	40.940	47.617	46.863	46.394	43.961	46.065	41.796
6/26/2005	12:00	33.945	33.715	41.096	41.418	41.122	40.909	47.608	46.852	46.383	43.957	46.056	41.928
6/26/2005	16:00	33.935	33.706	41.081	41.411	41.096	40.892	47.601	46.849	46.368	43.948	46.050	42.012
6/26/2005	20:00	33.926	33.687	41.071	41.404	41.072	40.861	47.596	46.845	46.361	43.950	46.044	42.053
6/27/2005	0:00	33.944	33.710	41.085	41.420	41.092	40.890	47.612	46.872	46.388	43.953	46.062	41.956
6/27/2005	4:00	33.951	33.715	41.086	41.418	41.087	40.889	47.618	46.876	46.396	43.954	46.067	41.922
6/27/2005	8:00	33.949	33.718	41.085	41.418	41.078	40.885	47.620	46.878	46.398	43.954	46.067	41.896
6/27/2005	12:00	33.936	33.706	41.085	41.407	41.050	40.863	47.612	46.865	46.386	43.951	46.055	41.878
6/27/2005	16:00	33.919	33.686	41.060	41.387	41.015	40.830	47.596	46.847	46.362	43.946	46.040	41.870
6/27/2005	20:00	33.935	33.677	41.069	41.380	41.255	41.155	47.605	46.867	46.364	43.953	46.054	41.950
6/28/2005	0:00	33.940	33.703	41.071	41.402	41.081	40.878	47.617	46.889	46.397	43.950	46.067	41.908
6/28/2005	4:00	33.951	33.718	41.083	41.420	41.072	40.887	47.627	46.894	46.409	43.957	46.073	41.890
6/28/2005	8:00	33.938	33.712	41.069	41.478	41.920	42.624	47.613	46.874	46.397	43.954	46.065	41.874
6/28/2005	12:00	33.931	33.746	41.071	41.584	42.432	43.099	47.610	46.869	46.388	43.955	46.057	41.858
6/28/2005	16:00	33.891	33.698	41.041	41.455	41.682	41.300	47.577	46.823	46.337	43.946	46.023	41.836
6/28/2005	20:00	33.910	33.675	41.140	41.407	41.432	41.047	47.587	46.843	46.344	43.946	46.036	41.946
6/29/2005	0:00	33.926	33.703	41.125	41.514	41.462	42.058	47.606	46.874	46.377	43.950	46.057	41.912
6/29/2005	4:00	33.908	33.705	41.094	41.525	41.460	42.524	47.596	46.847	46.358	43.944	46.044	41.880
6/29/2005	8:00	33.929	33.736	41.161	41.629	41.589	43.070	47.608	46.874	46.383	43.944	46.060	41.876
6/29/2005	12:00	33.926	33.744	41.144	41.653	41.617	42.524	47.610	46.878	46.379	43.944	46.058	41.874
6/29/2005	16:00	33.933	33.720	41.132	41.496	41.440	41.443	47.614	46.896	46.390	43.944	46.067	42.019
6/29/2005	20:00	33.945	33.729	41.153	41.491	41.416	41.161	47.622	46.909	46.400	43.944	46.075	42.085

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
6/30/2005	0:00	33.968	33.748	41.165	41.513	41.392	41.119	47.638	46.940	46.436	43.944	46.096	42.001
6/30/2005	4:00	33.975	33.753	41.161	41.505	41.346	41.088	47.643	46.929	46.437	43.944	46.093	41.961
6/30/2005	8:00	33.993	33.763	41.171	41.514	41.333	41.080	47.651	46.942	46.455	43.944	46.104	42.015
6/30/2005	12:00	33.989	33.781	41.171	41.613	41.458	42.627	47.648	46.938	46.455	43.942	46.102	42.099
6/30/2005	16:00	33.979	33.779	41.161	41.631	41.504	42.658	47.633	46.922	46.431	43.935	46.088	42.013
6/30/2005	20:00	33.982	33.787	41.171	41.718	41.584	42.779	47.634	46.927	46.433	43.936	46.089	42.073
7/1/2005	0:00	34.009	33.817	41.226	41.738	41.678	42.856	47.650	46.949	46.460	43.938	46.104	42.135
7/1/2005	4:00	34.000	33.817	41.217	41.727	41.702	42.884	47.643	46.927	46.446	43.936	46.093	42.151
7/1/2005	8:00	34.014	33.851	41.236	41.871	42.663	44.824	47.651	46.940	46.461	43.935	46.100	42.091
7/1/2005	12:00	34.016	33.894	41.326	41.967	43.162	45.244	47.646	46.936	46.457	43.932	46.094	42.033
7/1/2005	16:00	33.984	33.853	41.291	41.855	42.533	44.424	47.618	46.891	46.407	43.923	46.060	41.989
7/1/2005	20:00	33.972	33.829	41.257	41.796	42.308	43.290	47.607	46.880	46.392	43.916	46.053	41.973
7/2/2005	0:00	33.975	33.793	41.245	41.665	42.044	41.644	47.608	46.872	46.385	43.919	46.048	41.958
7/2/2005	4:00	33.991	33.791	41.247	41.624	41.896	41.469	47.621	46.891	46.405	43.921	46.058	41.948
7/2/2005	8:00	34.002	33.784	41.239	41.602	41.789	41.386	47.624	46.891	46.411	43.925	46.063	41.940
7/2/2005	12:00	33.991	33.794	41.224	41.602	41.739	41.548	47.615	46.883	46.394	43.921	46.052	41.934
7/2/2005	16:00	33.954	33.741	41.195	41.618	41.637	41.645	47.591	46.847	46.351	43.915	46.023	41.914
7/2/2005	20:00	33.945	33.712	41.178	41.536	41.538	41.195	47.580	46.834	46.340	43.908	46.019	41.912
7/3/2005	0:00	33.984	33.743	41.205	41.554	41.536	41.204	47.612	46.883	46.379	43.917	46.048	41.920
7/3/2005	4:00	33.938	33.712	41.169	41.518	41.442	41.140	47.582	46.832	46.337	43.906	46.017	41.890
7/3/2005	8:00	33.961	33.722	41.176	41.522	41.429	41.131	47.598	46.852	46.360	43.915	46.031	41.894
7/3/2005	12:00	33.981	33.758	41.201	41.556	41.440	41.166	47.617	46.900	46.403	43.912	46.058	41.890
7/3/2005	16:00	33.988	33.737	41.201	41.525	41.408	41.123	47.618	46.898	46.400	43.925	46.056	41.894
7/3/2005	20:00	33.975	33.737	41.184	41.522	41.360	41.099	47.612	46.874	46.379	43.916	46.042	41.890
7/4/2005	0:00	34.021	33.789	41.224	41.571	41.414	41.159	47.645	46.945	46.450	43.919	46.089	41.890
7/4/2005	4:00	34.018	33.781	41.215	41.554	41.370	41.121	47.636	46.918	46.435	43.921	46.077	41.882
7/4/2005	8:00	34.056	33.815	41.245	41.585	41.405	41.154	47.661	46.960	46.479	43.927	46.106	41.892
7/4/2005	12:00	34.060	33.829	41.251	41.592	41.392	41.155	47.661	46.962	46.485	43.929	46.112	41.898
7/4/2005	16:00	34.058	33.820	41.241	41.578	41.360	41.130	47.655	46.956	46.472	43.927	46.104	41.896
7/4/2005	20:00	34.070	33.824	41.247	41.580	41.358	41.124	47.662	46.973	46.489	43.927	46.116	41.904
7/5/2005	0:00	34.081	33.843	41.259	41.596	41.371	41.152	47.666	46.975	46.502	43.932	46.122	41.906
7/5/2005	4:00	34.047	33.817	41.228	41.567	41.307	41.100	47.643	46.925	46.461	43.927	46.091	41.882
7/5/2005	8:00	34.076	33.832	41.243	41.578	41.327	41.109	47.661	46.956	46.487	43.934	46.112	41.888
7/5/2005	12:00	34.079	33.858	41.249	41.693	42.295	42.999	47.662	46.964	46.489	43.934	46.112	41.884
7/5/2005	16:00	34.047	33.839	41.228	41.634	41.756	41.434	47.636	46.929	46.453	43.925	46.085	41.876
7/5/2005	20:00	34.033	33.796	41.209	41.558	41.527	41.197	47.626	46.916	46.424	43.923	46.073	41.880

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
7/6/2005	0:00	34.055	33.813	41.226	41.569	41.464	41.173	47.645	46.940	46.453	43.929	46.091	41.888
7/6/2005	4:00	34.023	33.779	41.197	41.536	41.368	41.104	47.621	46.894	46.418	43.923	46.063	41.866
7/6/2005	8:00	34.047	33.813	41.213	41.651	42.295	42.928	47.636	46.925	46.446	43.925	46.085	41.870
7/6/2005	12:00	34.047	33.860	41.226	41.738	42.757	43.650	47.640	46.929	46.442	43.927	46.083	41.872
7/6/2005	16:00	34.026	33.826	41.209	41.633	42.057	41.599	47.622	46.909	46.413	43.921	46.065	41.862
7/6/2005	20:00	34.025	33.793	41.203	41.569	41.776	41.343	47.622	46.916	46.413	43.919	46.067	41.866
7/7/2005	0:00	34.042	33.805	41.226	41.587	41.654	41.278	47.635	46.938	46.433	43.921	46.081	41.946
7/7/2005	4:00	34.040	33.799	41.222	41.571	41.563	41.226	47.635	46.929	46.429	43.921	46.079	41.918
7/7/2005	8:00	34.049	33.818	41.236	41.687	42.438	43.028	47.641	46.929	46.437	43.925	46.081	41.981
7/7/2005	12:00	34.046	33.865	41.362	41.798	42.868	43.445	47.638	46.931	46.435	43.921	46.079	41.954
7/7/2005	16:00	34.025	33.825	41.379	41.680	42.171	41.665	47.622	46.916	46.405	43.919	46.062	41.922
7/7/2005	20:00	34.028	33.791	41.490	41.716	41.874	41.395	47.624	46.925	46.407	43.919	46.063	41.924
7/8/2005	0:00	34.051	33.810	41.391	41.678	41.752	41.343	47.640	46.949	46.433	43.925	46.083	42.085
7/8/2005	4:00	34.049	33.812	41.355	41.653	41.652	41.293	47.641	46.942	46.435	43.927	46.082	42.145
7/8/2005	8:00	34.065	33.836	41.441	41.776	42.543	43.123	47.650	46.953	46.450	43.929	46.092	42.109
7/8/2005	12:00	34.047	33.872	41.536	41.885	42.959	43.485	47.635	46.927	46.427	43.923	46.075	42.041
7/8/2005	16:00	34.032	33.829	41.402	41.725	42.199	41.661	47.624	46.920	46.405	43.923	46.067	42.009
7/8/2005	20:00	34.033	33.799	41.437	41.669	41.918	41.429	47.622	46.925	46.407	43.925	46.071	42.033
7/9/2005	0:00	34.060	33.818	41.463	41.698	41.802	41.383	47.643	46.956	46.435	43.932	46.093	42.047
7/9/2005	4:00	34.053	33.817	41.402	41.675	41.697	41.329	47.638	46.942	46.433	43.929	46.087	42.003
7/9/2005	8:00	34.091	33.768	41.393	41.611	41.665	41.262	47.628	46.951	46.450	43.925	46.247	42.039
7/9/2005	12:00	34.069	33.798	41.352	41.640	41.569	41.243	47.626	46.920	46.429	43.925	46.139	41.963
7/9/2005	16:00	34.028	33.777	41.314	41.604	41.488	41.183	47.612	46.858	46.397	43.925	46.163	41.942
7/9/2005	20:00	34.035	33.774	41.301	41.587	41.454	41.159	47.617	46.841	46.400	43.925	46.117	41.936
7/10/2005	0:00	34.060	33.803	41.308	41.607	41.456	41.181	47.636	46.880	46.429	43.927	46.103	41.934
7/10/2005	4:00	34.056	33.803	41.297	41.598	41.423	41.157	47.635	46.872	46.424	43.925	46.095	41.924
7/10/2005	8:00	34.065	33.805	41.291	41.594	41.409	41.147	47.638	46.876	46.429	43.925	46.085	41.918
7/10/2005	12:00	34.051	33.801	41.280	41.584	41.370	41.124	47.631	46.860	46.413	43.921	46.134	41.906
7/10/2005	16:00	34.035	33.784	41.260	41.567	41.327	41.092	47.621	46.849	46.392	43.915	46.120	41.894
7/10/2005	20:00	34.030	33.767	41.251	41.558	41.305	41.066	47.614	46.847	46.385	43.917	46.101	41.898
7/11/2005	0:00	34.056	33.793	41.268	41.576	41.336	41.102	47.635	46.880	46.422	43.923	46.058	41.906
7/11/2005	4:00	34.067	33.798	41.270	41.573	41.323	41.087	47.641	46.887	46.427	43.923	46.047	41.902
7/11/2005	8:00	34.056	33.796	41.261	41.565	41.296	41.073	47.633	46.874	46.418	43.919	46.079	41.892
7/11/2005	12:00	34.069	33.807	41.262	41.571	41.299	41.078	47.643	46.891	46.433	43.919	46.058	41.892
7/11/2005	16:00	34.047	33.793	41.247	41.556	41.259	41.049	47.631	46.872	46.409	43.915	46.131	41.878
7/11/2005	20:00	34.051	33.782	41.244	41.553	41.250	41.034	47.631	46.876	46.416	43.912	46.106	41.878

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
7/12/2005	0:00	34.067	33.800	41.259	41.569	41.261	41.051	47.641	46.894	46.434	43.915	46.042	41.878
7/12/2005	4:00	34.070	33.810	41.259	41.567	41.253	41.054	47.645	46.898	46.440	43.917	46.023	41.874
7/12/2005	8:00	34.090	33.821	41.270	41.554	41.261	41.051	47.655	46.914	46.457	43.919	46.013	41.876
7/12/2005	12:00	34.111	33.862	41.282	41.700	42.360	43.068	47.659	46.942	46.477	43.912	46.040	41.878
7/12/2005	16:00	34.072	33.870	41.264	41.729	42.227	42.206	47.633	46.982	46.435	43.904	46.127	41.841
7/12/2005	20:00	34.084	33.836	41.276	41.607	41.756	41.334	47.645	46.991	46.437	43.891	46.094	41.864
7/13/2005	0:00	34.100	33.843	41.287	41.607	41.614	41.255	47.659	46.993	46.455	43.893	46.034	41.872
7/13/2005	4:00	34.095	33.838	41.280	41.589	41.517	41.204	47.652	46.980	46.446	43.891	46.038	41.862
7/13/2005	8:00	34.099	33.853	41.280	41.675	42.270	42.629	47.654	46.980	46.446	43.891	46.034	41.864
7/13/2005	12:00	34.090	33.888	41.282	41.762	42.831	43.428	47.645	46.969	46.435	43.887	46.087	41.860
7/13/2005	16:00	34.074	33.879	41.274	41.758	42.574	42.404	47.635	46.951	46.413	43.885	46.147	41.858
7/13/2005	20:00	34.063	33.824	41.262	41.624	42.020	41.483	47.622	46.938	46.396	43.881	46.139	41.944
7/14/2005	0:00	34.077	33.822	41.272	41.604	41.824	41.365	47.631	46.951	46.409	43.885	46.091	41.938
7/14/2005	4:00	34.070	33.814	41.260	41.585	41.689	41.291	47.628	46.940	46.403	43.883	46.091	41.906
7/14/2005	8:00	34.070	33.826	41.262	41.671	42.379	42.636	47.628	46.940	46.403	43.883	46.079	41.892
7/14/2005	12:00	34.067	33.857	41.262	41.758	42.949	43.452	47.624	46.936	46.396	43.879	46.124	41.878
7/14/2005	16:00	34.058	33.860	41.264	41.766	42.689	42.443	47.614	46.929	46.383	43.876	46.162	41.868
7/14/2005	20:00	34.058	33.819	41.262	41.625	42.147	41.558	47.615	46.933	46.381	43.879	46.137	41.928
7/15/2005	0:00	34.083	33.834	41.276	41.627	41.963	41.488	47.631	46.962	46.407	43.881	46.063	41.956
7/15/2005	4:00	34.097	33.844	41.288	41.627	41.837	41.404	47.640	46.973	46.420	43.883	46.027	41.930
7/15/2005	8:00	34.104	33.860	41.291	41.678	41.974	41.681	47.645	46.975	46.427	43.883	46.017	41.912
7/15/2005	12:00	34.097	33.870	41.291	41.749	42.781	43.321	47.640	46.967	46.420	43.883	46.073	41.896
7/15/2005	16:00	34.081	33.877	41.284	41.751	42.489	42.113	47.628	46.953	46.400	43.881	46.135	41.882
7/15/2005	20:00	34.076	33.827	41.274	41.634	42.061	41.524	47.621	46.951	46.387	43.883	46.122	41.970
7/16/2005	0:00	34.097	33.839	41.288	41.629	41.900	41.436	47.633	46.973	46.411	43.885	46.060	41.950
7/16/2005	4:00	34.090	33.834	41.280	41.620	41.778	41.371	47.629	46.962	46.405	43.883	46.060	41.916
7/16/2005	8:00	34.097	33.838	41.282	41.618	41.704	41.331	47.633	46.964	46.413	43.885	46.048	41.900
7/16/2005	12:00	34.086	33.826	41.274	41.602	41.628	41.283	47.626	46.958	46.403	43.883	46.108	41.908
7/16/2005	16:00	34.062	33.800	41.251	41.573	41.547	41.221	47.612	46.940	46.377	43.879	46.176	41.894
7/16/2005	20:00	34.040	33.774	41.232	41.594	41.477	41.168	47.596	46.922	46.355	43.874	46.180	41.971
7/17/2005	0:00	34.069	33.787	41.253	41.591	41.475	41.170	47.615	46.953	46.385	43.881	46.108	41.967
7/17/2005	4:00	34.055	33.779	41.246	41.567	41.429	41.142	47.610	46.938	46.374	43.881	46.104	41.932
7/17/2005	8:00	34.039	33.768	41.234	41.553	41.386	41.113	47.602	46.920	46.364	43.876	46.118	41.908
7/17/2005	12:00	34.033	33.758	41.226	41.538	41.353	41.089	47.603	46.924	46.361	43.876	46.158	41.930
7/17/2005	16:00	34.021	33.745	41.215	41.524	41.327	41.157	47.593	46.918	46.344	43.874	46.131	41.900
7/17/2005	20:00	34.044	33.746	41.246	41.593	41.334	41.059	47.607	46.958	46.366	43.885	46.052	42.021

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
7/18/2005	0:00	34.060	33.795	41.268	41.591	41.357	41.118	47.631	47.002	46.416	43.887	46.075	41.956
7/18/2005	4:00	34.088	33.838	41.291	41.598	41.375	41.123	47.647	47.028	46.450	43.891	46.017	41.940
7/18/2005	8:00	34.099	33.845	41.312	41.609	41.379	41.127	47.664	47.039	46.470	43.904	45.998	41.936
7/18/2005	12:00	34.115	33.853	41.312	41.616	41.360	41.133	47.661	47.039	46.474	43.895	46.023	41.916
7/18/2005	16:00	34.092	33.825	41.288	41.591	41.371	41.736	47.643	47.009	46.444	43.893	46.087	41.894
7/18/2005	20:00	34.079	33.801	41.270	41.564	41.303	41.075	47.633	46.991	46.429	43.891	46.106	41.880
7/19/2005	0:00	34.095	33.806	41.274	41.567	41.305	41.068	47.643	47.009	46.446	43.895	46.065	41.882
7/19/2005	4:00	34.076	33.795	41.259	41.553	41.268	41.042	47.633	46.984	46.427	43.893	46.083	41.862
7/19/2005	8:00	34.065	33.798	41.247	41.640	42.196	42.884	47.624	46.967	46.416	43.895	46.100	41.856
7/19/2005	12:00	34.051	33.829	41.246	41.720	42.659	43.264	47.617	46.953	46.405	43.895	46.143	41.840
7/19/2005	16:00	34.032	33.796	41.230	41.629	42.079	41.645	47.600	46.933	46.377	43.893	46.141	41.830
7/19/2005	20:00	34.025	33.762	41.219	41.551	41.756	41.324	47.596	46.933	46.368	43.895	46.120	41.940
7/20/2005	0:00	34.042	33.770	41.230	41.553	41.632	41.240	47.612	46.960	46.394	43.902	46.075	41.908
7/20/2005	4:00	34.037	33.762	41.226	41.536	41.527	41.171	47.608	46.949	46.390	43.906	46.077	41.882
7/20/2005	8:00	34.042	33.762	41.224	41.538	41.466	41.139	47.612	46.953	46.398	43.906	46.073	41.868
7/20/2005	12:00	34.037	33.795	41.228	41.680	42.543	43.178	47.612	46.960	46.398	43.910	46.114	41.856
7/20/2005	16:00	34.016	33.798	41.223	41.707	42.454	42.448	47.598	46.949	46.374	43.908	46.168	41.838
7/20/2005	20:00	34.033	33.767	41.230	41.576	41.920	41.400	47.607	46.971	46.387	43.917	46.118	41.995
7/21/2005	0:00	34.077	33.786	41.259	41.584	41.780	41.323	47.633	47.022	46.440	43.923	46.083	42.011
7/21/2005	4:00	34.079	33.803	41.270	41.594	41.671	41.285	47.641	47.028	46.448	43.932	46.073	41.963
7/21/2005	8:00	34.077	33.814	41.314	41.678	42.419	42.906	47.638	47.020	46.448	43.934	46.069	41.938
7/21/2005	12:00	34.100	33.877	41.389	41.818	42.940	43.468	47.655	47.053	46.474	43.938	46.075	42.027
7/21/2005	16:00	34.074	33.870	41.353	41.833	42.820	42.887	47.635	47.022	46.442	43.934	46.151	42.015
7/21/2005	20:00	34.076	33.824	41.362	41.669	42.181	41.589	47.631	47.024	46.440	43.940	46.124	42.085
7/22/2005	0:00	34.113	33.853	41.372	41.687	42.029	41.548	47.654	47.060	46.479	43.951	46.075	42.053
7/22/2005	4:00	34.118	33.849	41.362	41.675	41.883	41.433	47.655	47.060	46.487	43.953	46.063	42.007
7/22/2005	8:00	34.111	33.853	41.370	41.753	42.652	43.454	47.650	47.037	46.476	43.957	46.085	41.977
7/22/2005	12:00	34.121	33.936	41.377	42.007	43.293	45.285	47.655	47.053	46.487	43.959	46.118	42.027
7/22/2005	16:00	34.097	33.939	41.372	42.026	43.084	44.567	47.635	47.026	46.455	43.957	46.186	42.125
7/22/2005	20:00	34.102	33.896	41.418	41.967	42.657	43.578	47.635	47.031	46.455	43.959	46.174	42.163
7/23/2005	0:00	34.125	33.910	41.465	41.951	42.524	43.529	47.648	47.048	46.476	43.965	46.127	42.079
7/23/2005	4:00	34.123	33.912	41.441	41.940	42.447	43.526	47.645	47.042	46.476	43.968	46.124	42.027
7/23/2005	8:00	34.134	33.913	41.450	41.949	42.412	43.516	47.648	47.039	46.481	43.970	46.126	42.003
7/23/2005	12:00	34.123	33.912	41.438	41.969	42.377	43.511	47.645	47.035	46.470	43.970	46.184	42.033
7/23/2005	16:00	34.100	33.884	41.418	41.935	42.327	43.469	47.624	47.006	46.440	43.963	46.211	41.999
7/23/2005	20:00	34.102	33.872	41.618	41.973	42.321	43.469	47.621	47.013	46.435	43.965	46.182	42.105

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
7/24/2005	0:00	34.123	33.901	41.561	41.996	42.351	43.519	47.638	47.037	46.463	43.974	46.131	42.059
7/24/2005	4:00	34.123	33.905	41.513	41.986	42.351	43.524	47.636	47.031	46.463	43.976	46.146	42.017
7/24/2005	8:00	34.134	33.910	41.502	41.987	42.365	43.536	47.641	47.033	46.474	43.978	46.141	42.003
7/24/2005	12:00	34.116	33.901	41.483	41.978	42.347	43.590	47.628	47.020	46.453	43.974	46.203	41.985
7/24/2005	16:00	34.093	33.882	41.463	41.978	42.340	43.707	47.614	47.000	46.424	43.968	46.189	42.005
7/24/2005	20:00	34.099	33.879	41.630	42.015	42.371	43.739	47.614	47.006	46.424	43.970	46.168	41.993
7/25/2005	0:00	34.123	33.907	41.597	42.047	42.419	43.771	47.633	47.039	46.459	43.978	46.135	41.975
7/25/2005	4:00	34.134	33.912	41.553	42.040	42.438	43.776	47.636	47.035	46.466	43.984	46.131	41.961
7/25/2005	8:00	34.113	33.893	41.521	42.018	42.417	43.757	47.619	47.004	46.442	43.978	46.166	41.938
7/25/2005	12:00	34.107	33.891	41.508	42.015	42.417	43.754	47.614	47.000	46.431	43.978	46.193	41.975
7/25/2005	16:00	34.084	33.874	41.490	42.004	42.402	43.735	47.603	46.989	46.416	43.974	46.215	42.093
7/25/2005	20:00	34.100	33.891	41.634	42.062	42.462	43.794	47.608	47.009	46.424	43.982	46.164	42.173
7/26/2005	0:00	34.157	33.929	41.588	42.089	42.537	43.826	47.645	47.071	46.496	43.989	46.184	42.091
7/26/2005	4:00	34.108	33.920	41.569	42.033	42.552	43.789	47.638	47.057	46.487	43.980	46.337	42.041
7/26/2005	8:00	34.155	33.969	41.582	42.087	42.574	43.838	47.657	47.071	46.524	44.004	46.261	42.027
7/26/2005	12:00	34.182	33.998	41.582	42.073	42.617	43.884	47.664	47.093	46.550	44.004	46.194	42.005
7/26/2005	16:00	34.189	33.974	41.576	41.936	42.436	42.013	47.669	47.099	46.555	44.010	46.187	41.989
7/26/2005	20:00	34.180	33.944	41.569	41.884	42.316	41.844	47.671	47.099	46.563	44.014	46.162	41.977
7/27/2005	0:00	34.210	33.953	41.573	41.887	42.249	41.805	47.678	47.104	46.576	44.016	46.210	41.969
7/27/2005	4:00	34.208	33.951	41.557	41.867	42.170	41.744	47.673	47.086	46.561	44.018	46.208	41.952
7/27/2005	8:00	34.220	33.955	41.555	41.865	42.122	41.712	47.678	47.095	46.572	44.021	46.178	41.946
7/27/2005	12:00	34.195	33.938	41.530	41.840	42.038	41.657	47.662	47.062	46.542	44.016	46.229	41.924
7/27/2005	16:00	34.165	33.907	41.494	41.836	42.129	41.844	47.635	47.011	46.494	44.010	46.289	41.900
7/27/2005	20:00	34.154	33.882	41.477	41.780	41.963	41.572	47.624	46.995	46.474	44.006	46.277	41.888
7/28/2005	0:00	34.170	33.888	41.473	41.771	41.915	41.538	47.631	47.004	46.485	44.008	46.233	41.884
7/28/2005	4:00	34.165	33.888	41.465	41.764	41.861	41.510	47.629	46.998	46.481	44.006	46.219	41.872
7/28/2005	8:00	34.178	33.908	41.465	41.862	42.756	43.294	47.636	47.006	46.489	44.010	46.200	41.868
7/28/2005	12:00	34.164	33.932	41.460	41.942	43.210	43.676	47.628	46.986	46.472	44.006	46.242	41.852
7/28/2005	16:00	34.150	33.922	41.448	41.891	42.789	44.204	47.615	46.969	46.450	43.999	46.283	41.850
7/28/2005	20:00	34.149	33.891	41.441	41.791	42.401	41.846	47.612	46.967	46.444	43.995	46.257	41.852
7/29/2005	0:00	34.164	33.889	41.446	41.775	42.210	41.684	47.622	46.982	46.463	43.999	46.205	41.852
7/29/2005	4:00	34.162	33.886	41.441	41.765	42.077	41.610	47.621	46.978	46.459	43.997	46.195	41.840
7/29/2005	8:00	34.187	33.915	41.452	41.867	42.901	43.366	47.636	47.002	46.483	44.001	46.174	41.840
7/29/2005	12:00	34.173	33.946	41.450	41.951	43.330	43.745	47.624	46.982	46.463	43.995	46.217	41.828
7/29/2005	16:00	34.155	33.926	41.443	41.873	42.783	42.185	47.612	46.962	46.446	43.989	46.238	41.814
7/29/2005	20:00	34.154	33.886	41.431	41.780	42.402	41.784	47.607	46.958	46.437	43.987	46.236	41.816

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
7/30/2005	0:00	34.173	33.889	41.439	41.773	42.229	41.689	47.617	46.980	46.459	43.989	46.191	41.812
7/30/2005	4:00	34.180	33.898	41.443	41.776	42.111	41.636	47.622	46.989	46.470	43.989	46.170	41.806
7/30/2005	8:00	34.192	33.903	41.446	41.775	42.031	41.592	47.631	47.000	46.479	43.991	46.155	41.804
7/30/2005	12:00	34.180	33.898	41.439	41.762	41.944	41.545	47.622	46.984	46.466	43.987	46.193	41.796
7/30/2005	16:00	34.155	33.869	41.416	41.731	41.854	41.476	47.607	46.960	46.437	43.976	46.240	41.788
7/30/2005	20:00	34.153	33.855	41.406	41.715	41.802	41.435	47.602	46.958	46.433	43.978	46.224	41.782
7/31/2005	0:00	34.173	33.874	41.420	41.727	41.787	41.435	47.619	46.986	46.461	43.982	46.178	41.780
7/31/2005	4:00	34.178	33.877	41.420	41.727	41.752	41.416	47.619	46.989	46.466	43.982	46.166	41.776
7/31/2005	8:00	34.173	33.874	41.414	41.720	41.717	41.392	47.617	46.982	46.463	43.982	46.162	41.768
7/31/2005	12:00	34.168	33.867	41.406	41.709	41.678	41.366	47.615	46.978	46.457	43.978	46.193	41.774
7/31/2005	16:00	34.145	33.846	41.393	41.691	41.647	42.108	47.602	46.960	46.433	43.974	46.228	41.756
7/31/2005	20:00	34.143	33.836	41.406	41.740	41.610	41.306	47.598	46.960	46.429	43.972	46.211	41.878
8/1/2005	0:00	34.153	33.848	41.410	41.724	41.599	41.306	47.607	46.978	46.448	43.972	46.174	41.852
8/1/2005	4:00	34.155	33.843	41.406	41.704	41.579	41.287	47.608	46.978	46.453	43.974	46.166	41.818
8/1/2005	8:00	34.157	33.849	41.404	41.702	41.564	41.280	47.612	46.980	46.459	43.976	46.151	41.800
8/1/2005	12:00	34.138	33.834	41.391	41.684	41.525	41.250	47.603	46.964	46.444	43.970	46.199	41.776
8/1/2005	16:00	34.109	33.801	41.366	41.649	41.470	41.203	47.582	46.938	46.409	43.961	46.246	41.754
8/1/2005	20:00	34.100	33.789	41.353	41.636	41.458	41.201	47.575	46.933	46.400	43.961	46.228	41.766
8/2/2005	0:00	34.118	33.801	41.358	41.644	41.464	41.191	47.589	46.955	46.427	43.963	46.178	41.804
8/2/2005	4:00	34.127	33.813	41.366	41.651	41.460	41.196	47.596	46.980	46.446	43.963	46.160	41.778
8/2/2005	8:00	34.125	33.820	41.362	41.722	42.279	42.867	47.598	46.967	46.444	43.965	46.157	41.764
8/2/2005	12:00	34.115	33.857	41.360	41.827	42.809	43.384	47.595	46.962	46.435	43.961	46.193	41.758
8/2/2005	16:00	34.095	33.839	41.353	41.795	42.471	42.141	47.579	46.947	46.407	43.957	46.224	41.746
8/2/2005	20:00	34.095	33.796	41.408	41.685	42.018	41.488	47.577	46.953	46.407	43.955	46.205	41.836
8/3/2005	0:00	34.113	33.808	41.395	41.747	41.859	41.413	47.595	46.980	46.435	43.959	46.166	41.840
8/3/2005	4:00	34.115	33.808	41.391	41.695	41.752	41.356	47.595	46.980	46.440	43.961	46.162	41.804
8/3/2005	8:00	34.125	33.827	41.400	41.787	42.550	43.068	47.602	46.991	46.455	43.963	46.143	41.860
8/3/2005	12:00	34.120	33.869	41.410	41.895	43.038	43.533	47.602	46.986	46.450	43.961	46.176	41.830
8/3/2005	16:00	34.109	33.860	41.404	41.849	42.650	42.220	47.593	46.982	46.433	43.959	46.215	41.808
8/3/2005	20:00	34.106	33.817	41.399	41.731	42.192	41.609	47.591	46.989	46.433	43.959	46.197	41.878
8/4/2005	0:00	34.144	33.839	41.423	41.740	42.035	41.530	47.619	47.031	46.476	43.970	46.131	41.884
8/4/2005	4:00	34.185	33.886	41.460	41.775	41.965	41.528	47.647	47.084	46.531	43.980	46.106	41.858
8/4/2005	8:00	34.211	33.917	41.479	41.878	42.776	43.258	47.661	47.101	46.555	43.989	46.172	41.900
8/4/2005	12:00	34.231	33.982	41.504	41.997	43.254	43.705	47.670	47.108	46.572	43.995	46.178	41.888
8/4/2005	16:00	34.227	33.988	41.509	41.964	42.862	42.382	47.663	47.104	46.578	43.995	46.172	41.850
8/4/2005	20:00	34.233	33.946	41.508	41.847	42.421	41.805	47.662	47.101	46.565	43.995	46.178	41.842

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
8/5/2005	0:00	34.236	33.950	41.511	41.840	42.223	41.707	47.669	47.106	46.578	43.997	46.160	41.836
8/5/2005	4:00	34.234	33.943	41.506	41.825	42.085	41.628	47.664	47.093	46.572	43.999	46.166	41.818
8/5/2005	8:00	34.248	33.944	41.509	41.820	42.005	41.581	47.671	47.099	46.578	44.001	46.155	41.820
8/5/2005	12:00	34.234	33.962	41.502	41.929	42.889	43.426	47.662	47.084	46.568	43.997	46.174	41.808
8/5/2005	16:00	34.206	33.941	41.479	41.853	42.323	41.831	47.640	47.051	46.529	43.991	46.244	41.792
8/5/2005	20:00	34.190	33.891	41.456	41.773	42.061	41.578	47.626	47.031	46.505	43.987	46.267	41.790
8/6/2005	0:00	34.204	33.900	41.460	41.773	41.954	41.526	47.635	47.048	46.520	43.987	46.222	41.790
8/6/2005	4:00	34.185	33.879	41.441	41.747	41.850	41.461	47.622	47.015	46.496	43.982	46.238	41.772
8/6/2005	8:00	34.189	33.872	41.525	41.745	41.791	41.419	47.624	47.015	46.500	43.985	46.226	41.766
8/6/2005	12:00	34.178	33.869	41.475	41.744	41.728	41.387	47.619	47.009	46.487	43.980	46.253	41.754
8/6/2005	16:00	34.146	33.848	41.433	41.805	41.795	42.801	47.598	46.982	46.453	43.976	46.300	41.740
8/6/2005	20:00	34.136	33.846	41.421	41.895	41.872	42.967	47.589	46.978	46.437	43.974	46.267	41.748
8/7/2005	0:00	34.153	33.870	41.450	41.987	41.961	43.055	47.605	47.004	46.461	43.980	46.205	41.748
8/7/2005	4:00	34.146	33.867	41.462	42.016	41.998	43.101	47.600	46.991	46.457	43.978	46.203	41.736
8/7/2005	8:00	34.155	33.876	41.483	41.995	42.052	43.148	47.605	46.995	46.466	43.982	46.182	41.732
8/7/2005	12:00	34.148	33.876	41.481	41.971	42.074	43.174	47.604	46.993	46.459	43.980	46.215	41.728
8/7/2005	16:00	34.123	33.855	41.467	41.947	42.070	43.163	47.586	46.978	46.433	43.974	46.281	41.726
8/7/2005	20:00	34.132	33.857	41.477	41.973	42.133	43.569	47.591	46.991	46.440	43.974	46.246	41.736
8/8/2005	0:00	34.148	33.886	41.498	42.016	42.209	43.678	47.603	47.013	46.463	43.976	46.190	41.732
8/8/2005	4:00	34.148	33.886	41.500	42.020	42.246	43.698	47.602	47.004	46.463	43.978	46.186	41.720
8/8/2005	8:00	34.157	33.908	41.513	42.127	43.138	45.537	47.607	47.006	46.472	43.980	46.168	41.714
8/8/2005	12:00	34.153	33.955	41.525	42.235	43.652	45.991	47.602	47.006	46.468	43.976	46.201	41.708
8/8/2005	16:00	34.139	33.929	41.521	42.126	43.031	44.189	47.590	46.997	46.448	43.974	46.248	41.706
8/8/2005	20:00	34.139	33.896	41.523	42.078	42.859	44.089	47.588	47.002	46.444	43.974	46.232	41.714
8/9/2005	0:00	34.155	33.912	41.536	42.089	42.757	43.957	47.596	47.017	46.463	43.976	46.191	41.778
8/9/2005	4:00	34.155	33.912	41.540	42.089	42.700	43.931	47.595	47.009	46.459	43.974	46.188	41.742
8/9/2005	8:00	34.176	33.943	41.559	42.200	43.543	45.755	47.605	47.022	46.483	43.980	46.158	41.732
8/9/2005	12:00	34.173	33.988	41.573	42.338	43.979	46.167	47.602	47.020	46.468	43.978	46.191	41.726
8/9/2005	16:00	34.159	33.957	41.569	42.193	43.291	44.318	47.590	47.009	46.453	43.974	46.242	41.716
8/9/2005	20:00	34.165	33.927	41.573	42.146	43.101	44.198	47.588	47.017	46.448	43.974	46.234	41.782
8/10/2005	0:00	34.201	33.969	41.594	42.171	43.018	44.130	47.614	47.062	46.498	43.978	46.153	41.794
8/10/2005	4:00	34.209	33.972	41.597	42.167	42.953	44.094	47.616	47.055	46.500	43.980	46.149	41.764
8/10/2005	8:00	34.213	33.988	41.599	42.264	43.752	45.917	47.614	47.046	46.496	43.982	46.153	41.806
8/10/2005	12:00	34.213	34.000	41.737	42.244	43.232	44.299	47.612	47.048	46.494	43.980	46.184	41.816
8/10/2005	16:00	34.192	33.963	41.727	42.211	43.057	44.146	47.595	47.028	46.466	43.972	46.250	41.780
8/10/2005	20:00	34.194	33.946	41.653	42.173	42.974	44.089	47.590	47.026	46.459	43.970	46.252	41.766

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
8/11/2005	0:00	34.220	33.972	41.651	42.193	42.957	44.099	47.608	47.053	46.485	43.974	46.191	41.816
8/11/2005	4:00	34.217	33.977	41.641	42.193	42.925	44.096	47.605	47.044	46.485	43.972	46.184	41.780
8/11/2005	8:00	34.218	33.991	41.641	42.277	43.703	45.843	47.603	47.035	46.481	43.974	46.181	41.826
8/11/2005	12:00	34.218	34.029	41.645	42.351	43.661	45.050	47.600	47.031	46.476	43.972	46.199	41.770
8/11/2005	16:00	34.211	33.986	41.638	42.220	43.308	44.296	47.591	47.024	46.461	43.968	46.226	41.762
8/11/2005	20:00	34.211	33.970	41.643	42.271	43.164	44.203	47.588	47.028	46.457	43.965	46.242	41.760
8/12/2005	0:00	34.238	33.991	41.662	42.320	43.110	44.196	47.605	47.051	46.485	43.970	46.184	41.818
8/12/2005	4:00	34.248	34.000	41.678	42.338	43.071	44.177	47.612	47.057	46.496	43.972	46.166	41.790
8/12/2005	8:00	34.252	34.001	41.682	42.326	43.044	44.163	47.614	47.055	46.500	43.974	46.151	41.772
8/12/2005	12:00	34.247	34.010	41.680	42.275	43.016	44.163	47.616	47.051	46.505	43.972	46.142	41.756
8/12/2005	16:00	34.449	34.058	41.674	42.184	43.009	44.081	47.600	47.033	46.492	44.194	46.139	41.792
8/12/2005	20:00	34.196	34.105	41.666	42.162	42.861	42.566	47.595	47.015	46.481	43.813	46.224	41.730
8/13/2005	0:00	34.147	34.112	41.662	42.024	42.702	42.101	47.605	47.026	46.494	43.972	46.199	41.726
8/13/2005	4:00	34.136	34.143	41.638	41.976	42.563	41.994	47.593	47.004	46.476	43.968	46.209	41.714
8/13/2005	8:00	34.160	34.100	41.641	41.956	42.493	41.946	47.607	47.026	46.496	43.965	46.155	41.712
8/13/2005	12:00	34.168	34.117	41.634	41.924	42.416	41.909	47.612	47.033	46.498	43.862	46.139	41.698
8/13/2005	16:00	34.160	34.113	41.609	41.880	42.332	41.847	47.605	47.017	46.485	43.857	46.153	41.688
8/13/2005	20:00	34.257	34.112	41.596	41.873	42.281	41.807	47.611	47.026	46.489	43.806	46.137	41.702
8/14/2005	0:00	34.259	34.136	41.594	41.882	42.235	41.797	47.616	47.037	46.500	43.968	46.098	41.696
8/14/2005	4:00	34.250	34.131	41.588	41.880	42.192	41.766	47.617	47.037	46.505	43.963	46.091	41.680
8/14/2005	8:00	34.261	34.084	41.590	41.880	42.155	41.738	47.624	47.044	46.513	43.968	46.083	41.694
8/14/2005	12:00	34.271	34.115	41.584	41.878	42.111	41.717	47.623	47.042	46.513	43.963	46.096	41.686
8/14/2005	16:00	34.253	34.086	41.563	41.855	42.046	41.662	47.605	47.013	46.483	43.957	46.157	41.676
8/14/2005	20:00	34.255	34.060	41.553	41.840	42.009	41.628	47.604	47.006	46.479	43.957	46.157	41.662
8/15/2005	0:00	34.271	34.017	41.559	41.851	41.994	41.628	47.614	47.024	46.498	43.959	46.110	41.660
8/15/2005	4:00	34.269	33.989	41.555	41.844	41.959	41.604	47.612	47.020	46.498	43.957	46.104	41.656
8/15/2005	8:00	34.276	33.967	41.552	41.844	41.937	41.587	47.612	47.022	46.498	43.955	46.100	41.664
8/15/2005	12:00	34.265	34.017	41.544	41.835	41.898	41.561	47.607	47.011	46.489	43.953	46.126	41.644
8/15/2005	16:00	34.242	34.094	41.521	41.809	41.847	41.514	47.590	46.984	46.461	43.946	46.179	41.656
8/15/2005	20:00	34.239	34.022	41.513	41.798	41.819	41.490	47.586	46.980	46.455	43.944	46.170	41.640
8/16/2005	0:00	34.253	33.986	41.517	41.802	41.812	41.487	47.597	46.995	46.471	43.946	46.129	41.652
8/16/2005	4:00	34.246	33.962	41.511	41.795	41.784	41.469	47.591	46.984	46.468	43.944	46.124	41.646
8/16/2005	8:00	34.254	33.948	41.513	41.880	42.639	43.168	47.597	46.991	46.474	43.946	46.110	41.646
8/16/2005	12:00	34.244	34.025	41.513	41.982	43.144	43.628	47.590	46.980	46.463	43.938	46.129	41.636
8/16/2005	16:00	34.224	34.081	41.504	41.940	42.783	42.351	47.574	46.953	46.440	43.934	46.172	41.630
8/16/2005	20:00	34.214	33.981	41.488	41.815	42.340	41.754	47.567	46.940	46.427	43.932	46.190	41.632

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
8/17/2005	0:00	34.219	33.948	41.488	41.796	42.155	41.647	47.569	46.944	46.431	43.932	46.158	41.628
8/17/2005	4:00	34.191	33.962	41.467	41.767	42.004	41.556	47.550	46.913	46.403	43.923	46.191	41.602
8/17/2005	8:00	34.175	33.981	41.452	41.833	42.772	43.235	47.538	46.891	46.385	43.917	46.211	41.590
8/17/2005	12:00	34.164	34.100	41.448	41.926	43.243	43.671	47.532	46.882	46.372	43.915	46.199	41.588
8/17/2005	16:00	34.138	33.948	41.427	41.771	42.386	41.777	47.515	46.852	46.342	43.906	46.250	41.594
8/17/2005	20:00	34.136	33.910	41.416	41.724	42.135	41.588	47.512	46.847	46.333	43.906	46.248	41.578
8/18/2005	0:00	34.136	33.889	41.412	41.724	42.004	41.532	47.512	46.854	46.342	43.900	46.201	41.586
8/18/2005	4:00	34.145	33.846	41.414	41.718	41.926	41.490	47.520	46.867	46.355	43.902	46.162	41.586
8/18/2005	8:00	34.154	33.831	41.416	41.718	41.867	41.459	47.525	46.874	46.366	43.902	46.135	41.584
8/18/2005	12:00	34.154	33.893	41.416	41.722	41.817	41.439	47.529	46.882	46.374	43.900	46.131	41.582
8/18/2005	16:00	34.141	33.927	41.404	41.704	41.767	41.404	47.520	46.871	46.355	43.898	46.162	41.576
8/18/2005	20:00	34.145	33.898	41.404	41.696	41.727	41.370	47.520	46.878	46.357	43.893	46.139	41.566
8/19/2005	0:00	34.153	33.882	41.406	41.702	41.706	41.363	47.525	46.891	46.370	43.893	46.093	41.576
8/19/2005	4:00	34.157	33.846	41.408	41.702	41.680	41.353	47.529	46.896	46.379	43.891	46.061	41.572
8/19/2005	8:00	34.173	33.829	41.425	41.813	42.592	43.132	47.541	46.916	46.400	43.893	46.034	41.576
8/19/2005	12:00	34.227	33.858	41.441	41.889	42.569	42.396	47.545	46.931	46.416	43.891	46.042	41.572
8/19/2005	16:00	34.215	33.819	41.454	41.773	42.140	41.621	47.558	46.947	46.431	43.900	46.031	41.586
8/19/2005	20:00	34.173	33.876	41.429	41.731	41.946	41.495	47.536	46.916	46.403	43.847	46.069	41.566
8/20/2005	0:00	34.210	33.776	41.452	41.751	41.895	41.492	47.560	46.955	46.446	43.891	46.011	41.562
8/20/2005	4:00	34.194	33.769	41.439	41.735	41.808	41.440	47.550	46.936	46.424	43.889	46.031	41.560
8/20/2005	8:00	34.219	33.710	41.454	41.744	41.786	41.428	47.564	46.964	46.453	43.895	45.999	41.570
8/20/2005	12:00	34.229	33.765	41.458	41.756	41.754	41.421	47.571	46.971	46.457	43.891	46.009	41.566
8/20/2005	16:00	34.206	33.831	41.439	41.731	41.688	41.373	47.552	46.944	46.429	43.883	46.062	41.542
8/20/2005	20:00	34.206	33.812	41.431	41.715	41.656	41.344	47.550	46.942	46.424	43.887	46.058	41.544
8/21/2005	0:00	34.208	33.788	41.431	41.720	41.636	41.337	47.550	46.942	46.424	43.883	46.040	41.548
8/21/2005	4:00	34.213	33.758	41.431	41.715	41.619	41.322	47.552	46.944	46.431	43.883	46.029	41.536
8/21/2005	8:00	34.210	33.746	41.427	41.711	41.597	41.310	47.548	46.942	46.431	43.879	46.025	41.542
8/21/2005	12:00	34.213	33.764	41.425	41.713	41.583	41.301	47.550	46.942	46.431	43.879	46.027	41.530
8/21/2005	16:00	34.189	33.817	41.406	41.691	41.536	41.263	47.532	46.913	46.398	43.874	46.077	41.534
8/21/2005	20:00	34.183	33.793	41.397	41.671	41.514	41.236	47.527	46.905	46.390	43.870	46.081	41.518
8/22/2005	0:00	34.196	33.765	41.402	41.684	41.518	41.246	47.536	46.920	46.405	43.872	46.042	41.532
8/22/2005	4:00	34.166	33.788	41.383	41.669	41.468	41.206	47.517	46.885	46.370	43.868	46.085	41.506
8/22/2005	8:00	34.178	33.762	41.383	41.658	41.472	41.203	47.522	46.898	46.383	43.868	46.062	41.522
8/22/2005	12:00	34.167	33.798	41.379	41.658	41.453	41.198	47.520	46.894	46.377	43.864	46.063	41.516
8/22/2005	16:00	34.148	33.850	41.366	41.640	41.414	41.165	47.506	46.869	46.353	43.864	46.102	41.499
8/22/2005	20:00	34.143	33.815	41.355	41.625	41.398	41.144	47.499	46.865	46.351	43.855	46.094	41.493

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
8/23/2005	0:00	34.136	33.800	41.351	41.627	41.379	41.146	47.499	46.858	46.344	43.857	46.071	41.499
8/23/2005	4:00	34.139	33.789	41.343	41.618	41.377	41.129	47.498	46.863	46.348	43.851	46.079	41.501
8/23/2005	8:00	34.146	33.758	41.345	41.618	41.377	41.127	47.503	46.871	46.357	43.853	46.050	41.503
8/23/2005	12:00	34.137	33.784	41.339	41.616	41.365	41.120	47.499	46.869	46.351	43.851	46.048	41.497
8/23/2005	16:00	34.125	33.839	41.328	41.604	41.333	41.098	47.491	46.852	46.333	43.847	46.085	41.493
8/23/2005	20:00	34.120	33.838	41.329	41.589	41.316	41.074	47.484	46.847	46.327	43.843	46.089	41.489
8/24/2005	0:00	34.130	33.807	41.326	41.602	41.328	41.094	47.494	46.865	46.340	43.843	46.034	41.491
8/24/2005	4:00	34.129	33.800	41.324	41.604	41.322	41.094	47.494	46.867	46.348	43.838	46.011	41.485
8/24/2005	8:00	34.120	33.791	41.309	41.576	41.292	41.051	47.482	46.845	46.327	43.836	46.058	41.475
8/24/2005	12:00	34.125	33.800	41.316	41.591	41.300	41.072	47.492	46.860	46.342	43.837	46.023	41.483
8/24/2005	16:00	34.104	33.834	41.299	41.571	41.263	41.041	47.477	46.838	46.318	43.832	46.060	41.471
8/24/2005	20:00	34.109	33.836	41.295	41.565	41.263	41.033	47.479	46.845	46.322	43.830	46.048	41.481
8/25/2005	0:00	34.113	33.810	41.301	41.576	41.270	41.046	47.484	46.860	46.337	43.832	46.005	41.477
8/25/2005	4:00	34.108	33.789	41.291	41.567	41.252	41.029	47.480	46.849	46.329	43.830	46.011	41.459
8/25/2005	8:00	34.125	33.748	41.305	41.578	41.274	41.043	47.494	46.871	46.353	43.832	45.968	41.467
8/25/2005	12:00	34.115	33.767	41.297	41.574	41.252	41.034	47.487	46.865	46.342	43.828	45.978	41.471
8/25/2005	16:00	34.097	33.814	41.284	41.558	41.219	41.007	47.477	46.843	46.320	43.826	46.023	41.467
8/25/2005	20:00	34.092	33.822	41.274	41.544	41.207	40.988	47.470	46.838	46.316	43.821	46.036	41.469
8/26/2005	0:00	34.106	33.762	41.288	41.544	41.215	40.988	47.519	46.849	46.320	43.898	45.947	41.485
8/26/2005	4:00	34.093	33.795	41.267	41.538	41.185	40.976	47.466	46.829	46.309	43.821	46.017	41.459
8/26/2005	8:00	34.059	33.743	41.282	41.558	41.222	41.007	47.480	46.865	46.344	43.823	45.961	41.471
8/26/2005	12:00	34.108	33.772	41.286	41.560	41.222	41.007	47.487	46.871	46.348	43.823	45.963	41.455
8/26/2005	16:00	34.083	33.832	41.265	41.542	41.174	40.972	47.468	46.845	46.320	43.817	46.019	41.453
8/26/2005	20:00	34.086	33.822	41.261	41.529	41.174	40.957	47.466	46.847	46.318	43.815	46.019	41.457
8/27/2005	0:00	34.095	33.774	41.267	41.542	41.189	40.976	47.475	46.860	46.333	43.817	45.972	41.445
8/27/2005	4:00	34.081	33.759	41.255	41.531	41.159	40.958	47.465	46.843	46.320	43.813	45.984	41.446
8/27/2005	8:00	34.090	33.714	41.259	41.533	41.169	40.962	47.472	46.854	46.329	43.815	45.963	41.439
8/27/2005	12:00	34.078	33.755	41.253	41.527	41.150	40.950	47.466	46.845	46.320	43.811	45.988	41.445
8/27/2005	16:00	34.065	33.822	41.238	41.509	41.121	40.921	47.454	46.829	46.298	43.806	46.040	41.439
8/27/2005	20:00	34.062	33.834	41.232	41.498	41.113	40.907	47.449	46.827	46.292	43.804	46.044	41.429
8/28/2005	0:00	34.085	33.805	41.246	41.507	41.139	40.921	47.465	46.849	46.311	43.813	45.992	41.453
8/28/2005	4:00	34.088	33.736	41.247	41.520	41.152	40.940	47.468	46.869	46.333	43.804	45.949	41.439
8/28/2005	8:00	34.067	33.746	41.230	41.500	41.113	40.905	47.451	46.836	46.305	43.802	45.994	41.437
8/28/2005	12:00	34.081	33.748	41.244	41.514	41.139	40.934	47.466	46.863	46.327	43.804	45.955	41.443
8/28/2005	16:00	34.058	33.815	41.224	41.496	41.097	40.900	47.453	46.845	46.301	43.798	46.005	41.429
8/28/2005	20:00	34.088	33.798	41.238	41.500	41.128	40.902	47.466	46.874	46.324	43.806	45.972	41.451

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
8/29/2005	0:00	34.078	33.762	41.238	41.513	41.123	40.921	47.461	46.871	46.324	43.798	45.936	41.425
8/29/2005	4:00	34.065	33.733	41.226	41.500	41.099	40.902	47.454	46.858	46.314	43.794	45.947	41.429
8/29/2005	8:00	34.072	33.691	41.232	41.509	41.108	40.909	47.459	46.867	46.327	43.794	45.928	41.433
8/29/2005	12:00	34.060	33.733	41.221	41.498	41.084	40.893	47.453	46.854	46.311	43.792	45.961	41.425
8/29/2005	16:00	34.032	33.819	41.200	41.469	41.038	40.850	47.432	46.825	46.279	43.785	46.036	41.411
8/29/2005	20:00	34.035	33.824	41.192	41.460	41.034	40.840	47.430	46.825	46.277	43.785	46.034	41.405
8/30/2005	0:00	34.034	33.791	41.192	41.464	41.036	40.845	47.430	46.827	46.281	43.783	46.005	41.413
8/30/2005	4:00	34.034	33.760	41.188	41.458	41.034	40.840	47.428	46.827	46.281	43.785	45.998	41.401
8/30/2005	8:00	34.030	33.743	41.186	41.458	41.026	40.838	47.426	46.823	46.281	43.783	45.988	41.411
8/30/2005	12:00	34.021	33.774	41.179	41.449	41.012	40.826	47.423	46.816	46.268	43.779	46.015	41.405
8/30/2005	16:00	34.007	33.858	41.167	41.431	40.984	40.797	47.413	46.805	46.251	43.777	46.058	41.403
8/30/2005	20:00	34.011	33.800	41.161	41.429	40.986	40.793	47.413	46.816	46.255	43.773	46.038	41.421
8/31/2005	0:00	34.019	33.760	41.169	41.440	41.008	40.814	47.420	46.832	46.272	43.775	45.986	41.425
8/31/2005	4:00	34.030	33.720	41.179	41.451	41.030	40.831	47.430	46.852	46.293	43.775	45.941	41.427
8/31/2005	8:00	34.062	33.648	41.206	41.485	41.082	40.878	47.451	46.894	46.335	43.781	45.881	41.439
8/31/2005	12:00	34.086	33.622	41.236	41.522	41.123	40.929	47.473	46.938	46.372	43.787	45.852	41.449
8/31/2005	16:00	34.081	33.665	41.229	41.504	41.089	40.893	47.465	46.929	46.359	43.779	45.885	41.447
8/31/2005	20:00	34.072	33.650	41.225	41.500	41.073	40.883	47.461	46.922	46.352	43.781	45.885	41.447
9/1/2005	0:00	34.081	33.596	41.232	41.511	41.082	40.895	47.466	46.931	46.366	43.781	45.862	41.434
9/1/2005	4:00	34.077	33.555	41.230	41.509	41.073	40.890	47.465	46.927	46.364	43.779	45.852	41.441
9/1/2005	8:00	34.092	33.521	41.240	41.522	41.089	40.903	47.472	46.938	46.377	43.783	45.833	41.445
9/1/2005	12:00	34.086	33.555	41.236	41.520	41.074	40.900	47.470	46.938	46.372	43.779	45.868	41.445
9/1/2005	16:00	34.056	33.646	41.209	41.487	41.021	40.852	47.447	46.907	46.335	43.773	45.949	41.417
9/1/2005	20:00	34.060	33.655	41.205	41.474	41.019	40.836	47.444	46.911	46.331	43.770	45.955	41.434
9/2/2005	0:00	34.065	33.609	41.211	41.489	41.034	40.854	47.451	46.922	46.343	43.773	45.914	41.435
9/2/2005	4:00	34.076	33.557	41.215	41.489	41.041	40.854	47.456	46.927	46.352	43.775	45.893	41.425
9/2/2005	8:00	34.083	33.529	41.224	41.531	41.716	42.191	47.463	46.940	46.366	43.775	45.866	41.441
9/2/2005	12:00	34.079	33.602	41.231	41.678	42.405	43.012	47.458	46.929	46.356	43.773	45.885	41.435
9/2/2005	16:00	34.060	33.689	41.221	41.651	42.056	41.776	47.444	46.911	46.330	43.766	45.949	41.421
9/2/2005	20:00	34.058	33.655	41.215	41.533	41.603	41.170	47.440	46.911	46.327	43.766	45.953	41.419
9/3/2005	0:00	34.067	33.590	41.224	41.533	41.457	41.100	47.447	46.929	46.342	43.766	45.908	41.423
9/3/2005	4:00	34.067	33.553	41.223	41.520	41.361	41.045	47.444	46.918	46.337	43.764	45.904	41.419
9/3/2005	8:00	34.069	33.522	41.223	41.516	41.302	41.014	47.442	46.918	46.337	43.764	45.897	41.407
9/3/2005	12:00	34.062	33.557	41.213	41.513	41.248	40.988	47.440	46.909	46.331	43.760	45.930	41.415
9/3/2005	16:00	34.040	33.660	41.192	41.480	41.180	40.928	47.423	46.887	46.298	43.758	46.009	41.419
9/3/2005	20:00	34.028	33.674	41.181	41.464	41.138	40.891	47.413	46.878	46.283	43.756	46.017	41.423

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
9/4/2005	0:00	34.044	33.610	41.190	41.480	41.143	40.907	47.425	46.902	46.307	43.756	45.961	41.417
9/4/2005	4:00	34.033	33.583	41.187	41.471	41.114	40.888	47.420	46.889	46.298	43.754	45.955	41.421
9/4/2005	8:00	34.042	33.541	41.188	41.471	41.110	40.883	47.423	46.896	46.305	43.756	45.939	41.411
9/4/2005	12:00	34.030	33.581	41.177	41.467	41.078	40.866	47.418	46.885	46.294	43.751	45.970	41.415
9/4/2005	16:00	34.016	33.677	41.163	41.444	41.039	40.829	47.407	46.874	46.270	43.747	46.029	41.528
9/4/2005	20:00	34.026	33.665	41.167	41.465	41.117	41.807	47.411	46.898	46.283	43.747	45.999	41.632
9/5/2005	0:00	34.032	33.648	41.186	41.613	41.298	42.451	47.420	46.911	46.301	43.747	45.945	41.564
9/5/2005	4:00	34.019	33.638	41.188	41.631	41.368	42.537	47.413	46.891	46.285	43.747	45.949	41.518
9/5/2005	8:00	34.028	33.605	41.198	41.645	41.448	42.601	47.416	46.896	46.294	43.745	45.937	41.499
9/5/2005	12:00	34.023	33.648	41.198	41.660	41.492	42.647	47.411	46.889	46.285	43.741	45.955	41.656
9/5/2005	16:00	34.009	33.743	41.194	41.667	41.544	42.799	47.402	46.882	46.270	43.737	46.011	41.578
9/5/2005	20:00	34.026	33.717	41.211	41.671	41.598	42.766	47.411	46.905	46.281	43.743	45.982	41.626
9/6/2005	0:00	34.139	33.571	41.271	41.733	41.719	42.869	47.453	46.980	46.355	43.726	45.833	41.544
9/6/2005	4:00	33.978	33.591	41.242	41.716	41.681	42.842	47.418	46.911	46.303	43.707	45.908	41.526
9/6/2005	8:00	34.000	33.472	41.259	41.722	41.740	42.869	47.430	46.922	46.314	43.622	45.897	41.522
9/6/2005	12:00	34.015	33.722	41.278	41.758	41.791	42.936	47.435	46.938	46.331	43.603	45.868	41.522
9/6/2005	16:00	34.050	34.234	41.275	41.751	41.797	42.945	47.425	46.916	46.311	43.648	45.920	41.494
9/6/2005	20:00	34.059	33.472	41.280	41.758	41.830	42.969	47.426	46.916	46.314	43.595	45.912	41.500
9/7/2005	0:00	34.071	33.497	41.297	41.804	41.897	43.391	47.433	46.929	46.329	43.595	45.875	41.494
9/7/2005	4:00	34.065	33.514	41.301	41.827	41.933	43.458	47.426	46.913	46.316	43.588	45.889	41.486
9/7/2005	8:00	34.076	33.671	41.311	41.838	41.980	43.484	47.426	46.911	46.320	43.58	45.879	41.473
9/7/2005	12:00	34.069	33.710	41.312	41.845	41.998	43.499	47.420	46.898	46.307	43.618	45.912	41.462
9/7/2005	16:00	34.049	33.729	41.299	41.836	41.998	43.489	47.404	46.871	46.277	43.698	45.967	41.460
9/7/2005	20:00	34.049	33.626	41.299	41.831	42.022	43.491	47.400	46.865	46.270	43.692	45.974	41.448
9/8/2005	0:00	34.051	33.600	41.309	41.845	42.048	43.515	47.399	46.858	46.268	43.654	45.955	41.456
9/8/2005	4:00	34.041	33.605	41.301	41.842	42.054	43.511	47.390	46.840	46.253	43.669	45.972	41.447
9/8/2005	8:00	34.051	33.588	41.313	41.922	42.887	45.234	47.392	46.840	46.257	43.656	45.963	41.449
9/8/2005	12:00	34.046	33.683	41.326	42.042	43.423	45.763	47.388	46.836	46.248	43.696	45.976	41.442
9/8/2005	16:00	34.026	33.781	41.316	41.940	42.815	44.003	47.374	46.812	46.222	43.773	46.013	41.429
9/8/2005	20:00	34.035	33.762	41.320	41.880	42.580	43.756	47.374	46.816	46.222	43.758	45.998	41.436
9/9/2005	0:00	34.044	33.708	41.334	41.898	42.495	43.733	47.378	46.827	46.238	43.684	45.945	41.433
9/9/2005	4:00	34.046	33.686	41.338	41.900	42.444	43.709	47.374	46.821	46.229	43.671	45.936	41.428
9/9/2005	8:00	34.053	33.665	41.349	41.996	43.260	45.489	47.374	46.821	46.233	43.648	45.918	41.429
9/9/2005	12:00	34.051	33.757	41.360	42.098	43.731	45.942	47.371	46.814	46.225	43.694	45.945	41.413
9/9/2005	16:00	34.039	33.865	41.357	42.000	43.118	44.179	47.359	46.798	46.201	43.790	45.994	41.415
9/9/2005	20:00	34.044	33.832	41.364	41.947	42.863	43.929	47.359	46.807	46.203	43.764	45.980	41.413

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
9/10/2005	0:00	34.065	33.765	41.382	41.957	42.761	43.890	47.369	46.823	46.222	43.694	45.926	41.423
9/10/2005	4:00	34.058	33.752	41.379	41.956	42.680	43.855	47.361	46.809	46.214	43.694	45.916	41.413
9/10/2005	8:00	34.067	33.726	41.391	41.958	42.639	43.835	47.362	46.809	46.216	43.686	45.903	41.417
9/10/2005	12:00	34.072	33.758	41.397	41.962	42.612	43.826	47.364	46.812	46.218	43.720	45.928	41.415
9/10/2005	16:00	34.063	33.862	41.391	41.955	42.577	43.805	47.354	46.807	46.199	43.796	46.007	41.411
9/10/2005	20:00	34.076	33.858	41.408	41.971	42.580	43.811	47.359	46.829	46.209	43.747	45.963	41.423
9/11/2005	0:00	34.104	33.781	41.431	41.998	42.614	43.847	47.376	46.860	46.246	43.641	45.873	41.435
9/11/2005	4:00	34.106	33.752	41.443	42.009	42.608	43.854	47.374	46.854	46.244	43.705	45.841	41.429
9/11/2005	8:00	34.118	33.719	41.454	42.018	42.614	43.856	47.378	46.860	46.251	43.707	45.809	41.429
9/11/2005	12:00	34.120	33.739	41.462	42.022	42.608	43.859	47.373	46.858	46.244	43.707	45.823	41.429
9/11/2005	16:00	34.100	33.865	41.450	42.007	42.575	43.830	47.357	46.838	46.215	43.701	45.908	41.423
9/11/2005	20:00	34.118	33.841	41.464	42.016	42.593	43.836	47.364	46.856	46.227	43.705	45.891	41.441
9/12/2005	0:00	34.125	33.803	41.477	42.035	42.610	43.862	47.369	46.865	46.240	43.705	45.837	41.421
9/12/2005	4:00	34.128	33.779	41.481	42.038	42.614	43.864	47.366	46.856	46.238	43.703	45.817	41.431
9/12/2005	8:00	34.120	33.800	41.477	42.118	43.421	45.632	47.355	46.827	46.218	43.701	45.841	41.411
9/12/2005	12:00	34.107	33.891	41.483	42.217	43.927	46.117	47.348	46.821	46.205	43.696	45.877	41.415
9/12/2005	16:00	34.084	34.015	41.462	42.146	43.467	44.556	47.328	46.792	46.166	43.690	46.017	41.411
9/12/2005	20:00	34.099	33.934	41.479	42.069	43.168	44.141	47.336	46.816	46.187	43.692	45.959	41.423
9/13/2005	0:00	34.116	33.877	41.498	42.075	43.037	44.079	47.343	46.827	46.201	43.698	45.904	41.425
9/13/2005	4:00	34.134	33.867	41.512	42.078	42.961	44.038	47.350	46.829	46.212	43.684	45.879	41.419
9/13/2005	8:00	34.169	33.788	41.535	42.109	42.944	44.055	47.369	46.865	46.244	43.698	45.800	41.428
9/13/2005	12:00	34.188	33.745	41.560	42.133	42.939	44.076	47.383	46.891	46.272	43.696	45.728	41.445
9/13/2005	16:00	34.181	33.810	41.561	42.126	42.894	44.048	47.373	46.880	46.257	43.705	45.792	41.439
9/13/2005	20:00	34.190	33.788	41.569	42.135	42.880	44.041	47.374	46.889	46.259	43.692	45.806	41.425
9/14/2005	0:00	34.232	33.736	41.603	42.167	42.922	44.081	47.400	46.931	46.307	43.665	45.740	41.444
9/14/2005	4:00	34.217	34.243	41.600	42.171	42.889	44.074	47.388	46.913	46.294	43.715	45.765	41.426
9/14/2005	8:00	34.240	34.193	41.617	42.182	42.898	44.076	47.397	46.920	46.304	43.701	45.769	41.451
9/14/2005	12:00	34.231	34.210	41.619	42.186	42.881	44.076	47.390	46.909	46.294	43.728	45.798	41.438
9/14/2005	16:00	34.201	34.320	41.594	42.151	42.856	44.076	47.364	46.869	46.246	43.773	45.893	41.421
9/14/2005	20:00	34.233	34.284	41.615	42.160	42.857	44.028	47.378	46.896	46.264	43.722	45.873	41.469
9/15/2005	0:00	34.238	34.246	41.625	42.176	42.868	44.045	47.376	46.902	46.275	43.688	45.848	41.431
9/15/2005	4:00	34.238	34.213	41.628	42.176	42.856	44.047	47.374	46.889	46.266	43.694	45.850	41.455
9/15/2005	8:00	34.261	34.148	41.649	42.211	42.896	44.088	47.392	46.916	46.296	43.694	45.800	41.462
9/15/2005	12:00	34.261	34.156	41.655	42.215	42.894	44.090	47.392	46.911	46.292	43.713	45.817	41.460
9/15/2005	16:00	34.243	34.267	41.642	42.200	42.896	44.329	47.374	46.887	46.261	43.739	45.885	41.449
9/15/2005	20:00	34.264	34.236	41.659	42.206	42.896	44.085	47.380	46.909	46.274	43.681	45.866	41.465

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
9/16/2005	0:00	34.280	34.167	41.669	42.224	42.915	44.107	47.390	46.922	46.294	43.673	45.823	41.469
9/16/2005	4:00	34.278	34.122	41.670	42.222	42.909	44.104	47.387	46.913	46.290	43.675	45.821	41.475
9/16/2005	8:00	34.296	34.089	41.682	42.306	43.667	45.785	47.393	46.920	46.303	43.662	45.809	41.469
9/16/2005	12:00	34.285	34.175	41.684	42.420	44.171	46.353	47.387	46.909	46.285	43.705	45.846	41.477
9/16/2005	16:00	34.255	34.284	41.663	42.280	43.525	44.496	47.361	46.869	46.240	43.756	45.934	41.459
9/16/2005	20:00	34.246	34.272	41.651	42.220	43.290	44.274	47.350	46.858	46.224	43.749	45.947	41.454
9/17/2005	0:00	34.259	34.230	41.667	42.229	43.186	44.233	47.356	46.867	46.231	43.690	45.918	41.457
9/17/2005	4:00	34.234	34.241	41.647	42.206	43.090	44.176	47.338	46.832	46.203	43.730	45.949	41.433
9/17/2005	8:00	34.234	34.246	41.642	42.193	43.033	44.138	47.334	46.816	46.196	43.764	45.949	41.429
9/17/2005	12:00	34.224	34.293	41.634	42.187	42.985	44.116	47.326	46.807	46.181	43.838	45.980	41.439
9/17/2005	16:00	34.201	34.380	41.617	42.162	42.933	44.071	47.314	46.790	46.153	43.968	45.974	41.415
9/17/2005	20:00	34.217	34.377	41.634	42.178	42.932	44.074	47.319	46.814	46.170	43.912	45.937	41.449
9/18/2005	0:00	34.234	34.342	41.657	42.206	42.939	44.100	47.331	46.832	46.188	43.828	45.891	41.449
9/18/2005	4:00	34.217	34.358	41.642	42.184	42.908	44.071	47.316	46.801	46.168	43.853	45.920	41.436
9/18/2005	8:00	34.238	34.311	41.659	42.198	42.922	44.085	47.324	46.816	46.183	43.832	45.889	41.442
9/18/2005	12:00	34.254	34.327	41.674	42.217	42.935	44.105	47.337	46.825	46.196	43.794	45.873	41.451
9/18/2005	16:00	34.241	34.406	41.665	42.207	42.913	44.086	47.326	46.818	46.183	43.836	45.912	41.447
9/18/2005	20:00	34.275	34.358	41.688	42.229	42.950	44.116	47.344	46.860	46.216	43.739	45.858	41.474
9/19/2005	0:00	34.289	34.318	41.697	42.246	42.965	44.140	47.357	46.860	46.227	43.667	45.829	41.470
9/19/2005	4:00	34.299	34.274	41.703	42.255	42.981	44.153	47.354	46.876	46.240	43.592	45.837	41.471
9/19/2005	8:00	34.329	34.215	41.718	42.357	43.804	45.940	47.373	46.905	46.270	43.501	45.809	41.487
9/19/2005	12:00	34.322	34.274	41.722	42.469	44.303	46.456	47.373	46.902	46.272	43.489	45.819	41.478
9/19/2005	16:00	34.326	34.342	41.726	42.364	43.682	44.639	47.369	46.909	46.266	43.523	45.858	41.480
9/19/2005	20:00	34.343	34.274	41.735	42.326	43.456	44.413	47.378	46.931	46.280	43.506	45.827	41.490
9/20/2005	0:00	34.352	34.201	41.743	42.320	43.343	44.362	47.387	46.940	46.294	43.495	45.790	41.508
9/20/2005	4:00	34.352	34.156	41.743	42.313	43.264	44.320	47.385	46.929	46.292	43.463	45.798	41.500
9/20/2005	8:00	34.361	34.101	41.749	42.317	43.223	44.305	47.390	46.936	46.302	43.415	45.782	41.503
9/20/2005	12:00	34.350	34.124	41.745	42.317	43.175	44.288	47.385	46.929	46.293	43.436	45.821	41.494
9/20/2005	16:00	34.317	34.236	41.718	42.278	43.105	44.227	47.359	46.889	46.244	43.656	45.918	41.477
9/20/2005	20:00	34.315	34.251	41.713	42.262	43.072	44.195	47.350	46.882	46.231	43.662	45.926	41.568
9/21/2005	0:00	34.317	34.231	41.720	42.275	43.053	44.198	47.350	46.880	46.230	43.626	45.914	41.532
9/21/2005	4:00	34.298	34.246	41.705	42.255	43.017	44.167	47.334	46.845	46.203	43.669	45.934	41.498
9/21/2005	8:00	34.287	34.248	41.695	42.238	42.991	44.138	47.324	46.823	46.186	43.705	45.949	41.490
9/21/2005	12:00	34.276	34.293	41.688	42.231	42.968	44.128	47.321	46.816	46.174	43.762	45.972	41.497
9/21/2005	16:00	34.245	34.399	41.663	42.202	42.920	44.081	47.300	46.787	46.133	43.898	45.970	41.473
9/21/2005	20:00	34.252	33.869	41.669	42.200	42.920	44.078	47.302	46.801	46.140	43.872	45.947	41.576

TABLE S3.2 (Cont.)

		Water level (ft below top of casing) at indicated well											
Date	Time	SB23S	SB23	SB28S	SB28	SB38S	SB38	KMW02	MW-R	MW-I	MW-B	MW-L	SB72
9/22/2005	0:00	34.278	33.807	41.693	42.226	42.950	44.105	47.322	46.832	46.168	43.781	45.883	41.576
9/22/2005	4:00	34.299	33.783	41.714	42.251	42.974	44.135	47.329	46.852	46.186	43.705	45.872	41.550
9/22/2005	8:00	34.342	34.275	41.753	42.289	43.026	44.181	47.354	46.891	46.231	43.578	45.873	41.556
9/22/2005	12:00	34.356	34.253	41.758	42.311	43.044	44.210	47.361	46.909	46.252	43.552	45.854	41.542
9/22/2005	16:00	34.345	34.284	41.753	42.307	43.028	44.205	47.355	46.900	46.240	43.565	45.870	41.528
9/22/2005	20:00	34.359	34.260	41.762	42.311	43.041	44.209	47.361	46.916	46.251	43.527	45.854	41.552
9/23/2005	0:00	34.366	34.214	41.766	42.318	43.052	44.224	47.364	46.920	46.257	43.478	45.858	41.528
9/23/2005	4:00	34.368	34.182	41.766	42.320	43.055	44.226	47.366	46.916	46.259	43.457	45.854	41.512
9/23/2005	8:00	34.370	34.155	41.770	42.315	43.046	44.214	47.362	46.900	46.248	43.459	45.864	41.524
9/23/2005	12:00	34.366	34.168	41.766	42.311	43.039	44.212	47.357	46.894	46.246	43.474	45.885	41.516
9/23/2005	16:00	34.328	34.935	41.735	42.280	42.981	44.162	47.331	46.847	46.199	43.597	45.941	41.494

Supplement 4:

Quality Control for Sample Collection, Handling, and Analysis

Supplement 4:

Quality Control for Sample Collection, Handling, and Analysis

Soil and groundwater sampling was conducted in three mobilizations during May–July 2005 at Agra, Kansas, to complete the scope of work presented in the *Work Plan* (Argonne 2005). The QA/QC procedures for sample collection, handling, and analysis during the investigation are described in detail in the *Master Work Plan* (Argonne 2002) and the site-specific Agra *Work Plan* (Argonne 2005).

The following sections discuss the quality of the analytical data generated during the investigation. Evaluation of the organic and inorganic analytical data was consistent with regulatory guidelines (EPA 1994a,b).

S4.1 Samples Used to Monitor Sampling Collection, Handling, and Analysis

Sample collection and handling activities were monitored by the documentation of samples as they were collected and the use of chain-of-custody (COC) forms and custody seals to ensure sample integrity during the handling and shipment of samples for analysis. The QA/QC samples collected included field blanks, equipment rinsates, and trip blanks. Field replicate samples were collected, and other samples were selected for duplicate analyses as a measure of analytical precision. The QA/QC samples are listed in Table S4.1. Analytical results for carbon tetrachloride and chloroform in QA/QC samples collected to monitor sample collection and handling activities are in Table S4.2.

S4.1.1 Field Blanks

Four field blanks were collected to represent waters used during equipment decontamination. Carbon tetrachloride and chloroform, the contaminants of concern in the investigation, were not detected in the field blanks.

S4.1.2 Equipment Rinsates

Fifteen equipment rinsates were collected to monitor decontamination procedures for reusable sampling equipment. Neither carbon tetrachloride nor chloroform was detected in the rinsate samples. These results indicate that cross-contamination of groundwater samples did not occur during sample collection.

S4.1.3 Trip Blanks

As an indicator of cross-contamination during shipment, 40 trip blanks were prepared and included in shipments of soil or water samples sent off-site for organic analysis. Carbon tetrachloride and chloroform were not detected in trip blanks shipped with samples analyzed for VOCs.

S4.1.4 Replicate Samples/Duplicate Analyses

As an indicator of the consistency of the sampling methodology followed and to provide a measure of analytical precision, replicate soil and groundwater samples were collected. In addition, samples were selected by the AGEM Laboratory for duplicate organic analyses and by Severn-Trent Laboratories for duplicate inorganic analyses. Selected soil and groundwater samples were submitted for verification organic analysis at a secondary laboratory. Replicate samples, samples selected for duplicate analyses, and samples selected for verification organic analyses are listed in Table S4.1.

S4.1.5 Sample Representativeness

Several groundwater samples were rejected as non-representative of site conditions, as indicated in Table S4.1. The locations were subsequently resampled.

Extremely heavy rainfall on July 9, 2005, raised concern that sampling that day at locations SB43 and SB70 might have been compromised. Location identifiers of SB43T and SB70T were assigned to the July 9 samples. Both locations were resampled on July 11, 2005. Field measurements of conductivity confirm that the July 9 sampling was non-representative. As Table S4.3 shows, conductivity values measured at the shallow depths for identifiers SB43T and

SB70T on July 9 were 25% and 35% lower, respectively, than the values for SB43 and SB70 measured on July 11. The July 9 sampling at both locations is rejected as non-representative of site conditions.

In addition, the initial samples collected at MW-P and SB49 (depth interval 68–73 ft BGL) were rejected as non-representative. Monitoring well MW-P was sampled on June 10 without adequate purging. Well MW-P was resampled on June 13; the higher carbon tetrachloride concentration detected in the June 13 sample is accepted as more representative of site conditions. Similarly, sampling at location SB49 (depth interval 68–73 ft BGL) was conducted on June 12, before complete installation of all vertical-profile sampling points at that location. The higher carbon tetrachloride concentration detected at this interval in SB49 in the June 13 sampling is accepted as more representative of site conditions.

S4.2 Quality Control for Organic Analyses of Soil and Water Samples at the AGEM Laboratory

Vertical-profile subsurface soil sampling was conducted at 20 locations. At these locations, 250 soil samples (and an additional 20 field replicate samples) were collected. The subsurface soils were analyzed at the AGEM Laboratory for VOCs, including carbon tetrachloride and chloroform, by using a modification of EPA Method 8260B (the purge-and-trap method) to achieve a quantitation limit of 10 µg/kg. The EPA test methods are indexed online (http://www.epa.gov/epahome/index/).

Soil samples were quick-frozen on dry ice as they were collected. At the laboratory, the VOCs present in each soil sample were extracted with methanol from the sample matrix. For the purge-and-trap soil analyses, an aliquot of the methanol extract was purged, and the volatile species were transferred to a sorbent tube. After purging, the sorbent tube was heated and backflushed with an inert gas to desorb the components into the gas chromatograph-mass spectrometer (GC-MS) system. Prepared samples selected for verification analysis were maintained at 4°C and shipped on ice at 4°C to the reference laboratory.

Groundwater sampling was conducted at 70 locations, including 2 private wells, 3 public wells, 28 permanent monitoring points (monitoring wells or piezometers) installed during prior investigations, 1 piezometer installed during the current investigation, and 36 newly established vertical-profile direct-push sampling locations. In total 196 groundwater samples (and an

additional 29 field replicate samples) were collected for organic analyses at the AGEM Laboratory with EPA Method 524.2 to achieve a quantitation limit of 1 µg/L. (The samples discussed in Section S4.1.5 that were rejected as non-representative of site conditions are not included in this total of 196 samples.)

Water samples shipped to the AGEM Laboratory were analyzed by the purge-and-trap method with the GC-MS system. For the purge-and-trap analyses, VOCs present in the groundwater sample were extracted (purged) from the sample matrix by bubbling an inert gas through the sample. The purged components were trapped in a sorbent tube. After the purging, the sorbent tube was heated and backflushed with an inert gas to desorb the components into the GC-MS system.

For both the soil and water analyses, the compounds eluting from the GC column were identified by retention time and by comparison with reference library spectra. The concentration of each component was calculated by comparison of the MS response for the quantitation ion to the response for corresponding calibration curves, internal standards, or both. The internal standard recovery limits were 80–120%. If the internal standard was outside these limits, the data were flagged accordingly. Calibration checks with each sample delivery group (SDG) were required to be within ±20% of the standard.

Samples submitted to the AGEM Laboratory for organic analyses were analyzed in 46 SDGs, as shown in Table S4.4. The QA/QC procedures followed included analysis of instrument calibration check standards, analysis of laboratory blanks, monitoring of surrogate spike recovery, and duplicate analyses. Significant results include the following:

- Samples shipped to the AGEM Laboratory were received with custody seals intact and at the appropriate temperature. All samples were analyzed within required holding times.

- Carbon tetrachloride and chloroform, the contaminants of concern in the investigation, were not detected in the laboratory method blanks analyzed with the samples. Methylene chloride was present at trace concentrations in the methanol used for extraction of soil samples. Detections of methylene chloride at similar concentrations in soil samples are not reported. Except for one SDG, methylene chloride was not present in the laboratory blanks analyzed with the water samples or in the samples themselves. In SDG 05-5-24, methylene

chloride was present at low concentrations in the laboratory blank and in several samples. Detections of methylene chloride in these samples are not reported.

- For each SDG, analytical instrument calibration was monitored by the analysis of calibration check standards. Table S4.4 shows the RPD value between the known and calculated concentrations of the standards. With one exception, the concentrations of calibration check standards measured in all SDGs were within the acceptable range of ±20%. In SDG 05-7-9 (analysis date July 9, 2005), the results for the calibration standard were outside the acceptable range of ±20%. All samples in SDG 05-7-9 were subsequently reanalyzed in another SDG, with the standard in the instrument calibration range, as shown in Table S4.4.

- Several samples, when analyzed at zero dilution, had carbon tetrachloride concentrations above the instrument calibration range. With two exceptions, the samples were reanalyzed at dilution (Table S4.4). In the analyses of groundwater sample AGSB64-W-04604 and replicate AGSB64DU-W-04605 at zero dilution in SDG 05-6-10, the carbon tetrachloride concentrations were above the instrument calibration range. Reanalysis of the sample and replicate, which were collected at a depth of 42.7–47.7 ft BGL, was not conducted because of the limited sample volume collected. According to the sampling documentation (logbook #1, page 202), two 20-mL vials of water were collected for sample AGSB64-W-04604, but only one 20-mL vial was collected for replicate AGSB64DU-W-04605. Additional aliquots for field measurements or inorganic analyses could not be collected because of the limited water available. The carbon tetrachloride results for this sample and replicate are accepted with qualification.

- Surrogate standard determinations were performed on samples and blanks by using surrogate spike compounds fluorobenzene, 1,4-dichlorobenzene-d_4, and bromofluorobenzene. Table S4.4 shows the percent recovery of each system-monitoring compound for each of the analyses. With the exceptions described below, the surrogate recoveries were within the specified range of 80–120%

for all samples in either the initial analysis or a successful reanalysis. The exceptions are as follows:

- In the analysis of groundwater sample AGSB63-W-17539 in SDG 05-5-19, the recovery of surrogate compound fluorobenzene was 121%. Duplicate analysis of the sample was within surrogate recovery limits, and the result for analysis of sample AGSB63-W-17539 is accepted without qualification.

- In the analysis of field blank AGQCFB-W-04399 in SDG 05-5-24, the recovery of surrogate compound flourobenzene was 77%. No contamination was detected in other field blanks or in equipment rinsates. The result for field blank AGQCFB-W-04399 is accepted without qualification.

- In the analysis of soil sample AGSB51-S-17617 in SDG 05-6-7, the recovery of surrogate compound fluorobenzene was 131%. The high recovery would not inhibit detection of contamination. The result for soil sample AGSB51-S-17617 is accepted without qualification.

- In the analysis of groundwater sample AGSB66-W-04583 in SDG 05-6-10, the recovery of surrogate compound 1,4-dichlorobenzene-d_4 was 121%. Duplicate analysis of the sample was within surrogate recovery limits. The result for analysis of sample AGSB66-W-04583 is accepted without qualification.

- In the analysis of soil sample AGSB61-S-17704 in SDG 05-6-11, the recovery of surrogate compound bromofluorobenzene was 133%. The high recovery would not inhibit detection of contamination. The result for soil sample AGSB61-S-17704 is accepted without qualification.

- In the analysis of field blank AGQCFB-W-17826 in SDG 05-7-8, the recoveries of surrogate compounds 1,4-dichlorobenzene-d_4 and bromoflourobenzene were 129% and 127%, respectively. The high recoveries would not inhibit detection of contamination. The result for field blank AGQCFB-W-17826 is accepted without qualification.

- In the analysis of groundwater sample AGSB70-W-17873 in SDG 05-7-12, the recovery of surrogate compound 1,4-dichlorobenzene-d_4 was 122%. The high recovery would not inhibit detection of contamination. The result for sample AGSB70-W-17873 is accepted without quantification.

- Dual analyses of samples at the AGEM Laboratory were conducted as a measure of consistency in the sampling and analytical methodologies. Dual analyses involved either the analysis of replicate samples submitted to the laboratory or duplicate analyses of samples selected by the laboratory. Table S4.5 summarizes the analytical results for the primary samples and their associated replicate or duplicate analyses. Consistency in both the sampling and analytical methodologies is indicated by the average RPD values of 17.7% for carbon tetrachloride and 17.4% for chloroform (for dual analyses with the contaminants present). The inherent heterogeneity of soil samples is evident in the detection of carbon tetrachloride at 213 µg/kg in sample AGSB46-S-17512 and at 34 µg/kg in associated replicate AGSB46-S-17516, as well as in the few dual-analysis pairs in which carbon tetrachloride was detected below the quantitation limit in one analysis but not detected in the other.

The analytical data from the AGEM Laboratory are acceptable for quantitative determination of contaminant distribution.

S4.3 Quality Control for Verification Organic Analyses of Groundwater Samples by Envirosystems, Inc.

In accordance with the QA/QC procedures defined in the *Master Work Plan* (Argonne 2002), the analyses of water samples at the AGEM Laboratory with EPA Method 524.2 were verified at a second laboratory with EPA-defined CLP methodology. Of the 196 groundwater samples analyzed at the AGEM Laboratory, 17 samples (9% of the groundwater samples) were also analyzed with CLP methodology by Envirosystems, Inc. The results were reported in 3 SDGs. Below is a discussion of the quality of the organic analytical data from the CLP analyses of groundwater samples.

The QA/QC procedures followed in the CLP analyses included initial and continuing calibration of instruments, analysis of laboratory blanks, monitoring of surrogate spike recovery, and matrix spike/matrix spike duplicate analyses. Significant results include the following:

- Samples shipped to the CLP laboratory were received with custody seals intact and at the appropriate temperature. All samples were analyzed within required holding times.

- Analytical instruments were properly tuned, and initial and continuing calibration checks remained within the allowable range.

- Carbon tetrachloride and chloroform were not detected in the trip blank or laboratory method blanks. Methylene chloride was present at low concentrations in laboratory blanks.

- Surrogate standard determinations were performed on samples and blanks by using the surrogate spike compounds toluene-d_8, bromofluorobenzene, and 1,2-dichloroethane-d_4. Table S4.6 shows the percent recovery of each system-monitoring compound for each of the CLP analyses. Except for one sample, the recoveries of the surrogate spikes were within the acceptable range (identified in Table S4.6) specific to each surrogate. The recovery of 1,2-dichloroethane-d_4 trended high in the analysis (and reanalysis) of sample AGSB59-W-04595. Qualification of the data is not warranted.

- To evaluate the matrix effect of samples on the analytical methodology, matrix spike/matrix spike duplicate analyses were performed in two of the three SDGs with compounds 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. Table S4.7 shows the percent recovery of each spike compound, as well as the calculated RPD values between the analytical results for the spike and spike duplicate. Low recovery was evident for two of the five spike compounds in the analysis associated with SDG 506142.

Analytical results for groundwater samples analyzed at the AGEM Laboratory with EPA Method 524.2 are supported by the CLP analytical results from Envirosystems, Inc. The verification organic results for the groundwater samples are summarized in Table S4.8. Agreement is good over the range of contaminant concentrations detected. Samples analyzed at

the AGEM Laboratory with no detection of contamination were analyzed by CLP methodology with similar results. Because of the higher quantitation limit of 5 µg/L for the CLP analyses, very low concentrations detected by purge-and-trap analyses were sometimes not detected in the CLP analyses. For samples with contaminant concentrations above the purge-and-trap quantitation limit of 1 µg/L, RPD values for carbon tetrachloride ranged from 0.4% to 46.6%, and RPD values for chloroform ranged from 8% to 26.7%. The AGEM Laboratory's detection of the contaminant 1,2-DCA at soil boring SB53 was confirmed by CLP analysis.

S4.4 Quality Control for Verification Organic Analyses of Soil Samples by Severn-Trent Laboratories, Inc.

In accordance with the QA/QC procedures defined in the *Master Work Plan* (Argonne 2002), selected soil samples analyzed for VOCs at the AGEM Laboratory with EPA Method 8260B were subjected to verification analysis at a second laboratory with the same analytical procedure. Of the 250 soil samples analyzed at the AGEM Laboratory, 26 samples (10% of the soil samples) were also analyzed by Severn-Trent Laboratories, Inc. The results were reported in three SDGs. Below is a discussion of the quality of the Severn-Trent organic analytical data for soil samples.

The QA/QC procedures followed included initial and continuing calibration of instruments, analysis of laboratory blanks, monitoring of surrogate spike recovery, and matrix spike/matrix spike duplicate analyses. Significant results include the following:

- Soil samples shipped to Severn-Trent were received with custody seals intact and at the appropriate temperature. All samples were analyzed within required holding times.

- Analytical instruments were properly tuned; initial and continuing calibration checks remained within the allowable range.

- Trace concentrations of naphthalene and 1,2,3-trichlorobenzene were detected in an instrument blank associated with the samples. Carbon tetrachloride and chloroform, the contaminants of primary concern in the investigation, were not detected.

- Surrogate standard determinations were performed on samples and blanks by using the surrogate spike compounds toluene-d_8, 1,2-dichloroethane-d_4, bromofluorobenzene, and 1,2-dichlorobenzene-d_4. Table S4.9 shows the percent recovery of each system-monitoring compound for each analysis. The recovery of one or more surrogate compounds trended high in the analysis of sample AGSB48-S-18019 and the spike/spike duplicate analysis of sample AGSB53-S-17583. Qualification of the data is not warranted.

- To evaluate the matrix effect of samples on the analytical methodology, matrix spike/matrix spike duplicate analyses were performed with a suite of spike compounds including carbon tetrachloride and chloroform. Table S4.10 shows the percent recovery and RPD values for carbon tetrachloride and chloroform. The recovery of chloroform was slightly below the acceptable recovery limit of 75% for two of the QC samples. Qualification of the data is not warranted.

Analytical results for soil samples analyzed at the AGEM Laboratory with EPA Method 8260B are supported by Severn-Trent's analytical results obtained with the same method. The verification organic results for the soil samples are summarized in Table S4.11. Agreement is good over the range of contaminant concentrations detected. Soil samples analyzed at the AGEM Laboratory with no detection of contamination were analyzed by Severn-Trent with similar results. With one exception, the RPD value for carbon tetrachloride was 13.5–33.6% for soil samples with contaminant concentrations above the AGEM Laboratory purge-and-trap quantitation limit of 10 µg/kg. The inherent heterogeneity of soil samples is evident in results for sample AGSB46-S-17519, for which the AGEM Laboratory reported a carbon tetrachloride concentration of 801 µg/kg, while Severn-Trent reported 250 µg/kg. The detection by the AGEM Laboratory of the contaminant 1,2-DCA at soil boring SB53 was confirmed by the Severn-Trent analysis.

S4.5 Quality Control for Inorganic Analyses of Groundwater Samples at Severn-Trent Laboratories, Inc.

Groundwater samples were collected for inorganic analyses to aid in geochemical characterization of the water-bearing zone. Groundwater samples collected for inorganic analyses were shipped immediately to Severn-Trent for filtration and analysis. The analyses included total

alkalinity by EPA Method 310.1, dissolved anion concentrations (chloride, sulfate, nitrate, and phosphate) by EPA Method 300, nitrate/nitrite nitrogen by EPA Method 353.2, and dissolved metals (aluminum, calcium, iron, magnesium, manganese, phosphorus, potassium, silicon, sodium, and zinc) by EPA Method 6010.

Inorganic analyses of the groundwater samples were conducted in 16 SDGs. The QA/QC procedures followed included instrument calibration through analysis of spiked calibration check standards, verification of interelement and background correction factors through analysis of inductively coupled plasma interference check samples, analysis of laboratory quality control samples, analyses of replicate samples, and duplicate analyses of samples selected by the laboratory. Significant points are the following:

- Initial and continuing calibration of analytical equipment was verified, according to method protocol, by the analysis of instrument check standards to determine instrument drift. Accuracy was measured by the percent recoveries for known concentrations of the metals and anions of concern added to the calibration check standards.

- Accuracy in the analytical methodology was measured by the analysis of QC samples with each SDG. The recovery of known concentrations of the metals and anions of concern in spiked QC samples, shown in Table S4.12, was within the desired range of 80–120%.

- Good analytical precision is indicated by the low RPD values between reported concentrations in the analyses of samples and replicates or in duplicate laboratory analyses, as shown in Table S4.13.

The inorganic results for groundwater samples from Severn-Trent Laboratories are acceptable for geochemical characterization, on the basis of the recovery of known concentrations of the analytes of concern in laboratory QC samples analyzed with the groundwater samples and the low RPD values between results of primary and secondary analyses of samples.

S4.6 Quality Control for Isotopic Analyses of Groundwater Samples

Selected groundwater samples were analyzed for tritium at the University of Miami Tritium Laboratory in Miami, Florida. Tritium concentrations were based on the U.S. National Institute of Standards and Technology tritium water standard #4926, as measured on September 3, 1961, and again on September 3, 1978, with a half-life of 12.32 years (revised January 2002). Concentrations were reported in tritium units (TU), equivalent to 3.193 picocuries per kilogram of water. Because counting efficiency and background concentration are different for each instrument, the reported concentrations were corrected for cosmic intensity and gas pressure. Typical efficiencies are equivalent to 1 count per minute (cpm) per TU. Background is about 0.3 cpm, known to ±0.02 cpm. The tritium analytical data are accepted for age-dating of groundwater.

TABLE S4.1 Quality control samples collected during the 2005 investigation at Agra, Kansas, to determine contaminant sources.

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Field blanks				
QC	AGQCFB-W-04398	–	5/22/05	Field blank representative of deionized water used for equipment decontamination during May mobilization.
QC	AGQCFB-W-04399	–	5/22/05	Field blank representative of city water used for equipment decontamination during May mobilization.
QC	AGQCFB-W-17782	–	6/12/05	Blank of commercial distilled water used for equipment decontamination during June mobilization.
QC	AGQCFB-W-17826	–	7/6/05	Field blank representative of commercial distilled water used for equipment decontamination during the July 2005 mobilization.
Equipment rinsates				
QC	AGSB63-W-17543	–	5/18/05	Rinsate of decontaminated sampling bailer after collection of sample SBSB63-W-17542.
QC	AGQCRI-W-04395	–	5/22/05	Rinsate of decontaminated Redi-Flo sampling hose.
QC	AGQCRI-W-04396	–	5/22/05	Rinsate of decontaminated stainless steel bailer.
QC	AGQCRI-W-04397	–	5/22/05	Rinsate of decontaminated tube valve.
QC	AGSB58QC-W-17619	–	5/22/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB58-W-17618.
QC	AGQCRI-W-04532	–	5/23/05	Rinsate of decontaminated sampling tube at SB52 wells
QC	AGSB51QC-W-17632	–	5/23/05	Rinsate of decontaminated sampling bailer after collection of sample SBSB51-W-17631.
QC	AGSB62-W-17648	–	5/25/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB62-W-17647.
QC	AGSB56-W-17653	–	5/25/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB56-W-17652.
QC	AGSB56-W-17658	–	5/26/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB56-W-17657.
QC	AGSB56RIN-W-17685	–	6/3/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB55-W-17684.
QC	AGSBRIN-W-17711	–	6/5/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB61-W-17710.
QC	AGQCRI-W-17795	–	6/13/05	Rinsate of decontaminated valve after sampling at SB49 locations.
QC	AGSB46RIN-W-17464	–	7/6/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB46-W-17462 and associated replicate.
QC	AGSB45RIN-W-17725	–	7/7/05	Rinsate of decontaminated sampling bailer after collection of sample AGSB45-W-17724.
Trip blanks				
QC	AGTRIP-W-17540	–	5/18/05	Trip blank sent to AGEM Laboratory with samples listed on COC 3470.
QC	AGQCTB-W-04380	–	5/19/05	Trip blank sent to AGEM Laboratory with samples listed on COC 3471.
QC	AGQCTB-W-04386	–	5/20/05	Trip blank sent to AGEM Laboratory with samples listed on COC 4601.
QC	AGQCTB-W-04510	–	5/20/05	Trip blank sent to AGEM Laboratory with samples listed on COC 3682.
QC	AGQCTB-S-04533	–	5/23/05	Trip blank sent to AGEM Laboratory with soil samples listed on COCs 4606, 4607, 4608, 4609, and 4614.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Trip blanks (Cont.)				
QC	AGQCTB-W-04531	–	5/23/05	Trip blank sent to AGEM Laboratory with samples listed on COCs 4603 and 4604.
QC	ANLQCTB-W-52305	–	5/23/05	Trip blank sent to Envirosystems with water samples listed on COC 4013 for verification organic analysis.
QC	AGQCTB-W-04535	–	5/24/05	Trip blank sent to AGEM Laboratory with samples listed on COC 4610.
QC	AGQCTB-W-04552	–	5/25/05	Trip blank sent to AGEM Laboratory with samples listed on COC 4611.
QC	AGQCTB-S-04560	–	5/26/05	Trip blank sent to AGEM Laboratory with soil samples listed on COC 4401.
QC	AGQCTB-S-04562	–	5/26/05	Trip blank sent to AGEM Laboratory with soil samples listed on COC 4403.
QC	AGQCTB-W-04559	–	5/26/05	Trip blank sent to AGEM Laboratory with samples listed on COC 4613.
QC	AGQCTB-W-04564	–	6/2/05	Trip blank sent to AGEM Laboratory with samples listed on COC 4404.
QC	AGQCTB-S-04573	–	6/3/05	Trip blank sent to AGEM Laboratory with soil samples listed on COCs 4615 and 4406.
QC	AGQCTB-W-04572	–	6/3/05	Trip blank sent to AGEM Laboratory with samples listed on COC 4620.
QC	AGQCTB-S-04594	–	6/6/05	Trip blank sent to AGEM Laboratory with soil samples listed on COC 4618.
QC	AGQCTB-W-04593	–	6/6/05	Trip blank sent to AGEM Laboratory with samples listed on COC 4621.
QC	AG-MEOHTB-6805	–	6/8/05	Trip blank sent to Severn-Trent with soil samples for verification organic analysis. Prepared with methanol representative of that used for sample extraction at AGEM Laboratory.
QC	AGQCTB-W-04598	–	6/8/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4623. Prepared with deionized water from Lincoln warehouse.
QC	AGTB-W-060805	–	6/8/05	Trip blank sent to Envirosystems with water samples listed on COC 4014 for verification organic analysis.
QC	AGQCTB-W-04584	–	6/9/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4408. Prepared with deionized water from Lincoln warehouse.
QC	AGQCTB-W-04543	–	6/9/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4412.
QC	AGQCTB-W-04608	–	6/11/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4624.
QC	AGQCTB-W-17781	–	6/12/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4633.
QC	AGQCTB-S-17828	–	6/14/05	Trip blank sent to AGEM Laboratory with soil samples listed on COCs 4635 and 4636.
QC	AGQCTB-W-17765	–	6/14/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4413.
QC	AGQCTB-W-17766	–	7/6/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4303.
QC	AGQCTB-W-17853	–	7/8/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4333. Water for trip blanks during July 2005 mobilization was commercial distilled water, because Lincoln deionization unit was not functioning properly.
QC	AGQCTB-W-17854	–	7/8/05	Trip blank sent to AGEM Laboratory with water samples listed on COCs 4335 and 4337.
QC	AGQCTB-W-17885	–	7/12/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4336.
QC	AGQCTB-W-17803	–	7/12/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4626.
QC	AGTB-W-71205	–	7/12/05	Trip blank sent to Envirosystems with water samples listed on COC 4016 for verification organic analysis.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Trip blanks (Cont.)				
QC	AGQCTB-S-17889	–	7/13/05	Trip blank sent to AGEM Laboratory with soil samples listed on COCs 4338, 4339, and 4340.
QC	AGQCTB-S-17890	–	7/13/05	Trip blank sent to AGEM Laboratory with soil samples listed on COCs 4341 and 4342.
QC	AGQCTB-S-17892	–	7/14/05	Trip blank sent to AGEM Laboratory with soil samples listed on COCs 4628 and 1553.
QC	AGTB67-S-18057	–	7/14/05	Trip blank sent to AGEM Laboratory with soil samples listed on COC 4305.
QC	AGQCTB-W-17805	–	7/14/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 1537.
QC	AGTB80-W-17842	–	7/14/05	Trip blank sent to AGEM Laboratory with water samples listed on COC 4318.
QC	AG-MEOHBLANK-72105	–	7/21/05	Trip blank sent to Severn-Trent with soil samples listed on COC 4017 for verification organic analysis.
QC	AG-MEOHBLANK-72805	–	7/28/05	Trip blank sent to Severn-Trent with soil samples listed on COC 4018 for verification organic analysis.
Replicate soil samples				
SB43	AGSB43-S-17746	24	7/11/05	Replicate of sample AGSB43-S-17745.
SB45	AGSB45-S-17524	12	7/11/05	Replicate of sample AGSB45-S-17523.
SB46	AGSB46-S-17516	28	7/10/05	Replicate of sample AGSB46-S-17512.
SB48	AGSB48-S-18024	24	7/13/05	Replicate of sample AGSB48-S-18023.
SB49	AGSB49-S-18008	16	7/12/05	Replicate of sample AGSB49-S-18007.
SB51	AGSB51-S-17615	40	5/23/05	Replicate of sample AGSB51-S-17627.
SB52	AGSB52-S-17595	28	5/21/05	Replicate of sample AGSB52-S-17594.
SB53	AGSB53-S-17578	8	5/20/05	Replicate of sample AGSB53-S-17575.
SB53	AGSB53-S-17586	40	5/20/05	Replicate of sample AGSB53-S-17585.
SB54	AGSB54-S-17485	20	6/7/05	Replicate of sample AGSB54-S-17484.
SB55	AGSB55-S-17697	33	6/3/05	Replicate of sample AGSB55-S-17696.
SB56	AGSB56-S-17666	24	5/26/05	Replicate of sample AGSB56-S-17664.
SB58	AGSB58-S-17603	16	5/22/05	Replicate of sample AGSB58-S-17602.
SB59	AGSB59-S-17468	8	6/6/05	Replicate of sample AGSB59-S-17715.
SB61	AGSB61-S-17704	40	6/4/05	Replicate of sample AGSB61-S-17703.
SB62	AGSB62-S-17645	44	5/24/05	Replicate of sample AGSB62-S-17643.
SB64	AGSB64-S-17507	32	6/12/05	Replicate of sample AGSB64-S-17506.
SB67	AGSB67-S-18047	12	7/14/05	Replicate of sample AGSB67-S-18046.
SB68	AGSB68-S-18033	8	7/13/05	Replicate of sample AGSB68-S-18032.
SB73	AGSB73-S-17812	16	6/13/05	Replicate of sample AGSB73-S-17813.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Replicate groundwater samples				
MW-1	AGQCDU-W-04379	41–51	5/19/05	Replicate of sample AGMW1-W-04378.
MW-G	AGQCDU-W-04550	89–99	5/24/05	Replicate of sample AGMWG-W-04539.
MW-Q	AGQCDU-W-04389	43.28–62.78	5/21/05	Replicate of sample AGMWQ-W-04391.
SB15	AGQCDU-W-04569	98.5–108.5	6/2/05	Replicate of sample AGSB15-W-04563.
SB40	AGQCDU-W-17730	100–105	6/11/05	Replicate of sample AGSB40-W-17729.
SB41	AGQCDU-W-04599	58–63	6/9/05	Replicate of sample AGSB41-W-04541.
SB42	AGQCDU-W-17723	140–145	7/7/05	Replicate of sample AGSB42-W-17465.
SB43	AGQCDU-W-17855	47–52	7/11/05	Replicate of sample AGSB43-W-17879.
SB45	AGQCDU-W-17848	54–59	7/7/05	Replicate of sample AGSB45-W-17834.
SB46	AGSB46DU-W-17463	60–65	7/6/05	Replicate of sample AGSB46-W-17462.
SB47	AGQCDU-W-17767	67–72	6/11/05	Replicate of sample AGSB47-W-17759.
SB48	AGQCDU-W-17787	65.5–70.5	6/12/05	Replicate of sample AGSB48-W-17783.
SB49	AGQCDU-W-17796	68–73	6/13/05	Replicate of sample AGSB49-W-17793.
SB50	AGQCDU-W-17827	60.5–65.5	6/13/05	Replicate of sample AGSB50-W-17823.
SB51	AGSB51DUP-W-17629	61–66	5/23/05	Replicate of sample AGSB51-W-17628.
SB54	AGSB54DU-W-17494	60–65	6/8/05	Replicate of sample AGSB54-W-17493.
SB55	AGSB55DU-W-17668	61–66	6/3/05	Replicate of sample AGSB55-W-17687.
SB56	AGSB56-W-17650	112–117	5/25/05	Replicate of sample AGSB56-W-17649.
SB60	AGQCDU-W-04549	56–61	6/10/05	Replicate of sample AGSB60-W-04546.
SB61	AGSB61-W-17713	81–86	6/5/05	Replicate of sample AGSB61-W-17712.
SB64	AGSB64DU-W-04605	42.7–47.7	6/9/05	Replicate of sample AGSB64-W-04604.
SB66	AGQCDU-W-04589	106–111	6/9/05	Replicate of sample AGSB66-W-04581.
SB67	AGQCDU-W-17897	56.5–61.5	7/13/05	Replicate of sample AGSB67-W-17804.
SB69	AGQCDU-W-17857	59–64	7/8/05	Replicate of sample AGSB69-W-17849.
SB70	AGQCDU-W-17856	60–65	7/11/05	Replicate of sample AGSB70-W-17876.
SB71	AGQCDU-W-17737	72–77	6/11/05	Replicate of sample AGSB71-W-17732.
SB72	AGQCDU-W-17887	59–69	7/12/05	Replicate of sample AGSB72-W-17886.
SB73	AGQCDU-W-17797	63–68	6/12/05	Replicate of sample AGSB73-W-17789.
SB79	AGSB79-W-17846	60–65	7/14/05	Replicate of sample AGSB79-W-17845.
Soil samples selected by the AGEM Laboratory for duplicate analyses by the purge-and-trap method				
SB43	AGSB43-S-17742	12	7/11/05	
SB43	AGSB43-S-18002	48	7/11/05	

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Soil samples selected by the AGEM Laboratory for duplicate analyses by the purge-and-trap method (Cont.)				
SB45	AGSB45-S-17532	34	7/11/05	
SB48	AGSB48-S-18022	20	7/12/05	
SB51	AGSB51-S-17621	16	5/23/05	
SB52	AGSB52-S-04512	40.5	5/21/05	
SB52	AGSB52-S-04515	46	5/21/05	
SB53	AGSB53-S-17583	32	5/20/05	
SB53	AGSB53-S-17585	40	5/20/05	
SB55	AGSB55-S-17693	20	6/3/05	
SB55	AGSB55-S-17694	24	6/3/05	
SB55	AGSB55-S-17702	25.5	6/3/05	
SB56	AGSB56-S-17661	12	5/26/05	
SB56	AGSB56-S-17666	24	5/26/05	
SB58	AGSB58-S-17611	48	5/22/05	
SB59	AGSB59-S-17714	4	6/6/05	
SB61	AGSB61-S-17670	8	6/4/05	
SB64	AGSB64-S-17500	8	6/12/05	
SB64	AGSB64-S-17503	20	6/12/05	
SB64	AGSB64-S-17808	48	6/13/05	
SB67	AGSB67-S-18053	36	7/14/05	
SB68	AGSB68-S-18031	4	7/13/05	
SB68	AGSB68-S-18039	32	7/13/05	
SB68	AGSB68-S-18041	40	7/13/05	
SB73	AGSB73-S-17820	44	6/13/05	
Water samples selected by the AGEM Laboratory for duplicate analyses by the purge-and-trap method				
MW-F	AGMWF-W-04553	65–75	5/25/05	Monitoring well sample.
PW02	AGPW2-W-04607	73–82	6/9/05	Public well sample.
QC	AGSB62-W-17648	–	5/25/05	Equipment rinsate.
SB41	AGSB41-W-04542	63–68	6/9/05	Cone penetrometer push sample.
SB45	AGSB45-W-17836	44–49	7/8/05	Cone penetrometer push sample.
SB45	AGSB45-W-17724	59–64	7/7/05	Cone penetrometer push sample.
SB47	AGSB47-W-17759	67–72	6/11/05	Cone penetrometer push sample.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Water samples selected by the AGEM Laboratory for duplicate analyses by the purge-and-trap method (Cont.)				
SB51	AGSB51-W-17631	46–51	5/23/05	Cone penetrometer push sample.
SB53	AGSB53-W-04388	58–63	5/20/05	Cone penetrometer push sample.
SB53	AGSB53-W-17556	63–68	5/20/05	Cone penetrometer push sample.
SB55	AGSB55-W-17687	61–66	6/3/05	Cone penetrometer push sample.
SB56	AGSB56-W-17657	90–95	5/26/05	Cone penetrometer push sample.
SB58	AGSB58-W-04530	63–68	5/23/05	Cone penetrometer push sample.
SB63	AGSB63-W-17539	48.2–53.2	5/18/05	Cone penetrometer push sample.
SB63	AGSB63-W-17542	53.2–58.2	5/18/05	Cone penetrometer push sample.
SB65	AGSB65-W-04592	50–55	6/6/05	Cone penetrometer push sample.
SB65	AGSB65-W-04591	56–61	6/6/05	Cone penetrometer push sample.
SB65	AGSB65-W-17718	68–73	6/5/05	Cone penetrometer push sample.
SB66	AGSB66-W-04583	48–55	6/9/05	Cone penetrometer push sample.
SB69	AGSB69-W-17850	54–59	7/8/05	Cone penetrometer push sample.
SB75	AGSB75-W-17888	51.5–56.5	7/12/05	Cone penetrometer push sample.
SB80	AGSB80-W-17844	60–64.75	7/14/05	Cone penetrometer push sample.
Groundwater samples selected by Severn-Trent for duplicate inorganic analyses				
MW-F	AGMWF-W-04553REP	65–75	5/25/05	Sample selected for duplicate anion, alkalinity, and cation analyses.
MW-J	AGMWJ-W-04393REP	56–66	5/21/05	Sample selected for duplicate cation analyses.
MW-L	AGMWL-W-04520REP	70–80	5/22/05	Sample selected for duplicate sulfate and chloride analyses in response to poor recovery of sulfate in the duplicate anion and alkalinity analyses of sample AGSB53-W-04388.
PW02	AGPW2-W-04607REP	73–82	6/9/05	Sample selected for duplicate cation analyses.
SB40	AGSB40-W-17729REP	100–105	6/11/05	Sample selected for duplicate anion, alkalinity, and cation analyses.
SB41	AGSB41-W-04542REP	63–68	6/9/05	Sample selected for duplicate cation and sulfate analyses.
SB53	AGSB53-W-04388REP	58–63	5/20/05	Sample selected for duplicate anion and alkalinity analyses.
SB59	AGSB59-W-04596REP	66–71	6/7/05	Sample selected for duplicate anion, alkalinity, and cation analyses.
Groundwater samples selected for verification organic analyses by Envirosystems				
DW98	AGDW98-W-04567	–	6/3/05	Private well sample.
SB23	AGSB23-W-04385	100–106	5/20/05	Piezometer sample.
SB23S	AGSB23S-W-04384	49–55	5/20/05	Piezometer sample.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Groundwater samples selected for verification organic analyses by Envirosystems (Cont.)				
SB42	AGSB42-W-17868	50–55	7/9/05	Cone penetrometer push sample.
SB42	AGSB42-W-17840	80–85	7/8/05	Cone penetrometer push sample.
SB42	AGSB42-W-17839	95–100	7/8/05	Cone penetrometer push sample.
SB43	AGSB43-W-17879	47–52	7/11/05	Cone penetrometer push sample.
SB43T	AGSB43T-W-17862	62–67	7/9/05	Cone penetrometer push sample.
SB53	AGSB53-W-17573	53–58	5/20/05	Cone penetrometer push sample.
SB53	AGSB53-W-04388	58–63	5/20/05	Cone penetrometer push sample.
SB59	AGSB59-W-04595	45–50	6/7/05	Cone penetrometer push sample.
SB59	AGSB59-W-04596	66–71	6/7/05	Cone penetrometer push sample.
SB61	AGSB61-W-17708	72–77	6/5/05	Cone penetrometer push sample.
SB61	AGSB61-W-17709	91–96	6/5/05	Cone penetrometer push sample.
SB65	AGSB65-W-04590	62–67	6/6/05	Cone penetrometer push sample.
SB68	AGSB68-W-17871	54–59	7/10/05	Cone penetrometer push sample.
SB70	AGSB70-W-17876	60–65	7/11/05	Cone penetrometer push sample.
Soil samples selected for verification organic analyses by Severn-Trent				
SB43	AGSB43-S-17537	4	7/11/05	
SB43	AGSB43-S-17741	11	7/11/05	
SB43	AGSB43-S-17745	24	7/11/05	
SB43	AGSB43-S-17747	28	7/11/05	
SB45	AGSB45-S-17522	8	7/11/05	
SB45	AGSB45-S-17526	18	7/11/05	
SB46	AGSB46-S-17515	40	7/10/05	
SB46	AGSB46-S-17519	52	7/10/05	
SB48	AGSB48-S-18019	8	7/12/05	
SB48	AGSB48-S-18021	16	7/12/05	
SB48	AGSB48-S-18028	40	7/13/05	
SB49	AGSB49-S-18017	48	7/12/05	
SB52	AGSB52-S-04512	40.5	5/21/05	
SB53	AGSB53-S-17580	20.2	5/20/05	
SB53	AGSB53-S-17583	32	5/20/05	
SB53	AGSB53-S-17585	40	5/20/05	
SB53	AGSB53-S-17586	40	5/20/05	
SB55	AGSB55-S-17689	4	6/3/05	

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Soil samples selected for verification organic analyses by Severn-Trent (Cont.)				
SB56	AGSB56-S-17665	28	5/26/05	
SB61	AGSB61-S-17672	16	6/4/05	
SB62	AGSB62-S-17639	28	5/24/05	
SB62	AGSB62-S-17641	36	5/24/05	
SB67	AGSB67-S-18047	12	7/14/05	
SB67	AGSB67-S-18054	40	7/14/05	
SB68	AGSB68-S-18039	32	7/13/05	
SB68	AGSB68-S-18041	40	7/13/05	
Waste characterization samples				
QC	AGQCDR01-W-04574	–	6/8/05	Waste purge water from potentially contaminated monitoring wells. Drum 1 of 6. Drums were aerated prior to sampling.
QC	AGQCDR02-W-04575	–	6/8/05	Drum 2 of 6.
QC	AGQCDR03-W-04576	–	6/8/05	Drum 3 of 6.
QC	AGQCDR04-W-04577	–	6/8/05	Drum 4 of 6.
QC	AGQCDR05-W-04578	–	6/8/05	Drum 5 of 6.
QC	AGQCDR06-W-04579	–	6/8/05	Drum 6 of 6.
Samples rejected as non-representative				
MW-P	AGMWP-W-04544	35.42–54.92	6/10/05	Inadequate purging. Resampled.
MW-Q	AGMWP-W-04538	43.28–62.78	5/24/05	Sampling error. Sampled MW-Q instead of MW-P.
SB43T	AGSB43T-W-17858	42–47	7/9/05	Series of 1/2-in. temporary wells at former CCC/USDA facility. Wells installed at SB43 were given the SB43T identification code after heavy rains potentially compromised the sampling.
SB43T	AGSB43T-W-17859	47–52	7/9/05	Series of 1/2-in. temporary wells.
SB43T	AGSB43T-W-17860	52–57	7/9/05	Series of 1/2-in. temporary wells. Conductivity measurement in samples 17858 and water level readings in samples 17858 and 17860 appear to confirm compromise of at least these two intervals. Location was resampled with the SB43 identifier.
SB43T	AGSB43T-W-17861	57–62	7/9/05	Series of 1/2-in. temporary wells.
SB43T	AGSB43T-W-17862	62–67	7/9/05	Series of 1/2-in. temporary wells.
SB49	AGSB49-W-17498	68–73	6/12/05	Cone penetrometer push sample. Turbid. Resampled.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Sample Description
Samples rejected as non-representative (Cont.)				
SB70T	AGSB70T-W-17864	45–50	7/9/05	Series of 1/2-in. temporary wells in alleyway between main Kyle line and siding track north of co-op bins. Wells installed at SB70 were given the SB70T identifier after heavy rains potentially compromised the sampling.
SB70T	AGSB70T-W-17865	50–55	7/9/05	Series of 1/2-in. temporary wells.
SB70T	AGSB70T-W-17866	55–60	7/9/05	Series of 1/2-in. temporary wells.
SB70T	AGSB70T-W-17867	60–65	7/9/05	Series of 1/2-in. temporary wells.

TABLE S4.2 Results of carbon tetrachloride and chloroform analyses on quality control samples collected to monitor sample collection and handling activities during the 2005 investigation at Agra, Kansas.

Sample	Sample Date	EPA Analytical Method[a]	Analytical Laboratory[b]	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetrachloride	Chloroform
Field blanks						
AGQCFB-W-04398	5/22/05	524.2	AGEM	Water	1 U[c]	1 U
AGQCFB-W-04399	5/22/05	524.2	AGEM	Water	1 U	1 U
AGQCFB-W-17782	6/12/05	524.2	AGEM	Water	1 U	1 U
AGQCFB-W-17826	7/6/05	524.2	AGEM	Water	1 U	1 U
Equipment rinsates						
AGSB63-W-17543	5/18/05	524.2	AGEM	Water	1 U	1 U
AGQCRI-W-04395	5/22/05	524.2	AGEM	Water	1 U	1 U
AGQCRI-W-04396	5/22/05	524.2	AGEM	Water	1 U	1 U
AGQCRI-W-04397	5/22/05	524.2	AGEM	Water	1 U	1 U
AGSB58QC-W-17619	5/22/05	524.2	AGEM	Water	1 U	1 U
AGQCRI-W-04532	5/23/05	524.2	AGEM	Water	1 U	1 U
AGSB51QC-W-17632	5/23/05	524.2	AGEM	Water	1 U	1 U
AGSB56-W-17653	5/25/05	524.2	AGEM	Water	1 U	1 U
AGSB62-W-17648	5/25/05	524.2	AGEM	Water	1 U	1 U
AGSB62-W-17648DUP	5/25/05	524.2	AGEM	Water	1 U	1 U
AGSB56-W-17658	5/26/05	524.2	AGEM	Water	1 U	1 U
AGSB56RIN-W-17685	6/3/05	524.2	AGEM	Water	1 U	1 U
AGSBRIN-W-17711	6/5/05	524.2	AGEM	Water	1 U	1 U
AGQCRI-W-17795	6/13/05	524.2	AGEM	Water	1 U	1 U
AGSB46RIN-W-17464	7/6/05	524.2	AGEM	Water	1 U	1 U
AGSB45RIN-W-17725	7/7/05	524.2	AGEM	Water	1 U	1 U
Trip blanks						
AGTRIP-W-17540	5/18/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-04380	5/19/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-04386	5/20/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-04510	5/20/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-S-04533	5/23/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-W-04531	5/23/05	524.2	AGEM	Water	1 U	1 U
ANLQCTB-W-52305	5/23/05	8260B	ESIC	Water	5 U	5 U
AGQCTB-W-04535	5/24/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-04552	5/25/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-S-04560	5/26/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-S-04562	5/26/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-W-04559	5/26/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-04564	6/2/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-S-04573	6/3/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-W-04572	6/3/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-S-04594	6/6/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-W-04593	6/6/05	524.2	AGEM	Water	1 U	1 U
AG-MEOHTB-6805	6/8/05	8260B	STL	Methanol	10 U	10 U
AGQCTB-W-04598	6/8/05	524.2	AGEM	Water	1 U	1 U
AGTB-W-060805	6/8/05	8260	ESIC	Water	5 U	5 U

TABLE S4.2 (Cont.)

Sample	Sample Date	EPA Analytical Method[a]	Analytical Laboratory[b]	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetrachloride	Chloroform
Trip blanks (Cont.)						
AGQCTB-W-04584	6/9/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-04543	6/9/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-04608	6/11/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-17781	6/12/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-S-17828	6/14/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-W-17765	6/14/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-17766	7/6/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-17853	7/8/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-17854	7/8/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-17803	7/12/05	524.2	AGEM	Water	1 U	1 U
AGQCTB-W-17885	7/12/05	524.2	AGEM	Water	1 U	1 U
AGTB-W-71205	7/12/05	8260B	ESIC	Water	5 U	5 U
AGQCTB-S-17889	7/13/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-S-17890	7/13/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-S-17892	7/14/05	8260B	AGEM	Soil	10 U	10 U
AGQCTB-W-17805	7/14/05	524.2	AGEM	Water	1 U	1 U
AGTB67-S-18057	7/14/05	8260B	AGEM	Soil	10 U	10 U
AGTB80-W-17842	7/14/05	524.2	AGEM	Water	1 U	1 U
AG-MEOHBLANK-72105	7/21/05	8260B	STL	Methanol	10 U	10 U
AG-MEOHBLANK-72805	7/28/05	8260B	STL	Methanol	1U	1 U
Waste characterization samples						
AGQCDR01-W-04574	6/8/05	524.2	AGEM	Water	1 U	1 U
AGQCDR02-W-04575	6/8/05	524.2	AGEM	Water	1 U	1 U
AGQCDR03-W-04576	6/8/05	524.2	AGEM	Water	1 U	1 U
AGQCDR04-W-04577	6/8/05	524.2	AGEM	Water	1 U	1 U
AGQCDR05-W-04578	6/8/05	524.2	AGEM	Water	0.3 J[d]	1 U
AGQCDR06-W-04579	6/8/05	524.2	AGEM	Water	1 U	1 U

[a] Analytical methods: EPA Method 524.2 and EPA Method 8260B.

[b] Analytical laboratories: AGEM, Applied Geosciences and Environmental Management Laboratory at Argonne; STL, Severn-Trent Laboratories, Colchester, Vermont; ESIC, Envirosystems, Inc., Columbia, Maryland.

[c] Qualifier U indicates that the analyte was not detected at the indicated method quantitation limit.

[d] Qualifier J indicates an estimated concentration below the method quantitation limit.

TABLE S4.3 Comparison of conductivity and carbon tetrachloride results to evaluate non-representaive sampling at locations SB43 and SB70. All samples were collected through use of the cone penetrometer.

Location	Sample	Depth (ft BGL)	Sample Date	Conductivity (µS/cm)	Carbon Tetrachloride (µg/L)	
SB43T	AGSB43T-W-17858	42–47	7/9/05	NR[a]	14	Non-representative sampling series.
SB43T	AGSB43T-W-17859	47–52	7/9/05	754	21	
SB43T	AGSB43T-W-17860	52–57	7/9/05	994	1.9	
SB43T	AGSB43T-W-17861	57–62	7/9/05	845	4.4	
SB43T	AGSB43T-W-17862	62–67	7/9/05	961	1.4	
SB43	AGSB43-W-17878	42–47	7/11/05	950	3.2	Accepted.
SB43	AGSB43-W-17879	47–52	7/11/05	1017	1.7	
SB43	AGSB43-W-17880	52–57	7/11/05	1003	0.8 J[b]	
SB43	AGSB43-W-17881	57–62	7/11/05	977	0.4 J	
SB43	AGSB43-W-17882	62–67	7/11/05	1045	0.5 J	
SB70T	AGSB70T-W-17864	45–50	7/9/05	995	ND[c]	Non-representative sampling series.
SB70T	AGSB70T-W-17865	50–55	7/9/05	975	ND	
SB70T	AGSB70T-W-17866	55–60	7/9/05	1048	ND	
SB70T	AGSB70T-W-17867	60–65	7/9/05	1028	ND	
SB70	AGSB70-W-17873	40–45	7/11/05	NR	ND	Accepted.
SB70	AGSB70-W-17874	45–50	7/11/05	1527	ND	
SB70	AGSB70-W-17875	55–60	7/11/05	1120	0.2 J	
SB70	AGSB70-W-17876	60–65	7/11/05	1134	0.5 J	

[a] NR, field measurement of conductivity not recorded.

[b] Qualifier J indicates an estimated concentration below the method quantitation limit.

[c] ND, carbon tetrachloride not detected.

TABLE S4.4 Results for quality control procedures monitoring organic analyses of water samples collected at Agra, Kansas, and analyzed at the AGEM Laboratory with the purge-and-trap method.

	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
Sample	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-5-19, analysis date May 19, 2005							
20-µg/L standard	97	97	93	18.26	9.1	18.74	6.5
Laboratory blank	100	100	100				
AGSB63-W-17539	121[c]	116	115	Accepted on the basis of the duplicate analysis below.			
AGSB63-W-17539DUP	112	106	108				
AGTRIP-W-17540	97	97	94				
SDG 05-5-20, analysis date May 20, 2005							
20-µg/L standard	93	91	89	19.41	3.0	19.85	0.8
Laboratory blank	100	100	100				
AGSB63-W-04376	91	89	91				
AGSB63-W-04377	86	90	93				
AGSB63-W-17542	85	88	92				
AGSB63-W-17542DUP	84	85	90				
AGSB63-W-17543	82	84	88				
AGQCDU-W-04379	82	83	86				
AGMW1-W-04378	85	85	86				
AGQCTB-W-04380	74[c]	75[c]	76[c]	Reanalyzed in SDG 05-5-23.			
AGKMW01-W-04375	83	85	86				
SDG 05-5-21, analysis date May 21, 2005							
20-µg/L standard	93	78[c]	89	20.2	1.0	20.38	1.9
Laboratory blank	100	100	100				
AGSB53-W-17556	84	94	96				
AGSB53-W-17556DUP	97	97	97				
AGMWI-W-04381	95	98	101				
AGKMW02-W-04382	95	97	98				
AGMWB-W-04383	92	95	95				
AGSB23S-W-04384	90	95	98				
AGSB23-W-04385	90	91	90				
AGQCTB-W-04386	92	94	92				
SDG 05-5-23, analysis date May 23, 2005							
20-µg/L standard	94	100	96	21.21	5.9	21.12	5.4
Laboratory blank	100	100	100				
AGSB53-W-04388	92	96	99	Analysis at dilution factor = 1 (DF1) outside calibration. Analysis at DF10 below in this SDG.			
AGSB53-W-17573	96	101	107	Analysis at DF1 outside calibration. Analysis at DF10 below in this SDG.			
AGSB53-W-17573DUP	94	99	105	Duplicate analysis at DF1 outside calibration. No duplicate analylis at DF10.			
AGSB53-W-04511	92	93	98	Analysis at DF1 outside calibration. Analysis at DF10 below in this SDG.			

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-5-23, analysis date May 23, 2005 (Cont.)							
AGMWR-W-04387	92	95	97				
AGQCTB-W-04510	93	96	97				
AGSB53-W-04388	109	103	108	Analysis at DF10.			
AGSB53-W-04388DUP	104	100	107	Analysis at DF10.			
AGSB53-W-04511	95	94	95	Analysis at DF10.			
AGSB53-W-17573	101	96	99	Analysis at DF10.			
AGQCTB-W-04380	100	90	92				
SDG 05-5-24, analysis date May 24, 2005[d]							
20-µg/L standard	108	106	99	19.38	3.1	19.57	2.2
Laboratory blank	100	100	100				
AGSB52-W-04522	117	117	117				
AGSB52-W-04523	116	117	120				
AGSB52-W-04525	108	111	115				
AGSB52-W-04526	105	108	109				
AGSB58-W-04528	109	110	114				
AGSB58-W-04529	107	115	114				
AGSB58-W-04530	99	104	108				
AGSB58-W-04530DUP	101	107	110				
AGSB58-W-17618	94	103	104				
AGSB51-W-17628	97	103	119				
AGSB51DUP-W-17629	87	94	97				
AGSB52-W-04524	94	97	98				
AGMWL-W-04520	100	101	104				
Laboratory blank 2	89	92	90				
AGMWO-W-04521	97	95	96				
AGQCDU-W-04389	104	106	107				
AGKMW03-W-04390	97	97	100				
AGMWQ-W-04391	90	92	93				
AGMWK-W-04392	92	92	96				
AGMWJ-W-04393	91	96	96				
AGMWC-W-04394	88	90	90				
AGQCFB-W-04398	85	85	85				
AGQCRI-W-04395	82	81	82				
AGQCRI-W-04532	91	96	94				
AGQCFB-W-04399	77[c]	80	80	Accepted.			
SDG 05-5-26, analysis date May 26, 2005							
20-µg/L standard	101	100	101	18.89	5.7	18.92	5.5
Laboratory blank	100	100	100				
AGSB51-W-17630	119	123[c]	127[c]	Reanalyzed in SDG 05-5-31.			
AGSB51-W-17631	104	111	114				
AGSB51-W-17631DUP	100	101	105				
AGSB28S-W-04534	97	99	100				
AGSB51-W-04536	101	105	114				
AGSB28-W-04537	97	99	102				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-5-26, analysis date May 26, 2005 (Cont.)							
AGMWP-W-04538	98	98	98				
AGSB51QC-W-17632	99	101	102				
AGSB62-W-04555	97	98	99				
AGSB62-W-04554	103	104	104				
AGSB56-W-17649	97	96	93				
AGSB62-W-17646	98	100	101				
AGSB62-W-17647	93	91	92				
AGSB62-W-17648	97	95	96				
AGSB62-W-17648DUP	105	102	100				
Laboratory blank 2	102	102	101				
AGQCDU-W-04550	91	96	97				
AGMWF-W-04553	97	98	97	Analysis at DF1 outside calibration. Analysis at DF10 in SDG 05-5-31.			
AGMWG-W-04539	98	97	100				
AGMW2-W-04551	94	92	94				
AGSB56-W-17650	97	95	96				
SDG 05-5-27, analysis date May 27, 2005							
20-µg/L standard	102	101	112	19.05	4.9	19.18	4.2
Laboratory blank	110	111	112				
AGSB56-W-17651	105	108	112				
AGSB56-W-17652	102	94	111				
AGSB56-W-17654	96	99	105				
AGSB56-W-17655	104	103	109				
AGSB56-W-17656	103	106	108				
AGSB56-W-17657	100	102	103				
AGSB56-W-17657DUP	99	101	102				
AGMWM-W-04556	102	99	101				
AGMWH-W-04557	96	96	95				
AGSB56-W-17658	85	82	83				
AGSB56-W-17653	94	95	92				
AGQCTB-W-04559	97	101	98				
SDG 05-5-31, analysis date May 31, 2005							
20-µg/L standard	102	96	97	19.61	2.0	19.75	1.3
Laboratory blank	112	109	113				
AGMWF-W-04553	95	103	100	Analysis at DF10.			
AGMWF-W-04553DUP	109	114	111	Analysis at DF10.			
AGSB51-W-17630	105	115	113				
AGSB58QC-W-17619	105	114	109				
AGQCRI-W-04397	97	101	100				
AGQCRI-W-04396	93	81	95				
AGQCTB-W-04531	97	106	100				
AGQCTB-W-04552	86	89	83				
AGQCTB-W-04535	88	91	87				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-1, analysis date June 1, 2005							
20-µg/L standard	104	108	103	20.48	2.4	21.35	6.5
Laboratory blank	100	100	100				
AGSB53-S-17585	95	88	93				
AGSB53-S-17585DUP	100	95	102				
AGSB53-S-17581	99	94	103				
AGSB53-S-17582	93	90	96				
AGSB52-S-17591	94	89	95				
AGSB53-S-17574	92	90	99				
AGSB63-S-17565	93	86	90				
AGSB53-S-17578	145[c]	134[c]	125[c]	Reanalyzed in SDG 05-6-2.			
AGSB63-S-17568	94	89	96				
AGSB63-S-17570	87	84	95				
AGSB63-S-17564	92	86	93				
AGSB52-S-17588	86	99	96				
AGSB53-S-17580	95	102	100				
SDG 05-6-2, analysis date June 2, 2005							
20-µg/L standard	100	100	100	20.65	3.2	20.89	4.4
Laboratory blank	102	113	112				
AGSB53-S-17578	99	102	100				
AGSB53-S-17586	98	101	98				
AGSB53-S-17584	95	98	96				
AGSB53-S-17583	85	100	98				
AGSB53-S-17583DUP	92	104	97				
AGSB58-S-17599	81	108	102				
SDG 05-6-3, analysis date June 3, 2005							
20-µg/L standard	86	80	90	18.05	10.2	19.16	4.3
Laboratory blank	100	100	100				
AGSB58-S-17610	118	120	120				
AGSB52-S-17597	104	99	99				
AGSB63-S-17544	109	107	107				
SDG 05-6-4, analysis date June 4, 2005							
20-µg/L standard	100	100	108	18.7	6.7	19.08	4.7
Laboratory blank	106	109	107				
AGSB55-W-17682	102	113	116				
AGSB55-W-17683	95	99	109				
AGSB55-W-17684	101	110	114				
AGSB55-W-17686	92	102	112				
AGSB55-W-17687	99	111	114				
AGSB55-W-17687DUP	90	96	104				
AGSB15-W-04563	89	91	94				
AGSB36-W-04566	87	88	93				
AGDW98-W-04567	87	95	98				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-4, analysis date June 4, 2005 (Cont.)							
AGPWS3-W-04568	88	89	90				
AGSB38S-W-04570	84	86	85				
AGSB55DU-W-17668	88	87	90				
AGDW07A-W-04565	88	88	94				
SDG 05-6-6, analysis date June 6, 2005							
20-µg/L standard	100	89	91	17.7	12.2	18.17	9.6
Laboratory blank	100	100	100				
AGSB56RIN-W-17685	107	112	107				
AGQCTB-W-04564	105	108	107				
AGQCDU-W-04569	109	113	114				
AGSB63-S-17560	102	101	103				
AGSB53-S-17576	98	102	103				
AGSB52-S-04513	103	101	103				
AGSB51-S-17615	89	99	104				
AGSB53-S-17579	91	98	97				
AGSB53-S-17577	91	88	108				
AGSB53-S-17575	102	102	108				
AGSB52-S-04515	94	93	101				
AGSB52-S-04515DUP	103	109	107				
SDG 05-6-7, analysis date June 7, 2005							
20-µg/L standard	98	84	97	18.95	5.4	20.99	4.8
Laboratory blank	100	100	100				
AGSB55-W-17688	103	104	102				
AGSB61-W-17706	108	114	118				
AGSB61-W-17708	106	106	109				
AGSB61-W-17709	100	107	110				
AGSB61-W-17710	101	106	113				
AGSB61-W-17712	98	102	102				
AGSB65-W-17718	103	101	102				
AGSB65-W-17718DUP	95	98	100				
AGSB38-W-04571	93	89	89				
AGSB61-W-17713	92	95	98				
AGQCTB-W-04572	97	99	100				
AGSBRIN-W-17711	98	100	102				
AGSB51-S-17616	99	98	95				
AGSB52-S-04514	96	97	93				
AGSB52-S-17593	93	99	94				
AGSB52-S-17592	94	119	98				
AGSB58-S-17608	96	95	95				
AGSB51-S-17617	131[c]	107	97	Accepted.			
AGSB51-S-17622	89	98	92				
AGSB63-S-17569	92	90	89				
AGSB51-S-17625	91	101	95				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-7, analysis date June 7, 2005 (Cont.)							
AGSB58-S-17605	90	101	97				
AGSB51-S-17623	92	98	94				
SDG 05-6-8, analysis date June 8, 2005							
20-µg/L standard	98	86	86	22.33	11.0	21.4	6.8
Laboratory blank	100	100	100				
AGSB59-W-04595	81	84	85	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB59-W-04596	93	105	106				
AGSB59-W-17478	97	103	107	Analysis at DF1 outside calibration for carbon tetrachloride. 1,2-Dichloroethane reported.			
AGSB59-W-17479	97	105	111	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB59-W-04597	114	110	109				
AGSB65-W-04590	84	92	97				
AGSB65-W-04592	87	91	93				
AGSB65-W-04592DUP	81	89	89				
AGSB59-W-04595	85	95	97	Analysis at DF20.			
AGSB59-W-17478	92	100	103	Analysis at DF10.			
AGSB59-W-17479	92	97	102	Analysis at DF10.			
AGSB64-W-04600	89	94	97	Analysis at DF1 outside calibration for carbon tetrachloride. 1,2-Dichloroethane reported.			
AGSB64-W-04601	84	91	92	Analysis at DF1 outside calibration for carbon tetrachloride. 1,2-Dichloroethane reported.			
AGSB64-W-04603	87	91	90	Analysis at DF1 outside calibration for carbon tetrachloride. 1,2-Dichloroethane reported.			
AGSB64-W-04602	85	87	90	Analysis at DF1 outside calibration for carbon tetrachloride. 1,2-Dichloroethane reported.			
AGSB65-W-04591	92	94	96				
AGSB65-W-04591DUP	92	94	94				
AGQCTB-W-04593	93	98	96				
Laboratory blank 2	86	100	90				
AGSB55-S-17692	81	82	92				
AGSB55-S-17697	95	94	96				
Methanol blank	100	100	100				
SDG 05-6-9, analysis date June 9, 2005							
20-µg/L standard	112	101	103	21.09	5.3	20.92	4.5
Laboratory blank	100	100	100				
AGSB66-W-17738	98	87	88				
AGSB66-W-17492	97	105	106				
AGSB66-W-17739	95	103	102				
AGSB54-W-17493	92	93	98				
AGSB64-W-04600	93	97	100	Analysis at DF20 for carbon tetrachloride and chloroform.			

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-9, analysis date June 9, 2005 (Cont.)							
AGSB64-W-04601	103	101	101	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGSB64-W-04602	99	101	102	Analysis at DF20 for carbon tetrachloride and chloroform.			
AGSB64-W-04603	96	94	91	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGSB54DU-W-17494	91	90	92				
AGQCTB-W-04598	104	103	103				
AGQCDR01-W-04574	96	100	101				
AGQCDR02-W-04575	96	95	95				
AGQCDR03-W-04576	96	97	99				
AGQCDR04-W-04577	91	91	90				
AGQCDR05-W-04578	90	98	96				
AGQCDR06-W-04579	88	83	87				
SDG 05-6-10, analysis date June 10, 2005							
20-µg/L standard	100	94	102	19.78	1.1	18.74	6.5
Laboratory blank	100	100	100				
AGSB41-W-17748	101	97	95				
AGSB41-W-17749	104	111	115				
AGSB54-W-04586	100	105	109				
AGSB54-W-04587	104	109	116				
AGSB54-W-04588	102	104	112				
AGSB66-W-04582	103	105	110				
AGSB66-W-04583	102	112	121[c]	Accepted on the basis of the duplicate analysis below.			
AGSB66-W-04583DUP	95	98	100				
AGSB66-W-04581	90	90	95				
AGSB64-W-04604	95	101	107	Analysis at DF1 outside calibration for carbon tetrachloride. Not reanalyzed because of limited sample volume.			
AGPW1-W-04606	93	94	98				
AGQCTB-W-04584	92	95	98				
AGSB64DU-W-04605	93	81	104	Analysis at DF1 outside calibration for carbon tetrachloride. Not reanalyzed because of limited sample volume.			
AGQCDU-W-04589	93	94	94				
AGPW2-W-04607	87	92	94				
AGPW2-W-04607DUP	87	90	93				
Laboratory blank 2	88	89	88				
Methanol blank	100	100	100				
AGSB55-S-17702	105	103	110				
AGSB55-S-17702DUP	91	100	110				
AGSB55-S-17689	92	96	109				
AGSB55-S-17693	96	98	105				
AGSB55-S-17693DUP	98	100	110				
AGSB59-S-17475	98	93	93				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-10, analysis date June 10, 2005 (Cont.)							
Methanol blank	100	100	100				
AGSB59-S-17477	98	93	90				
AGSB59-S-17473	99	94	92				
AGSB59-S-17476	104	104	102				
AGSB59-S-17474	92	90	87				
SDG 05-6-11, analysis date June 11, 2005							
20-µg/L standard	100	100	100	23.82	17.4	22.13	10.1
Laboratory blank	100	100	100				
AGSB55-S-17691	109	102	105				
AGSB61-S-17704	118	133[c]	116	Accepted.			
AGSB61-S-17675	116	118	113				
AGSB55-S-17698	114	111	112				
AGSB55-S-17700	110	110	111				
AGSB55-S-17699	106	113	114				
AGSB56-S-17679	103	104	104				
AGSB55-S-17690	111	107	105				
AGSB55-S-17695	110	103	98				
AGSB61-S-17674	105	103	100				
AGSB59-S-17715	104	110	110				
AGSB59-S-17714	99	98	97				
AGSB59-S-17714DUP	98	97	98				
AGSB59-S-17716	109	108	108				
SDG 05-6-12, analysis date June 12, 2005							
20-µg/L standard	88	92	87	20.38	1.9	19.42	2.9
Laboratory blank	100	100	100				
AGSB41-W-04540	107	111	111				
AGSB41-W-04541	107	111	116				
AGMWP-W-04544	102	103	99	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB40-W-17458	105	109	115				
AGSB41-W-04542	87	94	97				
AGSB41-W-04542DUP	98	99	101				
AGQCDU-W-04599	103	106	107				
AGQCTB-W-04543	102	101	100				
Methanol blank	100	100	100				
AGSB51-S-17620	109	106	105				
AGSB63-S-17546	108	102	107				
AGSB63-S-17566	102	1001	107				
AGSB63-S-17559	104	104	107				
AGSB63-S-17567	100	110	109				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-13, analysis date June 13, 2005							
20-µg/L standard	95	94	98	21.21	5.9	19.72	1.4
Laboratory blank	95	93	92				
AGSB60-W-17728	100	104	102				
AGSB60-W-04545	100	85	105				
AGSB60-W-04546	101	107	107				
AGSB60-W-04548	85	90	90				
AGSB60-W-04547	100	106	106				
AGSB40-W-17460	98	103	101	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB71-W-17733	96	99	99				
AGSB71-W-17734	98	101	103				
AGSB71-W-17732	95	99	101				
AGSB71-W-17735	89	97	97				
AGSB71-W-17736	100	104	106				
AGSB71-W-17758	97	99	99				
Laboratory blank 2	105	107	108				
AGSB40-W-17461	97	94	93	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB40-W-17729	106	109	108	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB40-W-17459	88	88	88	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGQCDU-W-17730	101	98	91				
AGQCDU-W-17737	92	90	85				
AGQCDU-W-04549	76[c]	77[c]	76[c]	Reanalyzed in SDG 05-6-15.			
AGQCTB-W-04608	92	88	84				
AGMWP-W-04544	97	92	86	Analysis at DF5 for carbon tetrachloride and chloroform.			
SDG 05-6-14, analysis date June 14, 2005							
20-µg/L standard	97	100	107	18.17	9.6	17.98	10.6
Laboratory blank	100	100	100				
AGSB73-W-17722	96	96	97				
AGSB73-W-17791	109	112	114				
AGSB73-W-17792	102	106	114				
AGSB73-W-17790	100	103	106				
AGSB50-W-17753	91	95	100				
AGSB49-W-17794	100	101	104	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB49-W-04609	98	102	106	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB49-W-17793	96	96	98				
AGSB49-W-17755	98	97	97	Analysis at DF1 outside calibration for carbon tetrachloride.			

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-14, analysis date June 14, 2005 (Cont.)							
AGSB49-W-17754	88	87	86	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB49-W-17756	96	80	102				
AGSB49-W-17498	94	99	101				
AGSB47-W-17762	93	96	97				
AGSB47-W-17761	90	95	94				
AGSB47-W-17763	92	95	96				
AGSB47-W-17759	76[c]	76[c]	77[c]	Reanalyzed in SDG 05-6-20.			
AGSB47-W-17764	87	84	84				
AGSB47-W-17760	87	83	81				
AGSB48-W-17786	89	86	86				
AGSB48-W-17788	88	91	88				
AGSB48-W-17783	91	90	86				
AGSB48-W-17785	90	86	85				
AGSB48-W-17784	96	95	92				
SDG 05-6-15, analysis date June 15, 2005							
20-µg/L standard	90	90	86	18.88	5.8	18.76	6.4
Laboratory blank	107	116	105				
AGSB50-W-17823	97	102	91				
AGSB50-W-17824	98	112	103				
AGSB50-W-17825	94	105	99				
AGMWP-W-17757	91	99	94	Analysis at DF5.			
AGSB49-W-17754	88	98	90	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGSB49-W-17794	87	97	91	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGSB49-W-04609	88	99	90	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGQCDU-W-17827	86	73[c]	81	Reanalyzed in SDG 05-6-20.			
AGQCTB-W-17765	88	95	87				
AGSB49-W-17755	80	90	84	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGSB40-W-17460	99	115	109	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGSB40-W-17461	85	99	97	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGSB40-W-17729	95	112	106	Analysis at DF5 for carbon tetrachloride and chloroform.			
AGSB40-W-17459	88	106	99	Analysis at DF10 for carbon tetrachloride and chloroform.			
AGQCDU-W-04549	86	99	93				
AGQCDU-W-17797	93	96	87				
AGQCFB-W-17782	90	94	86				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-15, analysis date June 15, 2005 (Cont.)							
AGQCDU-W-17796	117	113	100				
AGQCTB-W-17781	86	108	99				
AGQCDU-W-17767	99	110	101				
AGQCDU-W-17787	88	102	92				
SDG 05-6-16, analysis date June 16, 2005							
20-µg/L standard	100	100	100	20.28	1.4	18.03	10.4
Laboratory blank	100	100	100				
AGSB59-S-17471	107	102	100				
AGSB59-S-17469	110	108	103				
AGSB54-S-17488	105	97	97				
AGSB54-S-17484	99	97	99				
AGSB54-S-17489	96	87	90				
AGSB54-S-17491	91	84	85				
AGSB54-S-17485	93	86	92				
AGSB54-S-17482	136[c]	126[c]	120	Reanalyzed in SDG 05-6-20.			
AGSB54-S-17483	82	76[c]	82	Reanalyzed in SDG 05-6-20.			
AGSB59-S-17470	52[c]	49[c]	54[c]	Reanalyzed in SDG 05-6-20.			
AGSB54-S-17490	86	80	81				
AGSB54-S-17487	55[c]	62[c]	64[c]	Reanalyzed in SDG 05-6-20.			
AGSB54-S-17486	58[c]	52[c]	55[c]	Reanalyzed in SDG 05-6-20.			
SDG 05-6-17, analysis date June 17, 2005							
20-µg/L standard	100	100	100	20.52	2.6	20.54	2.7
Laboratory blank	100	100	100				
AGSB63-S-17561	107	101	104				
AGSB52-S-17595	110	102	109				
AGSB63-S-17558	109	104	109				
AGSB63-S-17562	105	109	83				
AGSB52-S-17594	108	95	102				
AGSB63-S-17547	103	95	103				
AGSB52-S-04512	104	94	100				
AGSB52-S-04512DUP	106	98	103				
AGSB52-S-17589	109	99	99				
AGSB63-S-17563	112	103	109				
AGSB52-S-17596	112	108	115				
AGSB52-S-17590	110	102	106				
AGSB51-S-17614	118	110	118				
AGSB58-S-17606	116	109	115				
SDG 05-6-20, analysis date June 20, 2005							
20-µg/L standard	106	81	84	21.7	8.2	21.58	7.6
Laboratory blank	100	100	100				
AGQCDU-W-17827	119	105	92				
AGSB47-W-17759	104	80	86				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-20, analysis date June 20, 2005 (Cont.)							
AGSB47-W-17759DUP	106	81	84				
AGSB54-S-17482	103	108	114				
AGSB54-S-17483	101	108	115				
AGSB59-S-17470	87	95	102				
AGSB54-S-17487	85	94	97				
AGSB54-S-17486	84	88	87				
AGSB63-S-17545	103	102	96				
AGSB58-S-17603	81	84	86				
AGSB58-S-17601	90	95	99				
AGSB58-S-17611	90	90	93				
AGSB58-S-17611DUP	88	92	92				
SDG 05-6-21, analysis date June 21, 2005							
20-µg/L standard	100	100	100	21.2	5.8	21.69	8.1
Laboratory blank	100	100	100				
AGSB64-S-17501	103	104	103				
AGSB64-S-17502	104	103	109				
AGSB64-S-17751	101	104	104				
AGSB73-S-17817	95	98	99				
AGSB64-S-17752	89	95	99				
AGSB64-S-17499	87	93	99				
AGSB73-S-17813	97	99	103				
AGSB64-S-17506	98	97	102				
Methanol blank	114	111	110				
AGSB64-S-17503	103	101	107				
AGSB64-S-17503DUP	98	100	102				
AGSB73-S-17815	100	104	106				
AGSB73-S-17818	99	99	99				
AGSB73-S-17811	92	95	99				
AGSB73-S-17809	100	102	103				
AGQCTB-S-17828	102	103	105				
AGSB73-S-17816	88	88	95				
AGSB73-S-17810	111	106	104				
AGSB73-S-17821	[c]	170[c]	126[c]	Reanalyzed in SDG 05-6-23.			
AGSB64-S-17504	100	102	108				
AGSB73-S-17820	68[c]	73[c]	82				
AGSB73-S-17820DUP	101	95	103				
SDG 05-6-22, analysis date June 22, 2005							
20-µg/L standard	108	115	118	19.68	1.6	18.72	6.6
Laboratory blank	107	110	106				
AGSB73-S-17812	103	100	109				
AGSB73-S-17814	98	99	110				
AGSB64-S-17808	100	101	105				
AGSB54-S-17480	92	98	105				
AGSB73-S-17819	104	102	108				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-22, analysis date June 22, 2005 (Cont.)							
AGQCTB-S-04594	95	103	111				
AGSB64-S-17500	95	101	114				
AGSB64-S-17500DUP	98	96	102				
AGSB64-S-17507	91	94	97				
AGSB64-S-17505	92	97	100				
AGSB55-S-17696	89	94	106				
AGSB58-S-17602	89	93	103				
AGSB51-S-17626	86	89	101				
SDG 05-6-23, analysis date June 23, 2005							
20-µg/L standard	97	92	100	20.79	3.9	20.68	3.3
Laboratory blank	100	100	100				
AGQCRI-W-17795	87	93	92				
Methanol blank	100	97	94				
AGSB73-S-17821	103	104	100				
AGSB51-S-17627	107	106	108				
AGSB51-S-17624	93	95	95				
AGSB51-S-17621	103	103	99				
AGSB51-S-17621DUP	92	96	95				
Methanol blank 2	100	103	106				
AGSB64-S-17808DUP	115	116	116	Analysis at DF20 for carbon tetrachloride and chloroform.			
AGSB64-S-17808	108	109	111	Analysis at DF20 for carbon tetrachloride and chloroform.			
AGSB58-S-17600	111	111	109				
AGSB58-S-17607	103	106	106				
AGSB58-S-17604	100	99	100				
AGSB51-S-17613	103	104	101				
AGSB62-S-17639	101	101	100				
AGSB58-S-17609	103	98	98				
AGSB61-S-17673	112	106	102				
AGSB62-S-17638	112	108	102				
AGSB62-S-17642	108	106	103				
AGSB62-S-17636	102	101	101				
AGSB62-S-17645	103	97	98				
AGSB62-S-17644	92	100	105				
SDG 05-6-24, analysis date June 24, 2005							
20-µg/L standard	100	100	100	21.98	9.4	21.52	7.3
Laboratory blank	91	88	87				
AGSB56-S-17660	109	112	113				
AGSB62-S-17635	110	113	117				
AGSB62-S-17640	102	105	106				
AGSB62-S-17643	97	100	102				
AGSB62-S-17633	97	98	99				
AGSB61-S-17671	101	101	101				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-6-24, analysis date June 24, 2005 (Cont.)							
AGSB56-S-17661	91	96	98				
AGSB56-S-17661DUP	84	89	93				
AGSB56-S-17678	112	110	104				
AGSB62-S-17637	101	96	98				
AGSB62-S-17634	104	103	104				
AGSB62-S-17641	95	91	90				
AGSB56-S-17667	95	94	100				
AGSB61-S-17676	101	98	98				
AGSB56-S-17659	97	91	96				
AGSB56-S-17680	114	109	108				
AGSB56-S-17663	110	108	104				
AGSB56-S-17681	98	91	88				
AGSB56-S-17662	97	92	91				
AGSB56-S-17664	104	100	97				
AGSB56-S-17666	94	89	88				
AGSB56-S-17666DUP	92	86	88				
SDG 05-6-27, analysis date June 27, 2005							
20-µg/L standard	100	100	100	20.71	3.5	20.68	3.3
Laboratory blank	100	100	100				
AGSB56-S-17665	99	102	108				
AGSB61-S-17703	93	98	107				
AGSB61-S-17669	92	98	104				
AGSB61-S-17672	95	101	106				
AGSB59-S-17472	94	94	102				
AGSB61-S-17677	84	84	93				
AGSB61-S-17670	95	96	101				
AGSB61-S-17670DUP	93	95	99				
AGSB59-S-17468	92	87	88				
AGSB59-S-17717	94	92	97				
AGQCTB-S-04573	85	86	98				
AGQCTB-S-04562	89	88	98				
AGQCTB-S-04533	86	91	95				
SDG 05-6-28, analysis date June 28, 2005							
20-µg/L standard	95	99	98	17.18	15.2	18.57	7.4
Laboratory blank	100	100	100				
AGSB54-S-17481	107	105	110				
AGSB55-S-17694	103	100	105				
AGSB55-S-17694DUP	85	93	97				
AGQCTB-S-04560	85	109	102				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-7-8, analysis date July 8, 2005							
20-µg/L standard	88	94	94	20.85	4.2	22.54	11.9
Laboratory blank	100	100	100				
AGSB46-W-17829	96	99	100				
AGSB46-W-17830	97	100	102				
AGSB46-W-17831	99	102	99				
AGSB46-W-17832	103	105	107	Analysis at DF1 outside calibration for carbon tetrachloride. Only carbon tetrachloride and chloroform present. Reanalyzed at dilution in SDG 05-7-20.			
AGSB46-W-17462	98	98	103				
AGSB42-W-17465	99	100	101				
AGSB45-W-17724	98	101	105				
AGSB45-W-17724DUP	99	100	99				
Laboratory blank 2	102	102	102				
AGSB46DU-W-17463	102	105	106				
AGQCDU-W-17723	109	111	113				
AGSB46RIN-W-17464	104	107	110				
AGQCTB-W-17766	104	112	114				
AGSB45RIN-W-17725	100	102	108				
AGQCFB-W-17826	118	127[c]	129[c]	Accepted.			
SDG 05-7-9, analysis date July 9, 2005							
20-µg/L standard	93	88	82	25.51	24.2[c]	36.37	58.1[c]
Laboratory blank	100	100	100				
AGSB45-W-17833	100	99	96	Reanalyzed in SDG 05-7-12.			
AGSB45-W-17834	101	99	100	Reanalyzed in SDG 05-7-12.			
AGSB45-W-17835	[c]	107	105	Reanalyzed in SDG 05-7-13.			
AGSB45-W-17836	100	102	102	Reanalyzed in SDG 05-7-14.			
AGSB69-W-17849	103	104	109	Reanalyzed in SDG 05-7-14.			
AGSB69-W-17850	110	113	122[c]	Reanalyzed in SDG 05-7-14.			
AGSB69-W-17851	100	120	130[c]	Reanalyzed in SDG 05-7-14.			
AGSB42-W-17726	[c]	137[c]	173[c]	Reanalyzed in SDG 05-7-13.			
AGSB42-W-17839	[c]	155[c]	193[c]	Reanalyzed in SDG 05-7-14.			
AGSB42-W-17840	100	163[c]	215[c]	Reanalyzed in SDG 05-7-12.			
AGSB42-W-17838	[c]	139[c]	175[c]	Reanalyzed in SDG 05-7-12.			
SDG 05-7-12, analysis date July 12, 2005							
20-µg/L standard	99	105	104	17.14	15.4	18.6	7.3
Laboratory blank	112	116	112				
AGSB45-W-17833	107	113	116				
AGSB70-W-17875	109	109	110				
AGSB43-W-17882	96	106	108				
AGSB68-W-17872	89	95	99				
AGSB70-W-17873	104	115	122[c]	Accepted.			
AGSB70-W-17876	103	109	112				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-7-12, analysis date July 12, 2005 (Cont.)							
AGSB44-W-17877	67[c]	76[c]	78[c]	Reanalyzed in SDG 05-7-14.			
AGSB68-W-17869	91	96	97				
Laboratory blank 2	93	96	97				
AGSB68-W-17870	79[c]	80	84	Reanalyzed in SDG 05-7-14.			
AGSB43-W-17879	90	90	91				
AGSB68-W-17871	93	98	106				
AGSB70-W-17874	90	92	93				
AGSB43-W-17881	89	93	94				
AGSB43-W-17878	96	97	99				
AGSB43-W-17880	101	102	102				
AGSB45-W-17834	95	99	101				
AGSB42-W-17841	96	97	100				
AGSB42-W-17868	93	95	100				
AGSB42-W-17840	94	95	98				
AGSB42-W-17838	91	87	88				
AGSB43T-W-17858	89	87	89				
AGSB43T-W-17861	89	89	89				
AGSB43T-W-17860	87	96	85				
AGSB43T-W-17859	78[c]	74[c]	75[c]	Reanalyzed in SDG 05-7-14.			
Laboratory blank 3	95	94	96				
AGSB43T-W-17862	91	87	88				
AGSB43T-W-17862DUP	99	100	98				
AGSB70T-W-17865	85	80	81				
AGSB70T-W-17866	90	87	92				
SDG 05-7-13, analysis date July 13, 2005							
20-µg/L standard	90	91	90	19.13	4.4	19.6	2.0
Laboratory blank	100	100	100				
AGSB67-W-17884	94	92	91				
AGSB67-W-17883	96	96	99				
AGSB75-W-17888	95	97	99				
AGSB75-W-17888DUP	92	94	96				
AGSB70T-W-17867	94	98	98				
AGSB70T-W-17864	96	99	102				
AGQCDU-W-17848	90	94	92				
AGSB42-W-17726	89	89	90				
AGQCDU-W-17857	93	93	91				
AGQCDU-W-17856	89	92	93				
AGQCDU-W-17855	87	87	88				
AGSB45-W-17835	88	89	93				
AGQCTB-W-17885	103	97	92				
AGSB45-W-17836	[c]	201[c]	164[c]	Reanalyzed in SDG 05-7-14.			

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-7-14, analysis date July 14, 2005							
20-µg/L standard	106	93	99	20.5	2.5	21.82	8.7
Laboratory blank	108	106	106				
AGSB78-W-17799	101	88	89				
AGSB78-W-17800	103	102	102				
AGSB78-W-17801	105	106	107				
AGSB78-W-17802	105	106	105				
AGSB72-W-17886	105	106	105				
AGMWN-W-17798	102	100	100				
AGQCDU-W-17887	103	102	102				
Laboratory blank 2	97	100	100				
AGQCTB-W-17803	100	101	102				
AGSB68-W-17870	100	101	105				
AGSB44-W-17877	103	104	105				
AGSB43T-W-17859	100	103	103				
AGQCTB-W-17853	91	96	98				
AGQCTB-W-17854	83	89	90				
AGSB69-W-17849	93	100	100				
AGSB69-W-17850	93	91	90				
AGSB69-W-17850DUP	94	94	93				
AGSB69-W-17851	92	89	90				
AGSB42-W-17839	94	93	93				
AGSB45-W-17836	91	91	91				
AGSB45-W-17836DUP	94	93	94				
SDG 05-7-15, analysis date July 15, 2005							
20-µg/L standard	90	86	83	19.07	4.8	21.73	8.3
Laboratory blank	100	100	100				
AGSB75-W-17891	109	96	90				
AGSB67-W-17804	108	105	99				
AGQCDU-W-17897	106	101	96				
AGQCTB-W-17805	105	99	96				
Methanol blank	98	100	104				
AGSB49-S-18004	100	107	106				
AGSB43-S-17740	104	97	108				
AGSB43-S-17746	104	101	114				
AGSB43-S-17537	114	115	116				
AGSB43-S-17743	118	125[c]	126[c]	Reanalyzed in SDG 05-7-18.			
AGSB43-S-17747	108	113	117				
AGSB43-S-18001	114	113	117				
AGSB43-S-17745	110	109	107				
AGSB43-S-17744	109	102	117				
AGSB43-S-17741	111	109	107				
AGQCTB-S-17890	96	109	110				
AGSB49-S-18013	104	106	102				
AGSB49-S-18007	105	108	104				
AGSB43-S-17742DUP	114	115	114				
AGSB43-S-17742	99	104	101				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-7-15, analysis date July 15, 2005 (Cont.)							
AGSB49-S-18015	36[c]	31[c]	47[c]	Reanalyzed in SDG 05-7-18.			
AGSB49-S-18014	93	102	102				
AGSB43-S-17998	95	102	102				
SDG 05-7-18, analysis date July 18, 2005							
20-µg/L standard	102	112	118	19.19	4.1	20.31	1.5
Laboratory blank	107	114	109				
AGSB79-W-17846	118	118	115				
AGSB79-W-17496	106	105	107				
AGSB80-W-17843	101	100	104				
AGSB79-W-17727	97	93	100				
AGSB80-W-17847	95	92	93				
AGSB79-W-17845	101	97	97				
AGSB80-W-17844	98	85	84				
AGSB80-W-17844DUP	97	89	87				
AGTB80-W-17842	93	86	82				
Methanol blank	100	100	100				
AGSB49-S-18015	104	94	110				
AGSB43-S-17743	106	106	115				
AGSB49-S-18008	101	90	105				
AGSB43-S-18002	100	101	106				
AGSB43-S-18002DUP	99	101	108				
SDG 05-7-19, analysis date July 19, 2005							
20-µg/L standard	100	100	100	19.59	2.1	20.32	1.6
Laboratory blank	92	89	97				
AGSB49-S-18012	105	116	112				
AGSB49-S-18017	96	100	80				
AGSB49-S-18006	103	118	113				
AGSB49-S-18005	101	117	115				
AGSB49-S-18016	104	111	116				
AGSB43-S-17999	95	111	110				
AGSB43-S-18000	100	113	112				
AGSB49-S-18010	97	103	111				
AGSB49-S-18009	101	119	113				
AGSB49-S-18011	94	110	111				
AGSB45-S-17533	98	104	112				
AGSB45-S-17526	100	115	110				
AGSB64-S-17750	97	112	112				
AGSB45-S-17535	99	115	113				
AGSB45-S-17535DUP	96	101	107				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-7-20, analysis date July 20, 2005							
20-µg/L standard	94	94	88	21.42	6.9	23.29	15.2
Laboratory blank	100	100	100				
AGSB45-S-17536	89	95	98				
AGSB45-S-17525	84	86	95				
AGSB46-S-17519	86	92	96	Analysis at DF1 outside calibration for carbon tetrachloride.			
AGSB45-S-17523	82	88	90				
AGSB45-S-17520	81	83	94				
AGSB45-S-17529	81	83	86				
AGSB45-S-17529DUP	83	91	98				
AGSB46-W-17832	87	83	82				
SDG 05-7-21, analysis date July 21, 2005							
20-µg/L standard	100	100	96	20.98	4.8	23.32	15.3
Laboratory blank	105	102	91				
AGSB46-S-17519	99	103	112	Analysis at DF20.			
AGSB45-S-17522	95	100	96				
AGSB45-S-17534	83	89	89				
AGSB45-S-17532	90	98	96				
AGSB45-S-17532DUP	89	93	90				
AGSB46-S-17512	80	85	84				
AGSB45-S-17521	[c]	[c]	[c]	Reanalyzed in SDG 05-7-22.			
AGSB45-S-17531	90	86	82				
AGSB46-S-17517	88	80	73[c]	Analysis at DF1 outside calibration for carbon tetrachloride.			
SDG 05-7-22, analysis date July 22, 2005							
20-µg/L standard	100	100	100	17.72	12.1	17.09	15.7
Laboratory blank	100	100	100				
AGSB45-S-17521	100	102	99				
AGSB46-S-17517	107	120	115	Analysis at DF20.			
AGSB46-S-17518	107	116	115				
AGSB46-S-17513	108	100	114				
AGSB45-S-17528	112	100	111				
AGSB45-S-17524	120	94	87				
AGSB46-S-17514	116	92	93				
AGSB46-S-17515	112	100	111	Analysis at DF1 outside calibration for carbon tetrachloride. Chloroform reported.			
AGSB45-S-17527	97	106	103				
AGSB45-S-17530	110	105	101				
AGSB46-S-17516	101	110	107				
AGQCTB-S-17889	102	111	101				
AGSB46-S-17466	98	109	102				
AGSB46-S-17508	96	106	100				
AGSB46-S-17511	100	108	102				
AGSB46-S-17509	97	107	101				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-7-22, analysis date July 22, 2005 (Cont.)							
AGSB46-S-17467	98	108	100				
AGSB46-S-17510	95	87	103				
SDG 05-7-27, analysis date July 27, 2005							
20-µg/L standard	112	109	111	16.73	17.8	18.25	9.2
Laboratory blank	100	100	100				
AGSB46-S-17515	104	110	117	Analysis at DF30 for carbon tetrachloride.			
AGSB67-S-18051	107	90	101				
AGSB67-S-18050	101	107	104				
AGSB67-S-18048	103	104	107				
AGSB67-S-18047	93	94	97				
AGSB67-S-18046	107	103	103				
AGSB67-S-18052	101	95	100				
AGSB67-S-18053	101	97	99				
AGSB67-S-18053DUP	102	97	98				
AGSB67-S-18054	104	90	99				
AGSB67-S-18049	97	81	93				
AGSB67-S-18044	96	80	93				
AGSB67-S-18045	98	84	95				
AGSB67-S-18056	96	89	91				
SDG 05-7-28, analysis date July 28, 2005							
20-µg/L standard	92	92	100	18.73	6.6	21.57	7.6
Laboratory blank	98	91	90				
AGSB67-S-18055	112	110	111				
AGTB67-S-18057	102	109	110				
AGSB48-S-18025	101	102	104				
AGSB48-S-18027	92	98	100				
AGSB68-S-18032	97	95	97				
AGSB48-S-18023	96	98	102				
AGSB48-S-18022	100	98	98				
AGSB48-S-18022DUP	92	90	91				
MEOH BLANK	94	91	93				
AGSB48-S-18021	97	101	105				
AGSB48-S-18026	95	81	96				
AGSB48-S-18029	98	100	102				
AGSB48-S-18018	95	96	103				
AGSB48-S-18030	100	89	99				
AGSB48-S-18024	102	96	97				
AGSB68-S-18042	97	86	96				
AGSB68-S-18043	100	83	92				
AGSB68-S-18031	100	80	94				
AGSB68-S-18031DUP	92	93	92				
AGSB68-S-18038	95	82	93				
AGSB48-S-18020	101	100	101				
AGSB68-S-18035	89	95	97				

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard			
				Carbon Tetrachloride		Chloroform	
	Fluoro-benzene	Bromo-fluoro-benzene	1,4-Dichloro-benzene-d_4	µg/L	RPD[b]	µg/L	RPD[b]
SDG 05-7-28, analysis date July 28, 2005 (Cont.)							
AGSB48-S-18028	94	96	99				
AGSB68-S-18034	98	87	99				
SDG 05-7-29, analysis date July 29, 2005							
20-µg/L standard	100	100	100	19.75	1.3	20.6	3.0
Laboratory blank	106	101	112				
AGSB68-S-18040	87	83	97				
AGSB48-S-18019	106	108	107				
AGSB68-S-18037	94	96	100				
AGSB68-S-18033	93	83	97				
AGSB68-S-18036	81	75[c]	92	Reanalyzed in SDG 05-8-1.			
AGSB68-S-18039	85	99	112				
AGSB68-S-18039DUP	90	94	96				
SDG 05-8-1, analysis date August 1, 2005							
20-µg/L standard	100	100	100	18.99	5.2	19.7	1.5
Laboratory blank	93	88	85				
AGSB68-S-18036	91	97	99				
AGSB68-S-18041	96	101	101				
AGSB68-S-18041DUP	103	102	103				
AGQCTB-S-17892	107	112	115				

[a] Quality control range for surrogate recovery = 80–120%.

[b] Quality control range for RPD = ±20%.

[c] Surrogate recovery outside quality control range.

[d] Methylene chloride present at low concentrations in the laboratory blank and several samples; detections of this compound are not reported.

TABLE S4.5 Comparison of AGEM Laboratory results for primary and secondary organic analyses of samples collected during the 2005 investigation at Agra, Kansas.

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
MW-1	41–51	5/19/05	MW	AGMW1-W-04378	Primary sample	5/20/05	524.2	Water	0.5 J[b]	ND[c]	ND
				AGQCDU-W-04379	Replicate sample	5/20/05	524.2		0.6 J	0.2 J	ND
MW-F	65–75	5/25/05	MW	AGMWF-W-04553	Primary sample	5/31/05	524.2	Water	445	4.4	ND
				AGMWF-W-04553DUP	Duplicate analysis	5/31/05	524.2		392	2.8	ND
MW-G	89–99	5/24/05	MW	AGMWG-W-04539	Primary sample	5/26/05	524.2	Water	25	2.3	ND
				AGQCDU-W-04550	Replicate sample	5/26/05	524.2		25	0.9 J	ND
MW-Q	43.28–62.78	5/21/05	MW	AGMWQ-W-04391	Primary sample	5/24/05	524.2	Water	0.5 J	ND	ND
				AGQCDU-W-04389	Replicate sample	5/24/05	524.2		0.4 J	ND	ND
PW02	73–82	6/9/05	PW	AGPW2-W-04607	Primary sample	6/10/05	524.2	Water	ND	3.4	ND
				AGPW2-W-04607DUP	Duplicate analysis	6/10/05	524.2		ND	3.6	ND
SB15	98.5–108.5	6/2/05	MW	AGSB15-W-04563	Primary sample	6/4/05	524.2	Water	23	1.4	ND
				AGQCDU-W-04569	Replicate sample	6/6/05	524.2		19	1.1	ND
SB40	100–105	6/11/05	CPT	AGSB40-W-17729	Primary sample	6/15/05	524.2	Water	164	21	ND
				AGQCDU-W-17730	Replicate sample	6/13/05	524.2		161	8.5	ND
SB41	58–63	6/9/05	CPT	AGSB41-W-04541	Primary sample	6/12/05	524.2	Water	43	5.4	ND
				AGQCDU-W-04599	Replicate sample	6/12/05	524.2		34	4.9	ND
SB41	63–68	6/9/05	CPT	AGSB41-W-04542	Primary sample	6/12/05	524.2	Water	78	2.3	ND
				AGSB41-W-04542DUP	Duplicate analysis	6/12/05	524.2		73	2	ND
SB42	140–145	7/7/05	CPT	AGSB42-W-17465	Primary sample	7/8/05	524.2	Water	0.2 J	ND	ND
				AGQCDU-W-17723	Replicate sample	7/8/05	524.2		ND	ND	ND
SB43	12	7/11/05	CPT	AGSB43-S-17742	Primary sample	7/15/05	8260B	Soil	2.6 J	1.3 J	ND
				AGSB43-S-17742DUP	Duplicate analysis	7/15/05	8260B		2.7 J	ND	ND
SB43	24	7/11/05	CPT	AGSB43-S-17745	Primary sample	7/15/05	8260B	Soil	2.6 J	1.3 J	ND
				AGSB43-S-17746	Replicate sample	7/15/05	8260B		ND	ND	ND
SB43	48	7/11/05	CPT	AGSB43-S-18002	Primary sample	7/18/05	8260B	Soil	ND	ND	ND
				AGSB43-S-18002DUP	Duplicate analysis	7/18/05	8260B		ND	ND	ND

TABLE S4.5 (Cont.)

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB43	47–52	7/11/05	CPT	AGSB43-W-17879	Primary sample	7/12/05	524.2	Water	1.7	0.3 J	ND
				AGQCDU-W-17855	Replicate sample	7/13/05	524.2		1.5	0.3 J	ND
SB45	12	7/11/05	CPT	AGSB45-S-17523	Primary sample	7/20/05	8260B	Soil	ND	ND	ND
				AGSB45-S-17524	Replicate sample	7/22/05	8260B		ND	ND	ND
SB45	34	7/11/05	CPT	AGSB45-S-17532	Primary sample	7/21/05	8260B	Soil	ND	ND	ND
				AGSB45-S-17532DUP	Duplicate analysis	7/21/05	8260B		ND	ND	ND
SB45	44–49	7/8/05	CPT	AGSB45-W-17836	Primary sample	7/14/05	524.2	Water	0.3 J	0.2 J	ND
				AGSB45-W-17836DUP	Duplicate analysis	7/14/05	524.2		0.3 J	0.2 J	ND
SB45	54–59	7/7/05	CPT	AGSB45-W-17834	Primary sample	7/12/05	524.2	Water	ND	ND	ND
				AGQCDU-W-17848	Replicate sample	7/13/05	524.2		ND	ND	ND
SB45	59–64	7/7/05	CPT	AGSB45-W-17724	Primary sample	7/8/05	524.2	Water	ND	ND	ND
				AGSB45-W-17724DUP	Duplicate analysis	7/8/05	524.2		ND	ND	ND
SB46	28	7/10/05	CPT	AGSB46-S-17512	Primary sample	7/21/05	8260B	Soil	213	17	ND
				AGSB46-S-17516	Replicate sample	7/22/05	8260B		34	10	ND
SB46	60–65	7/6/05	CPT	AGSB46-W-17462	Primary sample	7/8/05	524.2	Water	2	0.4 J	ND
				AGSB46DU-W-17463	Replicate sample	7/8/05	524.2		1.7	0.4 J	ND
SB47	67–72	6/11/05	CPT	AGSB47-W-17759	Primary sample	6/20/05	524.2	Water	ND	ND	ND
				AGSB47-W-17759DUP	Duplicate analysis	6/20/05	524.2		ND	ND	ND
				AGQCDU-W-17767	Replicate sample	6/15/05	524.2		ND	ND	ND
SB48	20	7/12/05	CPT	AGSB48-S-18022	Primary sample	7/28/05	8260B	Soil	ND	ND	ND
				AGSB48-S-18022DUP	Duplicate analysis	7/28/05	8260B		ND	ND	ND
SB48	24	7/13/05	CPT	AGSB48-S-18023	Primary sample	7/28/05	8260B	Soil	ND	ND	ND
				AGSB48-S-18024	Replicate sample	7/28/05	8260B		ND	ND	ND
SB48	65.5–70.5	6/12/05	CPT	AGSB48-W-17783	Primary sample	6/14/05	524.2	Water	2.3	1	ND
				AGQCDU-W-17787	Replicate sample	6/15/05	524.2		2.3	0.8 J	ND

TABLE S4.5 (Cont.)

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB49	16	7/12/05	CPT	AGSB49-S-18007	Primary sample	7/15/05	8260B	Soil	ND	0.9 J	ND
				AGSB49-S-18008	Replicate sample	7/18/05	8260B		ND	ND	ND
SB49	68–73	6/13/05	CPT	AGSB49-W-17793	Primary sample	6/14/05	524.2	Water	2.9	ND	ND
				AGQCDU-W-17796	Replicate sample	6/15/05	524.2		3.2	0.1 J	ND
SB50	60.5–65.5	6/13/05	CPT	AGSB50-W-17823	Primary sample	6/15/05	524.2	Water	ND	ND	ND
				AGQCDU-W-17827	Replicate sample	6/20/05	524.2		ND	ND	ND
SB51	16	5/23/05	CPT	AGSB51-S-17621	Primary sample	6/23/05	8260B	Soil	ND	ND	ND
				AGSB51-S-17621DUP	Duplicate analysis	6/23/05	8260B		ND	ND	ND
SB51	40	5/23/05	CPT	AGSB51-S-17627	Primary sample	6/23/05	8260B	Soil	ND	ND	ND
				AGSB51-S-17615	Replicate sample	6/6/05	8260B		ND	ND	ND
SB51	46–51	5/23/05	CPT	AGSB51-W-17631	Primary sample	5/26/05	524.2	Water	9.6	0.3 J	ND
				AGSB51-W-17631DUP	Duplicate analysis	5/26/05	524.2		10	0.3 J	ND
SB51	61–66	5/23/05	CPT	AGSB51-W-17628	Primary sample	5/24/05	524.2	Water	6.4	ND	ND
				AGSB51DUP-W-17629	Replicate sample	5/24/05	524.2		7	ND	ND
SB52	28	5/21/05	CPT	AGSB52-S-17594	Primary sample	6/17/05	8260B	Soil	ND	ND	ND
				AGSB52-S-17595	Replicate sample	6/17/05	8260B		ND	ND	ND
SB52	40.5	5/21/05	CPT	AGSB52-S-04512	Primary sample	6/17/05	8260B	Soil	ND	ND	ND
				AGSB52-S-04512DUP	Duplicate analysis	6/17/05	8260B		ND	ND	ND
SB52	46	5/21/05	CPT	AGSB52-S-04515	Primary sample	6/6/05	8260B	Soil	ND	ND	ND
				AGSB52-S-04515DUP	Duplicate analysis	6/6/05	8260B		ND	ND	ND
SB53	8	5/20/05	CPT	AGSB53-S-17575	Primary sample	6/6/05	8260B	Soil	ND	ND	ND
				AGSB53-S-17578	Replicate sample	6/2/05	8260B		4.9 J	ND	ND
SB53	32	5/20/05	CPT	AGSB53-S-17583	Primary sample	6/2/05	8260B	Soil	ND	ND	ND
				AGSB53-S-17583DUP	Duplicate analysis	6/2/05	8260B		2.9 J	ND	ND

TABLE S4.5 (Cont.)

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB53	40	5/20/05	CPT	AGSB53-S-17585	Primary sample	6/1/05	8260B	Soil	52	5.9 J	5.9 J
				AGSB53-S-17585DUP	Duplicate analysis	6/1/05	8260B		46	5.4 J	5.2 J
				AGSB53-S-17586		6/2/05	8260B		37	4.7 J	7.7 J
SB53	58–63	5/20/05	CPT	AGSB53-W-04388	Primary sample	5/23/05	524.2	Water	350	13.7	1.3
				AGSB53-W-04388DUP	Duplicate analysis	5/23/05	524.2		357	14.1	ND
SB53	63–68	5/20/05	CPT	AGSB53-W-17556	Primary sample	5/21/05	524.2	Water	5.4	0.9 J	ND
				AGSB53-W-17556DUP	Duplicate analysis	5/21/05	524.2		4.5	0.7 J	ND
SB54	20	6/7/05	CPT	AGSB54-S-17484	Primary sample	6/16/05	8260B	Soil	ND	ND	ND
				AGSB54-S-17485	Replicate sample	6/16/05	8260B		ND	ND	ND
SB54	60–65	6/8/05	CPT	AGSB54-W-17493	Primary sample	6/9/05	524.2	Water	ND	ND	ND
				AGSB54DU-W-17494	Replicate sample	6/9/05	524.2		ND	ND	ND
SB55	20	6/3/05	CPT	AGSB55-S-17693	Primary sample	6/10/05	8260B	Soil	ND	ND	ND
				AGSB55-S-17693DUP	Duplicate analysis	6/10/05	8260B		ND	ND	ND
SB55	24	6/3/05	CPT	AGSB55-S-17694	Primary sample	6/28/05	8260B	Soil	ND	ND	ND
				AGSB55-S-17694DUP	Duplicate analysis	6/28/05	8260B		ND	ND	ND
SB55	25.5	6/3/05	CPT	AGSB55-S-17702	Primary sample	6/10/05	8260B	Soil	ND	ND	ND
				AGSB55-S-17702DUP	Duplicate analysis	6/10/05	8260B		ND	ND	ND
SB55	33	6/3/05	CPT	AGSB55-S-17696	Primary sample	6/22/05	8260B	Soil	ND	ND	ND
				AGSB55-S-17697	Replicate sample	6/8/05	8260B		ND	ND	ND
SB55	61–66	6/3/05	CPT	AGSB55-W-17687	Primary sample	6/4/05	524.2	Water	ND	ND	ND
				AGSB55-W-17687DUP	Duplicate analysis	6/4/05	524.2		ND	ND	ND
				AGSB55DU-W-17668		6/4/05	524.2		ND	ND	ND
SB56	12	5/26/05	CPT	AGSB56-S-17661	Primary sample	6/24/05	8260B	Soil	ND	ND	ND
				AGSB56-S-17661DUP	Duplicate analysis	6/24/05	8260B		ND	ND	ND
SB56	24	5/26/05	CPT	AGSB56-S-17664	Primary sample	6/24/05	8260B	Soil	ND	ND	ND
				AGSB56-S-17666	Replicate sample	6/24/05	8260B		ND	ND	ND
				AGSB56-S-17666DUP	Duplicate analysis	6/24/05	8260B		ND	ND	ND

TABLE S4.5 (Cont.)

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB56	90–95	5/26/05	CPT	AGSB56-W-17657	Primary sample	5/27/05	524.2	Water	ND	ND	ND
				AGSB56-W-17657DUP	Duplicate analysis	5/27/05	524.2		ND	ND	ND
SB56	112–117	5/25/05	CPT	AGSB56-W-17649	Primary sample	5/26/05	524.2	Water	ND	ND	ND
				AGSB56-W-17650	Replicate sample	5/26/05	524.2		ND	ND	ND
SB58	16	5/22/05	CPT	AGSB58-S-17602	Primary sample	6/22/05	8260B	Soil	ND	ND	ND
				AGSB58-S-17603	Replicate sample	6/20/05	8260B		ND	ND	ND
SB58	48	5/22/05	CPT	AGSB58-S-17611	Primary sample	6/20/05	8260B	Soil	ND	ND	ND
				AGSB58-S-17611DUP	Duplicate analysis	6/20/05	8260B		ND	ND	ND
SB58	63–68	5/23/05	CPT	AGSB58-W-04530	Primary sample	5/24/05	524.2	Water	0.7 J	ND	ND
				AGSB58-W-04530DUP	Duplicate analysis	5/24/05	524.2		0.7 J	ND	ND
SB59	4	6/6/05	CPT	AGSB59-S-17714	Primary sample	6/11/05	8260B	Soil	ND	ND	ND
				AGSB59-S-17714DUP	Duplicate analysis	6/11/05	8260B		ND	ND	ND
SB59	8	6/6/05	CPT	AGSB59-S-17715	Primary sample	6/11/05	8260B	Soil	ND	ND	ND
				AGSB59-S-17468	Replicate sample	6/27/05	8260B		ND	ND	ND
SB60	56–61	6/10/05	CPT	AGSB60-W-04546	Primary sample	6/13/05	524.2	Water	ND	ND	ND
				AGQCDU-W-04549	Replicate sample	6/15/05	524.2		ND	ND	ND
SB61	8	6/4/05	CPT	AGSB61-S-17670	Primary sample	6/27/05	8260B	Soil	ND	ND	ND
				AGSB61-S-17670DUP	Duplicate analysis	6/27/05	8260B		ND	ND	ND
SB61	40	6/4/05	CPT	AGSB61-S-17703	Primary sample	6/27/05	8260B	Soil	ND	ND	ND
				AGSB61-S-17704	Replicate sample	6/11/05	8260B		ND	2.3 J	ND
SB61	81–86	6/5/05	CPT	AGSB61-W-17712	Primary sample	6/7/05	524.2	Water	ND	ND	ND
				AGSB61-W-17713	Replicate sample	6/7/05	524.2		ND	ND	ND
SB62	44	5/24/05	CPT	AGSB62-S-17643	Primary sample	6/24/05	8260B	Soil	1.9 J	ND	ND
				AGSB62-S-17645	Replicate sample	6/23/05	8260B		6.3 J	ND	ND
SB63	48.2–53.2	5/18/05	CPT	AGSB63-W-17539	Primary sample	5/19/05	524.2	Water	0.5 J	ND	ND
				AGSB63-W-17539DUP	Duplicate analysis	5/19/05	524.2		0.6 J	ND	ND

TABLE S4.5 (Cont.)

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB63	53.2–58.2	5/18/05	CPT	AGSB63-W-17542	Primary sample	5/20/05	524.2	Water	0.5 J	ND	ND
				AGSB63-W-17542DUP	Duplicate analysis	5/20/05	524.2		0.5 J	ND	ND
SB64	8	6/12/05	CPT	AGSB64-S-17500	Primary sample	6/22/05	8260B	Soil	ND	ND	ND
				AGSB64-S-17500DUP	Duplicate analysis	6/22/05	8260B		2.2 J	ND	ND
SB64	20	6/12/05	CPT	AGSB64-S-17503	Primary sample	6/21/05	8260B	Soil	ND	ND	ND
				AGSB64-S-17503DUP	Duplicate analysis	6/21/05	8260B		ND	ND	ND
SB64	32	6/12/05	CPT	AGSB64-S-17506	Primary sample	6/21/05	8260B	Soil	19	1.8 J	ND
				AGSB64-S-17507	Replicate sample	6/22/05	8260B		8.3 J	ND	ND
SB64	42.7–47.7	6/9/05	CPT	AGSB64-W-04604	Primary sample	6/10/05	524.2	Water	1399 C[d]	49	ND
				AGSB64DU-W-04605	Replicate sample	6/10/05	524.2		1308 C	57	ND
SB64	48	6/13/05	CPT	AGSB64-S-17808	Primary sample	6/23/05	8260B	Soil	1604	4.2 J	ND
				AGSB64-S-17808DUP	Duplicate analysis	6/23/05	8260B		1529	4.4 J	ND
SB65	50–55	6/6/05	CPT	AGSB65-W-04592	Primary sample	6/8/05	524.2	Water	9.4	0.6 J	ND
				AGSB65-W-04592DUP	Duplicate analysis	6/8/05	524.2		9.5	0.6 J	ND
SB65	56–61	6/6/05	CPT	AGSB65-W-04591	Primary sample	6/8/05	524.2	Water	8.1	0.4 J	ND
				AGSB65-W-04591DUP	Duplicate analysis	6/8/05	524.2		6.9	0.4 J	ND
SB65	68–73	6/5/05	CPT	AGSB65-W-17718	Primary sample	6/7/05	524.2	Water	ND	ND	ND
				AGSB65-W-17718DUP	Duplicate analysis	6/7/05	524.2		ND	ND	ND
SB66	48–55	6/9/05	CPT	AGSB66-W-04583	Primary sample	6/10/05	524.2	Water	ND	ND	ND
				AGSB66-W-04583DUP	Duplicate analysis	6/10/05	524.2		ND	ND	ND
SB66	106–111	6/9/05	CPT	AGSB66-W-04581	Primary sample	6/10/05	524.2	Water	ND	ND	ND
				AGQCDU-W-04589	Replicate sample	6/10/05	524.2		ND	ND	ND
SB67	12	7/14/05	CPT	AGSB67-S-18046	Primary sample	7/27/05	8260B	Soil	ND	ND	ND
				AGSB67-S-18047	Replicate sample	7/27/05	8260B		ND	ND	ND
SB67	36	7/14/05	CPT	AGSB67-S-18053	Primary sample	7/27/05	8260B	Soil	ND	ND	ND
				AGSB67-S-18053DUP	Duplicate analysis	7/27/05	8260B		ND	ND	ND

TABLE S4.5 (Cont.)

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB67	56.5–61.5	7/13/05	CPT	AGSB67-W-17804	Primary sample	7/15/05	524.2	Water	22	3.8	ND
				AGQCDU-W-17897	Replicate sample	7/15/05	524.2		26	4.1	ND
SB68	4	7/13/05	CPT	AGSB68-S-18031	Primary sample	7/28/05	8260B	Soil	ND	ND	ND
				AGSB68-S-18031DUP	Duplicate analysis	7/28/05	8260B		ND	ND	ND
SB68	8	7/13/05	CPT	AGSB68-S-18032	Primary sample	7/28/05	8260B	Soil	ND	ND	ND
				AGSB68-S-18033	Replicate sample	7/29/05	8260B		ND	ND	ND
SB68	32	7/13/05	CPT	AGSB68-S-18039	Primary sample	7/29/05	8260B	Soil	3.4 J	2.3 J	ND
				AGSB68-S-18039DUP	Duplicate analysis	7/29/05	8260B		3.8 J	2.3 J	ND
SB68	40	7/13/05	CPT	AGSB68-S-18041	Primary sample	8/1/05	8260B	Soil	6.3 J	1.4 J	ND
				AGSB68-S-18041DUP	Duplicate analysis	8/1/05	8260B		6.2 J	ND	ND
SB69	54–59	7/8/05	CPT	AGSB69-W-17850	Primary sample	7/14/05	524.2	Water	1	ND	ND
				AGSB69-W-17850DUP	Duplicate analysis	7/14/05	524.2		1	ND	ND
SB69	59–64	7/8/05	CPT	AGSB69-W-17849	Primary sample	7/14/05	524.2	Water	ND	ND	ND
				AGQCDU-W-17857	Replicate sample	7/13/05	524.2		ND	ND	ND
SB70	60–65	7/11/05	CPT	AGSB70-W-17876	Primary sample	7/12/05	524.2	Water	0.5 J	ND	ND
				AGQCDU-W-17856	Replicate sample	7/13/05	524.2		ND	ND	ND
SB71	72–77	6/11/05	CPT	AGSB71-W-17732	Primary sample	6/13/05	524.2	Water	ND	ND	ND
				AGQCDU-W-17737	Replicate sample	6/13/05	524.2		ND	ND	ND
SB72	59–69	7/12/05	CPT/P	AGSB72-W-17886	Primary sample	7/14/05	524.2	Water	0.7 J	0.2 J	ND
				AGQCDU-W-17887	Replicate sample	7/14/05	524.2		0.5 J	0.2 J	ND
SB73	16	6/13/05	CPT	AGSB73-S-17813	Primary sample	6/21/05	8260B	Soil	ND	ND	ND
				AGSB73-S-17812	Replicate sample	6/22/05	8260B		ND	ND	ND
SB73	44	6/13/05	CPT	AGSB73-S-17820	Primary sample	6/21/05	8260B	Soil	ND	ND	ND
				AGSB73-S-17820DUP	Duplicate analysis	6/21/05	8260B		ND	ND	ND
SB73	63–68	6/11/05	CPT	AGSB73-W-17722	Primary sample	6/14/05	524.2	Water	ND	ND	ND
				AGQCDU-W-17797	Replicate sample	6/15/05	524.2		ND	ND	ND

TABLE S4.5 (Cont.)

Location	Depth (ft BGL)	Sample Date	Sample Type[a]	Sample	Analysis Type	Analysis Date	EPA Analytical Method	Sample Matrix	Concentration (µg/L in water; µg/kg in soil) Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB75	51.5–56.5	7/12/05	CPT	AGSB75-W-17888	Primary sample	7/13/05	524.2	Water	ND	ND	ND
				AGSB75-W-17888DUP	Duplicate analysis	7/13/05	524.2		ND	ND	ND
SB79	60–65	7/14/05	CPT	AGSB79-W-17845	Primary sample	7/18/05	524.2	Water	3	0.7 J	ND
				AGSB79-W-17846	Replicate sample	7/18/05	524.2		3.4	0.6 J	ND
SB80	60–64.75	7/14/05	CPT	AGSB80-W-17844	Primary sample	7/18/05	524.2	Water	4.9	3.8	ND
				AGSB80-W-17844DUP	Duplicate analysis	7/18/05	524.2		4.6	3.7	ND

[a] Sample types: CPT, cone penetrometer; CPT/P, piezometer; MW, monitoring well; PW, public well.

[b] Qualifier J indicates an estimated concentration below the method quantitation limit of 10 µg/kg for soil samples or 1 µg/L for water samples.

[c] ND, contaminant not detected.

[d] Qualifier C indicates that the result was outside the instrument calibration range. Sample volume was insufficient for reanalysis at dilution.

TABLE S4.6 Recovery of system-monitoring compounds in verification organic analyses of water samples by Envirosystems, Inc.

Sample	Analysis Date	Sample Delivery Group	Recovery[a] (%) Toluene-d_8	Bromofluoro-benzene	1,2-Dichloro-ethane-d_4
AGSB23S-W-04384	5/24/05	506124	102	90	93
AGSB23-W-04385	5/24/05	506124	97	87	84
AGSB53-W-04388	5/24/05	506124	105	99	97
AGSB53-W-04388DL	5/24/05	506124	104	100	104
AGSB53-W-17573	5/24/05	506124	101	103	106
AGSB53-W-17573DL	5/24/05	506124	101	99	98
ANLQCTB-W-52305	5/24/05	506124	102	104	102
VHBLKBV	5/24/05	506124	103	101	101
VBLKBV	5/24/05	506124	102	90	96
AGDW98-W-04567	6/10/05	506142	102	94	107
AGSB59-W-04595	6/10/05	506142	100	94	124[b]
AGSB59-W-04595DL	6/10/05	506142	99	98	118[b]
AGSB59-W-04596	6/10/05	506142	104	96	107
AGSB61-W-17708	6/10/05	506142	99	93	103
AGSB61-W-17709	6/10/05	506142	100	95	114
AGSB65-W-04590	6/10/05	506142	98	98	109
AGTB-W-060805	6/10/05	506142	102	94	109
VHBLKBM	6/10/05	506142	102	94	111
AGSB61-W-17709MS	6/10/05	506142	95	91	108
AGSB61-W-17709MSD	6/10/05	506142	96	92	109
VBLKBM	6/10/05	506142	100	87	90
AGSB42-W-17839	7/15/05	507164	108	92	104
AGSB42-W-17868	7/15/05	507164	109	96	104
AGSB42-W-17840	7/15/05	507164	106	93	104
AGSB43T-W-17862	7/15/05	507164	108	94	103
AGSB43-W-17879	7/15/05	507164	105	88	102
AGSB68-W-17871	7/15/05	507164	105	91	104
AGSB70-W-17876	7/15/05	507164	107	94	112
AGTB-W-71205	7/15/05	507164	107	97	107
VHBLKBV	7/15/05	507164	109	93	107
AGSB70-W-17876MS	7/15/05	507164	107	91	109
AGSB70-W-17876MSD	7/15/05	507164	106	98	112
VBLKBV	7/15/05	507164	108	88	106

[a] Quality control ranges:

Compound	Range (%)
Toluene-d_8	88–110
Bromofluorobenzene	86–115
1,2-Dichloroethane-d_4	76–114

[b] Result outside quality control range.

TABLE S4.7 Recovery and relative percent difference values for spike/spike duplicate organic analyses of water samples by Envirosystems, Inc., with CLP methodology.

Compound	Concentration (µg/L)				Recovery (%)			Relative Percent Difference	
	Sample	Spike Added	Initial Analysis	Duplicate Analysis	Initial Analysis	Duplicate Analysis	QC Range	RPD	QC Limit
Spike/spike duplicate analysis of groundwater sample AGSB61-W-17709 in SDG 506142									
1,1-Dichloroethene	0	50	26.00	26.61	52[a]	53[a]	61 to 145	2	14
Trichloroethene	0	50	38.71	40.88	77	82	71 to 120	6	14
Benzene	0	50	36.67	39.51	73[a]	79	76 to 127	8	11
Toluene	0	50	38.28	41.12	77	82	76 to 125	6	13
Chlorobenzene	0	50	41.05	42.47	82	85	75 to 130	4	13
Spike/spike duplicate analysis of groundwater sample AGSB70-W-17876 in SDG 507164									
1,1-Dichloroethene	0	50	59.02	62.17	118	124	61 to 145	5	14
Trichloroethene	0	50	54.05	56.47	108	113	71 to 120	5	14
Benzene	0	50	54.55	55.71	109	111	76 to 127	2	11
Toluene	0	50	55.32	57.40	111	115	76 to 125	4	13
Chlorobenzene	0	50	52.19	54.24	104	108	75 to 130	4	13

[a] Recovery outside quality control range.

TABLE S4.8 Comparison of organic results for verification analyses of water samples collected during the 2005 investigation at Agra, Kansas.

				AGEM Laboratory Results (µg/L)			Envirosystems, Inc., CLP Results (µg/L)			Relative Percent Difference		
Location	Sample	Depth (ft BGL)	Sample Date	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
DW98	AGDW98-W-04567	Unknown	6/3/05	0.3 J[a]	0.2 J	ND[b]	ND	0.2 J	ND	–[c]	0	–
SB23	AGSB23-W-04385	100–106	5/20/05	0.7 J	ND	ND	0.3 J	0.1 J	ND	80	–	–
SB23S	AGSB23S-W-04384	49–55	5/20/05	1.5	ND	ND	ND	ND	ND	–	–	–
SB42	AGSB42-W-17868	50–55	7/9/05	43	1.3	ND	44	1.2 J	ND	2.3	8	–
SB42	AGSB42-W-17840	80–85	7/8/05	0.8 J	ND	ND	0.5 J	ND	ND	46.2	–	–
SB42	AGSB42-W-17839	95–100	7/8/05	ND	ND	ND	ND	ND	ND	–	–	–
SB43	AGSB43-W-17879	47–52	7/11/05	1.7	0.3 J	ND	1.5 J	0.2 J	ND	12.5	40	–
SB43T	AGSB43T-W-17862	62–67	7/9/05	1.4	0.4 J	ND	0.9 J	0.3 J	ND	43.5	28.6	–
SB53	AGSB53-W-17573	53–58	5/20/05	168	11.4	ND	270	14	0.5 J	46.6	20.5	–
SB53	AGSB53-W-04388	58–63	5/20/05	350	13.7	1.3	430	17	1.1 J	20.5	21.5	16.6
SB59	AGSB59-W-04595	45–50	6/7/05	1506	23	ND	1500	28	ND	0.4	19.6	–
SB59	AGSB59-W-04596	66–71	6/7/05	82	2.6	ND	99	3.3 J	ND	18.8	23.7	–
SB61	AGSB61-W-17708	72–77	6/5/05	1.4	1.3	ND	1.1 J	1.7 J	ND	24.0	26.7	–
SB61	AGSB61-W-17709	91–96	6/5/05	3.7	2	ND	3.2 J	2.2 J	ND	14.5	9.5	–
SB65	AGSB65-W-04590	62–67	6/6/05	5.4	0.3 J	ND	3.7 J	0.3 J	ND	37.4	0	–
SB68	AGSB68-W-17871	54–59	7/10/05	0.2 J	ND	ND	ND	ND	ND	–	–	–
SB70	AGSB70-W-17876	60–65	7/11/05	0.5 J	ND	ND	0.7 J	ND	ND	33.3	–	–

[a] Qualifier J indicates an estimated concentration below the method quantitation limit of 1 µg/L for analyses at AGEM Laboratory with EPA Method 524.2 or 5 µg/L for analyses by Envirosystems, Inc., with CLP methodology.

[b] ND, contaminant not detected at detection limit of 0.1 µg/L.

[c] Relative percent difference not calculated.

TABLE S4.9 Recovery of system-monitoring compounds in verification organic analyses of soil samples at Severn-Trent Laboratories with EPA Method 8260B.

Sample	Analytical Date	Sample Delivery Group	Recovery[a] (%) 1,2-Dichloro-ethane-d_4	Toluene-d_8	Bromofluoro-benzene	1,2-Dichloro-benzene-d_4
AGSB53-S-17580	6/16/05	107771	93	100	103	97
AGSB56-S-17665	6/16/05	107771	94	102	104	99
AGSB55-S-17689	6/16/05	107771	95	101	101	99
AGSB52-S-04512	6/16/05	107771	91	101	104	102
AGSB62-S-17641	6/16/05	107771	94	98	104	99
AGSB61-S-17672	6/16/05	107771	90	101	105	100
AGSB62-S-17639	6/16/05	107771	93	97	100	98
AG-MEOHTB-6805	6/16/05	107771	90	99	103	96
AGSB53-S-17585	6/16/05	107771	92	98	102	98
AGSB53-S-17586	6/16/05	107771	100	101	101	97
AGSB53-S-17583	6/16/05	107771	105	106	115	108
AGSB53-S-17583MS	6/16/05	107771	83[b]	98	99	98
AGSB53-S-17583MSD	6/16/05	107771	73[b]	88	92[b]	92[b]
NANJ LCS	6/16/05	107771	89[b]	101	103	101
NANJ LCSD	6/16/05	107771	92	100	99	98
NANJMEOH LCS	6/16/05	107771	105	98	101	97
VBLKY6	6/16/05	107771	93	101	100	98
MERD MEOHLCS	7/30/05	108589	120	96	100	101
MBLK	7/30/05	108589	101	94	99	99
AG-MEOHBLANK-72105	7/30/05	108589	88	100	106	103
AGSB48-S-18028	7/30/05	108589	93	87	91	90
AGSB48-S-18019	7/30/05	108589	124	123	132	128[b]
AGSB68-S-18039	7/30/05	108589	103	95	104	102
AGSB68-S-18041	7/30/05	108589	97	99	106	105
AGSB67-S-18047	7/30/05	108589	91	92	98	97
AGSB67-S-18054	7/30/05	108589	98	94	98	97
AGSB48-S-18021	7/30/05	108589	92	90	95	95
AGSB45-S-17522	7/30/05	108589	95	93	99	98
AGSB46-S-17515	7/30/05	108589	88	84	91	91
AGSB49-S-18017	7/30/05	108589	89	87	96	92
AGSB43-S-17741	7/30/05	108589	102	92	103	99
MERD LCS	7/30/05	108589	96	97	100	101
VBLKL9	7/30/05	108589	100	93	106	107
MERJMEOHLCS	8/3/05	108712	117	99	103	99
MBLK	8/3/05	108712	99	94	102	100
AGSB46-S-17519	8/3/05	108712	107	105	116	110
AGSB45-S-17526	8/3/05	108712	93	91	102	98
AGSB43-S-17747	8/3/05	108712	101	97	107	103
AGSB43-S-17537	8/3/05	108712	98	97	102	100
AGSB43-S-17745	8/3/05	108712	97	96	104	101
AG-MEOHBLANK-72805	8/3/05	108712	101	98	108	100
MERD LCS	8/3/05	108712	96	98	102	100
VBLKN9	8/3/05	108712	103	96	105	106

[a] Quality control ranges:

Compound	Range (%)
1,2-Dichloroethane-d_4	90–135
Toluene-d_8	85–115
Bromofluorobenzene	95–125
1,2-Dichlorobenzene-d_4	95–125

[b] Result outside quality control range.

TABLE S4.10 Recovery and relative perecnt difference values for carbon tetrachloride and chloroform in spike/spike duplicate organic analyses of soil samples at Severn-Trent Laboratories.

	Concentration (µg/kg)				Recovery (%)			Difference (%)	
Compound	Sample	Spike Added	Initial Analysis	Duplicate Analysis	Initial Analysis	Duplicate Analysis	QC Range	RPD	QC Limit
Spike/spike duplicate analysis of AGSB53-S-17583 for SDG 107771									
Chloroform	1.9 J[a]	80	67	64	81	78	75–130	4	50
Carbon Tetrachloride	5.7 J	80	72	68	83	78	50–140	6	50
Spike/spike duplicate analysis of NANJ LCS for SDG 107771									
Chloroform	0	10	8.7 J	8.9 J	87	89	75–130	2	50
Carbon Tetrachloride	0	10	8.9 J	8.9 J	89	89	50–140	0	50
Spike analysis of MERD LCS for SDG 108589									
Chloroform	0	10	9.7 J	NA[b]	97	NA	75–130	NA	50
Carbon Tetrachloride	0	10	9.3 J	NA	93	NA	50–140	NA	50
Spike analysis of MERD MEOHLCS for SDG 108589									
Chloroform	0	100	74	NA	74[c]	NA	75–130	NA	50
Carbon Tetrachloride	0	100	73	NA	73	NA	50–140	NA	50
Spike analysis of MERJ LCS for SDG 108712									
Chloroform	0	10	9.3 J	NA	93	NA	75–130	NA	50
Carbon Tetrachloride	0	10	8.8 J	NA	88	NA	50–140	NA	50
Spike analysis of MERJ MEOHLCS for SDG 108712									
Chloroform	0	100	73	NA	73[c]	NA	75–130	NA	50
Carbon Tetrachloride	0	100	83	NA	83	NA	50–140	NA	50

[a] Qualifier J indicates an estimated value below the method quantitation limit of 10 µg/kg.

[b] NA, matrix spike duplicate analysis not performed.

[c] Result outside quality control range.

TABLE S4.11 Comparison of organic results for verification analyses of soil samples collected during the 2005 investigation at Agra, Kansas.

				AGEM Laboratory Results (µg/kg)			Severn-Trent CLP Results (µg/kg)			Relative Percent Difference		
Location	Sample	Depth (ft BGL)	Sample Date	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB43	AGSB43-S-17537	4	7/11/05	ND[a]	ND	ND	ND	ND	ND	–[b]	–	–
SB43	AGSB43-S-17741	11	7/11/05	1.5 J[c]	ND	ND	3.5 J	ND	ND	80	–	–
SB43	AGSB43-S-17745	24	7/11/05	2.6 J	1.3 J	ND	ND	ND	ND	–	–	–
SB43	AGSB43-S-17747	28	7/11/05	ND	ND	ND	ND	ND	ND	–	–	–
SB45	AGSB45-S-17522	8	7/11/05	ND	ND	ND	ND	ND	ND	–	–	–
SB45	AGSB45-S-17526	18	7/11/05	ND	ND	ND	ND	ND	ND	–	–	–
SB46	AGSB46-S-17515	40	7/10/05	705	8.3 J	ND	990 E[d]	3.1 J	ND	33.6	91.2	–
SB46	AGSB46-S-17519	52	7/10/05	801	2 J	ND	250	ND	ND	104.9	–	–
SB48	AGSB48-S-18019	8	7/12/05	ND	ND	ND	ND	ND	ND	–	–	–
SB48	AGSB48-S-18021	16	7/12/05	ND	ND	ND	ND	ND	ND	–	–	–
SB48	AGSB48-S-18028	40	7/13/05	ND	ND	ND	ND	ND	ND	–	–	–
SB49	AGSB49-S-18017	48	7/12/05	481	8.5 J	ND	420	ND	ND	13.5	–	–
SB52	AGSB52-S-04512	40.5	5/21/05	ND	ND	ND	ND	ND	ND	–	–	–
SB53	AGSB53-S-17580	20.2	5/20/05	ND	ND	ND	ND	ND	ND	–	–	–
SB53	AGSB53-S-17583	32	5/20/05	ND	ND	ND	5.7	1.9 J	3.1 J	–	–	–
SB53	AGSB53-S-17585	40	5/20/05	52	5.9 J	5.9 J	29	3.5 J	3.8 J	56.8	51.1	43.2
SB53	AGSB53-S-17586	40	5/20/05	37	4.7 J	7.7 J	34	4.1 J	6.6 J	8.5	13.6	15.3
SB55	AGSB55-S-17689	4	6/3/05	ND	ND	ND	ND	ND	ND	–	–	–
SB56	AGSB56-S-17665	28	5/26/05	ND	ND	ND	ND	ND	ND	–	–	–
SB61	AGSB61-S-17672	16	6/4/05	ND	ND	ND	ND	ND	ND	–	–	–

TABLE S4.11 (Cont.)

				AGEM Laboratory Results (µg/kg)			Severn-Trent CLP Results (µg/kg)			Relative Percent Difference		
Location	Sample	Depth (ft BGL)	Sample Date	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane	Carbon Tetra-chloride	Chloro-form	1,2-Dichloro-ethane
SB62	AGSB62-S-17639	28	5/24/05	ND	ND	ND	ND	ND	ND	–	–	–
SB62	AGSB62-S-17641	36	5/24/05	ND	ND	ND	ND	ND	ND	–	–	–
SB67	AGSB67-S-18047	12	7/14/05	ND	ND	ND	ND	ND	ND	–	–	–
SB67	AGSB67-S-18054	40	7/14/05	ND	ND	ND	ND	ND	ND	–	–	–
SB68	AGSB68-S-18039	32	7/13/05	3.4 J	2.3 J	ND	2.7 J	2.2 J	ND	23	4.4	–
SB68	AGSB68-S-18041	40	7/13/05	6.3 J	1.4 J	ND	3.6 J	ND	ND	53.1	–	–

[a] ND, contaminant not detected.

[b] Relative percent difference not calculated.

[c] Qualifier J indicates an estimated concentration below the method quantitiation limit of 10 µg/kg.

[d] Qualifier E indicates a result outside instrument calibration range. Not reanalyzed at dilution.

TABLE S4.12 Percent recovery of known analyte concentrations achieved during inorganic analysis of laboratory quality control samples at Severn–Trent Laboratories.

	Recovery[a] (%)			
Compound	SDG 107340	SDG 107343	SDG 107357	SDG 107418
Alkalinity	105	105.5	106–107	107
Nitrate	92	93.5	95–97	95–105
Phosphate	88	88	92–99	93
Sulfate	98	100	97–104	104
Chloride	95	97	92–99	99–103
Nitrate/Nitrite N	109	109	104–109	103–106
Aluminum	100.1	100.1	93.8	94.1
Calcium	97.9	97.9	101.7	94.5
Iron	97.1	97	95.7	98.8
Magnesium	97.1	97.1	101.5	97.9
Manganese	98.4	98.4	101	97.1
Phosphorus	97.3	95.9	91.6	98.4
Potassium	97.7	97.7	99.3	92.4
Silicon	100.5	100.5	106.5	104.2
Sodium	98.4	98.4	98.7	93.1
Zinc	94.7	96.5	100	96.8

	Recovery[a] (%)			
Compound	SDG 107464	SDG 107624	SDG 107634	SDG 107652
Alkalinity	107	104	99	99
Nitrate	92–100	96	101–110	88–98
Phosphate	99	96	102	99
Sulfate	97	90	90	90
Chloride	92	96	87–109	87
Nitrate/Nitrite N	103	106	106–108	106
Aluminum	93.8	99.3	99.3	95.6
Calcium	96.7	100.5	100.5	95.1
Iron	95.7	100.7	100.7	93.3
Magnesium	101.5	102.5	102.5	99.7
Manganese	93.7	98.5	98.5	96.1
Phosphorus	91.6	98.4	98.4	100
Potassium	99.3	97.4	97.4	95.4
Silicon	106.5	105.5	105.5	101.7
Sodium	93	104	104	96.5
Zinc	93.7	96	96	94.3

TABLE S4.12 (Cont.)

Compound	Recovery[a] (%)			
	SDG 107685	SDG 107724	SDG 107746	SDG 107775
Alkalinity	99	106	104	104
Nitrate	97–102	100	99–101	94–103
Phosphate	96–109	113	99–103	101
Sulfate	104	101–102	103	95–98
Chloride	100	100–101	101–103	92–100
Nitrate/Nitrite N	106	106	105–106	104–106
Aluminum	99.3	101.9	101.9	98.5
Calcium	100.5	104.1	104.1	98.1
Iron	100.7	93.3	93.3	101.7
Magnesium	102.5	99.7	99.7	102.2
Manganese	98.5	102.2	95.3	98.3
Phosphorus	98.4	100	100	100
Potassium	97.4	95.4	95.4	99
Silicon	105.5	101.7	101.7	104
Sodium	104	96.5	96.5	99.9
Zinc	96	104.4	104.4	95.9

Compound	Recovery[a] (%)			
	SDG 107814	SDG 108251	SDG 108276	SDG 108351
Alkalinity	NA	106	106	105–106
Nitrate	NA	96	103–106	94–98
Phosphate	NA	97	85–107	109
Sulfate	NA	90	90–101	95
Chloride	NA	104	104–105	101
Nitrate/Nitrite N	100	102	102	99
Aluminum	NA	88.7	94.5	97.2
Calcium	NA	92.3	93.1	96.6
Iron	NA	89.1	94.7	98.1
Magnesium	NA	93.3	93.3	99.5
Manganese	NA	91.3	93.2	97.6
Phosphorus	NA	89.7	89.7	95.1
Potassium	NA	92.6	92.5	94.5
Silicon	NA	99.1	99.1	107.5
Sodium	NA	89.5	91.9	96
Zinc	NA	91.1	93.6	95.5

[a] Quality control range for percent recovery = 85–115%.

TABLE S4.13 Calculated relative percent difference values in dual inorganic analyses of groundwater samples by Severn–Trent Laboratories.

Analyte	Concentration (mg/L) Primary Analysis	Duplicate or Replicate Analysis	Relative Percent Difference
Analysis of primary sample AGMW1-W-04378 and replicate AGQCDU-W-04379 in SDG 107340			
Alkalinity	242	242	0.0
Aluminum	< 0.2	< 0.2	–[a]
Calcium	142	146	2.8
Chloride	95.5	96.2	0.7
Iron	< 0.1	< 0.1	–
Magnesium	19.4	19.1	1.6
Manganese	< 0.015	< 0.015	–
Nitrate as N	10.1	10.2	1.0
Nitrate/Nitrite Nitrogen	9.56	9.84	2.9
Phosphate	< 0.2	0.2	–
Phosphorus	< 0.250	< 0.250	–
Potassium	7.72	7.87	1.9
Silicon	19.5	19.2	1.6
Sodium	38.6	39.6	2.6
Sulfate	106	102	3.8
Zinc	< 0.02	< 0.02	–
Duplicate analysis of sample AGSB53-W-04388 in SDG 107357			
Alkalinity	241	239	0.8
Chloride	26.2	25.9	1.2
Nitrate as N	70.5	70.6	0.1
Nitrate/Nitrite Nitrogen	80.6	80.6	0.0
Phosphate	0.257	0.261	1.5
Sulfate	393	315	22
Duplicate analysis of sample AGMWL-W-04520 in SDG 107357			
Chloride	108	110	1.8
Sulfate	107	108	0.9
Analysis of primary sample AGMWQ-W-04391 and replicate AGQCDU-W-04389 in SDG 107357			
Alkalinity	210	218	3.7
Aluminum	< 0.2	< 0.2	–
Calcium	121	118	2.5
Chloride	71.8	70.3	2.1
Iron	< 0.1	< 0.1	–
Magnesium	19	18.7	1.6
Manganese	< 0.015	< 0.015	–
Nitrate as N	4.36	4.15	4.9
Nitrate/Nitrite Nitrogen	4.65	4.53	2.6
Phosphate	0.258	0.27	4.5
Phosphorus	< 0.250	< 0.250	–

TABLE S4.13 (Cont.)

Analyte	Concentration (mg/L) Primary Analysis	Duplicate or Replicate Analysis	Relative Percent Difference
Analysis of primary sample AGMWQ-W-04391 and replicate AGQCDU-W-04389 in SDG 107357 (Cont.)			
Potassium	5.6	5.54	1.1
Silicon	18.5	18.3	1.1
Sodium	20.1	19.7	2.0
Sulfate	58.7	57.4	2.2
Zinc	< 0.02	< 0.02	–
Duplicate analysis of sample AGMWJ-W-04393 in SDG 107357			
Aluminum	< 0.2	< 0.2	–
Calcium	169	166	1.8
Iron	< 0.1	< 0.1	–
Magnesium	26	25.9	0.4
Manganese	< 0.015	< 0.015	–
Phosphorus	< 0.250	< 0.250	–
Potassium	6.46	6.17	4.6
Silicon	17.5	17.18	1.8
Sodium	28.3	27.3	3.6
Zinc	< 0.02	< 0.02	–
Duplicate analysis of sample AGMWF-W-04553 in SDG 107418			
Alkalinity	226	228	0.9
Aluminum	< 0.2	< 0.2	–
Calcium	136	133	2.2
Chloride	76.3	75	1.7
Iron	< 0.1	< 0.1	–
Magnesium	21.2	20.5	3.4
Manganese	< 0.015	< 0.015	–
Nitrate as N	21.9	21.8	0.5
Nitrate/Nitrite Nitrogen	23.1	22.4	3.1
Phosphate	0.248	< 0.2	–
Phosphorus	< 0.250	< 0.250	–
Potassium	10.2	10	2.0
Silicon	22.6	22.2	1.8
Sodium	37.8	36.8	2.7
Sulfate	86.6	85.8	0.9
Zinc	< 0.02	< 0.02	–
Analysis of primary sample AGMWG-W-04539 and replicate AGQCDU-W-04550 in SDG 107418			
Alkalinity	235	236	0.4
Aluminum	< 0.2	< 0.2	–
Calcium	156	159	1.9
Chloride	61.1	60.1	1.7
Iron	< 0.1	< 0.1	–
Magnesium	18.4	18.8	2.2
Manganese	< 0.015	< 0.015	–

TABLE S4.13 (Cont.)

Analyte	Concentration (mg/L) Primary Analysis	Duplicate or Replicate Analysis	Relative Percent Difference
Analysis of primary sample AGMWG-W-04539 and replicate AGQCDU-W-04550 in SDG 107418 (Cont.)			
Nitrate as N	29.6	29.4	0.7
Nitrate/Nitrite Nitrogen	31.5	31.7	0.6
Phosphate	0.257	0.252	2.0
Phosphorus	< 0.250	< 0.250	–
Potassium	7.72	7.87	1.9
Silicon	19.5	19.2	1.6
Sodium	38.6	39.6	2.6
Sulfate	106	102	3.8
Zinc	< 0.02	< 0.02	–
Duplicate analysis of sample AGSB59-W-04596 in SDG 107685			
Alkalinity	224	224	0.0
Aluminum	< 0.2	< 0.2	–
Calcium	170	173	1.7
Chloride	24.8	23	7.5
Iron	< 0.1	< 0.1	–
Magnesium	22.5	23.2	3.1
Manganese	< 0.015	< 0.015	–
Nitrate as N	65.5	66.7	1.8
Nitrate/Nitrite Nitrogen	53	52.3	1.3
Phosphate	< 0.2	< 0.2	–
Phosphorus	< 0.250	< 0.250	–
Potassium	10.2	11.6	12.8
Silicon	16.7	17.2	2.9
Sodium	50.2	52.1	3.7
Sulfate	27.4	28.2	2.9
Zinc	< 0.02	< 0.02	–
Duplicate analysis of sample AGPW2-W-04607 in SDG 107724			
Aluminum	< 0.2	< 0.2	–
Calcium	230	232	0.9
Iron	< 0.1	< 0.1	–
Magnesium	23.9	22.9	4.3
Manganese	< 0.015	< 0.015	–
Phosphorus	< 0.250	< 0.250	–
Potassium	9.95	9.54	4.2
Silicon	23.5	22.7	3.5
Sodium	66.8	64.8	3.0
Zinc	38	36.9	2.9
Analysis of primary sample AGSB66-W-04581 and replicate AGQCDU-W-04589 in SDG 107724			
Alkalinity	230	232	0.9
Aluminum	< 0.2	< 0.2	–
Calcium	103	102	1.0
Chloride	44.6	44.7	0.2

TABLE S4.13 (Cont.)

Analyte	Concentration (mg/L) Primary Analysis	Duplicate or Replicate Analysis	Relative Percent Difference
Analysis of primary sample AGSB66-W-04581 and replicate AGQCDU-W-04589 in SDG 107724 (Cont.)			
Iron	< 0.1	< 0.1	–
Magnesium	16.1	15.7	2.5
Manganese	85.6	85	0.7
Nitrate as N	5.5	5.38	2.2
Nitrate/Nitrite Nitrogen	5.25	5.37	2.3
Phosphate	< 0.2	< 0.2	–
Phosphorus	< 0.250	< 0.250	–
Potassium	9.17	9.5	3.5
Silicon	21.2	20.9	1.4
Sodium	34.5	34.1	1.2
Sulfate	74.8	70	6.6
Zinc	< 0.02	< 0.02	–
Duplicate analysis of sample AGSB41-W-04542 in SDG 107746			
Aluminum	< 0.2	< 0.2	–
Calcium	132	133	0.8
Iron	< 0.1	< 0.1	–
Magnesium	19.2	18.9	1.6
Manganese	< 0.015	< 0.015	–
Phosphorus	< 0.250	< 0.250	–
Potassium	7.7	8	3.8
Silicon	21.1	20.5	2.9
Sodium	21.2	20.3	4.3
Sulfate	70.9	66.7	6.1
Zinc	< 0.02	< 0.02	–
Duplicate analysis of sample AGSB40-W-17729 in SDG 107775			
Alkalinity	241	244	1.2
Aluminum	< 0.2	< 0.2	–
Calcium	103	104	1.0
Chloride	57.7	61.4	6.2
Iron	< 0.1	< 0.1	–
Magnesium	16.4	16	2.5
Manganese	53.6	52.7	–
Nitrate as N	7.58	7.55	0.4
Nitrate/Nitrite Nitrogen	6.89	6.72	2.5
Phosphate	< 0.2	< 0.2	–
Phosphorus	< 0.250	< 0.250	–
Potassium	10	9.2	8.3
Silicon	22.6	21.9	3.1
Sodium	28.5	26.6	6.9
Sulfate	77	82.6	7.0
Zinc	< 0.02	< 0.02	–

TABLE S4.13 (Cont.)

Analyte	Concentration (mg/L) Primary Analysis	Duplicate or Replicate Analysis	Relative Percent Difference
Duplicate analysis of sample AGSB72-W-17886 in SDG 108351			
Chloride	79.3	79.9	0.8
Nitrate as N	4.62	4.72	2.1
Phosphate	< 0.2	< 0.2	–
Sulfate	40.7	39.4	3.2

[a] Analyte concentration below the reporting limit in the sample or duplicate analysis (or both); RPD not calculated.

Supplement 5:

Chain-of-Custody Forms and Outside Laboratory Data

Supplement 5 Contents

COC Forms AGEM Laboratory ..... 3 of 499
COC Forms ENVSY ..... 53 of 499
COC Forms STL ..... 57 of 499
ENVSY SDG 0506124 ..... 77 of 499
ENVSY SDG 0506142 ..... 100 of 499
ENVSY SDG 0507164 ..... 126 of 499
STL SDG 107340 ..... 152 of 499
STL SDG 107343 ..... 169 of 499
STL SDG 107357 ..... 189 of 499
STL SDG 107418 ..... 224 of 499
STL SDG 107464 ..... 247 of 499
STL SDG 107624 ..... 255 of 499
STL SDG 107634 ..... 272 of 499
STL SDG 107652 ..... 280 of 499
STL SDG 107685 ..... 294 of 499
STL SDG 107724 ..... 314 of 499
STL SDG 107746 ..... 331 of 499
STL SDG 107771 ..... 354 of 499
STL SDG 107775 ..... 389 of 499
STL SDG 107814 ..... 421 of 499
STL SDG 108251 ..... 424 of 499
STL SDG 108276 ..... 429 of 499
STL SDG 108351 ..... 437 of 499
STL SDG 108589 ..... 442 of 499
STL SDG 108712 ..... 480 of 499

Chain-of-Custody Forms

with samples to

Argonne National Laboratory

3470

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. 8 8389 2395 3190
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWMinkolet		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOA										REMARKS
18 MAY 04	AGSB63-W-17539	4	✓										Quick turn-around requested
18 MAY 04	AGTRIP-W-17540	1	✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMinkolet	18 MAY 05	1535 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	5/19/05	9:30	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: AGRA
SAMPLER(S) (Signature): BWNashold

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No. Red Bl & Wht
Shipping Info: FDX 8389 2395 3205
ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 319 6820

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
18 MAY 05	AGKM01-W-04375	6	✓									(SB63 has higher priority than KM01 or MW-1)
19 MAY 05	AGSB63-W-04376	4	✓									
19 MAY 05	AGSB63-W-04377	2	✓									
19 MAY 05	AGMW-1-W-04378	6	✓									
19 MAY 05	AGQCDO-W-04379	6	✓									labled as 04397 ? (4397 Not used till 5/22/05)
18 MAY 05	AGSB63-W-17543	2	✓									
18 MAY 05	AGSB63-W-17542	6	✓									
19 MAY 05	AGQCTB-W-04380	2	✓									TRIP

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Barney Nashold	19 MAY 05	1320 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jim Rose	5/20/05	9:30	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
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4. It is in a designated secure area.

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ER-160 (4-01)

4601

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: FDX 8372 8447 7320
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630-319-6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
~~18~~ 19 MAY 05	AGMWI-W-04381	6	✓									
19 MAY 05	AGKMW02-W-04382	6	✓									
19 MAY 05	AGMWB-W-04383	4	✓									
20 MAY 05	AGSB135-W-04384	6	✓									
20 MAY 05	AGSB23-W-04385	6	✓									
20 MAY 05	AGQCTB-W-04386	2	✓									
20 MAY 05	AGSB53-W-17556	6	✓									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Barney Nashold	20 May 05	1300 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	5/21/05	10:45	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

3682

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: 8389 2395 3330
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOA										REMARKS ☆ = priority sample
20 MAY 05	AG MWR-W-04387	6 ✓	✓										
20 MAY 05	AG SB53-W-04388	6 ✓	✓										☆
20 MAY 05	AG SB53-W-17573	6 ✓											☆
~~20 MAY 05~~ BWN	~~AG SB53-W-17556~~ BWN	21 MAY 05											☆
20 MAY 05	AG QCTB-W-04510	2 ✓											
21 MAY 05	AG SB53-W-04511	6 ✓											

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	21 MAY 05	0830					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			CMRose	5/23/05	10:10	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
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ER-160 (4-01)

4603

COC 1 of 2 w/ # 4604

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Med Bl & Wht
RECEIVING LAB: AGEM		Shipping Info: FDx 8389 2394 8283
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
22 MAY 05	AGMW0-W-04521 ✓	6	✓										
21 MAY 05	AGMW5-W-04393 ✓	6	✓										
22 MAY 05	AGQCFB-W-04398 ✓	2	✓										
22 MAY 05	AGQCRI-W-04397 ✓	2	✓										1 broke
22 MAY 05	AGQCRI-W-04395 ✓	2	✓										
22 MAY 05	AGSB58QC-W-17619 ✓	2	✓										
22 MAY 05	AGSB58-W-17618 ✓	6	✓										Priority
22 MAY 05	AGMWL-W-04520 ✓	6	✓										
21 MAY 05	AGKMW03-W-04390 ✓	6	✓										
22 MAY 05	AGMWC-W-04394 ✓	6	✓										
21 MAY 05	AGMWK-W-04392 ✓	6	✓										
22 MAY 05	AGQCFB-W-04399 ✓	2	✓										
21 MAY 05	AGMWQ-W-04391 ✓	5	✓										
22 MAY 05	AGQCRI-W-04396 ✓	2	✓										
21 MAY 05	AGQCDU-W-04389 ✓	6	✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold							

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			CMore	5/24/05	1002	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

4604

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: AGRA
SAMPLER(S) (Signature) BWMashold

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
23 MAY 05	AGSB58-W-04528	4	✓										Priority
22 MAY 05	AGSB52-W-04522	1	✓										Priority
22 MAY 05	AGSB52-W-04523	3	✓										Priority
23 MAY 05	AGSB58-W-04530	6	✓										Priority
23 MAY 05	AGSB58-W-04529	6	✓										Priority
22 MAY 05	AGSB52-W-04526	2	✓										Priority
22 MAY 05	AGSB52-W-04525	5 ~~6~~	✓										Priority / also bottle labeled AGSB52-W-04524
22 MAY 05	AGSB53-W-04524	6	✓										Priority as AGSB52W04520? (SB53 is error)
23 MAY 05	AGQCRI-W-04532	2	✓										
23 MAY 05	AGQCTB-W-04531	2	✓										
23 MAY 05	AGSB51-W-17628	6	✓										Priority
23 MAY 05	AGSB51DUP-W17629	6	✓										

Bottle labeled

Called @ 1540 22 MAY

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMashold	23 MAY 05	1235 HR ~~0580~~					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			CMoore	5/24/05		

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4606

Chain 1 of 5

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Silver 'Maxcold'
RECEIVING LAB: AGEM		Shipping Info: 8389 2395 3341
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
18 MAY 05	AGSB63-S-17545	1											
19 MAY 05	AGSB63-S-17546	1											
19 MAY 05	AGSB63-S-17561	1											
19 MAY 05	AGSB63-S-17560	1											
20 MAY 05	AGSB58-S-17574	1											
19 MAY 05	AGSB63-S-17567	1											
20 MAY 05	AGSB53-S-17576	1											
19 MAY 05	AGSB63-S-17559	1											
20 MAY 05	AGSB53-S-17580	1											
19 MAY 05	AGSB63-S-17565	1											
20 MAY 05	AGSB53-S-17582	1											
20 MAY 05	AGSB53-S-17584	1											
20 MAY 05	AGSB53-S-17586	1											
21 MAY 05	AGSB52-S-17592	1											
21 MAY 05	AGSB52-S-17589	1											

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	23 MAY 05	1720 MR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			CRose			

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4607

Chain 2 of 5

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***
RECEIVING LAB: AGEM	
PROJECT/SITE: AGRA	
SAMPLER(S) (Signature) B W Marshall	

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
19 MAY 05	AGSB63-S-17547	1	✓									
19 MAY 05	AGSB63-S-17564	1										
19 MAY 05	AGSB63-S-17570	1										
19 MAY 05	AGSB63-S-17569	1										
20 MAY 05	AGSB53-S-17583	1										
18 MAY 05	AGSB63-S-17544	1										
21 MAY 05	AGSB52-S-17591	1										
21 MAY 05	AGSB52-S-17594	1										
21 MAY 05	AGSB52-S-17588	1										
19 MAY 05	AGSB63-S-17566	1										
20 MAY 05	AGSB53-S-17579	1										
19 MAY 05	AGSB63-S-17562	1										
20 MAY 05	AGSB53-S-17585	1										
21 MAY 05	AGSB52-S-17596	1	✓									
21 MAY 05	AGSB52-S-04515	1	✓									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
B W Marshall	23 MAY 05	1720 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	5/24/05		

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

Chain 3 of 5

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
23 MAY 05	AGSB51-S-17616	1	✓										
23 MAY 05	AGSB51-S-17617	1											
23 MAY 05	AGSB51-S-17622	1											
23 MAY 05	AGSB51-S-17615	1											
23 MAY 05	AGSB51-S-17621	1											
23 MAY 05	AGSB51-S-17626	1											
23 MAY 05	AGSB51-S-17627	1											
23 MAY	AGSB51-S-17623	1											
23 MAY 05	AGSB51-S-17625	1											
23	AGSB51-S-17624	1											
23	AGSB51-S-17614	1											
23	AGSB51-S-17613	1											
23	AGSB51-S-17620	1											
22	AGSB58-S-17605	1	✓										
22 MAY 05	AGSB58-S-17606	1	✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWashold	23 MAY 05	1220 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]			

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
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ER-160 (4-01)

4609

Chain 4 of 5

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BMarshold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
22 MAY 05	AGSB58-S-17601.	1	✓									
22 MAY 05	AGSB 58-S-17599	1	✓									
22 MAY 05	AGSB58-S-17610	1	✓									
22 MAY 05	AGSB58-S-17603	1	✓									
22 MAY 05	AGSB58-S-17604	1	✓									
22 MAY 05	AGSB58-S-17607	1										
22 MAY 05	AGSB58S-17600	1	✓									
22 MAY 05	AGSB58-S-17608	1	✓									
22 MAY 05	AGSB58-S-17609	1	✓									
22 MAY 05	AGSB 58-S-17611	1	✓									
22 MAY 05	AGSB 58-S-17602	1	✓									
23 MAY 05	AGQCTB-S-04533	1	✓									
	BM	BM										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BMarshold	23 MAY 05	1720 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Clone			

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

3 of 11

4614

Chain 5 of 5

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***
RECEIVING LAB: AGEM	
PROJECT/SITE: AGRA	
SAMPLER(S) (Signature): B W Marshfield	

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
21 MAY 05	AGSB52-S-17595	1	✓										
21 MAY 05	AGSB52-S-04514	1											(04514)
21 MAY 05	AGSB52-S-04513	1											
21 MAY 05	AGSB52-S-04512	1											
~~20 MAY 05 BM~~	~~AGSB53-S-17575 BM~~												
20 MAY 05	AGSB53-S-17575	1											
19 MAY 05	AGSB65-S-17563	1											
19 MAY 05	AGSB63-S-17568	1											
20 MAY 05	AGSB53-S-17578	1											
20 MAY 05	AGSB53-S-17581	1											
19 MAY 05	AGSB63-S-17558	1											
21 MAY 05	AGSB52-S-17597	1											
21 MAY 05	AGSB52-S-17590	1											
21 MAY 05	AGSB52-S-17593	1	✓										
20 MAY 05	AGSB53-S-17577	1	✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
B W Marshfield	23 MAY 05	1220 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Cfore			

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

4610

MATRIX:	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No. Med Sm Box
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8272
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BWMarkwald 630 319 6820
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
23 MAY 05	AGSB51-W-17631	6										
23 MAY 05	AGSB51-W-17630	6										
23 MAY 05	AGSB51QC-W-17632	2										
24 MAY 05	AGSB51-W-04536	4										
23 MAY 05	AGSB28S-W-04534	6										
24 MAY 05	AGSB28-W-04537	6										
	~~AGSB28-W-0~~ Bm											
24 MAY 05	AGQCTB-W-04535	2										
24 MAY 05	AGMWP-W-04538	6										
	Bm	Bm										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMarkwald	24 MAY 05	1335 HQ					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			CMRose	5/25/05	9:45	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
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ER-160 (4-01)

4611

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Med Red & wht
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8261
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nasholds
SAMPLER(S) (Signature) BWNasholds		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
25 MAY 05	AGSB62-W-04554	6 ea	✓									PRIORITY
25 MAY 05	AGSB62-W-04555	6	✓									PRIORITY
25 MAY 05	AGMWF-W-04553	6	✓									
25 MAY 05	AGQCTB-W-04552	2	✓									TRIP BLANK
24 MAY 05	AGQCDU-W-04550	6	✓									
24 MAY 05	AGMWG-W-04539	6	✓									
24 MAY 05	AGMW2-W-04551	6	✓									
25 MAY 05	AGSB62-W-17648	1	✓									PRIORITY
25 MAY 05	AGSB56-W-17650	2	✓									~~PRIORITY~~ BW (DUPLICATE)
25 MAY 05	AGSB56-W-17649	6	✓									PRIORITY
25 MAY 05	AGSB62-W-17647	6	✓									PRIORITY
24 MAY 05	AGSB62-W-17646	6	✓									PRIORITY
	BW	BW										BW

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNasholds	25 MAY 05	1230 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: SOIL	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8250
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWMarshold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
24 MAY 05	AGSB62-S-17633	1	✓									4' bgl
	AGSB62-S-17634	1	✓									8' bgl
	AGSB62-S-17636	1	✓									16' bgl
	AGSB62-S-17635	1	✓									12' bgl
	AGSB62-S-17637	1	✓									20' bgl
	AGSB62-S-17638	1	✓									24' bgl
	AGSB62-S-17639	1	✓									28' bgl
	AGSB62-S-17640	1	✓									32' bgl
	AGSB62-S-17642	1	✓									40' bgl
	AGSB62-S-17643	1	✓									44' bgl
	AGSB62-S-17645	1	✓									—
24 MAY 05	AGSB62-S-17641	1	✓									36' bgl
24 MAY 05	AGSB62-S-17644	1	✓									48' bgl
												AGQCTB-S-04560 Not listed.

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMarshold	25 MAY 05	1335 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			CMRose	5/26/05		

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4613

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No. Med Tall Blue & Wht
RECEIVING LAB: AGEM		Shipping Info: FDX 821178184451
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	REMARKS
25 MAY 05	AGSB56-W-17651	6	✓	PRIORITY
25	AGSB56-W-17652	6	✓	48'-53' bgl PRIORITY
25	AGSB56-W-17653	2	✓	Rinsate
25	AGSB56-W-17654	6	✓	PRIORITY
25	AGSB56-W-17655	6	✓	PRIORITY
26	AGSB56-W-17656	6	✓	102'-107' bgl PRIORITY
25	AGMWM-W-04556	6	✓	
25	AG ~~QCB~~ MW1H-W-04557	6	✓	
26 MAY 05	AGQCTB-W-04559	2	✓	TRIP BLANK
26 MAY 05	AGSB56-W-17658	2	✓	RINSATE
26 MAY 05	AGSB56-W-17657	6	✓	PRIORITY

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	26 MAY 05	1045 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	5/27/05	9:30	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. bldwht cube
RECEIVING LAB: AGEM		Shipping Info: 8389 2395 3216
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold office= 630-259-7698
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
26 MAY 05	AGSB56-S-17659	1	✓									4'
	AGSB56-S-17660	1	✓									8
	AGSB56-S-17661	1	✓									12
	AGSB56-S-17662	1	✓									16
	AGSB56-S-17663	1	✓									20
	AGSB56-S-17664	1	✓									24
	AGSB56-S-17665	1	✓									28
	AGSB56-S-17667	1	✓									32
	AGSB56-S-17680	1	✓									44
	AGSB56-S-17681	1	✓									48
	AGSB56-S-17679	1	✓									40
	AGSB56-S-17666	1	✓									24' (duplicate)
	AGSB56-S-17678	1	✓									36'
26 MAY 05	AGQCTB-S-04562	2	✓									SOIL TRIP BLANK

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	27 MAY 05	1300 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Chase	5/28/05	10:00	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4404

FDX 8389 2395 3227

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Medsm Blue+Wht
RECEIVING LAB: AGEM		Shipping Info: [redacted]
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630 319 6820
SAMPLER(S) (Signature) BNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
2 JUN 05	AGSB15-W-04563	6	✓									
	AGDW07A-W-04565	6	✓									
	AGSB36-W-04566	6	✓									
	AGQCDU-W-04569	6	✓									
2 JUN 05	AGQCTB-W-04564	2	✓									
2 JUN 05	AGSB55-W-17682	6	✓									PRIORITY (77-82')
3 JUN 05	AGDW98-W-04567	6	✓									
3 JUN 05	AGPWS3-W-04568	6	✓									
3 JUN 05	AGSB38S-W-04570	6	✓									
	AGSB56RUN-W-17685	2	✓									
	AGSB55-W-17684	6	✓									Priority 53-58'
	AGSB55-W-17663	6	✓			Replicate						~~Priority~~ (3) 61-66'
	AGSB55-W-17683	6	✓									Priority 69-74'
	AGSB55-W-17687	6	✓									Priority (3) 61-66'
3 JUN 05	AGSB55-W-17686	6	✓									Priority 45-50'

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BNashold	3 JUN 05	1205 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			CMore	6/4/05		

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4615

COC 1 of 2 w/# 4406

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No. Silver 'Maxi' Cold 'Air
RECEIVING LAB: AGEM			Shipping Info: 8389 2395 3749
PROJECT/SITE: AGRA			ANL Field Contact (Name & Temporary Phone): Barney Nasholds 630 319 6820
SAMPLER(S) (Signature) BrNasholds			

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS: Preserved w/dry ice
3 JUN 05	AGSB55-S-17689	1	✓									4'
	AGSB55-S-17690	1	✓									8'
	AGSB55-S-17691	1	✓									12'
	AGSB55-S-17692	1	✓									16'
	AGSB55-S-17693	1	✓									20'
	AGSB55-S-17694	1	✓									24'
	AGSB55-S-17702	1	✓									25.5'
	AGSB55-S-17695	1	✓									29'
	AGSB55-S-17696	1	✓									33'
	AGSB55-S-17698	1	✓									37'
	AGSB55-S-17699	1	✓									41'
	AGSB55-S-17700	1	✓									44'
	AGSB55-S-17697	1	✓									QC DUPLICATE -33'
3 JUN 05	AGQCTB-S-04573	2	✓									QC TRIP BLANK
	Bm	Bm										Bm

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Barney Nasholds	6 JUN 05	0915 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	6/7/05	10a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4406

CoC 2 of 2 w/# 4615

MATRIX: SOIL	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	REMARKS: Preserved w/ DRY ICE
4 JUN 05	AGSB61-S-17669	1	✓	4'
	AGSB61-S-17670	1	✓	8'
	AGSB61-S-17671	1	✓	12'
	AGSB61-S-17672	1	✓	16'
	AGSB61-S-17673	1	✓	20'
	AGSB61-S-17674	1	✓	24'
	AGSB61-S-17675	1	✓	28'
	AGSB61-S-17676	1	✓	32'
	AGSB61-S-17677	1	✓	36'
	AGSB61-S-17703	1	✓	40'
4 JUN 05	AGSB61-S-17704	1	✓	QC Replicate 40' (17703)
	BW		BW	BW

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Barney W Nashold	6 JUN 05	0915 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	6/7/05	10a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4620

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No. Med tall Blue/Wht Cl
RECEIVING LAB: AGEM			Shipping Info: FDX 8389 2394 8868
PROJECT/SITE: AGRA			ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630 319 6820
SAMPLER(S) (Signature) BWNashold			

	DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	REMARKS	
*	3 JUN 05	AGSB55-W-17688	6	✓	PRIORITY	85-90'
*	3 JUN 05	AGSB38-W-04571	6	✓		
*	3 JUN 05	AGQCTB-W-04572	2	✓	QC TRIP BLANK	
*	4 JUN 05	AGSB61-W-17706	6	✓	PRIORITY	102'-107'
*	5 JUN 05	AGSB61-W-17708	6	✓	PRIORITY	72'-77'
*	5 JUN 05	AGSB61-W-17709	6	✓	PRIORITY	91'-96'
*	5 JUN 05	AGSBRIN-W-17711	2	✓	QC RINSATE	
*	5 JUN 05	AGSB61-W-17710	6	✓	PRIORITY	60'-65'
*	5 JUN 05	AGSB61-W-17712	6	✓	PRIORITY	81'-86'
*	5 JUN 05	AGSB61-W-17713	4	✓	QC DUPLICATE	81'-86'
		~~AGSB61-W-04580~~ BW 5 JUN 05				
*	5 JUN 05	AGSB65-W-17718	6	✓	PRIORITY	68'-73'
		BW	BW		BW	

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	6 JUN 05	1030 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	6/7/05	10:00	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4621

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2395 3250
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD % 785 638 2380 (temporary field office)
SAMPLER(S) (Signature) Bu Nashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS	
6 JUN 05	AGSB59-W-17479	6	✓									PRIORITY	52'-57'
6 JUN 05	AGSB59-W-17478	6	✓									PRIORITY	59'-64'
6 JUN 05	AGSB65-W-04590	6	✓									PRIORITY	62'-67'
6 JUN 05	AGSB65-W-04591	6	✓									PRIORITY	56'-61'
6 JUN 05	AGSB65-W-04592	6	✓									PRIORITY	50'-55'
6 JUN 05	AGQCTB-W-04593	2	✓									QC TRIP BLANK	
7 JUN 05	AGSB59-W-04595	6	✓									PRIORITY	45-50'
7 JUN 05	AGSB59-W-04596	6	✓		= bottle unlabeled							PRIORITY	66-71'
7 JUN 05	AGSB59-W-04597	6	✓									PRIORITY	73-78'
	AGSB64-W-04600	6	✓									PRIORITY	57.7-62.7'
	AGSB64-W-04601	6	✓									PRIORITY	52.7-57.7'
	AGSB64-W-04602	4	✓									PRIORITY	62.7-67.7
7 JUN 05	AGSB64-W-04603	4	✓									PRIORITY	48.7-52.7
	Bu		Bu										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Bu Nashold	7 JUN 05	1300 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jaya Alvarez	6/08/05	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4618

Chain 1 of 2 w/ COC #4619

MATRIX: SOIL	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8294
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 785 638 2380
SAMPLER(S) (Signature) BWNasheld		Preserved w/ Dry Ice

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC										REMARKS
6 JUN 05	AGQCTB-S-04594	1	✓	x	x								SOIL TRIP BLANK
6 JUN 05	AGSB59-S-17714	1	✓	x	x								4'
	AGSB59-S-17715	1	✓	x	x								8'
	AGSB59-S-17468	1	✓	x	x								8' QC DUPLICATE
	AGSB59-S-17716	1	✓	x	x								12'
	AGSB59-S-17717	1	✓	x	x								16'
	AGSB59-S-17469	1	✓	x	x								20'
	AGSB59-S-17470	1	✓	x	x								24'
	AGSB59-S-17471	1	✓	x	x								28'
	AGSB59-S-17472	1	✓	x	x								32'
	AGSB59-S-17473	1	✓	x	x								36'
	AGSB59-S-17474	1	✓	x	x								40'
	AGSB59-S-17475	1	✓	x	x								44'
	AGSB59-S-17476	1	✓	x	x								48'
	AGSB59-S-17477	1	✓	x	x								52'
6 JUN 05	~~AGSB59-S-17478~~	~~1~~	~~✓~~										~~59-64' BWN 6 JUN 05~~

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNasheld	8 JUN 05	1200 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	~~Date~~	~~Time~~	Remarks
			Jorge Alvarado	10am	6/8/05	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4619

COC 2 of 2 w/COC # 4618

MATRIX: ~~WATER~~ SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No.
RECEIVING LAB: AGEM			Shipping Info:
PROJECT/SITE: AGRA			ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 785 638 2380
SAMPLER(S) (Signature) BWNashold			Preserved w/ Dry Ice

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
7 JUN 05	~~AGSB59-W-17479~~	~~1~~	~~✓~~									~~52-57' BWN 8 JUN 05~~
	AGSB54-S-17480	1	✓	x	x							4'
	AGSB54-S-17481	1	✓	x	x							8'
	AGSB54-S-17482	1	✓	x	x							12'
	AGSB54-S-17483	1	✓	x	x							16'
	AGSB54-S-17484	1	✓	x	x							20'
	AGSB54-S-17485	1	✓	x	x							20' QC DUPLICATE
	AGSB54-S-17486	1	✓	x	x							24'
	AGSB54-S-17487	1	✓	x	x							28'
	AGSB54-S-17488	1	✓	x	x							32'
	AGSB54-S-17489	1	✓	x	x							36'
	AGSB54-S-17490	1	✓	x	x							40'
	AGSB54-S-17491	1	✓	x	x							44'
	~~AGSB66-W-17492~~	~~1~~	~~✓~~			~~BWN~~						~~88-93' BWN 8 JUN 05~~
7 JUN 05	~~AGSB66-W-17738~~	~~1~~	~~✓~~									~~78-83' BWN 8 JUN 05~~

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	8 JUN 05	1200 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jay Alvarado	6/8/05	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4623

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. SM/MED AD+WATCLR
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8765
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 785-638-2384
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
7 JUN 05	AGSB66-W-17738	6	✓									PRIORITY 78'-83'
7 JUN 05	AGSB66-W-17492	6	✓									PRIORITY 88'-93'
8 JUN 05	AGSB66-W-17739	6	✓									PRIORITY 58'-63'
8 JUN 05	AGSB54-W-17493	6	✓									PRIORITY 60'-65'
8 JUN 05	AG54DU-W-17494	4	✓									QC DUPLICATE 60'-65'
8 JUN 05	AGQCTB-W-04598	2	✓									QC TRIP BLANK
	AGQCDR01-W-04574	2	✓									Waste Drum #1
	AGQCDR02-W-04575	2	✓									" " 2
	AGQCDR03-W-04576	2	✓									" " 3
	AGQCDR04-W-04577	2	✓									" " 4
	AGQCDR05-W-04578	2	✓									" " 5
8 JUN 05	AGQCDR06-W-04579	2	✓									" " 6
	BW			BW								BW

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	8 JUN 05	1330 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	6/8/05	10:00	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: AGRA
SAMPLER(S) (Signature): Bill Nashold

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No. Med Red & Wht
Shipping Info: 8389 2394 8754
ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 785 638 2389

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS	
8 JUN 05	AGSB41-W-17748	6	✓									PRIORITY	73-78
8 JUN 05	AGSB41-W-17749	6	✓									PRIORITY	68-73
9 JUN 05	AGSB54-W-04588	5	✓										55-60
9 JUN 05	AGSB54-W-04586	5	✓										45-50
9 JUN 05	AGSB54-W-04587	6	✓										50-55
9	AGSB66-W-04582	6	✓										98-103
9	AGSB66-W-04583	6	✓										48-55
9	AGSB66-W-04581	6	✓										106-111
9	AGSB64-W-04604	2	✓									PRIORITY	42.7-47.7
9	AG64DU-W-04605	1	✓									QC DUPL	" "
9	AGQCDU-W-04581	6	✓									QC DUPL	
9	AGQCTB-W-04584	2	✓									QC TRIP BLANK	
9	AGPW1-W-04606	6	✓									PWS	
9 JUN 05	AGPW2-W-04607	6	✓									PWS	

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Bill Nashold	9 JUN 05	1330 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	6/10/05	9:30	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: AGRA
SAMPLER(S) (Signature): B W Marshold

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info: FDX 8389 2395 3238
ANL Field Contact (Name & Temporary Phone): BARNEY MASHOLD 785 638 2389

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
9 JUN 05	AGSB41-W-04540	6	✓									PRIORITY 48-53'
9 JUN 05	AGSB41-W-04541	6	✓									PRIORITY 58-63'
9 JUN 05	AGSB41-W-04542	6	✓									PRIORITY 63-68'
10 JUN 05	AGMWP-W-04544	6	✓									PRIORITY —
10 JUN 05	AGSB40-W-17458	6	✓									PRIORITY 80-85
~~9 JUN 05~~	~~AGSB41-W-04540~~	6	✓									PRIORITY 48-53
9 JUN 05	AGQCTB-W-04543	2	✓									TRIP BLANK / QC
9 JUN 05	AGQCDU-W-04599	6	✓									BLIND REPLICATE / QC
~~9 JUN 05~~	~~AGQCDU-W-04599~~	6	✓									" " / QC

twice

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
B W Marshold	10 JUN	1315 MR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	6/11/05	2pm	FQC (7 samples — two samples were input twice in cc)

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4624

Chain 1 of 2 w/coc 4625

MATRIX:	WATER
RECEIVING LAB:	AGEM
PROJECT/SITE:	AGRA
SAMPLER(S) (Signature)	Burnashold

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info: ↓
ANL Field Contact (Name & Temporary Phone): FDX 8389 2394 8798
Burney Nashold 785 638 2380

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOL										REMARKS	
10 JUN 05	AGSB60-W-17728	4	✓										PRIORITY	41-46
10 JUN 05	AGSB60-W-04546	6	✓										PRIORITY	56-61
10 JUN 05	AGSB60-W-04545	5	✓										PRIORITY	61-66
10 JUN 05	AGSB60-W-04548	4	✓										PRIORITY	46-51
10 JUN 05	AGQCDU-W-04549	6	✓										QC Replicate	—
10 JUN 05	AGSB60-W-04547	6	✓										PRIORITY	51-56
11 JUN 05	AGQCTB-W-04608	2	✓										QC TRIP	—
10 JUN 05	AGSB40-W-17460	6	✓										PRIORITY	60-65
11 JUN 05	AGSB71-W-17733	6	✓		40ml - bubble								PRIORITY	64-69
11 JUN 05	AGSB71-W-17734	6	✓										PRIORITY	62-67
11 JUN 05	AGQCDU-W-17737	6	✓										QC Replicate	—
10 JUN 05	AGSB40-W-17461	6	✓										PRIORITY	50-55
10 JUN 05	AGSB40-W-17459	6	✓										PRIORITY	70-75
11 JUN 05	AGSB71-W-17732	6	✓										PRIORITY	72-77
11 JUN 05	AGSB71-W-17735	6	✓										PRIORITY	57-62

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Burnashold	11 JUN 05	1130 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	6/13/05	9:30am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4625

Chain 2 of 2 w/ COC 4624

MATRIX:	WATER
RECEIVING LAB:	AGEM
PROJECT/SITE:	AGRA
SAMPLER(S) (Signature)	BWMurhold

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
11 JUN 05	AGSB40-W-17729	6	✓									PRIORITY 100-105'
11 JUN 05	AGQCDU-W-17730	6	✓									QC Replicate
11 JUN 05	AGSB71-W-17736	4	✓									PRIORITY 47-52
11 JUN 05	AGSB71-W-17758	4	✓									PRIORITY 52-57

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMurhold	11 JUN 05	1130 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Cabrera	6/13/05	9:20a	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4632

Chain 1 of 2 w/ COC 4633

MATRIX:	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB:		Shipping Info:
PROJECT/SITE:		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS	REMARKS
12 June 05 -1-	AGSB48-W-17788 ✓	4		55.5-60.5 } PRIORITY
12 June 05 2	AGSB73-W-17792 ✓	4	SB73-17792	43-48 } PRIORITY
12 June 05 3	AGSB73-W-17790 ✓	6		53-58 } PRIORITY
12 June 05 (*)	AGQC-W-17791 ✓	5	SB73-17792	~~QC DUP~~
12 June 05 (*)	AGSB73-W-17791 ✓	5		48-53 ✓
12 June 05 -2-	AGSB48-W-17785 ✓	6		55.5-60.5
12 June 05 -2	AGSB49-W-17755 ✓	5		48-53 priority
13 June 05 -3	AGSB49-W-17754 ✓	4		53-58
13 June 05 -4	AGSB49-W-04609 ✓	6		58-63
13 June 05 -5	AGSB49-W-17794 ✓	6		63-68
13 June 05	AGQCRI-W-17795 ✓	2		~~68-73~~ QC Rinsate
13 June 05 -6	AGSB49-W-17793 ✓	6		~~43-48~~ 68-73 — Priority
13 June 05	AGQCDU-W-17796 ✓	3		QC
13 June 05 -7	AGSB49-W-17756 ?	5		43-48 } priority
13 June 05	AGSB50-W-17753 ✓	6	wrong label on vial	55.5-60.5 } priority

ASK LL about priorities within the priorities

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Abraham	6/14/05	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4633

Chain 2 of 2 w/ COC 4632

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8787
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 785 638 2380
SAMPLER(S) (Signature) Bud Nashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS	REMARKS
11 June 05 1	AGSB73-W-17722 ✓	6		68-63
11 June 05 (1)	AGSB47-W-17762 ✓	5		54.5-59.5
11 June 05 (2)	AGSB47-W-17763 ✓	6		49.5-54.5
11 June 05 (3)	AGSB47-W-17764 ✓	4		44.5-49.5 Priority
11 June 05 (4)	AGSB47-W-17760 ✓	5		64.5-69.5
11 June 05 (5)	AGSB47-W-17759 ✓	6		67-72
11 June 05 (6)	AGSB47-W-17761 ✓	6		59.5-64.5
11 June 05	AGQCDU-W-17767 ✓	3		QC DU
12 June 05	AGQCTB-W-17781 ✓	2		QC TRIP BLANK
12 June 05	AGQCFB-W-17782 ✓	2		QC Field Blank-Commercial DI
12 June 05 -1	AGSB49-W-17498 ✓	5		68-73
12 June 05 -3-	AGSB48-W-17784 ✓	5		60.5-65.5
12 June 05 -4-	AGSB48-W-17786 ✓	5		50.5-55.5 Priority
12 June 05 -5-	AGSB48-W-17783 ✓	6		65.5-70.5
12 June 05	AGQCDU-W-17787 ✓	5		

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Bud Nashold	13 JUN 05	1230 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	6/14/05	10 am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

49
50
47
48

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Med Tall BL+WT
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8880
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 319 6820 (cell)
SAMPLER(S) (Signature) BrNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
14 JUN 05	AGQCTB-W-17765	2										QC TRIP BLANK
13 JUN 05	AGSB50-W-17823	6										PRIORITY
13 JUN 05	AGMWP-W-17757	6										" "
13 JUN 05	AGQCDU-W-17827	3										QC DUPLICATE
13 JUN 05	AGSB50-W-17824	6										Priority
13 JUN 05	AGSB50-W-17825	6										" "

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Barney Nashold	14 JUN 05	0730 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Abrara	15/06/05	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4635

Chain 1 of 2 w/COC 4636

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8776
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 252 7698
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	REMARKS: FT BGL
12 JUN 05	AGSB64-S-17500	1		8
12	AGSB64-S-17501	1		12
12	AGSB64-S-17502	1		16
12	AGSB64-S-17503	1		20
12	AGSB64-S-17504	1		24
12	AGSB64-S-17505	1		28
12 JUN05	AGSB64-S-17506	1		32
13 JUN05	AGSB64-S-17750	1		36
13	AGSB64-S-17499	1		~~41~~ BW 45+
12	AGSB64-S-17507	1		(32' QC Duplicate)
13	AGSB64-S-17752	1		44
13 JUN 05	AGSB64-S-17808	1		48
14 JUN05	AGQCTB-S-17828	2		TRIP BLANK
	BW	BW		

Remarks: preserved w/ dry ice

(Please count. There may be one more sample in cooler than shown on COC pair. Probably SB64 40 feet)

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	14 JUN 05	1030 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Echavarria	6/15/05	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4636

Chain 2 of 2 w/COC 4635

MATRIX: AGEM	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: SOIL		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 252 7698
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS: FT BGL
13 JUN 05	AGSB73-S-17809	1	✓										4' PRESERVED W/DRY ICE
	AGSB73-S-17810	1	✓										8
	AGSB73-S-17811	1	✓										12
	AGSB73-S-17812	1	✓										16
	AGSB73-S-17814	1	✓										20
	AGSB73-S-17813	1	✓										16 Dupl of 16' #17812
	AGSB73-S-17815	1	✓										24
	AGSB73-S-17816	1	✓										28
	AGSB73-S-17817	1	✓										32
	AGSB73-S-17818	1	✓										36
	AGSB73-S-17919	1	✓										40
	AGSB73-S-17820	1	✓										44
13 JUN 05	AGSB73-S-17821	1	✓										48

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	14 JUN 05	1030 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	6/15/05	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No. Red&Wht Med
RECEIVING LAB: AGEM		Shipping Info: FDX 8389 2394 8630
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 785 638 2380
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
6 JUL 05	AGSB46-W-17829	6	✓									65-70 ft
	AGSB46-W-17830	5	✓									55-60 ft
	AGSB46-W-17831	5	✓									50-55 ft
	AGSB46-W-17832	6	✓									45-50 ft
	AGSB46-W-17462	6	✓									60-65 ft
	AGSB46DU-W-17463	4	✓									60-65 ft duplicate
	AGSB46RIN-W-17464	2	✓									QC Rinsate
	AGQCFB-W-17826	2	✓									QC Field Blank
6 JUL 05	AGQCTB-W-17766	2	✓									QC TRIP BLANK
7 JUL 05	AGSB42-W-17465	6	✓									128.3-133.3'
	AGSB45-W-17724	6	✓									59-64
	AGQCDU-W-17723	6	✓									QC replicate
7 JUL 05	AGSB45RIN-W-17724	2	✓									QC Rinsate

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	7 JUL 05	1200 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	7/8/05	9:30	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4333

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No. Med Bl & Wht Cir
RECEIVING LAB: AGEM		Shipping Info: 8389 2395 3720
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Naskold 785-638-2380
SAMPLER(S) (Signature) BWNaskold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
7 JUL 05	AGSB45-W-17833	5	✓	•								64-69 ft
7 JUL 05	AGSB45-W-17834	4	✓	•								54-59 ft
7 JUL 05	AGSB45-W-17835	6	✓	•								49-54 ft
8 JUL 05	AGSB45-W-17836	4 ~~2BM~~	✓	•								44-49 ft
7 JUL 05	AGQCDU-W-17848	2	✓									QC DUPL
8 JUL 05	~~AGQCTB-W-17853~~	2	✓	•								QC TRIP BLANK
8 JUL 05	AGSB69-W-17849	5	✓	•								59-64'
8 JUL 05	AGSB69-W-17850	5	✓	•								54-59'
8 JUL 05	AGSB69-W-17851	6	✓	•								49-54'
8 JUL 05	AGQCDU-W-17857	4	✓	•								QC DUPL
7 JUL 05	AGSB42-W-17838	6	✓	•								125-130'
7 JUL 05	AGQCDU-W-17848	2	✓	•								QC DUPL
7 JUL 05	AGSB42-W-17726	6	✓	•								
8 JUL 05	AGSB42-W-17839	6	✓	•								95-100'
8 JUL 05	AGSB42-W-17840	6	✓	•								80-85'

Some #'s ?

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNaskold	8 JUL 05	1200 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	7/9/05	9:00	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Red & Whitmer Ig
RECEIVING LAB: AGEM		Shipping Info: 83892394 8629
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWMarshold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
9 JUL 05	AGSB43F-W-17858	2	✓										42'-47'
	AGSB43F-W-17859	3	✓										47-52'
	AGSB43F-W-17860	4	✓										52'-57'
	AGSB43F-W-17861	4	✓										57'-62'
	AGSB43F-W-17862	6	✓										62'-67'
	~~AGSB70F-W-17863~~		✓	BWM									
	AGSB70F-W-17864	5	✓										45'-50'
	AGSB70F-W-17865	3	✓										50'-55'
	AGSB70F-W-17866	4	✓										55'-60'
9 JUL 05	AGSB70F-W-17867	5	✓										60'-65'
8 JUL 05	AGQCTB-W-17854	2	✓										QC TRIP BLANK
11 JUL 05	AGQCDU-W-17855	2	✓										QC DU
9 JUL 05	AGSB42-W-17841	6	✓										
9 JUL 05	AGSB42-W-17868	6	✓										
													BWM

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMarshold	18 JUL 05	1330 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jyp Ahuja	7/12/05	10:30	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

~~45 70T TR e~~
~~70 45T 66 e~~

4337

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) Bu Marshold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: UDC	REMARKS
10 JUL 05	AGSB68-W-17869	5		(SB 42 = low priority)
	AGSB68-W-17870	5		SB70T and 43T low priority)
	AGSB68-W-17871	6		
	AGSB68-W-17872	6		
10 JUL 05	AGSB44-W-17877	3		
11 JUL 05	AGSB70-W-17873	1		
	AGSB70-W-17874	3		
	AGSB70-W-17875	4		
	AGSB70-W-17876	6		
	AGQCDU-W-17856	2		QC Replicate
	AG SB43-W-17878	4		
	AGSB 43-W-17879	6		
	AGSB 43-W-17880	4		
	AGSB 43-W-17881	3		
11 JUL 05	AGSB43-W-17882	6		

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Barney W Marshold	11 JUL 05	1330 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	7/12/05	10:30am	T=4C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4336

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info: FDx 8389-2394-8618
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nasholds 785 638 2380
SAMPLER(S) (Signature) BWNasholds		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
12 JUL 05	AGQCTB-W-17885	2	✓									
12 JUL 05	AGSB75-W-17888	4	✓									
12 JUL 05	AGSB67-W-17883	3	✓									
12 JUL 05	AGSB67-W-17884	4	✓									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNasholds	12 JUL 05	1300 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	7/13/05	9:15am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No.
RECEIVING LAB: AGEM			Shipping Info: FDX 8389 2394 8353
PROJECT/SITE: AGRA			ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630 319 6820
SAMPLER(S) (Signature) BWNashold			

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
12 JUL 05	AGSB72-W-17886	6	✓										lower priority
12 JUL 05	AGMWN-W-17798	6	✓										
13 JUL 05	AGSB78-W-17799	6	✓										higher priority
13 JUL 05	AGSB78-W-17800	6	✓										
13 JUL 05	AGSB78-W-17801	4	✓										
13 JUL 05	AGSB78-W-17802	4	✓										
12 JUL 05	AGQCDU-W-17887	4	✓										QC BLIND REPL,
12 JUL 05	AGQCTB-W-17803	2	✓										QC TRIP

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	13 JUL 05	12					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarez	7/14/05	9:30	T = 4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4341

MATRIX: SOIL	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWMashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										Ft BGL REMARKS
12 JUL 05	AGSB49-S-18004	1	✓										4
	18005		✓										8
	18006		✓										12
	18007		✓										16
	18008		✓										16 Dupl
	18009		✓										20
	18010		✓										24
	18011		✓										28
	18012		✓										32
	18013		✓										34
	18014		✓										36
	18015		✓										40
	18016		✓										44
12 JUL 05	AGSB49-S - 18017	1	✓										48
13 JUL 05	AGQCTB-S-17890 ~~[illegible]~~	1	✓										TRIP

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMashold	13 JUL 05	1340 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	7/14/05 ~~7/12/05~~	9:45a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4342

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. La Maxi
RECEIVING LAB: AGEM		Shipping Info: FDX 838923948364
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630-252-7698 office
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
11 JUL 05	AGSB43-S-17537	✓	✓									4
	17740											8
	17741											11
	17742											12
	17743											16
	17744											20
	17745											24
	17746											24 Dupl.
	17747											28
	17998											32
	17999											36
	18000											40
	18001											44
11 JUL 05	AGSB43-S-18002	✓	✓									48

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	13 JUL 05	1340 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	7/14/05	9:45am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BuMarshold		Dry Ice

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									FT BGL REMARKS
10 JUL 05	AGSB46-S-17466	1	✓									4
	AGSB46-S-17467											8
	17508											12
	17509											16
	17510											20
	17511											24
	17512											28
	17516											QC DUPL
	17513											32
	17514											36
	17515											40
	17517											44
	17518											48
10 JUL 05	AGSB46-S-17519	1	✓									52
13 JUL 05	AGSBTB-S-17889	1	✓									QC TRIP

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BuMarshold	1345 HR						

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	7/14/05	9:45 AM	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4339

2 of 3

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No.
RECEIVING LAB: AGEM			Shipping Info:
PROJECT/SITE: AGRA			ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWMarshold			

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS: DRY ICE
11 JUL 05	AGSB45-S-17520	1											2
	17521												4
	17522												8
	17523												12
	17524												12 (DUPL)
	17525												16
	17526												18
	17527												20
	17528												24
	17529												28
	17530												29.2
	17531												32
	17532												34
	17533												36
11 JUL 05	AGSB45-S-17534	1											40

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMarshold	13 JUL 05	1345 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	7/14/05	9:45 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

4340

3 of 3

MATRIX: SOIL	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature): B W Marshold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
11 JUL 05	AGSB45-S-17535	1	✓										44
11 JUL 05	AGSB45-S-17536	1	✓										48

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
B W Marshold	13 JUL 05	1345 HQ					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	7/14/05	9:45 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Medgrdwnt
RECEIVING LAB: AGEM		Shipping Info: 8389 2395 3731
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Burney Nasholds office 630 252 7698
SAMPLER(S) (Signature) BWNasholds		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
13 JUL 05	AGSB75-W-17891	4	✓										46.5 - 51.5'
13 JUL 05	AGSB67-W-17804	6	✓										56.5'-81.5'
14 JUL 05	AGQCTB-W-17805	2	✓										~~AGQCDU-W-178~~ QC TRIP
13 JUL 05	AGQCDU-W-17897	2	✓										QC Replicate

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNasholds	14 JUL 05	1045 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	7/15/05	10 am	Ts-4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (12-94)

COC 1 of 2 w/COC 1553

4628

MATRIX: ~~WP~~ SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. 'Maxi' Silver	
RECEIVING LAB: AGEM		Shipping Info: FDX 850453711762	
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):	
SAMPLER(S) (Signature) BWMashold			

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	FT BGL	REMARKS: DRY ICE
12 JUL 05	AGSB48-S-18018	1	✓	4	
	AGSB48-S-18019	1	✓	8	
	AGSB48-S-18020	1	✓	12	
	18021	1	✓	16	
	18022	1	✓	20	
	18023	1	✓	24	
	18024	1	✓	24 dupl	
	18025	1	✓	28	
	18026	1	✓	32	
	18027	1	✓	36	
	18028	1	✓	40	
	18029	1	✓	44	
12 JUL 05	AGSB48-S-18030	1	✓	48	
14 JUL 05	AGQCTB-S-17892	2	✓		
	BN				

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Burney W Mashold	14 JUL 05	1145 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jeff Alvarez	7/15/05	10a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

1553

COC 2vB2w/COC 4628

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No.
RECEIVING LAB: AGEM			Shipping Info:
PROJECT/SITE: AGRA			ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWMashold			Dry Ice

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
13 JUL 05	AGSB68-S-18031	1	✓										4
	S-18032	1	✓										8
	S-18033	1	✓										8 DUPL
	S-18034	1	✓										12
	S-18035	1	✓										16
	S-18036	1	✓										20
	S-18037	1	✓										24
	S-18038	1	✓										28
	S-18039	1	✓										32
	S-18040	1	✓										36
	S-18031	1	✓										40
	S-18032	1	✓										44
13 JUL 05	AGSB68-S-18033	1	✓										48

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMashold	14 JUL 05	1145 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	7/15/05	10	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (12-94)

MATRIX: Soil

RECEIVING LAB: Argonne National Lab

PROJECT/SITE: ACRA, KS

SAMPLER(S) (Signature): L.M. Le Francois

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
14 Jul 05	ACSB67-S-18044	1	1			5							
14 Jul 05	ACSB67-S-18045	1	1										
14 Jul 05	ACSB67-S-18046	1	1										
14 Jul 05	ACSB67-S-18047	1	1										Duplicate Sample
14 Jul 05	ACSB67-S-18048	1	1										
14 Jul 05	ACSB67-S-18049	1	1										
14 Jul 05	ACSB67-S-18050	1	1										
14 Jul 05	ACSB67-S-18051	1	1										
14 Jul 05	ACSB67-S-18052	1	1										
	ACSB67-S-18053	1	1										
	ACSB67-S-18054	1	1										
	ACSB67-S-18055	1	1										
	ACSB67-S-18056	1	1										
14 Jul 05	ACSB67-S-18057	1	1										Trip Blank

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
L.M. Le Francois	14 Jul 05	1145 AM					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	7/15/05	10 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: water

RECEIVING LAB: ARGONNE

PROJECT/SITE: AGRA KANSAS

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
14-JUL-05	AGSB 79-W-17846	4	4									QC. Duplicate
14-JUL-05	AGSB 79-W-17727	5	5									
14-JUL-05	AGSB 80-W-17847	6	6									
14-JUL-05	AGSB 80-W-17844	6	6									
14-JUL-05	AGSB 80-W-17842	2	2									TRIP BLANK
14-JUL-05	AGSB 79-W-17845	6	6									
14-JUL-05	AGSB 80-W-17843	6	6									
14-JUL-05	AGSB 79-W-17496	6	6									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	7/15/05	1:00pm					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	7/15/05	10:30a	T=5.5°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

Chain-of-Custody Form

with samples to

Envirosystems, Inc

MATRIX: WATER
RECEIVING LAB: ENVIROSYSTEMS
PROJECT/SITE: AGRA
SAMPLER(S) (Signature): D. Rose C. Rose 630 2523499

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOA									REMARKS
20 MAY 05	AGSB23-W04385	2	2									05051438
	AGSB23S-W04384	2	2									05051439
	AGSB53-W04388	2	2									05051440
	AGSB53-W07573	2	2									05051441
23 MAY 05	ANLQCTB-52305											05051442

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
D. M. Rose	5/22/05	200			5/24/05	9 30	Barbara Crook

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
						Temp 4°C

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER

RECEIVING LAB: Envirosystems

PROJECT/SITE: AGRA / USDA-ANL

SAMPLER(S) (Signature) B. Nashold

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs										REMARKS
June 5, 2005	AG-SB61-W-17708	2-40mL	✓										050601625
June 7, 2005	AG-SB59-W-04595	2-40mL	✓										1626
June 6, 2005	AG-SB65-W-04590	"	✓										1627
June 5, 2005	AG-SB61-W-17709	"	✓										1628
June 3, 2005	AG-DW98-W-04567	"	✓										1629
June 7, 2005	AG-SB59-W-09596	"	✓										1630
June 8, 2005	AG-TB-W-060805	"	✓										1631

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Joy Alvarado	06/08/05	12:30					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Natasha Clark	6/9/2005	0930	Temp 6°C

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: WATER

RECEIVING LAB: ENVIROSYSTEMS

PROJECT/SITE: ANL / AGRA

SAMPLER(S) (Signature): B Washold

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs										REMARKS
7/12/05	AG-TB-W-71205	2	✓										40ml containers 05071779
7/11/05	AG-SB43-W-17879	2	✓										1780
7/08/05	AG-SB42-W-17839	2	✓										1781
7/8/05	AG-SB42-W-17840	2	✓										1782
7/9/05	AG-SB42-W-17868	2	✓										1783
7/10/05	AG-SB68-W-17871	2	✓										1784
7/9/05	AG-SB43T-W-17862	2	✓										1785
7/11/05	AG-SB70-W-17876	2	✓										1786

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Joyce Alvarado	7/12/05	2pm					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Barbara Crook	7/14/05	9 30	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

Chain-of-Custody Forms

with samples to

Severn Trent Services

3681

MATRIX: WATER

RECEIVING LAB: SEVERN TRENT

PROJECT/SITE: AGRA

SAMPLER(S) (Signature): B W Mashold

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No. Red & wht Med

Shipping Info: FDX 8389 2395 3319

ANL Field Contact (Name & Temporary Phone): Barney Nashold cell - 630-319-6820

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: CATIONS	ANALYSIS: ANIONS	ANALYSIS: Total N	REMARKS
18 MAY 05	AGKM01-W-04375	3	✓	✓	✓	Contact Candace Rose at Argonne Natl Lab for detail
19 MAY 05	AGMW-1-W-04378	3	✓	✓	✓	
19 MAY 05	AGQCDU-W-04379	3	✓	✓	✓	
18 MAY 05	AGSB63-W-17539	3	✓	✓	✓	
18 MAY 05	AGSB63-W-17542	3	✓	✓	✓	

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
B W Mashold	19 MAY 05	1330 HA	Richard Malaspina				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Richard Malaspina	5/20/05	0930	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4602

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: Severn-Trent		Shipping Info: FDX 8389 2395 3320
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nasholds cell = 630-319-6820
SAMPLER(S) (Signature) BWNasholds		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: Anions	Cations	Total N								REMARKS
20 MAY 05	AGMWI-W-04381	3	✓	✓	✓								
↓	AGKMW07-W-04382	3	✓	✓	✓								
	AGMWB-W-04383	3	✓	✓	✓								
	AGSB235-W-04384	3	✓	✓	✓								
20 MAY 05	AGSB23-W-04385	3	✓	✓	✓								
20 MAY 05	AGSB53-W-17556	3	✓	✓	✓								

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNasholds	20 MAY 05	1300 HRS					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	5/21/05		

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4605

MATRIX: WATER

RECEIVING LAB: SEVERN TRENT

PROJECT/SITE: AGRA

SAMPLER(S) (Signature): B W Nushold

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No. Red & wht Med

Shipping Info: FDX 8389 2395 3293

ANL Field Contact (Name & Temporary Phone): Barney Nusholds 630 319 6820

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
20 MAY 05	AGSB53-W-04388	3	✓	✓	✓							
21 MAY 05	AGQCDU-W-04389	3	✓	✓	✓							
21 MAY 05	AGMW5-W-04393	3	✓	✓	✓							
21 MAY 05	AGKMW03-W-04390	3	✓	✓	✓							
21 MAY 05	AGMWK-W-04392	3	✓	✓	✓							
22 MAY 05	AGMWO-W-04521	3	✓	✓	✓							
22 MAY 05	AGMWC-W-04394	3	✓	✓	✓							
20 MAY 05	AGMWR-W-04387	3	✓	✓	✓							
22 MAY 05	AGMWL-W-04520	3	✓	✓	✓							
20 MAY 05	AGSB53-W-17573	3	✓	✓	✓							
21 MAY 05	AGMWQ-W-04391	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
B W Nushold	23 MAY 05	1045 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angela Patmon	05.24.05	0930	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4612

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. SILVER MAX
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 8389 2395 3271
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	Total N							REMARKS
25 MAY 05	AGMWF-W-04553	3	✓	✓	✓							
24 MAY 05	AGMWP-W-04538	3	✓	✓	✓							
24 MAY 05	AGSB28-W-04537	3	✓	✓	✓							
24 MAY 05	AGMW2-W-04551	3	✓	✓	✓							
24 MAY 05	AGMWG-W-04539	3	✓	✓	✓							
24 MAY 05	AGQCDU-W-04550	3	✓	✓	✓							
25 MAY 05	AGSB56-W-17649	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	25 MAY 05	1200 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				5-26-05	0930	

Y	N	FOR LAB USE ONLY
X		Custody seal was intact when shipment received.
X		Sample containers were intact when received.
X		Shipment was at required temperature when received.
X		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4402

Attn Kirk Young

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: Severn Trent		Shipping Info: 8389 2394 7850
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
25 MAY 05	AGMWH-W-04557	3	✓	✓	✓							Argonne Natl Lab
25 MAY 05	AGMWM-W-04556	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	26 MAY 05	1115 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5-27-05	09 30	

Y	N	FOR LAB USE ONLY
X		Custody seal was intact when shipment received.
X		Sample containers were intact when received.
X		Shipment was at required temperature when received.
X		Sample labels, Tags and COC agree.

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2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 8389 2395 3308
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
2 JUN 05	AGSB15-W-04563	3	✓	✓	✓							
2 JUN 05	AGDW07A-W-04565	3	✓	✓	✓							
2 JUN 05	AGSB36-W-04566	3	✓	✓	✓							
3 JUN 05	AGDW98-W-04567	3	✓	✓	✓							
3 JUN 05	AGPWS3-W-04568	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	3 JUN 05	1145 HR	[illegible]				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. SM Belmont Cir
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 8389 2394 7725
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 319 6820
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANIONS	CATIONS	Total N							REMARKS
3 JUN 05	AGSB38-W-04571	3	✓	✓	✓							Nitrate sample preserved by
5 JUN 05	AGSB61-W-04580	3	✓	✓	✓							acidification to pH<3 using H_2SO_4

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	6 JUN 05	1100 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angela Patman	06.07.05	0930	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4622

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 8389 2394 7714
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 785 638 2380 (temporary field office)
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTALN							REMARKS
6 JUN 05	AGSB65-W-04590	3	✓	✓	✓							TNitrate samples acidified
6 JUN 05	AGSB65-W-04591	3	✓	✓	✓							to <pH 3 using H
6 JUN 05	AGSB65-W-04592	3	✓	✓	✓							
6 JUN 05	AGSB65-W-17718	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	7 JUN 05	1313 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angela Patmon	06.08.05	0930	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
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3. It was in your possession and you locked it up; or,
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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4301

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No. Red & wht Med
RECEIVING LAB: Severn Trent		Shipping Info: 809495180147
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 785 638 2380
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
7 JUN 2005	AGSB59-W-04595	3	✓	✓	✓							
7 JUN 2005	AGSB64-W-04600	3	✓	✓	✓							
7 JUN 2005	AGSB59-W-04596	3	✓	✓	✓							
7 JUN 2005	AGSB64-W-04603	3	✓	✓	✓							
7 JUN 2005	AGSB59-W-04597	3	✓	✓	✓							
7 JUN 2005	AGSB64-W-04602	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	8 JUN 05	1200 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angela Patmon	06.09.05	1100	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Red & wht med
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 809495180114
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 785 638 2389
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
9 JUN 05	AGSB66-W-04587	3										TOTAL NITRATE sample acidified w/ H_2SO_4 to < 3 pH
9 JUN 05	AGSB66-W-04581	3										
9 JUN 05	AGQCDU-W-04589	3										
	~~AGPW1~~ BW 9 JUN 05	—										
9 JUN 05	AGPW1-W-04606	3										
9 JUN 05	AGPW2-W-04607	3										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	9 JUN 05	1345 HA					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angela Patterson	06.10.05	0930	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: soil / MEOH
RECEIVING LAB: STL
PROJECT/SITE: AGRA
SAMPLER(S) (Signature) CMose, J. Alvarado

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone): J. Alvarado (630) 252-5267

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOA	REMARKS
6-8-05	AG S-17583 A	1-20mL		12.527g soil 10mL MEOH
	AG-S-17580 A	1		11.162
	AG S-17665 A	1		11.536
	AG S-17689	1		11.250
	AG S-04512	1		13.963
	AG S-17641	1		11.968
	AG S-17672	1		14.517
	AG-S 17639	1		13.644
	MEOH TB 6805	1		10mL MEOH
	AG S-17585	1		13.475 soil 10mL MEOH
	AG S-17586	1		14.355

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	6/9/05	9:30	[signature]				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
[signature]	06/09/05	9:30AM	STL	6/10/05	0930	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
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ER-160 (4-01)

4410

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 8389 2394 9934
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): BARNEY NASHOLD 785 638 2389
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
9 JUN 05	AGSB41-W-04542	3	✓	✓	✓							
9 JUN 05	AGSB41-W-04540	3	✓	✓	✓							
9 JUN 05	AGSB66-W-04583	3	✓	✓	✓							
9 JUN 05	AGSB54-W-04587	3	✓	✓	✓							
10 JUN 05	AGMWP-W-04544	3	✓	✓	✓							
9 JUN 05	AGSB54-W-04588	3	✓	✓	✓							
9 JUN 05	AGSB41-W-04541	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	10 JUN 1300 HR	1330 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				6-11-05	1145	

Y	N	FOR LAB USE ONLY
X		Custody seal was intact when shipment received.
X		Sample containers were intact when received.
X		Shipment was at required temperature when received.
X		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4634

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. FDX8389 2394 7703
RECEIVING LAB: AGEM		Shipping Info: [redacted]
PROJECT/SITE: BWMarshold		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		ANL contact= Jorge Alvarado 630-252-5267

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
11 JUN 05	AGSB71-W-17732	3	✓	✓	✓							Total Nitrate samples
10 JUN 05	AGSB60-W-04548	3	✓	✓	✓							acidified to pH<3 w/ H_2SO_4
10	AGSB60-W-04546	3	✓	✓	✓							
10	AGSB60-W-04547	3	✓	✓	✓							
11	AGSB40-W-17729	3	✓	✓	✓							
10	AGSB60-W-04545	3	✓	✓	✓							
11	AGSB47-W-17759	3	✓	✓	✓							
12	AGSB48-W-17783	3	✓	✓	✓							
12	AGSB73-W-17789	3	✓	✓	✓							
13 JUN 05	AGSB49-W-17793	3	✓	✓	✓							

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWMarshold	13 JUN 05	1215 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angela Patmon	06.14.05	0940	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4414

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Med Sm Lg Bwh t
RECEIVING LAB: Severn Trent		Shipping Info: FDX 8399 7394 7699
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nachold 630 317 6820 contact = Jorge Alonrado
SAMPLER(S) (Signature) BWNachold		REMARKS 630 252 5267

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: TOTAL N									
13 JUN 05	AGSB50-W-17823	1	✓									

acidified pH<3 w/ H_2SO_4

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNachold	14 JUN 05	0800 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angel Patma	06.15.05	0930	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
	✓	Sample labels, Tags and COC agree. No tag on bottle

*A sample is under custody if:
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2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

0003

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. MedSmLgWhT
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 831434978930
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Nashold 7o 785 638-2380 ANL contact = Jorge Alvarado
SAMPLER(S) (Signature) BWNashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N							REMARKS
6 JUL 05	AGSB46-W-17829	3	✓	✓	✓							Nitrogen sample acidified to pH < 2 w/ H_2SO_4

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	7 JUL 05	1215 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Scott	7/8/05	0920	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4334

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Med Sm Blt wht
RECEIVING LAB: SEVERN TRENT		Shipping Info: FDX 831434978929
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BW Marshold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: ANIONS	CATIONS	TOTAL N								REMARKS
7 JUL 05	AGSB45-W-17833	3	✓	✓	✓								
8 JUL 05	AGSB69-W-17849	3	✓	✓	✓								

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BW Marshold	8 JUL 05	1300 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				7-9-05	1100	

Y	N	FOR LAB USE ONLY
X		Custody seal was intact when shipment received.
X		Sample containers were intact when received.
X		Shipment was at required temperature when received.
X		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
2. It is in your view, after having been in your possession: or,
3. It was in your possession and you locked it up: or,
4. It is in a designated secure area.

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ER-160 (4-01)

4627

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: Severn-Trent		Shipping Info: FDX 831434978860
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone): Barney Marshold 630 319 6820
SAMPLER(S) (Signature) BMarshold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	~~HOCBn~~	ANIONS	CATIONS	TOTAL N						REMARKS
13 JUL 05	AG5B72-W-17886	3		✓	✓	✓						Total N sample acidified to <2pH using H_2SO_4

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BMarshold	13 JUL 05	1230 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Angela Patton	07.14.05	0935	

Y	N	FOR LAB USE ONLY
N/A	N/A	Custody seal was intact when shipment received.
X		Sample containers were intact when received.
X		Shipment was at required temperature when received.
X		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

0003

MATRIX: soil - MeOH	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: STL		Shipping Info:
PROJECT/SITE: AGRA		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) E. Nadolski		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: COD	REMARKS
7/20/05	AGS-18028 -	1	✓	9.864 g soil 10mL MEOH
	18029 -	1		11.790
	18039 -	1		10.339
	18041 -	1		12.324
7/19/05	AGS-18077 -	1		10.560
	18054 -	1		10.469
	18021 -	1		10.598
7/15/05	AGS-17524 -	1		9.639
	17510 -	1		10.754
7/14/05	AGS-17011 -	1		10.755
	17741 -	1		10.688
7/21/05	MEOH Blank -	1	✓	—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[illegible]	7/21/05	11:30					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
M Turpin	07/21/05	11:55	[illegible]	7/23/05	1030	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Soil - MeOH
RECEIVING LAB: STL - Burlington
PROJECT/SITE: AGRA
SAMPLER(S) (Signature): [signature]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs	REMARKS: Volume MeOH	REMARKS: Mass (g)
7/26/05	AG-S-17519 (2)	1-20mL	✓	10mL	12.027
	AG-S-17526 (24)		✓	10mL	11.865
	AG-S-17747 (16)		✓	10mL	12.603
	AG-S-17537 (4)		✓	10mL	11.711
	AG-S-17745 (18)		✓	10mL	14.089
	AG-S-MeOHBlank		✓	10mL	—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Jorge Alvarez	7/28/05	10am	[signature]				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	7-29-05	0930	

Y	N	FOR LAB USE ONLY
X		Custody seal was intact when shipment received.
X		Sample containers were intact when received.
	X	Shipment was at required temperature when received.
X		Sample labels, Tags and COC agree.

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ER-160 (4-01)

Analytical Summary Sheets

from Envirosystems, Inc.

for samples analyzed in

SDG 0506124

ENVIROSYSTEMS, INC.

9200 Rumsey Road • Suite B102 • Columbia, Maryland 21045-1934
Phone (410) 964-0330 • Fax (410) 740-9306
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

June 8, 2005

Jorge S. Alvarado, Ph.D
Argonne National Laboratory
Environmental Research Division
Applied Geoscience and Environmental
Management Section
9700 South Cass Avenue, ER-203
Argonne, Illinois 60439

RE: ENVSY Report 0506124

Dear Jorge:

Enclosed is the Analytical Data Package for the samples received on May 24, 2005 for volatile organics analysis by US EPA CLP SOW OLM04.2 with a lower reporting limit of 5ug/L.

Please do not hesitate to call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare

Mohan Khare, Ph.D
President/CEO

MK/ncc

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB23W04385

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051438

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051438

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	190	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB23W04385

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051438

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051438

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AGSB23W04385

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051438

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051438

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB23SW04384

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051439

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051439

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB23SW04384

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051439

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051439

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AGSB23SW04384

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051439

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051439

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB53W04388

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051440

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051440

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	17	
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	410	E
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB53W04388

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051440

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051440

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AGSB53W04388

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051440

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051440

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AQSB53W04388DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051440DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051440D

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 5.0

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	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	25	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	25	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	25	U
79-20-9	Methyl Acetate	25	U
75-09-2	Methylene Chloride	25	U
156-60-5	trans-1,2-Dichloroethene	25	U
1634-04-4	Methyl tert-Butyl Ether	25	U
75-34-3	1,1-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	25	U
78-93-3	2-Butanone	25	U
67-66-3	Chloroform	18	J
71-55-6	1,1,1-Trichloroethane	25	U
110-82-7	Cyclohexane	25	U
56-23-5	Carbon Tetrachloride	430	
71-43-2	Benzene	25	U
107-06-2	1,2-Dichloroethane	25	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB53W04388DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051440DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051440D

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	25	U
108-87-2	Methylcyclohexane	25	U
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-10-1	4-Methyl-2-Pentanone	25	U
108-88-3	Toluene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	25	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	25	U
106-93-4	1,2-Dibromoethane	25	U
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	25	U
1330-20-7	Xylene (total)	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropylbenzene	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
541-73-1	1,3 Dichlorobenzene	25	U
106-46-7	1,4 Dichlorobenzene	25	U
95-50-1	1,2 Dichlorobenzene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AQSB53W04388DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051440DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051440D

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 5.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB53W17573

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051441

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051441

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	14	
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	290	E
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB53W17573

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051441

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051441

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AGSB53W17573

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051441

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051441

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB53W17573DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051441DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051441D

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 2.0

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
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-Butyl Ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	14	
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	270	
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AGSB53W17573DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051441DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051441D

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3 Dichlorobenzene	10	U
106-46-7	1,4 Dichlorobenzene	10	U
95-50-1	1,2 Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AQSB53W17573DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051441DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051441D

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 2.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ANLQCTB52305

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051442

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051442

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	7	
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	6	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ANLQCTB52305

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051442

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051442

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ANLQCTB52305

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL524 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05051442

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 051442

Level: (low/med) LOW Date Received: 05/24/05

% Moisture: not dec. Date Analyzed: 05/24/05

GC Column: RTX-502.2 ID: 0.530 (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

Analytical Summary Sheets

from Envirosystems, Inc.

for samples analyzed in

SDG 0506142

ENVIROSYSTEMS, INC.

9200 Rumsey Road • Suite B102 • Columbia, Maryland 21045-1934
Phone (410) 964-0330 • Fax (410) 740-9306
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

June 23, 2005

Jorge S. Alvarado, Ph.D
Argonne National Laboratory
Environmental Research Division
Applied Geoscience and Environmental
Management Section
9700 South Cass Avenue, ER-203
Argonne, Illinois 60439

RE: ENVSY Report 0506142

Dear Jorge:

Enclosed is the Analytical Data Package for the samples received on June 9, 2005 for volatile organics analysis by US EPA CLP SOW OLM04.2 with a lower reporting limit of 5ug/L.

Please do not hesitate to call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare, Ph.D
President/CEO

MK/ncc

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB61W17708

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061625

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061625

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	2	J
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	1	J
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB61W17708

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061625

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061625

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB61W17708

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061625

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061625

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB59W04~~545~~ 4595

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061626

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061626

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	27	
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	990	E
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB59W04545

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061626

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061626

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB59W04545

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061626

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061626

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB59W0454~~5~~DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.: 4595DL - CBD

Matrix: (soil/water) WATER Lab Sample ID: 05061626DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061626D

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 10.0

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	50	U
74-87-3	Chloromethane	50	U
75-01-4	Vinyl Chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
75-69-4	Trichlorofluoromethane	50	U
75-35-4	1,1-Dichloroethene	50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	50	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	50	U
79-20-9	Methyl Acetate	50	U
75-09-2	Methylene Chloride	50	U
156-60-5	trans-1,2-Dichloroethene	50	U
1634-04-4	Methyl tert-Butyl Ether	50	U
75-34-3	1,1-Dichloroethane	50	U
156-59-2	cis-1,2-Dichloroethene	50	U
78-93-3	2-Butanone	50	U
67-66-3	Chloroform	28	DJ
71-55-6	1,1,1-Trichloroethane	50	U
110-82-7	Cyclohexane	50	U
56-23-5	Carbon Tetrachloride	1500	D
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB59W04545DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061626DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061626D

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	50	U
108-87-2	Methylcyclohexane	50	U
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
108-10-1	4-Methyl-2-Pentanone	50	U
108-88-3	Toluene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
127-18-4	Tetrachloroethene	50	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	50	U
106-93-4	1,2-Dibromoethane	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	50	U
1330-20-7	Xylene (total)	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
98-82-8	Isopropylbenzene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
541-73-1	1,3 Dichlorobenzene	50	U
106-46-7	1,4 Dichlorobenzene	50	U
95-50-1	1,2 Dichlorobenzene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB59W04545DL

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061626DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061626D

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 10.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB65W04590

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061627

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061627R

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	4	J
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB65W04590

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061627

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061627R

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB65W04590

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061627

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061627R

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB61W17709

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061628

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061628R

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	2	J
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	3	J
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB61W17709

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061628

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061628R

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB61W17709

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061628

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061628R

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW98W04567

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061629

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061629

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW98W04567

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061629

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061629

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW98W04567

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061629

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061629

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB59W09~~596~~ 4596 CBD

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061630

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061630

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	3	J
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	99	
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB59W09596

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061630

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061630

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB59W09596

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061630

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061630

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBW060805

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061631

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061631

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBW060805

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061631

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061631

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TBW060805

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: ENVSYS Case No.: ANL609 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05061631

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 061631

Level: (low/med) LOW Date Received: 06/09/05

% Moisture: not dec. Date Analyzed: 06/10/05

GC Column: RTX-502.2 ID: 0.530 (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

Analytical Summary Sheets

from Envirosystems, Inc.

for samples analyzed in

SDG 0507164

ENVIROSYSTEMS, INC.

9200 Rumsey Road • Suite B102 • Columbia, Maryland 21045-1934
Phone (410) 964-0330 • Fax (410) 740-9306
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

July 28, 2005

Jorge S. Alvarado, Ph.D
Argonne National Laboratory
Environmental Research Division
Applied Geoscience and Environmental
Management Section
9700 South Cass Avenue, ER-203
Argonne, Illinois 60439

RE: ENVSY Report 0507164

Dear Jorge:

Enclosed is the Analytical Data Package for the samples received on July 14, 2005 for volatile organics analysis by US EPA CLP SOW OLM04.2 with a lower reporting limit of 5ug/L.

Please do not hesitate to call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare, Ph.D
President/CEO

MK/ncc

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBW71205

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071799

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071779

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBW71205

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071799

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071779

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TBW71205

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071799

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071779

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB43W17879

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 0507780

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071780

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	2	J
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB43W17879

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 0507780

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071780

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB43W17879

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 0507780

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071780

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB42W17839

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071781

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071781

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB42W17839

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071781

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071781

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB42W17839

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071781

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071781

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB42W17868

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071782

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071782

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	1	J
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	44	
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB42W17868

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071782

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071782

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB42W17868

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071782

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071782

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB42W17840

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071783

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071783

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB42W17840

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071783

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071783

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB42W17840

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071783

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071783

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB68W17871

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071784

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071784

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	1	BJ
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB68W17871

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071784

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071784

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB68W17871

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071784

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071784

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB43TW17862

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071785

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071785

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB43TW17862

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071785

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071785

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB43TW17862

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071785

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071785

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB70W17870 → 17876

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071786

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071786

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl tert-Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
110-82-7	Cyclohexane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB70W17870

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071786

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071786

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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
79-01-6	Trichloroethene	5	U
108-87-2	Methylcyclohexane	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3 Dichlorobenzene	5	U
106-46-7	1,4 Dichlorobenzene	5	U
95-50-1	1,2 Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB70W17870

Lab Name: ENVIROSYSTEMS Contract:

Lab Code: Case No.: AR714 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 05071786

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 071786

Level: (low/med) LOW Date Received: 07/14/05

% Moisture: not dec. Date Analyzed: 07/15/05

GC Column: RTX-502.2 ID: 0.530 (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

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107340

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107340

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGKM01-W-04375

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107340

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621557

Matrix: WATER

Client: ARGLAB

Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/26/05	BLKIC0526B	ug/L	10	2000	83600	
300.0	Sulfate	05/26/05	BLKIC0526A	ug/L	10	2000	81500	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	6730	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	261	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	6980	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGKM01-W-04375F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107340

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621558

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	235000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	235000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMW-1-W-04378

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107340

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621559

Matrix: WATER | Client: ARGLAB | Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/26/05	BLKIC0526B	ug/L	10	2000	95500	
300.0	Sulfate	05/26/05	BLKIC0526A	ug/L	10	2000	106000	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	10100	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	9560	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMW-1-W-04378F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107340

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621560

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	242000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	242000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04379

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107340

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621561

Matrix: WATER
Client: ARGLAB
Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/26/05	BLKIC0526B	ug/L	10	2000	96200	
300.0	Sulfate	05/26/05	BLKIC0526A	ug/L	10	2000	102000	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	10200	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	248	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	9840	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGQCDU-W-04379F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107340

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621562

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	242000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	242000	

Printed on: 06/07/05 10:49 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB63-W-17539

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107340

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621563

Matrix: WATER
Client: ARGLAB
Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/26/05	BLKIC0526B	ug/L	10	2000	90300	
300.0	Sulfate	05/26/05	BLKIC0526A	ug/L	10	2000	92600	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	8490	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	259	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	8920	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB63-W-17539F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107340

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621564

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	216000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	216000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB63-W-17542

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107340

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621565

Matrix: WATER
Client: ARGLAB
Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/26/05	BLKIC0526B	ug/L	10	2000	94200	
300.0	Sulfate	05/26/05	BLKIC0526A	ug/L	10	2000	85700	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	7250	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	245	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	7720	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB63-W-17542F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107340

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621566

Matrix: FILTRATE

Client: ARGLAB

Date Received: 05/20/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	226000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	226000	

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USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGKM01-W-04375F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107340

Matrix (soil/water): FILTRATE Lab Sample ID: 621558

Level (low/med): LOW Date Received: 5/20/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	126000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19000			P
7439-96-5	Manganese	3.0	B		P
7723-14-0	Phosphorous	18.4	B		P
7440-09-7	Potassium	6280			P
7440-21-3	Silicon	18700			P
7440-23-5	Sodium	30400			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMW-1-W-04378F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107340

Matrix (soil/water): FILTRATE Lab Sample ID: 621560

Level (low/med): LOW Date Received: 5/20/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	142000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19400			P
7439-96-5	Manganese	5.7	B		P
7723-14-0	Phosphorous	13.3	B		P
7440-09-7	Potassium	7720			P
7440-21-3	Silicon	19500			P
7440-23-5	Sodium	38600			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGQCDU-W-04379F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107340

Matrix (soil/water): FILTRATE Lab Sample ID: 621562

Level (low/med): LOW Date Received: 5/20/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	146000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19100			P
7439-96-5	Manganese	4.4	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	7870			P
7440-21-3	Silicon	19200			P
7440-23-5	Sodium	39600			P
7440-66-6	Zinc	10.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB63-W-17539F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107340

Matrix (soil/water): FILTRATE Lab Sample ID: 621564

Level (low/med): LOW Date Received: 5/20/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	132000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	18400			P
7439-96-5	Manganese	5.4	B		P
7723-14-0	Phosphorous	15.9	B		P
7440-09-7	Potassium	9360			P
7440-21-3	Silicon	16700			P
7440-23-5	Sodium	36300			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB63-W-17542F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107340

Matrix (soil/water): FILTRATE Lab Sample ID: 621566

Level (low/med): LOW Date Received: 5/20/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	134000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19000			P
7439-96-5	Manganese	53.4			P
7723-14-0	Phosphorous	24.7	B		P
7440-09-7	Potassium	7680			P
7440-21-3	Silicon	15700			P
7440-23-5	Sodium	34000			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107343

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107343

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWI-W-04381

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621622

Matrix: WATER
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/27/05	BLKIC0527B	ug/L	10	2000	62400	
300.0	Sulfate	05/27/05	BLKIC0527A	ug/L	10	2000	84800	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	6470	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	6340	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWI-W-04381F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621623

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	223000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	223000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGKMW02-W-04382

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621624

Matrix: WATER
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/27/05	BLKIC0527B	ug/L	10	2000	73000	
300.0	Sulfate	05/27/05	BLKIC0527A	ug/L	10	2000	127000	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	2	400	20700	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	345	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	20	200	21100	

Printed on: 06/07/05 12:05 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGKMW02-W-04382F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621625

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	255000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	255000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWB-W-04383

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621626

Matrix: WATER
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/27/05	BLKIC0527B	ug/L	20	4000	138000	
300.0	Sulfate	05/27/05	BLKIC0527A	ug/L	20	4000	133000	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	13900	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	242	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	10	100	13500	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWB-W-04383F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621627

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	290000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	290000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB23S-W-04384

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621628

Matrix: WATER
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/27/05	BLKIC0527B	ug/L	10	2000	68300	
300.0	Sulfate	05/27/05	BLKIC0527A	ug/L	10	2000	72300	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	7000	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	250	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	7050	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB23S-W-04384F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621629

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525B	ug/L	1	1000	276000	
310.1	Total Alkalinity	05/25/05	BLKAL0525A	ug/L	1	1000	276000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB23-W-04385

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621630

Matrix: WATER
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/27/05	BLKIC0527B	ug/L	10	2000	55000	
300.0	Sulfate	05/27/05	BLKIC0527A	ug/L	10	2000	86100	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	1	200	3850	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	2	20.0	2800	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB23-W-04385F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621631

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525F	ug/L	1	1000	117000	
310.1	Total Alkalinity	05/25/05	BLKAL0525E	ug/L	1	1000	117000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB53-W-17556

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107343

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621632

Matrix: WATER
Client: ARGLAB
Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/27/05	BLKIC0527B	ug/L	10	2000	79500	
300.0	Sulfate	05/27/05	BLKIC0527A	ug/L	10	2000	109000	
300.0	Nitrate as N	05/23/05	BLKIC0523A	ug/L	1	200	7720	
300.0	O-Phosphate as P	05/23/05	BLKIC0523B	ug/L	1	200	254	
353.2	Nitrate/Nitrite Nitrogen	05/27/05	BLKNN0527A	ug/L	5	50.0	7090	

Printed on: 06/07/05 12:05 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB53-W-17556F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107343

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621633

Matrix: FILTRATE

Client: ARGLAB

Date Received: 05/21/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525F	ug/L	1	1000	260000	
310.1	Total Alkalinity	05/25/05	BLKAL0525E	ug/L	1	1000	260000	

Printed on: 06/07/05 12:05 PM

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGKMW02-W-04382F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107343

Matrix (soil/water): WATER Lab Sample ID: 621625

Level (low/med): LOW Date Received: 05/21/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	128000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	17700			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	53.6	B		P
7440-09-7	Potassium	7390			P
7440-21-3	Silicon	19000			P
7440-23-5	Sodium	62000			P
7440-66-6	Zinc	2.0	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWB-W-04383F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107343

Matrix (soil/water): WATER Lab Sample ID: 621627

Level (low/med): LOW Date Received: 05/21/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	167000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	25600			P
7439-96-5	Manganese	2.8	B		P
7723-14-0	Phosphorous	46.7	B		P
7440-09-7	Potassium	9110			P
7440-21-3	Silicon	20400			P
7440-23-5	Sodium	74800			P
7440-66-6	Zinc	1.7	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWI-W-04381F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107343

Matrix (soil/water): WATER Lab Sample ID: 621623

Level (low/med): LOW Date Received: 05/21/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	124000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	19400			P
7439-96-5	Manganese	17.8			P
7723-14-0	Phosphorous	22.4	B		P
7440-09-7	Potassium	6030			P
7440-21-3	Silicon	17700			P
7440-23-5	Sodium	20900			P
7440-66-6	Zinc	9.1	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0024

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB23S-W-04384F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107343

Matrix (soil/water): WATER Lab Sample ID: 621629

Level (low/med): LOW Date Received: 05/21/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	131000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	17400			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	23.8	B		P
7440-09-7	Potassium	7290			P
7440-21-3	Silicon	25200			P
7440-23-5	Sodium	37600			P
7440-66-6	Zinc	3.1	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0025

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB23-W-04385F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107343

Matrix (soil/water): WATER Lab Sample ID: 621631

Level (low/med): LOW Date Received: 05/21/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	127000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	16800			P
7439-96-5	Manganese	38.0			P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	8260			P
7440-21-3	Silicon	24000			P
7440-23-5	Sodium	23300			P
7440-66-6	Zinc	9.8	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB53-W-17556F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107343

Matrix (soil/water): WATER Lab Sample ID: 621633

Level (low/med): LOW Date Received: 05/21/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	125000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	20100			P
7439-96-5	Manganese	34.7			P
7723-14-0	Phosphorous	31.5	B		P
7440-09-7	Potassium	7550			P
7440-21-3	Silicon	17500			P
7440-23-5	Sodium	35700			P
7440-66-6	Zinc	42.2			P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107357

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107357

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB53-W-04388

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107357

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621711

Matrix: WATER | Client: ARGLAB | Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	5	1000	26200	
300.0	Sulfate	05/31/05	BLKIC0531D	ug/L	100	20000	393000	
300.0	Nitrate as N	05/27/05	BLKIC0527C	ug/L	10	2000	70500	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	257	
353.2	Nitrate/Nitrite Nitrogen	06/09/05	BLKNN0609A	ug/L	100	1000	80600	

Printed on: 06/16/05 07:46 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB53-W-04388F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621712

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531B	ug/L	1	1000	241000	
310.1	Total Alkalinity	05/31/05	BLKAL0531A	ug/L	1	1000	241000	

Printed on: 06/16/05 07:46 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04389

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621713

Matrix: WATER
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	70300	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	57400	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	1	200	4150	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	270	
353.2	Nitrate/Nitrite Nitrogen	06/15/05	BLKNN0615A	ug/L	5	50.0	4530	

Printed on: 06/16/05 07:46 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04389F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621714

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525F	ug/L	1	1000	218000	
310.1	Total Alkalinity	05/25/05	BLKAL0525E	ug/L	1	1000	218000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWJ-W-04393

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621715

Matrix: WATER
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	20	4000	121000	
300.0	Sulfate	05/31/05	BLKIC0531D	ug/L	10	2000	87300	
300.0	Nitrate as N	05/27/05	BLKIC0527C	ug/L	5	1000	25300	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	248	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	26600	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWJ-W-04393F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621716

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525F	ug/L	1	1000	207000	
310.1	Total Alkalinity	05/25/05	BLKAL0525E	ug/L	1	1000	207000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGKMW03-W-04390

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107357

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621717

Matrix: WATER

Client: ARGLAB

Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	64800	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	61900	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	1	200	6140	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	250	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	6620	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGKMW03-W-04390F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621718

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525F	ug/L	1	1000	80800	
310.1	Total Alkalinity	05/25/05	BLKAL0525E	ug/L	1	1000	80800	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWK-W-04392

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621719

Matrix: WATER
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	86500	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	70900	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	1	200	5820	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	243	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	6320	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWK-W-04392F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107357

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621720

Matrix: FILTRATE

Client: ARGLAB

Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/25/05	BLKAL0525H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/25/05	BLKAL0525G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/25/05	BLKAL0525F	ug/L	1	1000	220000	
310.1	Total Alkalinity	05/25/05	BLKAL0525E	ug/L	1	1000	220000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWO-W-04521

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621721

Matrix: WATER
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	86500	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	83300	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	1	200	7670	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	291	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	7750	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWO-W-04521F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107357

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621722

Matrix: FILTRATE

Client: ARGLAB

Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/26/05	BLKAL0526D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/26/05	BLKAL0526C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/26/05	BLKAL0526B	ug/L	1	1000	218000	
310.1	Total Alkalinity	05/26/05	BLKAL0526A	ug/L	1	1000	218000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWC-W-04394

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107357

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621723

Matrix: WATER

Client: ARGLAB

Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	20	4000	175000	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	20	4000	168000	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	1	200	11300	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	269	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	10900	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWC-W-04394F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107357

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621724

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/26/05	BLKAL0526D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/26/05	BLKAL0526C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/26/05	BLKAL0526B	ug/L	1	1000	39400	
310.1	Total Alkalinity	05/26/05	BLKAL0526A	ug/L	1	1000	39400	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWR-W-04387

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621725

Matrix: WATER
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	74500	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	63100	
300.0	Nitrate as N	05/24/05	BLKIC0524A	ug/L	1	200	5530	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	251	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	5840	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWR-W-04387F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107357

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621726

Matrix: FILTRATE

Client: ARGLAB

Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/26/05	BLKAL0526D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/26/05	BLKAL0526C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/26/05	BLKAL0526B	ug/L	1	1000	211000	
310.1	Total Alkalinity	05/26/05	BLKAL0526A	ug/L	1	1000	211000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWL-W-04520

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107357

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621727

Matrix: WATER | Client: ARGLAB | Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	20	4000	108000	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	20	4000	107000	
300.0	Nitrate as N	05/27/05	BLKIC0527C	ug/L	5	1000	37200	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	252	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	37600	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWL-W-04520F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107357

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621728

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/26/05	BLKAL0526D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/26/05	BLKAL0526C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/26/05	BLKAL0526B	ug/L	1	1000	233000	
310.1	Total Alkalinity	05/26/05	BLKAL0526A	ug/L	1	1000	233000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB53-W-17573

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107357

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621729

Matrix: WATER | Client: ARGLAB | Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/24/05	BLKIC0524D	ug/L	1	200	12100	
300.0	Sulfate	05/31/05	BLKIC0531D	ug/L	100	20000	836000	
300.0	Nitrate as N	05/27/05	BLKIC0527C	ug/L	10	2000	57100	
300.0	O-Phosphate as P	05/24/05	BLKIC0524B	ug/L	1	200	248	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	47700	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB53-W-17573F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107357

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 621730

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/26/05	BLKAL0526D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/26/05	BLKAL0526C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/26/05	BLKAL0526B	ug/L	1	1000	235000	
310.1	Total Alkalinity	05/26/05	BLKAL0526A	ug/L	1	1000	235000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWQ-W-04391

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107357

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 621731

Matrix: WATER

Client: ARGLAB

Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531B	ug/L	10	2000	71800	
300.0	Sulfate	05/31/05	BLKIC0531D	ug/L	10	2000	58700	
300.0	Nitrate as N	05/27/05	BLKIC0527C	ug/L	1	200	4360	
300.0	O-Phosphate as P	05/24/05	BLKIC0524C	ug/L	1	200	258	
353.2	Nitrate/Nitrite Nitrogen	06/07/05	BLKNN0607A	ug/L	50	500	4650	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWQ-W-04391F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107357

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 621732

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/24/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/26/05	BLKAL0526D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/26/05	BLKAL0526C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/26/05	BLKAL0526B	ug/L	1	1000	210000	
310.1	Total Alkalinity	05/26/05	BLKAL0526A	ug/L	1	1000	210000	

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGKMW03-W-04390F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621718

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	117000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19700			P
7439-96-5	Manganese	1.1	B		P
7723-14-0	Phosphorous	41.3	B		P
7440-09-7	Potassium	5580			P
7440-21-3	Silicon	16400			P
7440-23-5	Sodium	22300			P
7440-66-6	Zinc	4.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWC-W-04394F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621724

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	169000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	24200			P
7439-96-5	Manganese	0.87	B		P
7723-14-0	Phosphorous	61.6	B		P
7440-09-7	Potassium	10800			P
7440-21-3	Silicon	25400			P
7440-23-5	Sodium	105000			P
7440-66-6	Zinc	2.8	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0040

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWJ-W-04393F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621716

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	169000			P
7439-89-6	Iron	40.0	B		P
7439-95-4	Magnesium	26000			P
7439-96-5	Manganese	2.2	B		P
7723-14-0	Phosphorous	28.4	B		P
7440-09-7	Potassium	6460			P
7440-21-3	Silicon	17500			P
7440-23-5	Sodium	28300			P
7440-66-6	Zinc	5.0	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWK-W-04392F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621720

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	123000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	20300			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	23.0	B		P
7440-09-7	Potassium	5900			P
7440-21-3	Silicon	17600			P
7440-23-5	Sodium	26000			P
7440-66-6	Zinc	1.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWL-W-04520F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621728

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	215000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	21000			P
7439-96-5	Manganese	2.9	B		P
7723-14-0	Phosphorous	44.9	B		P
7440-09-7	Potassium	9110			P
7440-21-3	Silicon	23300			P
7440-23-5	Sodium	25200			P
7440-66-6	Zinc	1.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0043

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWO-W-04521F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621722

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	130000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19400			P
7439-96-5	Manganese	1.5	B		P
7723-14-0	Phosphorous	32.5	B		P
7440-09-7	Potassium	5740			P
7440-21-3	Silicon	17900			P
7440-23-5	Sodium	32200			P
7440-66-6	Zinc	3.2	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWQ-W-04391F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621732

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	121000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19000			P
7439-96-5	Manganese	1.9	B		P
7723-14-0	Phosphorous	29.1	B		P
7440-09-7	Potassium	5600			P
7440-21-3	Silicon	18500			P
7440-23-5	Sodium	20100			P
7440-66-6	Zinc	2.4	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWR-W-04387F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621726

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	120000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19000			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	35.0	B		P
7440-09-7	Potassium	5640			P
7440-21-3	Silicon	17200			P
7440-23-5	Sodium	20000			P
7440-66-6	Zinc	4.6	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGQCDU-W-04389F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621714

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	118000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	18700			P
7439-96-5	Manganese	2.2	B		P
7723-14-0	Phosphorous	24.8	B		P
7440-09-7	Potassium	5540			P
7440-21-3	Silicon	18300			P
7440-23-5	Sodium	19700			P
7440-66-6	Zinc	3.0	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB53-W-04388F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621712

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	214000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	33900			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	28.0	B		P
7440-09-7	Potassium	10400			P
7440-21-3	Silicon	19600			P
7440-23-5	Sodium	98200			P
7440-66-6	Zinc	100			P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB53-W-17573F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107357

Matrix (soil/water): FILTRATE Lab Sample ID: 621730

Level (low/med): LOW Date Received: 05/24/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	357000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	51100			P
7439-96-5	Manganese	50.6			P
7723-14-0	Phosphorous	56.2	B		P
7440-09-7	Potassium	9980			P
7440-21-3	Silicon	21500			P
7440-23-5	Sodium	123000			P
7440-66-6	Zinc	12.2	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0049

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107418

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107418

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWF-W-04553

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107418

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 622338

Matrix: WATER | Client: ARGLAB | Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531B	ug/L	10	2000	76300	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	20	4000	86600	
300.0	Nitrate as N	05/31/05	BLKIC0531F	ug/L	5	1000	21900	
300.0	O-Phosphate as P	05/26/05	BLKIC0526C	ug/L	1	200	248	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608B	ug/L	20	200	23100	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWF-W-04553F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622339

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	226000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	226000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWP-W-04538

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622340

Matrix: WATER
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	76800	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	72400	
300.0	Nitrate as N	05/31/05	BLKIC0531F	ug/L	1	200	4480	
300.0	O-Phosphate as P	05/26/05	BLKIC0526C	ug/L	1	200	285	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	10	100	4660	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWP-W-04538F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622341

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	218000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	218000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB28-W-04537

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107418

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 622342

Matrix: WATER

Client: ARGLAB

Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	20	4000	112000	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	20	4000	141000	
300.0	Nitrate as N	05/26/05	BLKIC0526D	ug/L	1	200	11400	
300.0	O-Phosphate as P	05/26/05	BLKIC0526C	ug/L	1	200	262	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	10	100	10200	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB28-W-04537F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107418

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 622343

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	309000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	309000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMW2-W-04551

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622344

Matrix: WATER
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	84100	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	86100	
300.0	Nitrate as N	05/26/05	BLKIC0526D	ug/L	1	200	7710	
300.0	O-Phosphate as P	05/26/05	BLKIC0526C	ug/L	1	200	253	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	10	100	7270	

Printed on: 06/15/05 07:58 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMW2-W-04551F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107418

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 622345

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	236000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	236000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWG-W-04539

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622346

Matrix: WATER
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	61100	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	20	4000	116000	
300.0	Nitrate as N	05/31/05	BLKIC0531E	ug/L	10	2000	29600	
300.0	O-Phosphate as P	05/26/05	BLKIC0526C	ug/L	1	200	257	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	20	200	31500	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWG-W-04539F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622347

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	235000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	235000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04550

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622348

Matrix: WATER
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	60100	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	20	4000	118000	
300.0	Nitrate as N	05/31/05	BLKIC0531E	ug/L	10	2000	29400	
300.0	O-Phosphate as P	05/26/05	BLKIC0526C	ug/L	1	200	252	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	20	200	31700	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04550F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622349

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	236000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	236000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB56-W-17649

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107418

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 622350

Matrix: WATER
Client: ARGLAB
Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	30800	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	54600	
300.0	Nitrate as N	05/31/05	BLKIC0531F	ug/L	1	200	341	
300.0	O-Phosphate as P	05/26/05	BLKIC0526C	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	1	10.0	13.7	

Printed on: 06/15/05 07:58 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB56-W-17649

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107418

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 622351

Matrix: FILTRATE | Client: ARGLAB | Date Received: 05/26/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	246000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	246000	

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USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMW2-W-04551F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107418

Matrix (soil/water): FILTRATE Lab Sample ID: 622345

Level (low/med): LOW Date Received: 5/26/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	126000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	19700			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	25.7	B		P
7440-09-7	Potassium	6320			P
7440-21-3	Silicon	20400			P
7440-23-5	Sodium	32800			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0030

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWF-W-04553F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107418

Matrix (soil/water): FILTRATE Lab Sample ID: 622339

Level (low/med): LOW Date Received: 5/26/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	136000			P
7439-89-6	Iron	53.6	B		P
7439-95-4	Magnesium	21200			P
7439-96-5	Manganese	5.6	B		P
7723-14-0	Phosphorous	25.7	B		P
7440-09-7	Potassium	10200			P
7440-21-3	Silicon	22600			P
7440-23-5	Sodium	37800			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWG-W-04539F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107418

Matrix (soil/water): FILTRATE Lab Sample ID: 622347

Level (low/med): LOW Date Received: 5/26/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	156000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	18400			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	27.2	B		P
7440-09-7	Potassium	7960			P
7440-21-3	Silicon	26500			P
7440-23-5	Sodium	30300			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWP-W-04538F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107418

Matrix (soil/water): FILTRATE Lab Sample ID: 622341

Level (low/med): LOW Date Received: 5/26/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	108000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	18600			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	5270			P
7440-21-3	Silicon	18400			P
7440-23-5	Sodium	18800			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGQCDU-W-04550F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107418

Matrix (soil/water): FILTRATE Lab Sample ID: 622349

Level (low/med): LOW Date Received: 5/26/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	159000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	18800			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	32.2	B		P
7440-09-7	Potassium	8160			P
7440-21-3	Silicon	27000			P
7440-23-5	Sodium	30700			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0024

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB28-W-04537F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107418

Matrix (soil/water): FILTRATE Lab Sample ID: 622343

Level (low/med): LOW Date Received: 5/26/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	179000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	25600			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	29.2	B		P
7440-09-7	Potassium	8840			P
7440-21-3	Silicon	22300			P
7440-23-5	Sodium	45400			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0035

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB56-W-17649

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107418

Matrix (soil/water): FILTRATE Lab Sample ID: 622351

Level (low/med): LOW Date Received: 5/26/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	80600			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	14600			P
7439-96-5	Manganese	18.9			P
7723-14-0	Phosphorous	14.9	B		P
7440-09-7	Potassium	6650			P
7440-21-3	Silicon	18500			P
7440-23-5	Sodium	29900			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0000

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107464

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107464

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWH-W-04557

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107464

Lab Code: STLVT
Case No.: 21005
Lab Sample ID: 622676

Matrix: WATER
Client: ARGLAB
Date Received: 05/27/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	20	4000	132000	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	20	4000	176000	
300.0	Nitrate as N	05/28/05	BLKIC0528B	ug/L	1	200	7280	
300.0	O-Phosphate as P	05/28/05	BLKIC0528A	ug/L	1	200	243	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	10	100	6130	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWH-W-04557F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107464

Lab Code: STLVT
Case No.: 21005
Lab Sample ID: 622677

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/27/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	296000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	296000	

Printed on: 06/13/05 04:14 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWM-W-04556

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107464

Lab Code: STLVT
Case No.: 21005
Lab Sample ID: 622678

Matrix: WATER
Client: ARGLAB
Date Received: 05/27/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	05/31/05	BLKIC0531A	ug/L	10	2000	66800	
300.0	Sulfate	05/31/05	BLKIC0531C	ug/L	10	2000	74300	
300.0	Nitrate as N	05/31/05	BLKIC0531E	ug/L	2	400	16200	
300.0	O-Phosphate as P	05/28/05	BLKIC0528A	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608A	ug/L	10	100	15500	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWM-W-04556F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107464

Lab Code: STLVT
Case No.: 21005
Lab Sample ID: 622679

Matrix: FILTRATE
Client: ARGLAB
Date Received: 05/27/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	05/31/05	BLKAL0531I	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	05/31/05	BLKAL0531H	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	05/31/05	BLKAL0531G	ug/L	1	1000	227000	
310.1	Total Alkalinity	05/31/05	BLKAL0531F	ug/L	1	1000	227000	

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USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWH-W-04557F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 107464

Matrix (soil/water): FILTRATE Lab Sample ID: 622677

Level (low/med): LOW Date Received: 5/27/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	174000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	24600			P
7439-96-5	Manganese	113			P
7723-14-0	Phosphorous	15.6	B		P
7440-09-7	Potassium	9740			P
7440-21-3	Silicon	19900			P
7440-23-5	Sodium	72100			P
7440-66-6	Zinc	7.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWM-W-04556F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 107464

Matrix (soil/water): FILTRATE Lab Sample ID: 622679

Level (low/med): LOW Date Received: 5/27/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	122000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	20700			P
7439-96-5	Manganese	4.1	B		P
7723-14-0	Phosphorous	28.6	B		P
7440-09-7	Potassium	7300			P
7440-21-3	Silicon	23200			P
7440-23-5	Sodium	20300			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107624

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107624

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB15-W-04563

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623586

Matrix: WATER
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/07/05	BLKIC0607B	ug/L	10	2000	66400	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	10	2000	69600	
300.0	Nitrate as N	06/06/05	BLKIC0606B	ug/L	1	200	5600	
300.0	O-Phosphate as P	06/06/05	BLKIC0606A	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608B	ug/L	10	100	5980	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB15-W-04563F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623587

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/07/05	BLKAL0607F	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/07/05	BLKAL0607E	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/07/05	BLKAL0607D	ug/L	1	1000	227000	
310.1	Total Alkalinity	06/07/05	BLKAL0607C	ug/L	1	1000	227000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04561

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623588

Matrix: WATER
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/07/05	BLKIC0607B	ug/L	100	20000	220000	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	100	20000	93700	
300.0	Nitrate as N	06/06/05	BLKIC0606B	ug/L	1	200	8240	
300.0	O-Phosphate as P	06/06/05	BLKIC0606A	ug/L	1	200	269	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608B	ug/L	10	100	8330	

0007

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04561F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623589

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/07/05	BLKAL0607F	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/07/05	BLKAL0607E	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/07/05	BLKAL0607D	ug/L	1	1000	225000	
310.1	Total Alkalinity	06/07/05	BLKAL0607C	ug/L	1	1000	225000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB36-W-04566

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623590

Matrix: WATER
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/07/05	BLKIC0607B	ug/L	20	4000	80500	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	20	4000	74500	
300.0	Nitrate as N	06/07/05	BLKIC0607A	ug/L	20	4000	17500	
300.0	O-Phosphate as P	06/06/05	BLKIC0606A	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608B	ug/L	10	100	14400	

0009

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB36-W-04566F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623591

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/07/05	BLKAL0607F	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/07/05	BLKAL0607E	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/07/05	BLKAL0607D	ug/L	1	1000	255000	
310.1	Total Alkalinity	06/07/05	BLKAL0607C	ug/L	1	1000	255000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGDW98-W-04567

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623592

Matrix: WATER
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/07/05	BLKIC0607B	ug/L	20	4000	127000	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	20	4000	178000	
300.0	Nitrate as N	06/07/05	BLKIC0607A	ug/L	20	4000	28200	
300.0	O-Phosphate as P	06/06/05	BLKIC0606A	ug/L	1	200	240	
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608C	ug/L	20	200	27500	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGDW98-W-04567F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623593

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/07/05	BLKAL0607F	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/07/05	BLKAL0607E	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/07/05	BLKAL0607D	ug/L	1	1000	312000	
310.1	Total Alkalinity	06/07/05	BLKAL0607C	ug/L	1	1000	312000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGPW53-W-04568

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623594

Matrix: WATER
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/07/05	BLKIC0607B	ug/L	10	2000	46600	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	10	2000	124000	
300.0	Nitrate as N	06/06/05	BLKIC0606B	ug/L	1	200	3030	
300.0	O-Phosphate as P	06/06/05	BLKIC0606A	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608C	ug/L	10	100	3390	

Printed on: 06/21/05 03:11 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGPW53-W-04568F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107624

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623595

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/04/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/07/05	BLKAL0607F	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/07/05	BLKAL0607E	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/07/05	BLKAL0607D	ug/L	1	1000	231000	
310.1	Total Alkalinity	06/07/05	BLKAL0607C	ug/L	1	1000	231000	

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGDW98-W-04567F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107624

Matrix (soil/water): FILTRATE Lab Sample ID: 623593

Level (low/med): LOW Date Received: 6/4/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	188000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	27100			P
7439-96-5	Manganese	4.7	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	8880			P
7440-21-3	Silicon	26900			P
7440-23-5	Sodium	55500			P
7440-66-6	Zinc	41.0			P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0022

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGPW53-W-04568F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107624

Matrix (soil/water): FILTRATE Lab Sample ID: 623595

Level (low/med): LOW Date Received: 6/4/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	107000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	14600			P
7439-96-5	Manganese	5.7	B		P
7723-14-0	Phosphorous	21.6	B		P
7440-09-7	Potassium	6620			P
7440-21-3	Silicon	28200			P
7440-23-5	Sodium	34500			P
7440-66-6	Zinc	11.5	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGQCDU-W-04561F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107624

Matrix (soil/water): FILTRATE Lab Sample ID: 623589

Level (low/med): LOW Date Received: 6/4/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	190000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	26000			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	25.6	B		P
7440-09-7	Potassium	8720			P
7440-21-3	Silicon	24500			P
7440-23-5	Sodium	36600			P
7440-66-6	Zinc	15.3	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB15-W-04563F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107624

Matrix (soil/water): FILTRATE Lab Sample ID: 623587

Level (low/med): LOW Date Received: 6/4/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	124000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	15000			P
7439-96-5	Manganese	6.3	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	6520			P
7440-21-3	Silicon	22900			P
7440-23-5	Sodium	20800			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB36-W-04566F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107624

Matrix (soil/water): FILTRATE Lab Sample ID: 623591

Level (low/med): LOW Date Received: 6/4/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	146000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	20000			P
7439-96-5	Manganese	1.2	B		P
7723-14-0	Phosphorous	17.1	B		P
7440-09-7	Potassium	7810			P
7440-21-3	Silicon	23600			P
7440-23-5	Sodium	28000			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107634

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107634

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB38-W-04571

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107634

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623713

Matrix: WATER
Client: ARGLAB
Date Received: 06/07/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/10/05	BLKIC0610B	ug/L	20	4000	103000	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	20	4000	87800	
300.0	Nitrate as N	06/07/05	BLKIC0607A	ug/L	1	200	10700	
300.0	O-Phosphate as P	06/07/05	BLKIC0607D	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/08/05	BLKNN0608B	ug/L	5	50.0	9960	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB38-W-04571F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107634

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 623714

Matrix: FILTRATE | Client: ARGLAB | Date Received: 06/07/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	228000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	228000	

Printed on: 06/21/05 04:23 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB61-W-04580

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107634

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 623715

Matrix: WATER

Client: ARGLAB

Date Received: 06/07/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/08/05	BLKIC0608E	ug/L	100	20000	215000	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	100	20000	156000	
300.0	Nitrate as N	06/08/05	BLKIC0608D	ug/L	100	20000	121000	
300.0	O-Phosphate as P	06/07/05	BLKIC0607D	ug/L	1	200	278	
353.2	Nitrate/Nitrite Nitrogen	06/09/05	BLKNN0609B	ug/L	100	1000	95400	

Printed on: 06/21/05 04:23 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB61-W-04580F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107634

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 623716

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/07/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	260000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	260000	

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB38-W-04571F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107634

Matrix (soil/water): FILTRATE Lab Sample ID: 623714

Level (low/med): LOW Date Received: 6/7/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	148000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	20000			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	18.9	B		P
7440-09-7	Potassium	8760			P
7440-21-3	Silicon	24000			P
7440-23-5	Sodium	22600			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB61-W-04580F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107634

Matrix (soil/water): FILTRATE Lab Sample ID: 623716

Level (low/med): LOW Date Received: 6/7/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	277000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	37700			P
7439-96-5	Manganese	96.5			P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	10900			P
7440-21-3	Silicon	16200			P
7440-23-5	Sodium	76600			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107652

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107652

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB65-W-04590

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107652

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 623786

Matrix: WATER

Client: ARGLAB

Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/10/05	BLKIC0610B	ug/L	20	4000	132000	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	10	2000	66900	
300.0	Nitrate as N	06/10/05	BLKIC0610C	ug/L	10	2000	34200	
300.0	O-Phosphate as P	06/08/05	BLKIC0608C	ug/L	1	200	294	
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616A	ug/L	50	500	34700	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB65-W-04590F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107652

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623787

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	246000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	246000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB65-W-04591

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107652

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623788

Matrix: WATER
Client: ARGLAB
Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/10/05	BLKIC0610B	ug/L	100	20000	180000	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	10	2000	55900	
300.0	Nitrate as N	06/10/05	BLKIC0610C	ug/L	10	2000	35000	
300.0	O-Phosphate as P	06/08/05	BLKIC0608C	ug/L	1	200	274	
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616A	ug/L	50	500	35700	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB65-W-04591F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107652

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 623789

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	283000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	283000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB65-W-04592

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107652

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 623790

Matrix: WATER | Client: ARGLAB | Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/10/05	BLKIC0610B	ug/L	100	20000	257000	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	10	2000	41100	
300.0	Nitrate as N	06/10/05	BLKIC0610C	ug/L	10	2000	50800	
300.0	O-Phosphate as P	06/08/05	BLKIC0608C	ug/L	1	200	251	
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616A	ug/L	100	1000	49500	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB65-W-04592F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107652

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623791

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	312000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	312000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB65-W-17718

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107652

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 623792

Matrix: WATER

Client: ARGLAB

Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/10/05	BLKIC0610B	ug/L	20	4000	80800	
300.0	Sulfate	06/10/05	BLKIC0610A	ug/L	20	4000	79100	
300.0	Nitrate as N	06/08/05	BLKIC0608D	ug/L	1	200	14100	
300.0	O-Phosphate as P	06/08/05	BLKIC0608C	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616B	ug/L	10	100	14100	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB65-W-17118F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107652

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623793

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	224000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	224000	

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USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB65-W-04590F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107652

Matrix (soil/water): FILTRATE Lab Sample ID: 623787

Level (low/med): LOW Date Received: 6/8/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	165000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	23700			P
7439-96-5	Manganese	5.8	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	10400			P
7440-21-3	Silicon	20700			P
7440-23-5	Sodium	41500			P
7440-66-6	Zinc	7.7	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB65-W-04591F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107652

Matrix (soil/water): FILTRATE Lab Sample ID: 623789

Level (low/med): LOW Date Received: 6/8/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	177000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	23300			P
7439-96-5	Manganese	19.6			P
7723-14-0	Phosphorous	14.0	B		P
7440-09-7	Potassium	9260			P
7440-21-3	Silicon	21100			P
7440-23-5	Sodium	45800			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB65-W-04592F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107652

Matrix (soil/water): FILTRATE Lab Sample ID: 623791

Level (low/med): LOW Date Received: 6/8/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	230000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	22600			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	20.9	B		P
7440-09-7	Potassium	9390			P
7440-21-3	Silicon	20100			P
7440-23-5	Sodium	49200			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB65-W-17118F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107652

Matrix (soil/water): FILTRATE Lab Sample ID: 623793

Level (low/med): LOW Date Received: 6/8/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	122000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	18800			P
7439-96-5	Manganese	15.7			P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	9890			P
7440-21-3	Silicon	17200			P
7440-23-5	Sodium	26600			P
7440-66-6	Zinc	7.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107685

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107685

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB59-W-04595

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623985

Matrix: WATER
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/21/05	BLKIC0621A	ug/L	100	20000	532000	
300.0	Sulfate	06/29/05	BLKIC0629D	ug/L	100	20000	170000	
300.0	Nitrate as N	06/29/05	BLKIC0629C	ug/L	100	20000	216000	
300.0	O-Phosphate as P	06/09/05	BLKIC0609A	ug/L	1	200	210	
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616A	ug/L	500	5000	218000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB59-W-04595F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623986

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	207000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	207000	

Printed on: 07/01/05 04:44 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB64-W-04600

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623987

Matrix: WATER
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/21/05	BLKIC0621A	ug/L	100	20000	217000	
300.0	Sulfate	06/29/05	BLKIC0629D	ug/L	100	20000	136000	
300.0	Nitrate as N	06/29/05	BLKIC0629C	ug/L	100	20000	157000	
300.0	O-Phosphate as P	06/09/05	BLKIC0609A	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616A	ug/L	500	5000	167000	

Printed on: 07/01/05 04:44 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB64-W-04600F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623988

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	192000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	192000	

Printed on: 07/01/05 04:44 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB59-W-04596

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623989

Matrix: WATER
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/21/05	BLKIC0621A	ug/L	100	20000	248000	
300.0	Sulfate	06/29/05	BLKIC0629D	ug/L	100	20000	274000	
300.0	Nitrate as N	06/29/05	BLKIC0629C	ug/L	100	20000	65500	
300.0	O-Phosphate as P	06/09/05	BLKIC0609A	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616A	ug/L	50	500	53000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB59-W-04596F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623990

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	224000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	224000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB64-W-04603

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623991

Matrix: WATER
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/21/05	BLKIC0621A	ug/L	100	20000	328000	
300.0	Sulfate	06/29/05	BLKIC0629D	ug/L	100	20000	143000	
300.0	Nitrate as N	06/29/05	BLKIC0629C	ug/L	100	20000	310000	
300.0	O-Phosphate as P	06/09/05	BLKIC0609A	ug/L	1	200	234	
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616C	mg/L	500	5000	327000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB64-W-04603F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623992

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	181000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	181000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB59-W-04597

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623993

Matrix: WATER
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/21/05	BLKIC0621A	ug/L	100	20000	252000	
300.0	Sulfate	06/29/05	BLKIC0629D	ug/L	100	20000	93200	
300.0	Nitrate as N	06/21/05	BLKIC0621B	ug/L	10	2000	31600	
300.0	O-Phosphate as P	06/09/05	BLKIC0609A	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616A	ug/L	20	200	25000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB59-W-04597F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623994

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	215000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	215000	

Printed on: 07/01/05 04:44 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB64-W-04602

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623995

Matrix: WATER
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/21/05	BLKIC0621A	ug/L	100	20000	249000	
300.0	Sulfate	06/29/05	BLKIC0629D	ug/L	100	20000	108000	
300.0	Nitrate as N	06/29/05	BLKIC0629C	ug/L	100	20000	208000	
300.0	O-Phosphate as P	06/09/05	BLKIC0609B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616C	mg/L	200	2000	251000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB64-W-04602F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107685

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 623996

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/13/05	BLKAL0613D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/13/05	BLKAL0613C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/13/05	BLKAL0613B	ug/L	1	1000	179000	
310.1	Total Alkalinity	06/13/05	BLKAL0613A	ug/L	1	1000	179000	

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USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB59-W-04595F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107685

Matrix (soil/water): FILTRATE Lab Sample ID: 623986

Level (low/med): LOW Date Received: 6/9/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	420000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	45300			P
7439-96-5	Manganese	0.72	B		P
7723-14-0	Phosphorous	94.8	B		P
7440-09-7	Potassium	24100			P
7440-21-3	Silicon	14900			P
7440-23-5	Sodium	76100			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0025

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB59-W-04596F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107685

Matrix (soil/water): FILTRATE Lab Sample ID: 623990

Level (low/med): LOW Date Received: 6/9/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	170000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	22500			P
7439-96-5	Manganese	10.8	B		P
7723-14-0	Phosphorous	56.7	B		P
7440-09-7	Potassium	10200			P
7440-21-3	Silicon	16700			P
7440-23-5	Sodium	50200			P
7440-66-6	Zinc	8.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB59-W-04597F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107685

Matrix (soil/water): FILTRATE Lab Sample ID: 623994

Level (low/med): LOW Date Received: 6/9/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	153000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	24000			P
7439-96-5	Manganese	4.1	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	7790			P
7440-21-3	Silicon	16400			P
7440-23-5	Sodium	29200			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0021

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB64-W-04600F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107685

Matrix (soil/water): FILTRATE Lab Sample ID: 623988

Level (low/med): LOW Date Received: 6/9/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	285000			P
7439-89-6	Iron	85.1	B		P
7439-95-4	Magnesium	45900			P
7439-96-5	Manganese	68.3			P
7723-14-0	Phosphorous	13.8	B		P
7440-09-7	Potassium	10200			P
7440-21-3	Silicon	18000			P
7440-23-5	Sodium	49700			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0023

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB64-W-04602F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107685

Matrix (soil/water): FILTRATE Lab Sample ID: 623996

Level (low/med): LOW Date Received: 6/9/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	372000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	57800			P
7439-96-5	Manganese	78.3			P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	12900			P
7440-21-3	Silicon	19000			P
7440-23-5	Sodium	51700			P
7440-66-6	Zinc	8.9	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB64-W-04603F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107685

Matrix (soil/water): FILTRATE Lab Sample ID: 623992

Level (low/med): LOW Date Received: 6/9/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	476000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	73900			P
7439-96-5	Manganese	5.4	B		P
7723-14-0	Phosphorous	57.5	B		P
7440-09-7	Potassium	20200			P
7440-21-3	Silicon	18200			P
7440-23-5	Sodium	52400			P
7440-66-6	Zinc	13.2	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0030

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107724

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107724

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB66-W-04582

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624227

Matrix: WATER
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/27/05	BLKIC0627C	ug/L	10	2000	46300	
300.0	Sulfate	06/27/05	BLKIC0627D	ug/L	10	2000	69400	
300.0	Nitrate as N	06/27/05	BLKIC0627A	ug/L	1	200	7640	
300.0	O-Phosphate as P	06/27/05	BLKIC0627B	ug/L	1	200	217	
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616B	ug/L	10	100	7340	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB66-W-04582F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107724

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624228

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/15/05	BLKAL0615D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/15/05	BLKAL0615C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/15/05	BLKAL0615B	ug/L	1	1000	232000	
310.1	Total Alkalinity	06/15/05	BLKAL0615A	ug/L	1	1000	232000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB66-W-04581

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624229

Matrix: WATER
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/27/05	BLKIC0627C	ug/L	10	2000	44600	
300.0	Sulfate	06/27/05	BLKIC0627D	ug/L	10	2000	74800	
300.0	Nitrate as N	06/27/05	BLKIC0627A	ug/L	1	200	5500	
300.0	O-Phosphate as P	06/27/05	BLKIC0627B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616B	ug/L	10	100	5250	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB66-W-04581F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624230

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/15/05	BLKAL0615D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/15/05	BLKAL0615C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/15/05	BLKAL0615B	ug/L	1	1000	230000	
310.1	Total Alkalinity	06/15/05	BLKAL0615A	ug/L	1	1000	230000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04589

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624231

Matrix: WATER
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/27/05	BLKIC0627C	ug/L	10	2000	44700	
300.0	Sulfate	06/27/05	BLKIC0627D	ug/L	10	2000	70000	
300.0	Nitrate as N	06/27/05	BLKIC0627A	ug/L	1	200	5380	
300.0	O-Phosphate as P	06/27/05	BLKIC0627B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616B	ug/L	10	100	5370	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGQCDU-W-04589F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624232

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/15/05	BLKAL0615D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/15/05	BLKAL0615C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/15/05	BLKAL0615B	ug/L	1	1000	232000	
310.1	Total Alkalinity	06/15/05	BLKAL0615A	ug/L	1	1000	232000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGPW1-W-04606

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624233

Matrix: WATER
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/27/05	BLKIC0627C	ug/L	10	2000	118000	
300.0	Sulfate	07/01/05	BLKIC0701B	ug/L	50	10000	325000	
300.0	Nitrate as N	06/27/05	BLKIC0627A	ug/L	1	200	10600	
300.0	O-Phosphate as P	06/27/05	BLKIC0627B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616B	ug/L	10	100	10100	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGPW1-W-04606F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624234

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/15/05	BLKAL0615D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/15/05	BLKAL0615C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/15/05	BLKAL0615B	ug/L	1	1000	325000	
310.1	Total Alkalinity	06/15/05	BLKAL0615A	ug/L	1	1000	325000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGPW2-W-04607

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107724

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624235

Matrix: WATER
Client: ARGLAB
Date Received: 06/10/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701A	ug/L	20	4000	118000	
300.0	Sulfate	07/01/05	BLKIC0701B	ug/L	50	10000	225000	
300.0	Nitrate as N	06/27/05	BLKIC0627A	ug/L	1	200	9630	
300.0	O-Phosphate as P	06/27/05	BLKIC0627B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/16/05	BLKNN0616B	ug/L	10	100	9330	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGPW2-W-04607F

Lab Name: STL BURLINGTON
Lab Code: STLVT
Matrix: FILTRATE
% Solids:

Contract: 3E-00361
Case No.: AGRA
Client: ARGLAB

SDG No.: 107724
Lab Sample ID: 624236
Date Received: 06/10/05

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/15/05	BLKAL0615D	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/15/05	BLKAL0615C	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/15/05	BLKAL0615B	ug/L	1	1000	325000	
310.1	Total Alkalinity	06/15/05	BLKAL0615A	ug/L	1	1000	325000	

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGPW1-W-04606F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107724

Matrix (soil/water): WATER Lab Sample ID: 624234

Level (low/med): LOW Date Received: 06/10/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	231000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	22400			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	24.1	B		P
7440-09-7	Potassium	9340			P
7440-21-3	Silicon	22300			P
7440-23-5	Sodium	63000			P
7440-66-6	Zinc	46.6			P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGPW2-W-04607F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107724

Matrix (soil/water): WATER Lab Sample ID: 624236

Level (low/med): LOW Date Received: 06/10/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	230000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	23900			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	29.1	B		P
7440-09-7	Potassium	9950			P
7440-21-3	Silicon	23500			P
7440-23-5	Sodium	66800			P
7440-66-6	Zinc	38.0			P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGQCDU-W-04589F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107724

Matrix (soil/water): WATER Lab Sample ID: 624232

Level (low/med): LOW Date Received: 06/10/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	102000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	15700			P
7439-96-5	Manganese	85.0			P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	9500			P
7440-21-3	Silicon	20900			P
7440-23-5	Sodium	34100			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0021

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB66-W-04581F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107724

Matrix (soil/water): WATER Lab Sample ID: 624230

Level (low/med): LOW Date Received: 06/10/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	103000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	16100			P
7439-96-5	Manganese	85.6			P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	9170			P
7440-21-3	Silicon	21200			P
7440-23-5	Sodium	34500			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB66-W-04582F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107724

Matrix (soil/water): WATER Lab Sample ID: 624228

Level (low/med): LOW Date Received: 06/10/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	110000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	16700			P
7439-96-5	Manganese	15.0	B		P
7723-14-0	Phosphorous	17.2	B		P
7440-09-7	Potassium	6670			P
7440-21-3	Silicon	23000			P
7440-23-5	Sodium	35800			P
7440-66-6	Zinc	7.5	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107746

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107746

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB41-W-04542

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624414

Matrix: WATER
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/28/05	BLKIC0628A	ug/L	10	2000	63000	
300.0	Sulfate	07/01/05	BLKIC0701C	ug/L	10	2000	70900	
300.0	Nitrate as N	06/28/05	BLKIC0628C	ug/L	2	400	14000	
300.0	O-Phosphate as P	06/13/05	BLKIC0613B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/22/05	BLKNN0622A	ug/L	10	100	14600	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB41-W-04542F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107746

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624415

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616A	ug/L	1	1000	221000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616B	ug/L	1	1000	221000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616C	ug/L	1	1000	1000	U
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616D	ug/L	1	1000	1000	U

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB41-W-04540

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624416

Matrix: WATER
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/28/05	BLKIC0628A	ug/L	10	2000	83200	
300.0	Sulfate	07/01/05	BLKIC0701C	ug/L	10	2000	66200	
300.0	Nitrate as N	06/28/05	BLKIC0628C	ug/L	2	400	15800	
300.0	O-Phosphate as P	06/28/05	BLKIC0628E	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/22/05	BLKNN0622A	ug/L	10	100	16400	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB41-W-04540F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624417

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616A	ug/L	1	1000	224000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616B	ug/L	1	1000	224000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616C	ug/L	1	1000	1000	U
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616D	ug/L	1	1000	1000	U

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB66-W-04583

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624418

Matrix: WATER
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/28/05	BLKIC0628A	ug/L	20	4000	114000	
300.0	Sulfate	07/01/05	BLKIC0701C	ug/L	20	4000	103000	
300.0	Nitrate as N	06/28/05	BLKIC0628C	ug/L	2	400	17300	
300.0	O-Phosphate as P	06/28/05	BLKIC0628E	ug/L	1	200	365	
353.2	Nitrate/Nitrite Nitrogen	06/22/05	BLKNN0622A	ug/L	10	100	17500	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB66-W-04583F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107746

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624419

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616A	ug/L	1	1000	249000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616B	ug/L	1	1000	249000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616C	ug/L	1	1000	1000	U
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616D	ug/L	1	1000	1000	U

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB54-W-04587

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624420

Matrix: WATER
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/28/05	BLKIC0628A	ug/L	10	2000	54200	
300.0	Sulfate	07/01/05	BLKIC0701C	ug/L	200	40000	735000	
300.0	Nitrate as N	06/28/05	BLKIC0628C	ug/L	10	2000	45000	
300.0	O-Phosphate as P	06/28/05	BLKIC0628E	ug/L	1	200	363	
353.2	Nitrate/Nitrite Nitrogen	06/22/05	BLKNN0622D	ug/L	50	500	53700	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB54-W-04587F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624421

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616A	ug/L	1	1000	365000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616B	ug/L	1	1000	365000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616C	ug/L	1	1000	1000	U
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616D	ug/L	1	1000	1000	U

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGMWP-W-04544

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107746

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624422

Matrix: WATER

Client: ARGLAB

Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/28/05	BLKIC0628B	ug/L	20	4000	104000	
300.0	Sulfate	07/01/05	BLKIC0701C	ug/L	10	2000	75500	
300.0	Nitrate as N	06/28/05	BLKIC0628C	ug/L	2	400	13900	
300.0	O-Phosphate as P	06/13/05	BLKIC0613B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/22/05	BLKNN0622A	ug/L	10	100	14400	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGMWP-W-04544F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624423

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616A	ug/L	1	1000	208000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616B	ug/L	1	1000	208000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616C	ug/L	1	1000	1000	U
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616D	ug/L	1	1000	1000	U

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB54-W-04588

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107746

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624424

Matrix: WATER

Client: ARGLAB

Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/28/05	BLKIC0628B	ug/L	10	2000	73800	
300.0	Sulfate	07/01/05	BLKIC0701C	ug/L	100	20000	341000	
300.0	Nitrate as N	06/28/05	BLKIC0628D	ug/L	10	2000	42200	
300.0	O-Phosphate as P	06/28/05	BLKIC0628F	ug/L	1	200	363	
353.2	Nitrate/Nitrite Nitrogen	06/22/05	BLKNN0622D	ug/L	50	500	49500	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB54-W-04588F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107746

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624425

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616A	ug/L	1	1000	323000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616B	ug/L	1	1000	323000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616C	ug/L	1	1000	1000	U
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616D	ug/L	1	1000	1000	U

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB41-W-04541

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107746

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624426

Matrix: WATER
Client: ARGLAB
Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	06/28/05	BLKIC0628B	ug/L	10	2000	75800	
300.0	Sulfate	07/01/05	BLKIC0701C	ug/L	10	2000	71100	
300.0	Nitrate as N	06/28/05	BLKIC0628D	ug/L	2	400	15300	
300.0	O-Phosphate as P	06/13/05	BLKIC0613B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/22/05	BLKNN0622A	ug/L	10	100	15600	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB41-W-04541F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107746

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624427

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/11/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616A	ug/L	1	1000	204000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616B	ug/L	1	1000	204000	
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616C	ug/L	1	1000	1000	U
310.1	Alkalinity w/Breakdown	06/16/05	BLKAL0616D	ug/L	1	1000	1000	U

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGMWP-W-04544F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107746

Matrix (soil/water): WATER Lab Sample ID: 624423

Level (low/med): LOW Date Received: 06/11/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	152000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	21800			P
7439-96-5	Manganese	7.0	B		P
7723-14-0	Phosphorous	31.3	B		P
7440-09-7	Potassium	6970			P
7440-21-3	Silicon	17600			P
7440-23-5	Sodium	26200			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB41-W-04540F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107746

Matrix (soil/water): WATER Lab Sample ID: 624417

Level (low/med): LOW Date Received: 06/11/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	145000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19700			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	32.6	B		P
7440-09-7	Potassium	6460			P
7440-21-3	Silicon	22300			P
7440-23-5	Sodium	21500			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB41-W-04541F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107746

Matrix (soil/water): WATER Lab Sample ID: 624427

Level (low/med): LOW Date Received: 06/11/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	128000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19100			P
7439-96-5	Manganese	37.8			P
7723-14-0	Phosphorous	19.7	B		P
7440-09-7	Potassium	9270			P
7440-21-3	Silicon	19500			P
7440-23-5	Sodium	25000			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB41-W-04542F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107746

Matrix (soil/water): WATER Lab Sample ID: 624415

Level (low/med): LOW Date Received: 06/11/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	132000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	19200			P
7439-96-5	Manganese	9.0	B		P
7723-14-0	Phosphorous	15.8	B		P
7440-09-7	Potassium	7730			P
7440-21-3	Silicon	21100			P
7440-23-5	Sodium	21200			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB54-W-04587F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107746

Matrix (soil/water): WATER Lab Sample ID: 624421

Level (low/med): LOW Date Received: 06/11/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	321000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	33900			P
7439-96-5	Manganese	2.1	B		P
7723-14-0	Phosphorous	155	B		P
7440-09-7	Potassium	18400			P
7440-21-3	Silicon	11700			P
7440-23-5	Sodium	228000			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0037

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB54-W-04588F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107746

Matrix (soil/water): WATER Lab Sample ID: 624425

Level (low/med): LOW Date Received: 06/11/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	227000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	24800			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	153	B		P
7440-09-7	Potassium	14600			P
7440-21-3	Silicon	13800			P
7440-23-5	Sodium	145000			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB66-W-04583F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107746

Matrix (soil/water): WATER Lab Sample ID: 624419

Level (low/med): LOW Date Received: 06/11/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	141000			P
7439-89-6	Iron	38.9	U		P
7439-95-4	Magnesium	15600			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	55.9	B		P
7440-09-7	Potassium	9630			P
7440-21-3	Silicon	22300			P
7440-23-5	Sodium	89000			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107771

STL Burlington
Colchester, Vermont

Extended Data Package

SDG: 107771

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-04512

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624603

Sample wt/vol: 14.0 (g/mL) G Lab File ID: 624603E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.2	U
74-87-3	Chloromethane	5.3	J
75-01-4	Vinyl Chloride	7.2	U
74-83-9	Bromomethane	2.1	J
75-00-3	Chloroethane	7.2	U
75-69-4	Trichlorofluoromethane	7.2	U
107-02-8	Acrolein	36	U
75-35-4	1,1-Dichloroethene	7.2	U
76-13-1	Freon TF	7.2	U
67-64-1	Acetone	36	U
74-88-4	Methyl Iodide	7.2	U
75-15-0	Carbon Disulfide	7.2	U
107-05-1	Allyl Chloride	7.2	U
75-09-2	Methylene Chloride	7.2	U
107-13-1	Acrylonitrile	7.2	U
156-60-5	trans-1,2-Dichloroethene	7.2	U
1634-04-4	Methyl-t-Butyl Ether	7.2	U
540-59-0	1,2-Dichloroethene (total)	7.2	U
75-34-3	1,1-Dichloroethane	7.2	U
126-99-8	Chloroprene	7.2	U
108-05-4	Vinyl Acetate	7.2	U
594-20-7	2,2-Dichloropropane	7.2	U
156-59-2	cis-1,2-Dichloroethene	7.2	U
78-93-3	2-Butanone	56	
107-12-0	Propionitrile	29	U
74-97-5	Bromochloromethane	7.2	U
126-98-7	Methacrylonitrile	7.2	U
109-99-9	Tetrahydrofuran	100	U
67-66-3	Chloroform	7.2	U
71-55-6	1,1,1-Trichloroethane	7.2	U
56-23-5	Carbon Tetrachloride	7.2	U
563-58-6	1,1-Dichloropropene	7.2	U
71-43-2	Benzene	7.2	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-04512

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624603

Sample wt/vol: 14.0 (g/mL) G Lab File ID: 624603E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	7.2	U
78-83-1	Isobutyl Alcohol	360	U
79-01-6	Trichloroethene	7.2	U
78-87-5	1,2-Dichloropropane	7.2	U
74-95-3	Dibromomethane	7.2	U
80-62-6	Methyl Methacrylate	7.2	U
123-91-1	1,4-Dioxane	360	U
75-27-4	Bromodichloromethane	7.2	U
110-75-8	2-Chloroethyl Vinyl Ether	7.2	U
10061-01-5	cis-1,3-Dichloropropene	7.2	U
108-10-1	4-Methyl-2-pentanone	36	U
108-88-3	Toluene	7.2	U
10061-02-6	trans-1,3-Dichloropropene	7.2	U
97-63-2	Ethyl Methacrylate	7.2	U
79-00-5	1,1,2-Trichloroethane	7.2	U
127-18-4	Tetrachloroethene	7.2	U
142-28-9	1,3-Dichloropropane	7.2	U
591-78-6	2-Hexanone	36	U
124-48-1	Dibromochloromethane	7.2	U
106-93-4	1,2-Dibromoethane	7.2	U
108-90-7	Chlorobenzene	7.2	U
630-20-6	1,1,1,2-Tetrachloroethane	7.2	U
100-41-4	Ethylbenzene	7.2	U
1330-20-7	Xylene (m,p)	7.2	U
1330-20-7	Xylene (total)	7.2	U
95-47-6	Xylene (o)	7.2	U
100-42-5	Styrene	7.2	U
75-25-2	Bromoform	7.2	U
98-82-8	Isopropylbenzene	7.2	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.2	U
108-86-1	Bromobenzene	7.2	U
79-34-5	1,1,2,2-Tetrachloroethane	7.2	U
103-65-1	n-Propylbenzene	7.2	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-04512

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624603

Sample wt/vol: 14.0 (g/mL) G Lab File ID: 624603E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	7.2	U
110-57-6	trans-1,4-Dichloro-2-butene	7.2	U
95-49-8	2-Chlorotoluene	7.2	U
106-43-4	4-Chlorotoluene	7.2	U
108-67-8	1,3,5-Trimethylbenzene	7.2	U
98-06-6	tert-Butylbenzene	7.2	U
95-63-6	1,2,4-Trimethylbenzene	7.2	U
135-98-8	sec-Butylbenzene	7.2	U
541-73-1	1,3-Dichlorobenzene	7.2	U
99-87-6	4-Isopropyltoluene	7.2	U
106-46-7	1,4-Dichlorobenzene	7.2	U
95-50-1	1,2-Dichlorobenzene	7.2	U
104-51-8	n-Butylbenzene	7.2	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.2	U
120-82-1	1,2,4-Trichlorobenzene	7.2	U
87-68-3	Hexachlorobutadiene	7.2	U
91-20-3	Naphthalene	7.2	U
87-61-6	1,2,3-Trichlorobenzene	7.2	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17580

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624600

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 624600E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.0	U
74-87-3	Chloromethane	2.9	J
75-01-4	Vinyl Chloride	9.0	U
74-83-9	Bromomethane	9.0	U
75-00-3	Chloroethane	9.0	U
75-69-4	Trichlorofluoromethane	9.0	U
107-02-8	Acrolein	44	U
75-35-4	1,1-Dichloroethene	9.0	U
76-13-1	Freon TF	9.0	U
67-64-1	Acetone	44	U
74-88-4	Methyl Iodide	9.0	U
75-15-0	Carbon Disulfide	9.0	U
107-05-1	Allyl Chloride	9.0	U
75-09-2	Methylene Chloride	9.0	U
107-13-1	Acrylonitrile	9.0	U
156-60-5	trans-1,2-Dichloroethene	9.0	U
1634-04-4	Methyl-t-Butyl Ether	9.0	U
540-59-0	1,2-Dichloroethene (total)	9.0	U
75-34-3	1,1-Dichloroethane	9.0	U
126-99-8	Chloroprene	9.0	U
108-05-4	Vinyl Acetate	9.0	U
594-20-7	2,2-Dichloropropane	9.0	U
156-59-2	cis-1,2-Dichloroethene	9.0	U
78-93-3	2-Butanone	170	
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	9.0	U
126-98-7	Methacrylonitrile	9.0	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.0	U
71-55-6	1,1,1-Trichloroethane	9.0	U
56-23-5	Carbon Tetrachloride	9.0	U
563-58-6	1,1-Dichloropropene	9.0	U
71-43-2	Benzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17580

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624600

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 624600E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.0	U
78-83-1	Isobutyl Alcohol	450	U
79-01-6	Trichloroethene	9.0	U
78-87-5	1,2-Dichloropropane	9.0	U
74-95-3	Dibromomethane	9.0	U
80-62-6	Methyl Methacrylate	9.0	U
123-91-1	1,4-Dioxane	450	U
75-27-4	Bromodichloromethane	9.0	U
110-75-8	2-Chloroethyl Vinyl Ether	9.0	U
10061-01-5	cis-1,3-Dichloropropene	9.0	U
108-10-1	4-Methyl-2-pentanone	44	U
108-88-3	Toluene	9.0	U
10061-02-6	trans-1,3-Dichloropropene	9.0	U
97-63-2	Ethyl Methacrylate	9.0	U
79-00-5	1,1,2-Trichloroethane	9.0	U
127-18-4	Tetrachloroethene	9.0	U
142-28-9	1,3-Dichloropropane	9.0	U
591-78-6	2-Hexanone	44	U
124-48-1	Dibromochloromethane	9.0	U
106-93-4	1,2-Dibromoethane	9.0	U
108-90-7	Chlorobenzene	9.0	U
630-20-6	1,1,1,2-Tetrachloroethane	9.0	U
100-41-4	Ethylbenzene	9.0	U
1330-20-7	Xylene (m,p)	2.6	J
1330-20-7	Xylene (total)	2.7	J
95-47-6	Xylene (o)	9.0	U
100-42-5	Styrene	9.0	U
75-25-2	Bromoform	9.0	U
98-82-8	Isopropylbenzene	9.0	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.0	U
108-86-1	Bromobenzene	9.0	U
79-34-5	1,1,2,2-Tetrachloroethane	9.0	U
103-65-1	n-Propylbenzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17580

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624600

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 624600E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.0	U
110-57-6	trans-1,4-Dichloro-2-butene	9.0	U
95-49-8	2-Chlorotoluene	9.0	U
106-43-4	4-Chlorotoluene	9.0	U
108-67-8	1,3,5-Trimethylbenzene	9.0	U
98-06-6	tert-Butylbenzene	9.0	U
95-63-6	1,2,4-Trimethylbenzene	9.0	U
135-98-8	sec-Butylbenzene	9.0	U
541-73-1	1,3-Dichlorobenzene	9.0	U
99-87-6	4-Isopropyltoluene	9.0	U
106-46-7	1,4-Dichlorobenzene	9.0	U
95-50-1	1,2-Dichlorobenzene	9.0	U
104-51-8	n-Butylbenzene	9.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U
120-82-1	1,2,4-Trichlorobenzene	9.0	U
87-68-3	Hexachlorobutadiene	9.0	U
91-20-3	Naphthalene	9.0	U
87-61-6	1,2,3-Trichlorobenzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17585

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624608

Sample wt/vol: 13.5 (g/mL) G Lab File ID: 624608E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.4	U
74-87-3	Chloromethane	6.6	J
75-01-4	Vinyl Chloride	7.4	U
74-83-9	Bromomethane	7.4	U
75-00-3	Chloroethane	7.4	U
75-69-4	Trichlorofluoromethane	7.4	U
107-02-8	Acrolein	37	U
75-35-4	1,1-Dichloroethene	7.4	U
76-13-1	Freon TF	7.4	U
67-64-1	Acetone	37	U
74-88-4	Methyl Iodide	7.4	U
75-15-0	Carbon Disulfide	7.4	U
107-05-1	Allyl Chloride	7.4	U
75-09-2	Methylene Chloride	7.4	U
107-13-1	Acrylonitrile	7.4	U
156-60-5	trans-1,2-Dichloroethene	7.4	U
1634-04-4	Methyl-t-Butyl Ether	7.4	U
540-59-0	1,2-Dichloroethene (total)	7.4	U
75-34-3	1,1-Dichloroethane	7.4	U
126-99-8	Chloroprene	7.4	U
108-05-4	Vinyl Acetate	7.4	U
594-20-7	2,2-Dichloropropane	7.4	U
156-59-2	cis-1,2-Dichloroethene	7.4	U
78-93-3	2-Butanone	110	
107-12-0	Propionitrile	30	U
74-97-5	Bromochloromethane	7.4	U
126-98-7	Methacrylonitrile	7.4	U
109-99-9	Tetrahydrofuran	100	U
67-66-3	Chloroform	3.5	J
71-55-6	1,1,1-Trichloroethane	7.4	U
56-23-5	Carbon Tetrachloride	29	
563-58-6	1,1-Dichloropropene	7.4	U
71-43-2	Benzene	7.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17585

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624608

Sample wt/vol: 13.5 (g/mL) G Lab File ID: 624608E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	3.8	J
78-83-1	Isobutyl Alcohol	370	U
79-01-6	Trichloroethene	7.4	U
78-87-5	1,2-Dichloropropane	7.4	U
74-95-3	Dibromomethane	7.4	U
80-62-6	Methyl Methacrylate	7.4	U
123-91-1	1,4-Dioxane	370	U
75-27-4	Bromodichloromethane	7.4	U
110-75-8	2-Chloroethyl Vinyl Ether	7.4	U
10061-01-5	cis-1,3-Dichloropropene	7.4	U
108-10-1	4-Methyl-2-pentanone	37	U
108-88-3	Toluene	7.4	U
10061-02-6	trans-1,3-Dichloropropene	7.4	U
97-63-2	Ethyl Methacrylate	7.4	U
79-00-5	1,1,2-Trichloroethane	7.4	U
127-18-4	Tetrachloroethene	7.4	U
142-28-9	1,3-Dichloropropane	7.4	U
591-78-6	2-Hexanone	37	U
124-48-1	Dibromochloromethane	7.4	U
106-93-4	1,2-Dibromoethane	7.4	U
108-90-7	Chlorobenzene	7.4	U
630-20-6	1,1,1,2-Tetrachloroethane	7.4	U
100-41-4	Ethylbenzene	7.4	U
1330-20-7	Xylene (m,p)	2.5	J
1330-20-7	Xylene (total)	2.6	J
95-47-6	Xylene (o)	7.4	U
100-42-5	Styrene	7.4	U
75-25-2	Bromoform	7.4	U
98-82-8	Isopropylbenzene	7.4	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.4	U
108-86-1	Bromobenzene	7.4	U
79-34-5	1,1,2,2-Tetrachloroethane	7.4	U
103-65-1	n-Propylbenzene	7.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17585

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624608

Sample wt/vol: 13.5 (g/mL) G Lab File ID: 624608E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	7.4	U
110-57-6	trans-1,4-Dichloro-2-butene	7.4	U
95-49-8	2-Chlorotoluene	7.4	U
106-43-4	4-Chlorotoluene	7.4	U
108-67-8	1,3,5-Trimethylbenzene	7.4	U
98-06-6	tert-Butylbenzene	7.4	U
95-63-6	1,2,4-Trimethylbenzene	7.4	U
135-98-8	sec-Butylbenzene	7.4	U
541-73-1	1,3-Dichlorobenzene	7.4	U
99-87-6	4-Isopropyltoluene	7.4	U
106-46-7	1,4-Dichlorobenzene	7.4	U
95-50-1	1,2-Dichlorobenzene	7.4	U
104-51-8	n-Butylbenzene	7.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.4	U
120-82-1	1,2,4-Trichlorobenzene	7.4	U
87-68-3	Hexachlorobutadiene	7.4	U
91-20-3	Naphthalene	7.4	U
87-61-6	1,2,3-Trichlorobenzene	7.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17586

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624609

Sample wt/vol: 14.4 (g/mL) G Lab File ID: 624609E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.0	U
74-87-3	Chloromethane	5.1	J
75-01-4	Vinyl Chloride	7.0	U
74-83-9	Bromomethane	7.0	U
75-00-3	Chloroethane	7.0	U
75-69-4	Trichlorofluoromethane	7.0	U
107-02-8	Acrolein	35	U
75-35-4	1,1-Dichloroethene	7.0	U
76-13-1	Freon TF	7.0	U
67-64-1	Acetone	35	U
74-88-4	Methyl Iodide	7.0	U
75-15-0	Carbon Disulfide	7.0	U
107-05-1	Allyl Chloride	7.0	U
75-09-2	Methylene Chloride	7.0	U
107-13-1	Acrylonitrile	7.0	U
156-60-5	trans-1,2-Dichloroethene	7.0	U
1634-04-4	Methyl-t-Butyl Ether	7.0	U
540-59-0	1,2-Dichloroethene (total)	7.0	U
75-34-3	1,1-Dichloroethane	7.0	U
126-99-8	Chloroprene	7.0	U
108-05-4	Vinyl Acetate	7.0	U
594-20-7	2,2-Dichloropropane	7.0	U
156-59-2	cis-1,2-Dichloroethene	7.0	U
78-93-3	2-Butanone	130	
107-12-0	Propionitrile	28	U
74-97-5	Bromochloromethane	7.0	U
126-98-7	Methacrylonitrile	7.0	U
109-99-9	Tetrahydrofuran	97	U
67-66-3	Chloroform	4.1	J
71-55-6	1,1,1-Trichloroethane	7.0	U
56-23-5	Carbon Tetrachloride	34	
563-58-6	1,1-Dichloropropene	7.0	U
71-43-2	Benzene	7.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17586

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624609

Sample wt/vol: 14.4 (g/mL) G Lab File ID: 624609E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	6.6	J
78-83-1	Isobutyl Alcohol	350	U
79-01-6	Trichloroethene	7.0	U
78-87-5	1,2-Dichloropropane	7.0	U
74-95-3	Dibromomethane	7.0	U
80-62-6	Methyl Methacrylate	7.0	U
123-91-1	1,4-Dioxane	350	U
75-27-4	Bromodichloromethane	7.0	U
110-75-8	2-Chloroethyl Vinyl Ether	7.0	U
10061-01-5	cis-1,3-Dichloropropene	7.0	U
108-10-1	4-Methyl-2-pentanone	35	U
108-88-3	Toluene	7.0	U
10061-02-6	trans-1,3-Dichloropropene	7.0	U
97-63-2	Ethyl Methacrylate	7.0	U
79-00-5	1,1,2-Trichloroethane	7.0	U
127-18-4	Tetrachloroethene	7.0	U
142-28-9	1,3-Dichloropropane	7.0	U
591-78-6	2-Hexanone	35	U
124-48-1	Dibromochloromethane	7.0	U
106-93-4	1,2-Dibromoethane	7.0	U
108-90-7	Chlorobenzene	7.0	U
630-20-6	1,1,1,2-Tetrachloroethane	7.0	U
100-41-4	Ethylbenzene	7.0	U
1330-20-7	Xylene (m,p)	7.0	U
1330-20-7	Xylene (total)	7.0	U
95-47-6	Xylene (o)	7.0	U
100-42-5	Styrene	7.0	U
75-25-2	Bromoform	7.0	U
98-82-8	Isopropylbenzene	7.0	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.0	U
108-86-1	Bromobenzene	7.0	U
79-34-5	1,1,2,2-Tetrachloroethane	7.0	U
103-65-1	n-Propylbenzene	7.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17586

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624609

Sample wt/vol: 14.4 (g/mL) G Lab File ID: 624609E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	7.0	U
110-57-6	trans-1,4-Dichloro-2-butene	7.0	U
95-49-8	2-Chlorotoluene	7.0	U
106-43-4	4-Chlorotoluene	7.0	U
108-67-8	1,3,5-Trimethylbenzene	7.0	U
98-06-6	tert-Butylbenzene	7.0	U
95-63-6	1,2,4-Trimethylbenzene	7.0	U
135-98-8	sec-Butylbenzene	7.0	U
541-73-1	1,3-Dichlorobenzene	7.0	U
99-87-6	4-Isopropyltoluene	7.0	U
106-46-7	1,4-Dichlorobenzene	7.0	U
95-50-1	1,2-Dichlorobenzene	7.0	U
104-51-8	n-Butylbenzene	7.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.0	U
120-82-1	1,2,4-Trichlorobenzene	7.0	U
87-68-3	Hexachlorobutadiene	7.0	U
91-20-3	Naphthalene	7.0	U
87-61-6	1,2,3-Trichlorobenzene	7.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17639

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624606

Sample wt/vol: 13.6 (g/mL) G Lab File ID: 624606E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.3	U
74-87-3	Chloromethane	7.8	
75-01-4	Vinyl Chloride	7.3	U
74-83-9	Bromomethane	2.1	J
75-00-3	Chloroethane	7.3	U
75-69-4	Trichlorofluoromethane	7.3	U
107-02-8	Acrolein	36	U
75-35-4	1,1-Dichloroethene	7.3	U
76-13-1	Freon TF	7.3	U
67-64-1	Acetone	36	U
74-88-4	Methyl Iodide	7.3	U
75-15-0	Carbon Disulfide	7.3	U
107-05-1	Allyl Chloride	7.3	U
75-09-2	Methylene Chloride	7.3	U
107-13-1	Acrylonitrile	7.3	U
156-60-5	trans-1,2-Dichloroethene	7.3	U
1634-04-4	Methyl-t-Butyl Ether	7.3	U
540-59-0	1,2-Dichloroethene (total)	7.3	U
75-34-3	1,1-Dichloroethane	7.3	U
126-99-8	Chloroprene	7.3	U
108-05-4	Vinyl Acetate	7.3	U
594-20-7	2,2-Dichloropropane	7.3	U
156-59-2	cis-1,2-Dichloroethene	7.3	U
78-93-3	2-Butanone	36	U
107-12-0	Propionitrile	29	U
74-97-5	Bromochloromethane	7.3	U
126-98-7	Methacrylonitrile	7.3	U
109-99-9	Tetrahydrofuran	100	U
67-66-3	Chloroform	7.3	U
71-55-6	1,1,1-Trichloroethane	7.3	U
56-23-5	Carbon Tetrachloride	7.3	U
563-58-6	1,1-Dichloropropene	7.3	U
71-43-2	Benzene	7.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17639

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624606

Sample wt/vol: 13.6 (g/mL) G Lab File ID: 624606E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	7.3	U
78-83-1	Isobutyl Alcohol	370	U
79-01-6	Trichloroethene	7.3	U
78-87-5	1,2-Dichloropropane	7.3	U
74-95-3	Dibromomethane	7.3	U
80-62-6	Methyl Methacrylate	7.3	U
123-91-1	1,4-Dioxane	370	U
75-27-4	Bromodichloromethane	7.3	U
110-75-8	2-Chloroethyl Vinyl Ether	7.3	U
10061-01-5	cis-1,3-Dichloropropene	7.3	U
108-10-1	4-Methyl-2-pentanone	36	U
108-88-3	Toluene	7.3	U
10061-02-6	trans-1,3-Dichloropropene	7.3	U
97-63-2	Ethyl Methacrylate	7.3	U
79-00-5	1,1,2-Trichloroethane	7.3	U
127-18-4	Tetrachloroethene	7.3	U
142-28-9	1,3-Dichloropropane	7.3	U
591-78-6	2-Hexanone	36	U
124-48-1	Dibromochloromethane	7.3	U
106-93-4	1,2-Dibromoethane	7.3	U
108-90-7	Chlorobenzene	7.3	U
630-20-6	1,1,1,2-Tetrachloroethane	7.3	U
100-41-4	Ethylbenzene	7.3	U
1330-20-7	Xylene (m,p)	7.3	U
1330-20-7	Xylene (total)	7.3	U
95-47-6	Xylene (o)	7.3	U
100-42-5	Styrene	7.3	U
75-25-2	Bromoform	7.3	U
98-82-8	Isopropylbenzene	7.3	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.3	U
108-86-1	Bromobenzene	7.3	U
79-34-5	1,1,2,2-Tetrachloroethane	7.3	U
103-65-1	n-Propylbenzene	7.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17639

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624606

Sample wt/vol: 13.6 (g/mL) G Lab File ID: 624606E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	7.3	U
110-57-6	trans-1,4-Dichloro-2-butene	7.3	U
95-49-8	2-Chlorotoluene	7.3	U
106-43-4	4-Chlorotoluene	7.3	U
108-67-8	1,3,5-Trimethylbenzene	7.3	U
98-06-6	tert-Butylbenzene	7.3	U
95-63-6	1,2,4-Trimethylbenzene	7.3	U
135-98-8	sec-Butylbenzene	7.3	U
541-73-1	1,3-Dichlorobenzene	7.3	U
99-87-6	4-Isopropyltoluene	7.3	U
106-46-7	1,4-Dichlorobenzene	7.3	U
95-50-1	1,2-Dichlorobenzene	7.3	U
104-51-8	n-Butylbenzene	7.3	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.3	U
120-82-1	1,2,4-Trichlorobenzene	7.3	U
87-68-3	Hexachlorobutadiene	7.3	U
91-20-3	Naphthalene	7.3	U
87-61-6	1,2,3-Trichlorobenzene	7.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17641

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624604

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 624604E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.5	U
74-87-3	Chloromethane	6.1	J
75-01-4	Vinyl Chloride	8.5	U
74-83-9	Bromomethane	3.5	J
75-00-3	Chloroethane	8.5	U
75-69-4	Trichlorofluoromethane	8.5	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.5	U
76-13-1	Freon TF	8.5	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	8.5	U
75-15-0	Carbon Disulfide	8.5	U
107-05-1	Allyl Chloride	8.5	U
75-09-2	Methylene Chloride	8.5	U
107-13-1	Acrylonitrile	8.5	U
156-60-5	trans-1,2-Dichloroethene	8.5	U
1634-04-4	Methyl-t-Butyl Ether	8.5	U
540-59-0	1,2-Dichloroethene (total)	8.5	U
75-34-3	1,1-Dichloroethane	8.5	U
126-99-8	Chloroprene	8.5	U
108-05-4	Vinyl Acetate	8.5	U
594-20-7	2,2-Dichloropropane	8.5	U
156-59-2	cis-1,2-Dichloroethene	8.5	U
78-93-3	2-Butanone	42	U
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.5	U
126-98-7	Methacrylonitrile	8.5	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.5	U
71-55-6	1,1,1-Trichloroethane	8.5	U
56-23-5	Carbon Tetrachloride	8.5	U
563-58-6	1,1-Dichloropropene	8.5	U
71-43-2	Benzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17641

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624604

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 624604E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	8.5	U
78-83-1	Isobutyl Alcohol	420	U
79-01-6	Trichloroethene	8.5	U
78-87-5	1,2-Dichloropropane	8.5	U
74-95-3	Dibromomethane	8.5	U
80-62-6	Methyl Methacrylate	8.5	U
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.5	U
110-75-8	2-Chloroethyl Vinyl Ether	8.5	U
10061-01-5	cis-1,3-Dichloropropene	8.5	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	8.5	U
10061-02-6	trans-1,3-Dichloropropene	8.5	U
97-63-2	Ethyl Methacrylate	8.5	U
79-00-5	1,1,2-Trichloroethane	8.5	U
127-18-4	Tetrachloroethene	8.5	U
142-28-9	1,3-Dichloropropane	8.5	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.5	U
106-93-4	1,2-Dibromoethane	8.5	U
108-90-7	Chlorobenzene	8.5	U
630-20-6	1,1,1,2-Tetrachloroethane	8.5	U
100-41-4	Ethylbenzene	8.5	U
1330-20-7	Xylene (m,p)	8.5	U
1330-20-7	Xylene (total)	8.5	U
95-47-6	Xylene (o)	8.5	U
100-42-5	Styrene	8.5	U
75-25-2	Bromoform	8.5	U
98-82-8	Isopropylbenzene	8.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.5	U
108-86-1	Bromobenzene	8.5	U
79-34-5	1,1,2,2-Tetrachloroethane	8.5	U
103-65-1	n-Propylbenzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17641

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624604

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 624604E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.5	U
110-57-6	trans-1,4-Dichloro-2-butene	8.5	U
95-49-8	2-Chlorotoluene	8.5	U
106-43-4	4-Chlorotoluene	8.5	U
108-67-8	1,3,5-Trimethylbenzene	8.5	U
98-06-6	tert-Butylbenzene	8.5	U
95-63-6	1,2,4-Trimethylbenzene	8.5	U
135-98-8	sec-Butylbenzene	8.5	U
541-73-1	1,3-Dichlorobenzene	8.5	U
99-87-6	4-Isopropyltoluene	8.5	U
106-46-7	1,4-Dichlorobenzene	8.5	U
95-50-1	1,2-Dichlorobenzene	8.5	U
104-51-8	n-Butylbenzene	8.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.5	U
120-82-1	1,2,4-Trichlorobenzene	8.5	U
87-68-3	Hexachlorobutadiene	8.5	U
91-20-3	Naphthalene	8.5	U
87-61-6	1,2,3-Trichlorobenzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17665

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624601

Sample wt/vol: 11.5 (g/mL) G Lab File ID: 624601E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.7	U
74-87-3	Chloromethane	7.6	J
75-01-4	Vinyl Chloride	8.7	U
74-83-9	Bromomethane	4.2	J
75-00-3	Chloroethane	8.7	U
75-69-4	Trichlorofluoromethane	8.7	U
107-02-8	Acrolein	43	U
75-35-4	1,1-Dichloroethene	8.7	U
76-13-1	Freon TF	8.7	U
67-64-1	Acetone	43	U
74-88-4	Methyl Iodide	8.7	U
75-15-0	Carbon Disulfide	8.7	U
107-05-1	Allyl Chloride	8.7	U
75-09-2	Methylene Chloride	8.7	U
107-13-1	Acrylonitrile	8.7	U
156-60-5	trans-1,2-Dichloroethene	8.7	U
1634-04-4	Methyl-t-Butyl Ether	8.7	U
540-59-0	1,2-Dichloroethene (total)	8.7	U
75-34-3	1,1-Dichloroethane	8.7	U
126-99-8	Chloroprene	8.7	U
108-05-4	Vinyl Acetate	8.7	U
594-20-7	2,2-Dichloropropane	8.7	U
156-59-2	cis-1,2-Dichloroethene	8.7	U
78-93-3	2-Butanone	43	U
107-12-0	Propionitrile	35	U
74-97-5	Bromochloromethane	8.7	U
126-98-7	Methacrylonitrile	8.7	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.7	U
71-55-6	1,1,1-Trichloroethane	8.7	U
56-23-5	Carbon Tetrachloride	8.7	U
563-58-6	1,1-Dichloropropene	8.7	U
71-43-2	Benzene	8.7	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17665

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624601

Sample wt/vol: 11.5 (g/mL) G Lab File ID: 624601E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	8.7	U
78-83-1	Isobutyl Alcohol	430	U
79-01-6	Trichloroethene	8.7	U
78-87-5	1,2-Dichloropropane	8.7	U
74-95-3	Dibromomethane	8.7	U
80-62-6	Methyl Methacrylate	8.7	U
123-91-1	1,4-Dioxane	430	U
75-27-4	Bromodichloromethane	8.7	U
110-75-8	2-Chloroethyl Vinyl Ether	8.7	U
10061-01-5	cis-1,3-Dichloropropene	8.7	U
108-10-1	4-Methyl-2-pentanone	43	U
108-88-3	Toluene	2.5	J
10061-02-6	trans-1,3-Dichloropropene	8.7	U
97-63-2	Ethyl Methacrylate	8.7	U
79-00-5	1,1,2-Trichloroethane	8.7	U
127-18-4	Tetrachloroethene	8.7	U
142-28-9	1,3-Dichloropropane	8.7	U
591-78-6	2-Hexanone	43	U
124-48-1	Dibromochloromethane	8.7	U
106-93-4	1,2-Dibromoethane	8.7	U
108-90-7	Chlorobenzene	8.7	U
630-20-6	1,1,1,2-Tetrachloroethane	8.7	U
100-41-4	Ethylbenzene	8.7	U
1330-20-7	Xylene (m,p)	8.7	U
1330-20-7	Xylene (total)	8.7	U
95-47-6	Xylene (o)	8.7	U
100-42-5	Styrene	8.7	U
75-25-2	Bromoform	8.7	U
98-82-8	Isopropylbenzene	8.7	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.7	U
108-86-1	Bromobenzene	8.7	U
79-34-5	1,1,2,2-Tetrachloroethane	8.7	U
103-65-1	n-Propylbenzene	8.7	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17665

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624601

Sample wt/vol: 11.5 (g/mL) G Lab File ID: 624601E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.7	U
110-57-6	trans-1,4-Dichloro-2-butene	8.7	U
95-49-8	2-Chlorotoluene	8.7	U
106-43-4	4-Chlorotoluene	8.7	U
108-67-8	1,3,5-Trimethylbenzene	8.7	U
98-06-6	tert-Butylbenzene	8.7	U
95-63-6	1,2,4-Trimethylbenzene	8.7	U
135-98-8	sec-Butylbenzene	8.7	U
541-73-1	1,3-Dichlorobenzene	8.7	U
99-87-6	4-Isopropyltoluene	8.7	U
106-46-7	1,4-Dichlorobenzene	8.7	U
95-50-1	1,2-Dichlorobenzene	8.7	U
104-51-8	n-Butylbenzene	8.7	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.7	U
120-82-1	1,2,4-Trichlorobenzene	8.7	U
87-68-3	Hexachlorobutadiene	8.7	U
91-20-3	Naphthalene	8.7	U
87-61-6	1,2,3-Trichlorobenzene	8.7	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17672

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624605

Sample wt/vol: 14.5 (g/mL) G Lab File ID: 624605E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.9	U
74-87-3	Chloromethane	6.3	J
75-01-4	Vinyl Chloride	6.9	U
74-83-9	Bromomethane	2.3	J
75-00-3	Chloroethane	6.9	U
75-69-4	Trichlorofluoromethane	6.9	U
107-02-8	Acrolein	34	U
75-35-4	1,1-Dichloroethene	6.9	U
76-13-1	Freon TF	6.9	U
67-64-1	Acetone	34	U
74-88-4	Methyl Iodide	6.9	U
75-15-0	Carbon Disulfide	6.9	U
107-05-1	Allyl Chloride	6.9	U
75-09-2	Methylene Chloride	1.6	J
107-13-1	Acrylonitrile	6.9	U
156-60-5	trans-1,2-Dichloroethene	6.9	U
1634-04-4	Methyl-t-Butyl Ether	6.9	U
540-59-0	1,2-Dichloroethene (total)	6.9	U
75-34-3	1,1-Dichloroethane	6.9	U
126-99-8	Chloroprene	6.9	U
108-05-4	Vinyl Acetate	6.9	U
594-20-7	2,2-Dichloropropane	6.9	U
156-59-2	cis-1,2-Dichloroethene	6.9	U
78-93-3	2-Butanone	34	U
107-12-0	Propionitrile	28	U
74-97-5	Bromochloromethane	6.9	U
126-98-7	Methacrylonitrile	6.9	U
109-99-9	Tetrahydrofuran	96	U
67-66-3	Chloroform	6.9	U
71-55-6	1,1,1-Trichloroethane	6.9	U
56-23-5	Carbon Tetrachloride	6.9	U
563-58-6	1,1-Dichloropropene	6.9	U
71-43-2	Benzene	6.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17672

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624605

Sample wt/vol: 14.5 (g/mL) G Lab File ID: 624605E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	6.9	U
78-83-1	Isobutyl Alcohol	340	U
79-01-6	Trichloroethene	6.9	U
78-87-5	1,2-Dichloropropane	6.9	U
74-95-3	Dibromomethane	6.9	U
80-62-6	Methyl Methacrylate	6.9	U
123-91-1	1,4-Dioxane	340	U
75-27-4	Bromodichloromethane	6.9	U
110-75-8	2-Chloroethyl Vinyl Ether	6.9	U
10061-01-5	cis-1,3-Dichloropropene	6.9	U
108-10-1	4-Methyl-2-pentanone	34	U
108-88-3	Toluene	2.3	J
10061-02-6	trans-1,3-Dichloropropene	6.9	U
97-63-2	Ethyl Methacrylate	6.9	U
79-00-5	1,1,2-Trichloroethane	6.9	U
127-18-4	Tetrachloroethene	6.9	U
142-28-9	1,3-Dichloropropane	6.9	U
591-78-6	2-Hexanone	34	U
124-48-1	Dibromochloromethane	6.9	U
106-93-4	1,2-Dibromoethane	6.9	U
108-90-7	Chlorobenzene	6.9	U
630-20-6	1,1,1,2-Tetrachloroethane	6.9	U
100-41-4	Ethylbenzene	6.9	U
1330-20-7	Xylene (m,p)	6.9	U
1330-20-7	Xylene (total)	6.9	U
95-47-6	Xylene (o)	6.9	U
100-42-5	Styrene	6.9	U
75-25-2	Bromoform	6.9	U
98-82-8	Isopropylbenzene	6.9	U
1476-11-5	cis-1,4-Dichloro-2-butene	6.9	U
108-86-1	Bromobenzene	6.9	U
79-34-5	1,1,2,2-Tetrachloroethane	6.9	U
103-65-1	n-Propylbenzene	6.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17672

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624605

Sample wt/vol: 14.5 (g/mL) G Lab File ID: 624605E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	6.9	U
110-57-6	trans-1,4-Dichloro-2-butene	6.9	U
95-49-8	2-Chlorotoluene	6.9	U
106-43-4	4-Chlorotoluene	6.9	U
108-67-8	1,3,5-Trimethylbenzene	6.9	U
98-06-6	tert-Butylbenzene	6.9	U
95-63-6	1,2,4-Trimethylbenzene	6.9	U
135-98-8	sec-Butylbenzene	6.9	U
541-73-1	1,3-Dichlorobenzene	6.9	U
99-87-6	4-Isopropyltoluene	6.9	U
106-46-7	1,4-Dichlorobenzene	6.9	U
95-50-1	1,2-Dichlorobenzene	6.9	U
104-51-8	n-Butylbenzene	6.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	6.9	U
120-82-1	1,2,4-Trichlorobenzene	6.9	U
87-68-3	Hexachlorobutadiene	6.9	U
91-20-3	Naphthalene	6.9	U
87-61-6	1,2,3-Trichlorobenzene	6.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17689

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624602

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 624602E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.9	U
74-87-3	Chloromethane	8.0	J
75-01-4	Vinyl Chloride	8.9	U
74-83-9	Bromomethane	4.1	J
75-00-3	Chloroethane	8.9	U
75-69-4	Trichlorofluoromethane	8.9	U
107-02-8	Acrolein	44	U
75-35-4	1,1-Dichloroethene	8.9	U
76-13-1	Freon TF	8.9	U
67-64-1	Acetone	44	U
74-88-4	Methyl Iodide	8.9	U
75-15-0	Carbon Disulfide	8.9	U
107-05-1	Allyl Chloride	8.9	U
75-09-2	Methylene Chloride	8.9	U
107-13-1	Acrylonitrile	8.9	U
156-60-5	trans-1,2-Dichloroethene	8.9	U
1634-04-4	Methyl-t-Butyl Ether	8.9	U
540-59-0	1,2-Dichloroethene (total)	8.9	U
75-34-3	1,1-Dichloroethane	8.9	U
126-99-8	Chloroprene	8.9	U
108-05-4	Vinyl Acetate	8.9	U
594-20-7	2,2-Dichloropropane	8.9	U
156-59-2	cis-1,2-Dichloroethene	8.9	U
78-93-3	2-Butanone	44	U
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	8.9	U
126-98-7	Methacrylonitrile	8.9	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.9	U
71-55-6	1,1,1-Trichloroethane	8.9	U
56-23-5	Carbon Tetrachloride	8.9	U
563-58-6	1,1-Dichloropropene	8.9	U
71-43-2	Benzene	8.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17689

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624602

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 624602E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	8.9	U
78-83-1	Isobutyl Alcohol	440	U
79-01-6	Trichloroethene	8.9	U
78-87-5	1,2-Dichloropropane	8.9	U
74-95-3	Dibromomethane	8.9	U
80-62-6	Methyl Methacrylate	8.9	U
123-91-1	1,4-Dioxane	440	U
75-27-4	Bromodichloromethane	8.9	U
110-75-8	2-Chloroethyl Vinyl Ether	8.9	U
10061-01-5	cis-1,3-Dichloropropene	8.9	U
108-10-1	4-Methyl-2-pentanone	44	U
108-88-3	Toluene	2.3	J
10061-02-6	trans-1,3-Dichloropropene	8.9	U
97-63-2	Ethyl Methacrylate	8.9	U
79-00-5	1,1,2-Trichloroethane	8.9	U
127-18-4	Tetrachloroethene	8.9	U
142-28-9	1,3-Dichloropropane	8.9	U
591-78-6	2-Hexanone	44	U
124-48-1	Dibromochloromethane	8.9	U
106-93-4	1,2-Dibromoethane	8.9	U
108-90-7	Chlorobenzene	8.9	U
630-20-6	1,1,1,2-Tetrachloroethane	8.9	U
100-41-4	Ethylbenzene	8.9	U
1330-20-7	Xylene (m,p)	8.9	U
1330-20-7	Xylene (total)	8.9	U
95-47-6	Xylene (o)	8.9	U
100-42-5	Styrene	8.9	U
75-25-2	Bromoform	8.9	U
98-82-8	Isopropylbenzene	8.9	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.9	U
108-86-1	Bromobenzene	8.9	U
79-34-5	1,1,2,2-Tetrachloroethane	8.9	U
103-65-1	n-Propylbenzene	8.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17689

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624602

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 624602E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.9	U
110-57-6	trans-1,4-Dichloro-2-butene	8.9	U
95-49-8	2-Chlorotoluene	8.9	U
106-43-4	4-Chlorotoluene	8.9	U
108-67-8	1,3,5-Trimethylbenzene	8.9	U
98-06-6	tert-Butylbenzene	8.9	U
95-63-6	1,2,4-Trimethylbenzene	8.9	U
135-98-8	sec-Butylbenzene	8.9	U
541-73-1	1,3-Dichlorobenzene	8.9	U
99-87-6	4-Isopropyltoluene	8.9	U
106-46-7	1,4-Dichlorobenzene	8.9	U
95-50-1	1,2-Dichlorobenzene	8.9	U
104-51-8	n-Butylbenzene	8.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.9	U
120-82-1	1,2,4-Trichlorobenzene	8.9	U
87-68-3	Hexachlorobutadiene	8.9	U
91-20-3	Naphthalene	8.9	U
87-61-6	1,2,3-Trichlorobenzene	8.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S17583

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624599

Sample wt/vol: 12.5 (g/mL) G Lab File ID: 624599E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.0	U
74-87-3	Chloromethane	22	
75-01-4	Vinyl Chloride	8.0	U
74-83-9	Bromomethane	8.0	U
75-00-3	Chloroethane	8.0	U
75-69-4	Trichlorofluoromethane	8.0	U
107-02-8	Acrolein	40	U
75-35-4	1,1-Dichloroethene	8.0	U
76-13-1	Freon TF	8.0	U
67-64-1	Acetone	71	
74-88-4	Methyl Iodide	8.0	U
75-15-0	Carbon Disulfide	8.0	U
107-05-1	Allyl Chloride	8.0	U
75-09-2	Methylene Chloride	4.4	J
107-13-1	Acrylonitrile	8.0	U
156-60-5	trans-1,2-Dichloroethene	8.0	U
1634-04-4	Methyl-t-Butyl Ether	8.0	U
540-59-0	1,2-Dichloroethene (total)	8.0	U
75-34-3	1,1-Dichloroethane	8.0	U
126-99-8	Chloroprene	8.0	U
108-05-4	Vinyl Acetate	8.0	U
594-20-7	2,2-Dichloropropane	8.0	U
156-59-2	cis-1,2-Dichloroethene	8.0	U
78-93-3	2-Butanone	210	
107-12-0	Propionitrile	32	U
74-97-5	Bromochloromethane	8.0	U
126-98-7	Methacrylonitrile	8.0	U
109-99-9	Tetrahydrofuran	110	U
67-66-3	Chloroform	1.9	J
71-55-6	1,1,1-Trichloroethane	8.0	U
56-23-5	Carbon Tetrachloride	5.7	J
563-58-6	1,1-Dichloropropene	8.0	U
71-43-2	Benzene	8.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S17583

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624599

Sample wt/vol: 12.5 (g/mL) G Lab File ID: 624599E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	3.1	J
78-83-1	Isobutyl Alcohol	400	U
79-01-6	Trichloroethene	8.0	U
78-87-5	1,2-Dichloropropane	8.0	U
74-95-3	Dibromomethane	8.0	U
80-62-6	Methyl Methacrylate	8.0	U
123-91-1	1,4-Dioxane	400	U
75-27-4	Bromodichloromethane	8.0	U
110-75-8	2-Chloroethyl Vinyl Ether	8.0	U
10061-01-5	cis-1,3-Dichloropropene	8.0	U
108-10-1	4-Methyl-2-pentanone	40	U
108-88-3	Toluene	8.0	U
10061-02-6	trans-1,3-Dichloropropene	8.0	U
97-63-2	Ethyl Methacrylate	8.0	U
79-00-5	1,1,2-Trichloroethane	8.0	U
127-18-4	Tetrachloroethene	8.0	U
142-28-9	1,3-Dichloropropane	8.0	U
591-78-6	2-Hexanone	40	U
124-48-1	Dibromochloromethane	8.0	U
106-93-4	1,2-Dibromoethane	8.0	U
108-90-7	Chlorobenzene	8.0	U
630-20-6	1,1,1,2-Tetrachloroethane	8.0	U
100-41-4	Ethylbenzene	8.0	U
1330-20-7	Xylene (m,p)	3.1	J
1330-20-7	Xylene (total)	3.2	J
95-47-6	Xylene (o)	8.0	U
100-42-5	Styrene	8.0	U
75-25-2	Bromoform	8.0	U
98-82-8	Isopropylbenzene	8.0	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.0	U
108-86-1	Bromobenzene	8.0	U
79-34-5	1,1,2,2-Tetrachloroethane	8.0	U
103-65-1	n-Propylbenzene	8.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S17583

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624599

Sample wt/vol: 12.5 (g/mL) G Lab File ID: 624599E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.0	U
110-57-6	trans-1,4-Dichloro-2-butene	8.0	U
95-49-8	2-Chlorotoluene	8.0	U
106-43-4	4-Chlorotoluene	8.0	U
108-67-8	1,3,5-Trimethylbenzene	8.0	U
98-06-6	tert-Butylbenzene	8.0	U
95-63-6	1,2,4-Trimethylbenzene	8.0	U
135-98-8	sec-Butylbenzene	8.0	U
541-73-1	1,3-Dichlorobenzene	8.0	U
99-87-6	4-Isopropyltoluene	8.0	U
106-46-7	1,4-Dichlorobenzene	8.0	U
95-50-1	1,2-Dichlorobenzene	8.0	U
104-51-8	n-Butylbenzene	8.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.0	U
120-82-1	1,2,4-Trichlorobenzene	8.0	U
87-68-3	Hexachlorobutadiene	8.0	U
91-20-3	Naphthalene	8.0	U
87-61-6	1,2,3-Trichlorobenzene	8.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOHTB6805

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624607

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 624607E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	9.6	J
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	3.5	J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	10	U
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	10	U
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
126-99-8	Chloroprene	10	U
108-05-4	Vinyl Acetate	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	64	
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOHTB6805

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624607

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 624607E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	10	U
78-83-1	Isobutyl Alcohol	500	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	500	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	2.8	J
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
1330-20-7	Xylene (total)	10	U
95-47-6	Xylene (o)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propylbenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOHTB6805

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107771

Matrix: (soil/water) SOIL Lab Sample ID: 624607

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 624607E

Level: (low/med) MED Date Received: 06/10/05

% Moisture: not dec. _____ Date Analyzed: 06/17/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	10	U
110-57-6	trans-1,4-Dichloro-2-butene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107775

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107775

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB71-W-17732

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624616

Matrix: WATER
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701E	ug/L	10	2000	66500	
300.0	Sulfate	07/01/05	BLKIC0701G	ug/L	10	2000	54300	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	5450	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	5210	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB71-W-17732F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624617

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	208000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	208000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB60-W-04548

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624618

Matrix: WATER
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701E	ug/L	20	4000	84000	
300.0	Sulfate	07/01/05	BLKIC0701G	ug/L	20	4000	59400	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	6730	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	452	
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	6070	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB60-W-04548F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107775

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624619

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	242000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	242000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB60-W-04546

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624620

Matrix: WATER
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701F	ug/L	20	4000	85900	
300.0	Sulfate	07/01/05	BLKIC0701H	ug/L	20	4000	64000	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	9060	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	7940	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB60-W-04546F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107775

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 624621

Matrix: FILTRATE | Client: ARGLAB | Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	214000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	214000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB60-W-04547

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624622

Matrix: WATER
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701F	ug/L	20	4000	77800	
300.0	Sulfate	07/01/05	BLKIC0701H	ug/L	20	4000	60000	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	6810	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	6590	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB60-W-04547F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107775

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 624623

Matrix: FILTRATE | Client: ARGLAB | Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	229000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	229000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB40-W-17729

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107775

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624624

Matrix: WATER

Client: ARGLAB

Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/03/05	BLKIC0703A	ug/L	20	4000	57700	
300.0	Sulfate	07/03/05	BLKIC0703B	ug/L	20	4000	77000	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	7580	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	6890	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB40-W-17729F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624625

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	241000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	241000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB60-W-04545

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624626

Matrix: WATER
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701F	ug/L	20	4000	81700	
300.0	Sulfate	07/01/05	BLKIC0701H	ug/L	20	4000	59800	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	8420	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	243	
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	7570	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB60-W-04545F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624627

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	213000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	213000	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB47-W-17759

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624628

Matrix: WATER
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701F	ug/L	10	2000	35600	
300.0	Sulfate	07/01/05	BLKIC0701H	ug/L	10	2000	42000	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	2520	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623A	ug/L	1	10.0	1750	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB47-W-17759F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107775

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 624629

Matrix: FILTRATE | Client: ARGLAB | Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	215000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	215000	

Printed on: 07/12/05 10:55 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB48-W-17783

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107775

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 624630

Matrix: WATER | Client: ARGLAB | Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701F	ug/L	20	4000	58100	
300.0	Sulfate	07/01/05	BLKIC0701H	ug/L	20	4000	90500	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	6590	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	6240	

Printed on: 07/12/05 10:55 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB48-W-17783F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107775

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624631

Matrix: FILTRATE

Client: ARGLAB

Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	198000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	198000	

Printed on: 07/12/05 10:55 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB73-W-17789

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624632

Matrix: WATER
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701F	ug/L	20	4000	73400	
300.0	Sulfate	07/01/05	BLKIC0701H	ug/L	20	4000	57300	
300.0	Nitrate as N	06/14/05	BLKIC0614A	ug/L	1	200	7060	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623C	ug/L	10	100	5910	

Printed on: 07/12/05 10:55 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB73-W-17789F

Lab Name: STL BURLINGTON | Contract: 3E-00361 | SDG No.: 107775

Lab Code: STLVT | Case No.: AGRA | Lab Sample ID: 624633

Matrix: FILTRATE | Client: ARGLAB | Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	223000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	223000	

Printed on: 07/12/05 10:55 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB49-W-17793

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107775

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624634

Matrix: WATER

Client: ARGLAB

Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Chloride	07/01/05	BLKIC0701F	ug/L	20	4000	95100	
300.0	Sulfate	07/01/05	BLKIC0701H	ug/L	20	4000	59800	
300.0	Nitrate as N	07/01/05	BLKIC0701I	ug/L	2	400	20200	
300.0	O-Phosphate as P	06/14/05	BLKIC0614B	ug/L	1	200	200	U
353.2	Nitrate/Nitrite Nitrogen	06/23/05	BLKNN0623D	ug/L	20	2000	21400	

Printed on: 07/12/05 10:55 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB49-W-17793F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 107775

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 624635

Matrix: FILTRATE
Client: ARGLAB
Date Received: 06/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Hydroxide Alkalinity	06/16/05	BLKAL0616H	ug/L	1	1000	1000	U
310.1	Carbonate Alkalinity	06/16/05	BLKAL0616G	ug/L	1	1000	1000	U
310.1	Bicarbonate Alkalinity	06/16/05	BLKAL0616F	ug/L	1	1000	220000	
310.1	Total Alkalinity	06/16/05	BLKAL0616E	ug/L	1	1000	220000	

Printed on: 07/12/05 10:55 AM

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB40-W-17729F

Lab Name: STL BURLINGTON Contract: 21005 SDG No.: 107775

Lab Code: STLVT Case No.: AGRA SAS No.: Lab Sample ID: 624625

Matrix (soil/water): WATER Date Received: 06/14/05

Level (low/med): LOW

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	103000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	16400			P
7439-96-5	Manganese	53.6			P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	10000			P
7440-21-3	Silicon	22600			P
7440-23-5	Sodium	28500			P
7440-66-6	Zinc	11.5	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0037

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB47-W-17759F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624629

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	88500			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	14700			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	5580			P
7440-21-3	Silicon	18400			P
7440-23-5	Sodium	22400			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB48-W-17783F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624631

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	42.4	B		P
7440-70-2	Calcium	110000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	19000			P
7439-96-5	Manganese	3.5	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	8420			P
7440-21-3	Silicon	16100			P
7440-23-5	Sodium	24200			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB49-W-17793F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624635

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	135000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	23400			P
7439-96-5	Manganese	2.1	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	7240			P
7440-21-3	Silicon	17000			P
7440-23-5	Sodium	25400			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0040

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB60-W-04545F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624627

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	112000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	21100			P
7439-96-5	Manganese	11.2	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	7520			P
7440-21-3	Silicon	16600			P
7440-23-5	Sodium	27800			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0001

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB60-W-04546F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624621

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	121000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	21700			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	5440			P
7440-21-3	Silicon	17000			P
7440-23-5	Sodium	27200			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB60-W-04547F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624623

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	112000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	18000			P
7439-96-5	Manganese	4.9	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	6940			P
7440-21-3	Silicon	19300			P
7440-23-5	Sodium	38300			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB60-W-04548F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624619

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	109000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	17200			P
7439-96-5	Manganese	0.70	U		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	5510			P
7440-21-3	Silicon	19400			P
7440-23-5	Sodium	54100			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0044

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB71-W-17732F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624617

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	103000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	18600			P
7439-96-5	Manganese	6.6	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	7410			P
7440-21-3	Silicon	17600			P
7440-23-5	Sodium	22100			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB73-W-17789F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 107775

Matrix (soil/water): WATER Lab Sample ID: 624633

Level (low/med): LOW Date Received: 06/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.4	U		P
7440-70-2	Calcium	105000			P
7439-89-6	Iron	37.9	U		P
7439-95-4	Magnesium	18400			P
7439-96-5	Manganese	14.2	B		P
7723-14-0	Phosphorous	13.2	U		P
7440-09-7	Potassium	6380			P
7440-21-3	Silicon	17200			P
7440-23-5	Sodium	37700			P
7440-66-6	Zinc	7.4	U		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

0046

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 107814

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 107814

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB50-W-17823

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 107814

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 624821

Matrix: WATER

Client: ARGLAB

Date Received: 06/15/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
353.2	Nitrate/Nitrite Nitrogen	07/05/05	BLKNN0705A	ug/L	10	100	18800	

Printed on: 07/07/05 07:40 AM

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 108251

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 108251

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB46-W-17829

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 108251

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 627984

Matrix: WATER

Client: ARGLAB

Date Received: 07/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	Sulfate	07/12/05	BLKIC0712C	ug/L	10	2000	62500	
300.0	Chloride	07/12/05	BLKIC0712A	ug/L	10	2000	116000	
353.2	Nitrate/Nitrite Nitrogen	07/13/05	BLKNN0713A	ug/L	5	50.0	6660	
300.0	Nitrate as N	07/08/05	BLKIC0708A	ug/L	1	200	6990	
300.0	O-Phosphate as P	07/08/05	BLKIC0708B	ug/L	1	200	200	U

Printed on: 08/02/05 04:51 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB46-W-17829F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 108251

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 627985

Matrix: WATER
Client: ARGLAB
Date Received: 07/08/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Total Alkalinity	07/18/05	BLKAL0718A	ug/L	1	1000	204000	
310.1	Bicarbonate Alkalinity	07/18/05	BLKAL0718B	ug/L	1	1000	204000	
310.1	Carbonate Alkalinity	07/18/05	BLKAL0718C	ug/L	1	1000	1000	U
310.1	Hydroxide Alkalinity	07/18/05	BLKAL0718D	ug/L	1	1000	1000	U

Printed on: 08/02/05 04:51 PM

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB46-W-17829F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108251

Matrix (soil/water): FILTRATE Lab Sample ID: 627985

Level (low/med): LOW Date Received: 7/8/2005

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29.1	U		P
7440-70-2	Calcium	113000			P
7439-89-6	Iron	32.4	U		P
7439-95-4	Magnesium	15800			P
7439-96-5	Manganese	0.90	U		P
7723-14-0	Phosphorous	44.7	B		P
7440-09-7	Potassium	5560			P
7440-21-3	Silicon	16200			P
7440-23-5	Sodium	19100			P
7440-66-6	Zinc	14.3	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 108276

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 108276

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB45-W-17833

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 108276

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 628107

Matrix: WATER

Client: ARGLAB

Date Received: 07/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
353.2	Nitrate/Nitrite Nitrogen	07/13/05	BLKNN0713A	ug/L	5	50.0	6410	
300.0	Chloride	08/08/05	BLKIC0808A	ug/L	10	2000	86000	
300.0	Sulfate	08/08/05	BLKIC0808B	ug/L	10	2000	63600	
300.0	Nitrate as N	08/08/05	BLKIC0808C	ug/L	1	200	7360	
300.0	O-Phosphate as P	08/08/05	BLKIC0808D	ug/L	1	200	270	

Printed on: 08/08/05 04:05 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB45-W-17833F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 108276

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 628108

Matrix: FILTRATE

Client: ARGLAB

Date Received: 07/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Total Alkalinity	07/18/05	BLKAL0718A	ug/L	1	1000	220000	
310.1	Bicarbonate Alkalinity	07/18/05	BLKAL0718B	ug/L	1	1000	220000	
310.1	Carbonate Alkalinity	07/18/05	BLKAL0718C	ug/L	1	1000	1000	U
310.1	Hydroxide Alkalinity	07/18/05	BLKAL0718D	ug/L	1	1000	1000	U

Printed on: 08/08/05 04:05 PM

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB69-W-17849

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 108276

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 628109

Matrix: WATER
Client: ARGLAB
Date Received: 07/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
353.2	Nitrate/Nitrite Nitrogen	07/13/05	BLKNN0713A	ug/L	20	200	29100	
300.0	Chloride	07/12/05	BLKIC0712A	ug/L	20	4000	133000	
300.0	Sulfate	07/12/05	BLKIC0712C	ug/L	20	4000	122000	
300.0	Nitrate as N	07/12/05	BLKIC0712E	ug/L	5	1000	28800	
300.0	O-Phosphate as P	07/09/05	BLKIC0709C	ug/L	1	200	200	U

Printed on: 08/10/05 10:21 AM

WET CHEMISTRY

Sample Report Summary

Client Sample No.

AGSB69-W-17849F

Lab Name: STL BURLINGTON

Contract: 3E-00361

SDG No.: 108276

Lab Code: STLVT

Case No.: AGRA

Lab Sample ID: 628110

Matrix: FILTRATE

Client: ARGLAB

Date Received: 07/09/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Total Alkalinity	07/18/05	BLKAL0718A	ug/L	1	1000	215000	
310.1	Bicarbonate Alkalinity	07/18/05	BLKAL0718B	ug/L	1	1000	215000	
310.1	Carbonate Alkalinity	07/18/05	BLKAL0718C	ug/L	1	1000	1000	U
310.1	Hydroxide Alkalinity	07/18/05	BLKAL0718D	ug/L	1	1000	1000	U

Printed on: 08/08/05 04:05 PM

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB45-W-17833F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108276

Matrix (soil/water): WATER Lab Sample ID: 628108

Level (low/med): LOW Date Received: 07/09/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.4	U		P
7440-70-2	Calcium	114000			P
7439-89-6	Iron	28.2	U		P
7439-95-4	Magnesium	18600			P
7439-96-5	Manganese	0.60	U		P
7723-14-0	Phosphorous	21.4	B		P
7440-09-7	Potassium	5550			P
7440-21-3	Silicon	15600			P
7440-23-5	Sodium	20600			P
7440-66-6	Zinc	5.1	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB69-W-17849F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108276

Matrix (soil/water): WATER Lab Sample ID: 628110

Level (low/med): LOW Date Received: 07/09/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.4	U		P
7440-70-2	Calcium	157000			P
7439-89-6	Iron	28.2	U		P
7439-95-4	Magnesium	26200			P
7439-96-5	Manganese	18.8			P
7723-14-0	Phosphorous	34.1	B		P
7440-09-7	Potassium	11200			P
7440-21-3	Silicon	16800			P
7440-23-5	Sodium	30400			P
7440-66-6	Zinc	4.1	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 108351

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 108351

WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB72-W-17886

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 108351

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 628683

Matrix: WATER
Client: ARGLAB
Date Received: 07/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
300.0	O-Phosphate as P	07/14/05	BLKIC071405A	ug/L	1	200	200	U
300.0	Nitrate as N	07/14/05	BLKIC071405B	ug/L	1	200	4620	
300.0	Chloride	07/21/05	BLKIC072105B	ug/L	20	4000	79300	
300.0	Sulfate	07/21/05	BLKIC072105C	ug/L	20	4000	40700	
353.2	Nitrate/Nitrite Nitrogen	07/22/05	BLKNN072205A	ug/L	10	100	5480	

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WET CHEMISTRY

Sample Report Summary

Client Sample No.
AGSB75-W-17886F

Lab Name: STL BURLINGTON
Contract: 3E-00361
SDG No.: 108351

Lab Code: STLVT
Case No.: AGRA
Lab Sample ID: 628684

Matrix: FILTRATE
Client: ARGLAB
Date Received: 07/14/05

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
310.1	Total Alkalinity	07/18/05	BLKAL071805A	ug/L	1	1000	230000	
310.1	Bicarbonate Alkalinity	07/18/05	BLKAL071805B	ug/L	1	1000	230000	
310.1	Carbonate Alkalinity	07/18/05	BLKAL071805C	ug/L	1	1000	1000	U
310.1	Hydroxide Alkalinity	07/18/05	BLKAL071805D	ug/L	1	1000	1000	U

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USEPA-CLP FORMS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

AGSB75-W-17886F

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108351

Matrix (soil/water): FILTRATE Lab Sample ID: 628684

Level (low/med): LOW Date Received: 07/14/05

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29.1	U		P
7440-70-2	Calcium	119000			P
7439-89-6	Iron	32.4	U		P
7439-95-4	Magnesium	17700			P
7439-96-5	Manganese	129			P
7723-14-0	Phosphorous	20.1	U		P
7440-09-7	Potassium	6690			P
7440-21-3	Silicon	18800			P
7440-23-5	Sodium	22800			P
7440-66-6	Zinc	5.2	B		P

Color Before: colorless Clarity Before: clear Texture:

Color After: colorless Clarity After: clear Artifacts:

Comments:

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 108589

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 108589

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17515

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630450

Sample wt/vol: 10.8 (g/mL) G Lab File ID: 630450E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.3	U
74-87-3	Chloromethane	9.3	U
75-01-4	Vinyl Chloride	9.3	U
74-83-9	Bromomethane	9.3	U
75-00-3	Chloroethane	9.3	U
75-69-4	Trichlorofluoromethane	9.3	U
107-02-8	Acrolein	46	U
75-35-4	1,1-Dichloroethene	9.3	U
76-13-1	Freon TF	9.3	U
67-64-1	Acetone	46	U
74-88-4	Methyl Iodide	9.3	U
75-15-0	Carbon Disulfide	9.3	U
107-05-1	Allyl Chloride	9.3	U
75-09-2	Methylene Chloride	9.3	U
107-13-1	Acrylonitrile	9.3	U
156-60-5	trans-1,2-Dichloroethene	9.3	U
1634-04-4	Methyl-t-Butyl Ether	9.3	U
540-59-0	1,2-Dichloroethene (total)	9.3	U
75-34-3	1,1-Dichloroethane	9.3	U
126-99-8	Chloroprene	9.3	U
108-05-4	Vinyl Acetate	9.3	U
594-20-7	2,2-Dichloropropane	9.3	U
156-59-2	cis-1,2-Dichloroethene	9.3	U
78-93-3	2-Butanone	46	U
107-12-0	Propionitrile	37	U
74-97-5	Bromochloromethane	9.3	U
126-98-7	Methacrylonitrile	9.3	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	3.1	J
71-55-6	1,1,1-Trichloroethane	9.3	U
56-23-5	Carbon Tetrachloride	990	E
563-58-6	1,1-Dichloropropene	9.3	U
71-43-2	Benzene	9.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17515

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630450

Sample wt/vol: 10.8 (g/mL) G Lab File ID: 630450E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.3	U
78-83-1	Isobutyl Alcohol	460	U
79-01-6	Trichloroethene	9.3	U
78-87-5	1,2-Dichloropropane	9.3	U
74-95-3	Dibromomethane	9.3	U
80-62-6	Methyl Methacrylate	9.3	U
123-91-1	1,4-Dioxane	460	U
75-27-4	Bromodichloromethane	9.3	U
110-75-8	2-Chloroethyl Vinyl Ether	9.3	U
10061-01-5	cis-1,3-Dichloropropene	9.3	U
108-10-1	4-Methyl-2-pentanone	46	U
108-88-3	Toluene	24	
10061-02-6	trans-1,3-Dichloropropene	9.3	U
97-63-2	Ethyl Methacrylate	9.3	U
79-00-5	1,1,2-Trichloroethane	9.3	U
127-18-4	Tetrachloroethene	9.3	U
142-28-9	1,3-Dichloropropane	9.3	U
591-78-6	2-Hexanone	46	U
124-48-1	Dibromochloromethane	9.3	U
106-93-4	1,2-Dibromoethane	9.3	U
108-90-7	Chlorobenzene	9.3	U
630-20-6	1,1,1,2-Tetrachloroethane	9.3	U
100-41-4	Ethylbenzene	9.3	U
1330-20-7	Xylene (m,p)	2.9	J
1330-20-7	Xylene (total)	3.0	J
95-47-6	Xylene (o)	9.3	U
100-42-5	Styrene	41	
75-25-2	Bromoform	9.3	U
98-82-8	Isopropylbenzene	9.3	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.3	U
108-86-1	Bromobenzene	9.3	U
79-34-5	1,1,2,2-Tetrachloroethane	9.3	U
103-65-1	n-Propylbenzene	9.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17515

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630450

Sample wt/vol: 10.8 (g/mL) G Lab File ID: 630450E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.3	U
110-57-6	trans-1,4-Dichloro-2-butene	9.3	U
95-49-8	2-Chlorotoluene	9.3	U
106-43-4	4-Chlorotoluene	9.3	U
108-67-8	1,3,5-Trimethylbenzene	9.3	U
98-06-6	tert-Butylbenzene	9.3	U
95-63-6	1,2,4-Trimethylbenzene	9.3	U
135-98-8	sec-Butylbenzene	9.3	U
541-73-1	1,3-Dichlorobenzene	9.3	U
99-87-6	4-Isopropyltoluene	9.3	U
106-46-7	1,4-Dichlorobenzene	9.3	U
95-50-1	1,2-Dichlorobenzene	9.3	U
104-51-8	n-Butylbenzene	9.3	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.3	U
120-82-1	1,2,4-Trichlorobenzene	9.3	U
87-68-3	Hexachlorobutadiene	9.3	U
91-20-3	Naphthalene	1.9	J
87-61-6	1,2,3-Trichlorobenzene	9.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17522

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630449

Sample wt/vol: 9.6 (g/mL) G Lab File ID: 630449E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	51	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	51	U
74-88-4	Methyl Iodide	10	U
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	10	U
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
126-99-8	Chloroprene	10	U
108-05-4	Vinyl Acetate	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	51	U
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	150	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17522

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630449

Sample wt/vol: 9.6 (g/mL) G Lab File ID: 630449E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	10	U
78-83-1	Isobutyl Alcohol	520	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	2.5	J
123-91-1	1,4-Dioxane	520	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	51	U
108-88-3	Toluene	3.6	J
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	51	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
1330-20-7	Xylene (total)	10	U
95-47-6	Xylene (o)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propylbenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17522

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630449

Sample wt/vol: 9.6 (g/mL) G Lab File ID: 630449E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	10	U
110-57-6	trans-1,4-Dichloro-2-butene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17741

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630452

Sample wt/vol: 10.7 (g/mL) G Lab File ID: 630452E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.4	U
74-87-3	Chloromethane	9.4	U
75-01-4	Vinyl Chloride	9.4	U
74-83-9	Bromomethane	9.4	U
75-00-3	Chloroethane	9.4	U
75-69-4	Trichlorofluoromethane	9.4	U
107-02-8	Acrolein	46	U
75-35-4	1,1-Dichloroethene	9.4	U
76-13-1	Freon TF	9.4	U
67-64-1	Acetone	46	U
74-88-4	Methyl Iodide	9.4	U
75-15-0	Carbon Disulfide	9.4	U
107-05-1	Allyl Chloride	9.4	U
75-09-2	Methylene Chloride	9.4	U
107-13-1	Acrylonitrile	9.4	U
156-60-5	trans-1,2-Dichloroethene	9.4	U
1634-04-4	Methyl-t-Butyl Ether	9.4	U
540-59-0	1,2-Dichloroethene (total)	9.4	U
75-34-3	1,1-Dichloroethane	9.4	U
126-99-8	Chloroprene	9.4	U
108-05-4	Vinyl Acetate	9.4	U
594-20-7	2,2-Dichloropropane	9.4	U
156-59-2	cis-1,2-Dichloroethene	9.4	U
78-93-3	2-Butanone	46	U
107-12-0	Propionitrile	37	U
74-97-5	Bromochloromethane	9.4	U
126-98-7	Methacrylonitrile	9.4	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.4	U
71-55-6	1,1,1-Trichloroethane	9.4	U
56-23-5	Carbon Tetrachloride	3.5	J
563-58-6	1,1-Dichloropropene	9.4	U
71-43-2	Benzene	9.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17741

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630452

Sample wt/vol: 10.7 (g/mL) G Lab File ID: 630452E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.4	U
78-83-1	Isobutyl Alcohol	470	U
79-01-6	Trichloroethene	9.4	U
78-87-5	1,2-Dichloropropane	9.4	U
74-95-3	Dibromomethane	9.4	U
80-62-6	Methyl Methacrylate	9.4	U
123-91-1	1,4-Dioxane	470	U
75-27-4	Bromodichloromethane	9.4	U
110-75-8	2-Chloroethyl Vinyl Ether	9.4	U
10061-01-5	cis-1,3-Dichloropropene	9.4	U
108-10-1	4-Methyl-2-pentanone	46	U
108-88-3	Toluene	4.2	J
10061-02-6	trans-1,3-Dichloropropene	9.4	U
97-63-2	Ethyl Methacrylate	9.4	U
79-00-5	1,1,2-Trichloroethane	9.4	U
127-18-4	Tetrachloroethene	9.4	U
142-28-9	1,3-Dichloropropane	9.4	U
591-78-6	2-Hexanone	46	U
124-48-1	Dibromochloromethane	9.4	U
106-93-4	1,2-Dibromoethane	9.4	U
108-90-7	Chlorobenzene	9.4	U
630-20-6	1,1,1,2-Tetrachloroethane	9.4	U
100-41-4	Ethylbenzene	9.4	U
1330-20-7	Xylene (m,p)	9.4	U
1330-20-7	Xylene (total)	9.4	U
95-47-6	Xylene (o)	9.4	U
100-42-5	Styrene	9.4	U
75-25-2	Bromoform	9.4	U
98-82-8	Isopropylbenzene	9.4	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.4	U
108-86-1	Bromobenzene	9.4	U
79-34-5	1,1,2,2-Tetrachloroethane	9.4	U
103-65-1	n-Propylbenzene	9.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-17741

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630452

Sample wt/vol: 10.7 (g/mL) G Lab File ID: 630452E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.4	U
110-57-6	trans-1,4-Dichloro-2-butene	9.4	U
95-49-8	2-Chlorotoluene	9.4	U
106-43-4	4-Chlorotoluene	9.4	U
108-67-8	1,3,5-Trimethylbenzene	9.4	U
98-06-6	tert-Butylbenzene	9.4	U
95-63-6	1,2,4-Trimethylbenzene	9.4	U
135-98-8	sec-Butylbenzene	9.4	U
541-73-1	1,3-Dichlorobenzene	9.4	U
99-87-6	4-Isopropyltoluene	9.4	U
106-46-7	1,4-Dichlorobenzene	9.4	U
95-50-1	1,2-Dichlorobenzene	9.4	U
104-51-8	n-Butylbenzene	9.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.4	U
120-82-1	1,2,4-Trichlorobenzene	9.4	U
87-68-3	Hexachlorobutadiene	9.4	U
91-20-3	Naphthalene	9.4	U
87-61-6	1,2,3-Trichlorobenzene	9.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18017

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630451

Sample wt/vol: 10.8 (g/mL) G Lab File ID: 630451E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.3	U
74-87-3	Chloromethane	9.3	U
75-01-4	Vinyl Chloride	9.3	U
74-83-9	Bromomethane	9.3	U
75-00-3	Chloroethane	9.3	U
75-69-4	Trichlorofluoromethane	9.3	U
107-02-8	Acrolein	46	U
75-35-4	1,1-Dichloroethene	9.3	U
76-13-1	Freon TF	9.3	U
67-64-1	Acetone	46	U
74-88-4	Methyl Iodide	9.3	U
75-15-0	Carbon Disulfide	9.3	U
107-05-1	Allyl Chloride	9.3	U
75-09-2	Methylene Chloride	9.3	U
107-13-1	Acrylonitrile	9.3	U
156-60-5	trans-1,2-Dichloroethene	9.3	U
1634-04-4	Methyl-t-Butyl Ether	9.3	U
540-59-0	1,2-Dichloroethene (total)	9.3	U
75-34-3	1,1-Dichloroethane	9.3	U
126-99-8	Chloroprene	9.3	U
108-05-4	Vinyl Acetate	9.3	U
594-20-7	2,2-Dichloropropane	9.3	U
156-59-2	cis-1,2-Dichloroethene	9.3	U
78-93-3	2-Butanone	46	U
107-12-0	Propionitrile	37	U
74-97-5	Bromochloromethane	9.3	U
126-98-7	Methacrylonitrile	9.3	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.3	U
71-55-6	1,1,1-Trichloroethane	9.3	U
56-23-5	Carbon Tetrachloride	420	
563-58-6	1,1-Dichloropropene	9.3	U
71-43-2	Benzene	9.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18017

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630451

Sample wt/vol: 10.8 (g/mL) G Lab File ID: 630451E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.3	U
78-83-1	Isobutyl Alcohol	460	U
79-01-6	Trichloroethene	9.3	U
78-87-5	1,2-Dichloropropane	9.3	U
74-95-3	Dibromomethane	9.3	U
80-62-6	Methyl Methacrylate	9.3	U
123-91-1	1,4-Dioxane	460	U
75-27-4	Bromodichloromethane	9.3	U
110-75-8	2-Chloroethyl Vinyl Ether	9.3	U
10061-01-5	cis-1,3-Dichloropropene	9.3	U
108-10-1	4-Methyl-2-pentanone	46	U
108-88-3	Toluene	9.9	
10061-02-6	trans-1,3-Dichloropropene	9.3	U
97-63-2	Ethyl Methacrylate	9.3	U
79-00-5	1,1,2-Trichloroethane	9.3	U
127-18-4	Tetrachloroethene	9.3	U
142-28-9	1,3-Dichloropropane	9.3	U
591-78-6	2-Hexanone	46	U
124-48-1	Dibromochloromethane	9.3	U
106-93-4	1,2-Dibromoethane	9.3	U
108-90-7	Chlorobenzene	9.3	U
630-20-6	1,1,1,2-Tetrachloroethane	9.3	U
100-41-4	Ethylbenzene	9.3	U
1330-20-7	Xylene (m,p)	9.3	U
1330-20-7	Xylene (total)	9.3	U
95-47-6	Xylene (o)	9.3	U
100-42-5	Styrene	12	
75-25-2	Bromoform	9.3	U
98-82-8	Isopropylbenzene	9.3	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.3	U
108-86-1	Bromobenzene	9.3	U
79-34-5	1,1,2,2-Tetrachloroethane	9.3	U
103-65-1	n-Propylbenzene	9.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18017

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630451

Sample wt/vol: 10.8 (g/mL) G Lab File ID: 630451E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.3	U
110-57-6	trans-1,4-Dichloro-2-butene	9.3	U
95-49-8	2-Chlorotoluene	9.3	U
106-43-4	4-Chlorotoluene	9.3	U
108-67-8	1,3,5-Trimethylbenzene	9.3	U
98-06-6	tert-Butylbenzene	9.3	U
95-63-6	1,2,4-Trimethylbenzene	9.3	U
135-98-8	sec-Butylbenzene	9.3	U
541-73-1	1,3-Dichlorobenzene	9.3	U
99-87-6	4-Isopropyltoluene	9.3	U
106-46-7	1,4-Dichlorobenzene	9.3	U
95-50-1	1,2-Dichlorobenzene	9.3	U
104-51-8	n-Butylbenzene	9.3	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.3	U
120-82-1	1,2,4-Trichlorobenzene	9.3	U
87-68-3	Hexachlorobutadiene	9.3	U
91-20-3	Naphthalene	9.3	U
87-61-6	1,2,3-Trichlorobenzene	9.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18019

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630443

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 630443E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.5	U
74-87-3	Chloromethane	8.5	U
75-01-4	Vinyl Chloride	8.5	U
74-83-9	Bromomethane	8.5	U
75-00-3	Chloroethane	8.5	U
75-69-4	Trichlorofluoromethane	8.5	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.5	U
76-13-1	Freon TF	8.5	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	8.5	U
75-15-0	Carbon Disulfide	8.5	U
107-05-1	Allyl Chloride	8.5	U
75-09-2	Methylene Chloride	8.5	U
107-13-1	Acrylonitrile	8.5	U
156-60-5	trans-1,2-Dichloroethene	8.5	U
1634-04-4	Methyl-t-Butyl Ether	8.5	U
540-59-0	1,2-Dichloroethene (total)	8.5	U
75-34-3	1,1-Dichloroethane	8.5	U
126-99-8	Chloroprene	8.5	U
108-05-4	Vinyl Acetate	8.5	U
594-20-7	2,2-Dichloropropane	8.5	U
156-59-2	cis-1,2-Dichloroethene	8.5	U
78-93-3	2-Butanone	42	U
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.5	U
126-98-7	Methacrylonitrile	8.5	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.5	U
71-55-6	1,1,1-Trichloroethane	8.5	U
56-23-5	Carbon Tetrachloride	8.5	U
563-58-6	1,1-Dichloropropene	8.5	U
71-43-2	Benzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18019

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630443

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 630443E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	8.5	U
78-83-1	Isobutyl Alcohol	420	U
79-01-6	Trichloroethene	8.5	U
78-87-5	1,2-Dichloropropane	8.5	U
74-95-3	Dibromomethane	8.5	U
80-62-6	Methyl Methacrylate	8.5	U
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.5	U
110-75-8	2-Chloroethyl Vinyl Ether	8.5	U
10061-01-5	cis-1,3-Dichloropropene	8.5	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	1.3	J
10061-02-6	trans-1,3-Dichloropropene	8.5	U
97-63-2	Ethyl Methacrylate	8.5	U
79-00-5	1,1,2-Trichloroethane	8.5	U
127-18-4	Tetrachloroethene	8.5	U
142-28-9	1,3-Dichloropropane	8.5	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.5	U
106-93-4	1,2-Dibromoethane	8.5	U
108-90-7	Chlorobenzene	8.5	U
630-20-6	1,1,1,2-Tetrachloroethane	8.5	U
100-41-4	Ethylbenzene	8.5	U
1330-20-7	Xylene (m,p)	8.5	U
1330-20-7	Xylene (total)	8.5	U
95-47-6	Xylene (o)	8.5	U
100-42-5	Styrene	8.5	U
75-25-2	Bromoform	8.5	U
98-82-8	Isopropylbenzene	8.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.5	U
108-86-1	Bromobenzene	8.5	U
79-34-5	1,1,2,2-Tetrachloroethane	8.5	U
103-65-1	n-Propylbenzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18019

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630443

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 630443E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.5	U
110-57-6	trans-1,4-Dichloro-2-butene	8.5	U
95-49-8	2-Chlorotoluene	8.5	U
106-43-4	4-Chlorotoluene	8.5	U
108-67-8	1,3,5-Trimethylbenzene	8.5	U
98-06-6	tert-Butylbenzene	8.5	U
95-63-6	1,2,4-Trimethylbenzene	8.5	U
135-98-8	sec-Butylbenzene	8.5	U
541-73-1	1,3-Dichlorobenzene	8.5	U
99-87-6	4-Isopropyltoluene	8.5	U
106-46-7	1,4-Dichlorobenzene	8.5	U
95-50-1	1,2-Dichlorobenzene	8.5	U
104-51-8	n-Butylbenzene	8.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.5	U
120-82-1	1,2,4-Trichlorobenzene	8.5	U
87-68-3	Hexachlorobutadiene	8.5	U
91-20-3	Naphthalene	8.5	U
87-61-6	1,2,3-Trichlorobenzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18021

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630448

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 630448E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.4	U
74-87-3	Chloromethane	9.4	U
75-01-4	Vinyl Chloride	9.4	U
74-83-9	Bromomethane	9.4	U
75-00-3	Chloroethane	9.4	U
75-69-4	Trichlorofluoromethane	9.4	U
107-02-8	Acrolein	47	U
75-35-4	1,1-Dichloroethene	9.4	U
76-13-1	Freon TF	9.4	U
67-64-1	Acetone	47	U
74-88-4	Methyl Iodide	9.4	U
75-15-0	Carbon Disulfide	9.4	U
107-05-1	Allyl Chloride	9.4	U
75-09-2	Methylene Chloride	9.4	U
107-13-1	Acrylonitrile	9.4	U
156-60-5	trans-1,2-Dichloroethene	9.4	U
1634-04-4	Methyl-t-Butyl Ether	9.4	U
540-59-0	1,2-Dichloroethene (total)	9.4	U
75-34-3	1,1-Dichloroethane	9.4	U
126-99-8	Chloroprene	9.4	U
108-05-4	Vinyl Acetate	9.4	U
594-20-7	2,2-Dichloropropane	9.4	U
156-59-2	cis-1,2-Dichloroethene	9.4	U
78-93-3	2-Butanone	47	U
107-12-0	Propionitrile	38	U
74-97-5	Bromochloromethane	9.4	U
126-98-7	Methacrylonitrile	9.4	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.4	U
71-55-6	1,1,1-Trichloroethane	9.4	U
56-23-5	Carbon Tetrachloride	9.4	U
563-58-6	1,1-Dichloropropene	9.4	U
71-43-2	Benzene	9.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18021

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630448

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 630448E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.4	U
78-83-1	Isobutyl Alcohol	470	U
79-01-6	Trichloroethene	9.4	U
78-87-5	1,2-Dichloropropane	9.4	U
74-95-3	Dibromomethane	9.4	U
80-62-6	Methyl Methacrylate	9.4	U
123-91-1	1,4-Dioxane	470	U
75-27-4	Bromodichloromethane	9.4	U
110-75-8	2-Chloroethyl Vinyl Ether	9.4	U
10061-01-5	cis-1,3-Dichloropropene	9.4	U
108-10-1	4-Methyl-2-pentanone	47	U
108-88-3	Toluene	9.4	U
10061-02-6	trans-1,3-Dichloropropene	9.4	U
97-63-2	Ethyl Methacrylate	9.4	U
79-00-5	1,1,2-Trichloroethane	9.4	U
127-18-4	Tetrachloroethene	9.4	U
142-28-9	1,3-Dichloropropane	9.4	U
591-78-6	2-Hexanone	47	U
124-48-1	Dibromochloromethane	9.4	U
106-93-4	1,2-Dibromoethane	9.4	U
108-90-7	Chlorobenzene	9.4	U
630-20-6	1,1,1,2-Tetrachloroethane	9.4	U
100-41-4	Ethylbenzene	9.4	U
1330-20-7	Xylene (m,p)	9.4	U
1330-20-7	Xylene (total)	9.4	U
95-47-6	Xylene (o)	9.4	U
100-42-5	Styrene	9.4	U
75-25-2	Bromoform	9.4	U
98-82-8	Isopropylbenzene	9.4	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.4	U
108-86-1	Bromobenzene	9.4	U
79-34-5	1,1,2,2-Tetrachloroethane	9.4	U
103-65-1	n-Propylbenzene	9.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18021

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630448

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 630448E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.4	U
110-57-6	trans-1,4-Dichloro-2-butene	9.4	U
95-49-8	2-Chlorotoluene	9.4	U
106-43-4	4-Chlorotoluene	9.4	U
108-67-8	1,3,5-Trimethylbenzene	9.4	U
98-06-6	tert-Butylbenzene	9.4	U
95-63-6	1,2,4-Trimethylbenzene	9.4	U
135-98-8	sec-Butylbenzene	9.4	U
541-73-1	1,3-Dichlorobenzene	9.4	U
99-87-6	4-Isopropyltoluene	9.4	U
106-46-7	1,4-Dichlorobenzene	9.4	U
95-50-1	1,2-Dichlorobenzene	9.4	U
104-51-8	n-Butylbenzene	9.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.4	U
120-82-1	1,2,4-Trichlorobenzene	9.4	U
87-68-3	Hexachlorobutadiene	9.4	U
91-20-3	Naphthalene	9.4	U
87-61-6	1,2,3-Trichlorobenzene	9.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18028

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630442

Sample wt/vol: 9.9 (g/mL) G Lab File ID: 630442E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	10	U
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	10	U
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
126-99-8	Chloroprene	10	U
108-05-4	Vinyl Acetate	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	50	U
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18028

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630442

Sample wt/vol: 9.9 (g/mL) G Lab File ID: 630442E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	10	U
78-83-1	Isobutyl Alcohol	510	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	510	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	1.5	J
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
1330-20-7	Xylene (total)	10	U
95-47-6	Xylene (o)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propylbenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18028

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630442

Sample wt/vol: 9.9 (g/mL) G Lab File ID: 630442E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	10	U
110-57-6	trans-1,4-Dichloro-2-butene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18039

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630444

Sample wt/vol: 10.3 (g/mL) G Lab File ID: 630444E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.7	U
74-87-3	Chloromethane	9.7	U
75-01-4	Vinyl Chloride	9.7	U
74-83-9	Bromomethane	9.7	U
75-00-3	Chloroethane	9.7	U
75-69-4	Trichlorofluoromethane	9.7	U
107-02-8	Acrolein	48	U
75-35-4	1,1-Dichloroethene	9.7	U
76-13-1	Freon TF	9.7	U
67-64-1	Acetone	48	U
74-88-4	Methyl Iodide	9.7	U
75-15-0	Carbon Disulfide	9.7	U
107-05-1	Allyl Chloride	9.7	U
75-09-2	Methylene Chloride	9.7	U
107-13-1	Acrylonitrile	9.7	U
156-60-5	trans-1,2-Dichloroethene	9.7	U
1634-04-4	Methyl-t-Butyl Ether	9.7	U
540-59-0	1,2-Dichloroethene (total)	9.7	U
75-34-3	1,1-Dichloroethane	9.7	U
126-99-8	Chloroprene	9.7	U
108-05-4	Vinyl Acetate	9.7	U
594-20-7	2,2-Dichloropropane	9.7	U
156-59-2	cis-1,2-Dichloroethene	9.7	U
78-93-3	2-Butanone	48	U
107-12-0	Propionitrile	39	U
74-97-5	Bromochloromethane	9.7	U
126-98-7	Methacrylonitrile	9.7	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	2.2	J
71-55-6	1,1,1-Trichloroethane	9.7	U
56-23-5	Carbon Tetrachloride	2.7	J
563-58-6	1,1-Dichloropropene	9.7	U
71-43-2	Benzene	9.7	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18039

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630444

Sample wt/vol: 10.3 (g/mL) G Lab File ID: 630444E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.7	U
78-83-1	Isobutyl Alcohol	480	U
79-01-6	Trichloroethene	9.7	U
78-87-5	1,2-Dichloropropane	9.7	U
74-95-3	Dibromomethane	9.7	U
80-62-6	Methyl Methacrylate	9.7	U
123-91-1	1,4-Dioxane	480	U
75-27-4	Bromodichloromethane	9.7	U
110-75-8	2-Chloroethyl Vinyl Ether	9.7	U
10061-01-5	cis-1,3-Dichloropropene	9.7	U
108-10-1	4-Methyl-2-pentanone	48	U
108-88-3	Toluene	1.5	J
10061-02-6	trans-1,3-Dichloropropene	9.7	U
97-63-2	Ethyl Methacrylate	9.7	U
79-00-5	1,1,2-Trichloroethane	9.7	U
127-18-4	Tetrachloroethene	9.7	U
142-28-9	1,3-Dichloropropane	9.7	U
591-78-6	2-Hexanone	48	U
124-48-1	Dibromochloromethane	9.7	U
106-93-4	1,2-Dibromoethane	9.7	U
108-90-7	Chlorobenzene	9.7	U
630-20-6	1,1,1,2-Tetrachloroethane	9.7	U
100-41-4	Ethylbenzene	9.7	U
1330-20-7	Xylene (m,p)	9.7	U
1330-20-7	Xylene (total)	9.7	U
95-47-6	Xylene (o)	9.7	U
100-42-5	Styrene	9.7	U
75-25-2	Bromoform	9.7	U
98-82-8	Isopropylbenzene	9.7	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.7	U
108-86-1	Bromobenzene	9.7	U
79-34-5	1,1,2,2-Tetrachloroethane	9.7	U
103-65-1	n-Propylbenzene	9.7	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18039

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630444

Sample wt/vol: 10.3 (g/mL) G Lab File ID: 630444E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.7	U
110-57-6	trans-1,4-Dichloro-2-butene	9.7	U
95-49-8	2-Chlorotoluene	9.7	U
106-43-4	4-Chlorotoluene	9.7	U
108-67-8	1,3,5-Trimethylbenzene	9.7	U
98-06-6	tert-Butylbenzene	9.7	U
95-63-6	1,2,4-Trimethylbenzene	9.7	U
135-98-8	sec-Butylbenzene	9.7	U
541-73-1	1,3-Dichlorobenzene	9.7	U
99-87-6	4-Isopropyltoluene	9.7	U
106-46-7	1,4-Dichlorobenzene	9.7	U
95-50-1	1,2-Dichlorobenzene	9.7	U
104-51-8	n-Butylbenzene	9.7	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.7	U
120-82-1	1,2,4-Trichlorobenzene	9.7	U
87-68-3	Hexachlorobutadiene	9.7	U
91-20-3	Naphthalene	9.7	U
87-61-6	1,2,3-Trichlorobenzene	9.7	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18041

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630445

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 630445E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.1	U
74-87-3	Chloromethane	8.1	U
75-01-4	Vinyl Chloride	8.1	U
74-83-9	Bromomethane	8.1	U
75-00-3	Chloroethane	8.1	U
75-69-4	Trichlorofluoromethane	8.1	U
107-02-8	Acrolein	40	U
75-35-4	1,1-Dichloroethene	8.1	U
76-13-1	Freon TF	8.1	U
67-64-1	Acetone	40	U
74-88-4	Methyl Iodide	8.1	U
75-15-0	Carbon Disulfide	8.1	U
107-05-1	Allyl Chloride	8.1	U
75-09-2	Methylene Chloride	8.1	U
107-13-1	Acrylonitrile	8.1	U
156-60-5	trans-1,2-Dichloroethene	8.1	U
1634-04-4	Methyl-t-Butyl Ether	8.1	U
540-59-0	1,2-Dichloroethene (total)	8.1	U
75-34-3	1,1-Dichloroethane	8.1	U
126-99-8	Chloroprene	8.1	U
108-05-4	Vinyl Acetate	8.1	U
594-20-7	2,2-Dichloropropane	8.1	U
156-59-2	cis-1,2-Dichloroethene	8.1	U
78-93-3	2-Butanone	40	U
107-12-0	Propionitrile	32	U
74-97-5	Bromochloromethane	8.1	U
126-98-7	Methacrylonitrile	8.1	U
109-99-9	Tetrahydrofuran	110	U
67-66-3	Chloroform	8.1	U
71-55-6	1,1,1-Trichloroethane	8.1	U
56-23-5	Carbon Tetrachloride	3.6	J
563-58-6	1,1-Dichloropropene	8.1	U
71-43-2	Benzene	8.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18041

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630445

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 630445E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	8.1	U
78-83-1	Isobutyl Alcohol	410	U
79-01-6	Trichloroethene	8.1	U
78-87-5	1,2-Dichloropropane	8.1	U
74-95-3	Dibromomethane	8.1	U
80-62-6	Methyl Methacrylate	8.1	U
123-91-1	1,4-Dioxane	410	U
75-27-4	Bromodichloromethane	8.1	U
110-75-8	2-Chloroethyl Vinyl Ether	8.1	U
10061-01-5	cis-1,3-Dichloropropene	8.1	U
108-10-1	4-Methyl-2-pentanone	40	U
108-88-3	Toluene	0.94	J
10061-02-6	trans-1,3-Dichloropropene	8.1	U
97-63-2	Ethyl Methacrylate	8.1	U
79-00-5	1,1,2-Trichloroethane	8.1	U
127-18-4	Tetrachloroethene	8.1	U
142-28-9	1,3-Dichloropropane	8.1	U
591-78-6	2-Hexanone	40	U
124-48-1	Dibromochloromethane	8.1	U
106-93-4	1,2-Dibromoethane	8.1	U
108-90-7	Chlorobenzene	8.1	U
630-20-6	1,1,1,2-Tetrachloroethane	8.1	U
100-41-4	Ethylbenzene	8.1	U
1330-20-7	Xylene (m,p)	8.1	U
1330-20-7	Xylene (total)	8.1	U
95-47-6	Xylene (o)	8.1	U
100-42-5	Styrene	8.1	U
75-25-2	Bromoform	8.1	U
98-82-8	Isopropylbenzene	8.1	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.1	U
108-86-1	Bromobenzene	8.1	U
79-34-5	1,1,2,2-Tetrachloroethane	8.1	U
103-65-1	n-Propylbenzene	8.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18041

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630445

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 630445E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.1	U
110-57-6	trans-1,4-Dichloro-2-butene	8.1	U
95-49-8	2-Chlorotoluene	8.1	U
106-43-4	4-Chlorotoluene	8.1	U
108-67-8	1,3,5-Trimethylbenzene	8.1	U
98-06-6	tert-Butylbenzene	8.1	U
95-63-6	1,2,4-Trimethylbenzene	8.1	U
135-98-8	sec-Butylbenzene	8.1	U
541-73-1	1,3-Dichlorobenzene	8.1	U
99-87-6	4-Isopropyltoluene	8.1	U
106-46-7	1,4-Dichlorobenzene	8.1	U
95-50-1	1,2-Dichlorobenzene	8.1	U
104-51-8	n-Butylbenzene	8.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.1	U
120-82-1	1,2,4-Trichlorobenzene	8.1	U
87-68-3	Hexachlorobutadiene	8.1	U
91-20-3	Naphthalene	8.1	U
87-61-6	1,2,3-Trichlorobenzene	8.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18047

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630446

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 630446E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.5	U
74-87-3	Chloromethane	9.5	U
75-01-4	Vinyl Chloride	9.5	U
74-83-9	Bromomethane	9.5	U
75-00-3	Chloroethane	9.5	U
75-69-4	Trichlorofluoromethane	9.5	U
107-02-8	Acrolein	47	U
75-35-4	1,1-Dichloroethene	9.5	U
76-13-1	Freon TF	9.5	U
67-64-1	Acetone	47	U
74-88-4	Methyl Iodide	9.5	U
75-15-0	Carbon Disulfide	9.5	U
107-05-1	Allyl Chloride	9.5	U
75-09-2	Methylene Chloride	9.5	U
107-13-1	Acrylonitrile	9.5	U
156-60-5	trans-1,2-Dichloroethene	9.5	U
1634-04-4	Methyl-t-Butyl Ether	9.5	U
540-59-0	1,2-Dichloroethene (total)	9.5	U
75-34-3	1,1-Dichloroethane	9.5	U
126-99-8	Chloroprene	9.5	U
108-05-4	Vinyl Acetate	9.5	U
594-20-7	2,2-Dichloropropane	9.5	U
156-59-2	cis-1,2-Dichloroethene	9.5	U
78-93-3	2-Butanone	47	U
107-12-0	Propionitrile	38	U
74-97-5	Bromochloromethane	9.5	U
126-98-7	Methacrylonitrile	9.5	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.5	U
71-55-6	1,1,1-Trichloroethane	9.5	U
56-23-5	Carbon Tetrachloride	9.5	U
563-58-6	1,1-Dichloropropene	9.5	U
71-43-2	Benzene	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18047

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630446

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 630446E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.5	U
78-83-1	Isobutyl Alcohol	470	U
79-01-6	Trichloroethene	9.5	U
78-87-5	1,2-Dichloropropane	9.5	U
74-95-3	Dibromomethane	9.5	U
80-62-6	Methyl Methacrylate	9.5	U
123-91-1	1,4-Dioxane	470	U
75-27-4	Bromodichloromethane	9.5	U
110-75-8	2-Chloroethyl Vinyl Ether	9.5	U
10061-01-5	cis-1,3-Dichloropropene	9.5	U
108-10-1	4-Methyl-2-pentanone	47	U
108-88-3	Toluene	1.1	J
10061-02-6	trans-1,3-Dichloropropene	9.5	U
97-63-2	Ethyl Methacrylate	9.5	U
79-00-5	1,1,2-Trichloroethane	9.5	U
127-18-4	Tetrachloroethene	9.5	U
142-28-9	1,3-Dichloropropane	9.5	U
591-78-6	2-Hexanone	47	U
124-48-1	Dibromochloromethane	9.5	U
106-93-4	1,2-Dibromoethane	9.5	U
108-90-7	Chlorobenzene	9.5	U
630-20-6	1,1,1,2-Tetrachloroethane	9.5	U
100-41-4	Ethylbenzene	9.5	U
1330-20-7	Xylene (m,p)	9.5	U
1330-20-7	Xylene (total)	9.5	U
95-47-6	Xylene (o)	9.5	U
100-42-5	Styrene	9.5	U
75-25-2	Bromoform	9.5	U
98-82-8	Isopropylbenzene	9.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.5	U
108-86-1	Bromobenzene	9.5	U
79-34-5	1,1,2,2-Tetrachloroethane	9.5	U
103-65-1	n-Propylbenzene	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18047

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630446

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 630446E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.5	U
110-57-6	trans-1,4-Dichloro-2-butene	9.5	U
95-49-8	2-Chlorotoluene	9.5	U
106-43-4	4-Chlorotoluene	9.5	U
108-67-8	1,3,5-Trimethylbenzene	9.5	U
98-06-6	tert-Butylbenzene	9.5	U
95-63-6	1,2,4-Trimethylbenzene	9.5	U
135-98-8	sec-Butylbenzene	9.5	U
541-73-1	1,3-Dichlorobenzene	9.5	U
99-87-6	4-Isopropyltoluene	9.5	U
106-46-7	1,4-Dichlorobenzene	9.5	U
95-50-1	1,2-Dichlorobenzene	9.5	U
104-51-8	n-Butylbenzene	9.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.5	U
120-82-1	1,2,4-Trichlorobenzene	9.5	U
87-68-3	Hexachlorobutadiene	9.5	U
91-20-3	Naphthalene	9.5	U
87-61-6	1,2,3-Trichlorobenzene	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18054

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630447

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 630447E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.6	U
74-87-3	Chloromethane	9.6	U
75-01-4	Vinyl Chloride	9.6	U
74-83-9	Bromomethane	9.6	U
75-00-3	Chloroethane	9.6	U
75-69-4	Trichlorofluoromethane	9.6	U
107-02-8	Acrolein	47	U
75-35-4	1,1-Dichloroethene	9.6	U
76-13-1	Freon TF	9.6	U
67-64-1	Acetone	47	U
74-88-4	Methyl Iodide	9.6	U
75-15-0	Carbon Disulfide	9.6	U
107-05-1	Allyl Chloride	9.6	U
75-09-2	Methylene Chloride	9.6	U
107-13-1	Acrylonitrile	9.6	U
156-60-5	trans-1,2-Dichloroethene	9.6	U
1634-04-4	Methyl-t-Butyl Ether	9.6	U
540-59-0	1,2-Dichloroethene (total)	9.6	U
75-34-3	1,1-Dichloroethane	9.6	U
126-99-8	Chloroprene	9.6	U
108-05-4	Vinyl Acetate	9.6	U
594-20-7	2,2-Dichloropropane	9.6	U
156-59-2	cis-1,2-Dichloroethene	9.6	U
78-93-3	2-Butanone	47	U
107-12-0	Propionitrile	38	U
74-97-5	Bromochloromethane	9.6	U
126-98-7	Methacrylonitrile	9.6	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.6	U
71-55-6	1,1,1-Trichloroethane	9.6	U
56-23-5	Carbon Tetrachloride	9.6	U
563-58-6	1,1-Dichloropropene	9.6	U
71-43-2	Benzene	9.6	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18054

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630447

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 630447E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	9.6	U
78-83-1	Isobutyl Alcohol	480	U
79-01-6	Trichloroethene	9.6	U
78-87-5	1,2-Dichloropropane	9.6	U
74-95-3	Dibromomethane	9.6	U
80-62-6	Methyl Methacrylate	9.6	U
123-91-1	1,4-Dioxane	480	U
75-27-4	Bromodichloromethane	9.6	U
110-75-8	2-Chloroethyl Vinyl Ether	9.6	U
10061-01-5	cis-1,3-Dichloropropene	9.6	U
108-10-1	4-Methyl-2-pentanone	47	U
108-88-3	Toluene	9.6	U
10061-02-6	trans-1,3-Dichloropropene	9.6	U
97-63-2	Ethyl Methacrylate	9.6	U
79-00-5	1,1,2-Trichloroethane	9.6	U
127-18-4	Tetrachloroethene	9.6	U
142-28-9	1,3-Dichloropropane	9.6	U
591-78-6	2-Hexanone	47	U
124-48-1	Dibromochloromethane	9.6	U
106-93-4	1,2-Dibromoethane	9.6	U
108-90-7	Chlorobenzene	9.6	U
630-20-6	1,1,1,2-Tetrachloroethane	9.6	U
100-41-4	Ethylbenzene	9.6	U
1330-20-7	Xylene (m,p)	9.6	U
1330-20-7	Xylene (total)	9.6	U
95-47-6	Xylene (o)	9.6	U
100-42-5	Styrene	9.6	U
75-25-2	Bromoform	9.6	U
98-82-8	Isopropylbenzene	9.6	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.6	U
108-86-1	Bromobenzene	9.6	U
79-34-5	1,1,2,2-Tetrachloroethane	9.6	U
103-65-1	n-Propylbenzene	9.6	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

AG-S-18054

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630447

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 630447E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	9.6	U
110-57-6	trans-1,4-Dichloro-2-butene	9.6	U
95-49-8	2-Chlorotoluene	9.6	U
106-43-4	4-Chlorotoluene	9.6	U
108-67-8	1,3,5-Trimethylbenzene	9.6	U
98-06-6	tert-Butylbenzene	9.6	U
95-63-6	1,2,4-Trimethylbenzene	9.6	U
135-98-8	sec-Butylbenzene	9.6	U
541-73-1	1,3-Dichlorobenzene	9.6	U
99-87-6	4-Isopropyltoluene	9.6	U
106-46-7	1,4-Dichlorobenzene	9.6	U
95-50-1	1,2-Dichlorobenzene	9.6	U
104-51-8	n-Butylbenzene	9.6	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.6	U
120-82-1	1,2,4-Trichlorobenzene	9.6	U
87-68-3	Hexachlorobutadiene	9.6	U
91-20-3	Naphthalene	9.6	U
87-61-6	1,2,3-Trichlorobenzene	9.6	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630453

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 630453E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	10	U
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	10	U
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
126-99-8	Chloroprene	10	U
108-05-4	Vinyl Acetate	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	50	U
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630453

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 630453E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	10	U
78-83-1	Isobutyl Alcohol	500	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	500	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
1330-20-7	Xylene (total)	10	U
95-47-6	Xylene (o)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propylbenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21000

Lab Code: STLVT Case No.: AGRA SAS No.: SDG No.: 108589

Matrix: (soil/water) SOIL Lab Sample ID: 630453

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 630453E

Level: (low/med) MED Date Received: 07/23/05

% Moisture: not dec. _____ Date Analyzed: 07/30/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	10	U
110-57-6	trans-1,4-Dichloro-2-butene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

Analytical Summary Sheets

from Severn Trent Services

for samples analyzed in

SDG 108712

STL Burlington
Colchester, Vermont

Sample Data Summary Package

SDG: 108712

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-175192

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631274

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 631274E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/03/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	41	U
75-35-4	1,1-Dichloroethene	8.3	U
76-13-1	Freon TF	8.3	U
67-64-1	Acetone	41	U
74-88-4	Methyl Iodide	8.3	U
75-15-0	Carbon Disulfide	8.3	U
107-05-1	Allyl Chloride	8.3	U
75-09-2	Methylene Chloride	8.3	U
107-13-1	Acrylonitrile	8.3	U
156-60-5	trans-1,2-Dichloroethene	8.3	U
1634-04-4	Methyl-t-Butyl Ether	8.3	U
540-59-0	1,2-Dichloroethene (total)	8.3	U
75-34-3	1,1-Dichloroethane	8.3	U
126-99-8	Chloroprene	8.3	U
108-05-4	Vinyl Acetate	8.3	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	38	J
107-12-0	Propionitrile	33	U
74-97-5	Bromochloromethane	8.3	U
126-98-7	Methacrylonitrile	8.3	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.3	U
71-55-6	1,1,1-Trichloroethane	8.3	U
56-23-5	Carbon Tetrachloride	250	
563-58-6	1,1-Dichloropropene	8.3	U
71-43-2	Benzene	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-175192

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631274

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 631274E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/03/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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
74-95-3	Dibromomethane	8.3	U
80-62-6	Methyl Methacrylate	7.5	J
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.3	U
110-75-8	2-Chloroethyl Vinyl Ether	8.3	U
10061-01-5	cis-1,3-Dichloropropene	8.3	U
108-10-1	4-Methyl-2-pentanone	41	U
108-88-3	Toluene	2.5	J
10061-02-6	trans-1,3-Dichloropropene	8.3	U
97-63-2	Ethyl Methacrylate	8.3	U
79-00-5	1,1,2-Trichloroethane	8.3	U
127-18-4	Tetrachloroethene	8.3	U
142-28-9	1,3-Dichloropropane	8.3	U
591-78-6	2-Hexanone	41	U
124-48-1	Dibromochloromethane	8.3	U
106-93-4	1,2-Dibromoethane	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
1330-20-7	Xylene (m,p)	8.3	U
1330-20-7	Xylene (total)	8.3	U
95-47-6	Xylene (o)	8.3	U
100-42-5	Styrene	8.3	U
75-25-2	Bromoform	8.3	U
98-82-8	Isopropylbenzene	8.3	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.3	U
108-86-1	Bromobenzene	8.3	U
79-34-5	1,1,2,2-Tetrachloroethane	8.3	U
103-65-1	n-Propylbenzene	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-175192

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631274

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 631274E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/03/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.3	U
110-57-6	trans-1,4-Dichloro-2-butene	8.3	U
95-49-8	2-Chlorotoluene	8.3	U
106-43-4	4-Chlorotoluene	8.3	U
108-67-8	1,3,5-Trimethylbenzene	8.3	U
98-06-6	tert-Butylbenzene	8.3	U
95-63-6	1,2,4-Trimethylbenzene	8.3	U
135-98-8	sec-Butylbenzene	8.3	U
541-73-1	1,3-Dichlorobenzene	8.3	U
99-87-6	4-Isopropyltoluene	8.3	U
106-46-7	1,4-Dichlorobenzene	8.3	U
95-50-1	1,2-Dichlorobenzene	8.3	U
104-51-8	n-Butylbenzene	8.3	U
96-12-8	1,2-Dibromo-3-Chloropropane	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
87-61-6	1,2,3-Trichlorobenzene	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-1752629

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631275

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 631275E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/03/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.4	U
74-87-3	Chloromethane	8.4	U
75-01-4	Vinyl Chloride	8.4	U
74-83-9	Bromomethane	8.4	U
75-00-3	Chloroethane	8.4	U
75-69-4	Trichlorofluoromethane	8.4	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.4	U
76-13-1	Freon TF	8.4	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	8.4	U
75-15-0	Carbon Disulfide	8.4	U
107-05-1	Allyl Chloride	8.4	U
75-09-2	Methylene Chloride	8.4	U
107-13-1	Acrylonitrile	8.4	U
156-60-5	trans-1,2-Dichloroethene	8.4	U
1634-04-4	Methyl-t-Butyl Ether	8.4	U
540-59-0	1,2-Dichloroethene (total)	8.4	U
75-34-3	1,1-Dichloroethane	8.4	U
126-99-8	Chloroprene	8.4	U
108-05-4	Vinyl Acetate	8.4	U
594-20-7	2,2-Dichloropropane	8.4	U
156-59-2	cis-1,2-Dichloroethene	8.4	U
78-93-3	2-Butanone	42	U
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.4	U
126-98-7	Methacrylonitrile	8.4	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.4	U
71-55-6	1,1,1-Trichloroethane	8.4	U
56-23-5	Carbon Tetrachloride	8.4	U
563-58-6	1,1-Dichloropropene	8.4	U
71-43-2	Benzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-1752629

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631275

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 631275E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/03/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	8.4	U
78-83-1	Isobutyl Alcohol	420	U
79-01-6	Trichloroethene	8.4	U
78-87-5	1,2-Dichloropropane	8.4	U
74-95-3	Dibromomethane	8.4	U
80-62-6	Methyl Methacrylate	8.4	U
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.4	U
110-75-8	2-Chloroethyl Vinyl Ether	8.4	U
10061-01-5	cis-1,3-Dichloropropene	8.4	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	2.5	J
10061-02-6	trans-1,3-Dichloropropene	8.4	U
97-63-2	Ethyl Methacrylate	8.4	U
79-00-5	1,1,2-Trichloroethane	8.4	U
127-18-4	Tetrachloroethene	8.4	U
142-28-9	1,3-Dichloropropane	8.4	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.4	U
106-93-4	1,2-Dibromoethane	8.4	U
108-90-7	Chlorobenzene	8.4	U
630-20-6	1,1,1,2-Tetrachloroethane	8.4	U
100-41-4	Ethylbenzene	8.4	U
1330-20-7	Xylene (m,p)	8.4	U
1330-20-7	Xylene (total)	8.4	U
95-47-6	Xylene (o)	8.4	U
100-42-5	Styrene	8.4	U
75-25-2	Bromoform	8.4	U
98-82-8	Isopropylbenzene	8.4	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.4	U
108-86-1	Bromobenzene	8.4	U
79-34-5	1,1,2,2-Tetrachloroethane	8.4	U
103-65-1	n-Propylbenzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-1752629

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631275

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 631275E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/03/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.4	U
110-57-6	trans-1,4-Dichloro-2-butene	8.4	U
95-49-8	2-Chlorotoluene	8.4	U
106-43-4	4-Chlorotoluene	8.4	U
108-67-8	1,3,5-Trimethylbenzene	8.4	U
98-06-6	tert-Butylbenzene	8.4	U
95-63-6	1,2,4-Trimethylbenzene	8.4	U
135-98-8	sec-Butylbenzene	8.4	U
541-73-1	1,3-Dichlorobenzene	8.4	U
99-87-6	4-Isopropyltoluene	8.4	U
106-46-7	1,4-Dichlorobenzene	8.4	U
95-50-1	1,2-Dichlorobenzene	8.4	U
104-51-8	n-Butylbenzene	8.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.4	U
120-82-1	1,2,4-Trichlorobenzene	8.4	U
87-68-3	Hexachlorobutadiene	8.4	U
91-20-3	Naphthalene	8.4	U
87-61-6	1,2,3-Trichlorobenzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-175374

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631277

Sample wt/vol: 11.7 (g/mL) G Lab File ID: 631277E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.5	U
74-87-3	Chloromethane	8.5	U
75-01-4	Vinyl Chloride	8.5	U
74-83-9	Bromomethane	8.5	U
75-00-3	Chloroethane	8.5	U
75-69-4	Trichlorofluoromethane	8.5	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.5	U
76-13-1	Freon TF	8.5	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	8.5	U
75-15-0	Carbon Disulfide	8.5	U
107-05-1	Allyl Chloride	8.5	U
75-09-2	Methylene Chloride	8.5	U
107-13-1	Acrylonitrile	8.5	U
156-60-5	trans-1,2-Dichloroethene	8.5	U
1634-04-4	Methyl-t-Butyl Ether	8.5	U
540-59-0	1,2-Dichloroethene (total)	8.5	U
75-34-3	1,1-Dichloroethane	8.5	U
126-99-8	Chloroprene	8.5	U
108-05-4	Vinyl Acetate	8.5	U
594-20-7	2,2-Dichloropropane	8.5	U
156-59-2	cis-1,2-Dichloroethene	8.5	U
78-93-3	2-Butanone	41	J
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.5	U
126-98-7	Methacrylonitrile	8.5	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.5	U
71-55-6	1,1,1-Trichloroethane	8.5	U
56-23-5	Carbon Tetrachloride	8.5	U
563-58-6	1,1-Dichloropropene	8.5	U
71-43-2	Benzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-175374

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631277

Sample wt/vol: 11.7 (g/mL) G Lab File ID: 631277E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	8.5	U
78-83-1	Isobutyl Alcohol	430	U
79-01-6	Trichloroethene	8.5	U
78-87-5	1,2-Dichloropropane	8.5	U
74-95-3	Dibromomethane	8.5	U
80-62-6	Methyl Methacrylate	8.5	U
123-91-1	1,4-Dioxane	430	U
75-27-4	Bromodichloromethane	8.5	U
110-75-8	2-Chloroethyl Vinyl Ether	8.5	U
10061-01-5	cis-1,3-Dichloropropene	8.5	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	3.5	J
10061-02-6	trans-1,3-Dichloropropene	8.5	U
97-63-2	Ethyl Methacrylate	8.5	U
79-00-5	1,1,2-Trichloroethane	8.5	U
127-18-4	Tetrachloroethene	8.5	U
142-28-9	1,3-Dichloropropane	8.5	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.5	U
106-93-4	1,2-Dibromoethane	8.5	U
108-90-7	Chlorobenzene	8.5	U
630-20-6	1,1,1,2-Tetrachloroethane	8.5	U
100-41-4	Ethylbenzene	8.5	U
1330-20-7	Xylene (m,p)	8.5	U
1330-20-7	Xylene (total)	8.5	U
95-47-6	Xylene (o)	8.5	U
100-42-5	Styrene	8.5	U
75-25-2	Bromoform	8.5	U
98-82-8	Isopropylbenzene	8.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.5	U
108-86-1	Bromobenzene	8.5	U
79-34-5	1,1,2,2-Tetrachloroethane	8.5	U
103-65-1	n-Propylbenzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-175374

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631277

Sample wt/vol: 11.7 (g/mL) G Lab File ID: 631277E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	8.5	U
110-57-6	trans-1,4-Dichloro-2-butene	8.5	U
95-49-8	2-Chlorotoluene	8.5	U
106-43-4	4-Chlorotoluene	8.5	U
108-67-8	1,3,5-Trimethylbenzene	8.5	U
98-06-6	tert-Butylbenzene	8.5	U
95-63-6	1,2,4-Trimethylbenzene	8.5	U
135-98-8	sec-Butylbenzene	8.5	U
541-73-1	1,3-Dichlorobenzene	8.5	U
99-87-6	4-Isopropyltoluene	8.5	U
106-46-7	1,4-Dichlorobenzene	8.5	U
95-50-1	1,2-Dichlorobenzene	8.5	U
104-51-8	n-Butylbenzene	8.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.5	U
120-82-1	1,2,4-Trichlorobenzene	8.5	U
87-68-3	Hexachlorobutadiene	8.5	U
91-20-3	Naphthalene	8.5	U
87-61-6	1,2,3-Trichlorobenzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-177458

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631278

Sample wt/vol: 14.1 (g/mL) G Lab File ID: 631278E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.1	U
74-87-3	Chloromethane	7.1	U
75-01-4	Vinyl Chloride	7.1	U
74-83-9	Bromomethane	7.1	U
75-00-3	Chloroethane	7.1	U
75-69-4	Trichlorofluoromethane	7.1	U
107-02-8	Acrolein	35	U
75-35-4	1,1-Dichloroethene	7.1	U
76-13-1	Freon TF	7.1	U
67-64-1	Acetone	35	U
74-88-4	Methyl Iodide	7.1	U
75-15-0	Carbon Disulfide	7.1	U
107-05-1	Allyl Chloride	7.1	U
75-09-2	Methylene Chloride	7.1	U
107-13-1	Acrylonitrile	7.1	U
156-60-5	trans-1,2-Dichloroethene	7.1	U
1634-04-4	Methyl-t-Butyl Ether	7.1	U
540-59-0	1,2-Dichloroethene (total)	7.1	U
75-34-3	1,1-Dichloroethane	7.1	U
126-99-8	Chloroprene	7.1	U
108-05-4	Vinyl Acetate	7.1	U
594-20-7	2,2-Dichloropropane	7.1	U
156-59-2	cis-1,2-Dichloroethene	7.1	U
78-93-3	2-Butanone	20	J
107-12-0	Propionitrile	28	U
74-97-5	Bromochloromethane	7.1	U
126-98-7	Methacrylonitrile	7.1	U
109-99-9	Tetrahydrofuran	99	U
67-66-3	Chloroform	7.1	U
71-55-6	1,1,1-Trichloroethane	7.1	U
56-23-5	Carbon Tetrachloride	7.1	U
563-58-6	1,1-Dichloropropene	7.1	U
71-43-2	Benzene	7.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-177458

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631278

Sample wt/vol: 14.1 (g/mL) G Lab File ID: 631278E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	7.1	U
78-83-1	Isobutyl Alcohol	350	U
79-01-6	Trichloroethene	7.1	U
78-87-5	1,2-Dichloropropane	7.1	U
74-95-3	Dibromomethane	7.1	U
80-62-6	Methyl Methacrylate	7.1	U
123-91-1	1,4-Dioxane	350	U
75-27-4	Bromodichloromethane	7.1	U
110-75-8	2-Chloroethyl Vinyl Ether	7.1	U
10061-01-5	cis-1,3-Dichloropropene	7.1	U
108-10-1	4-Methyl-2-pentanone	35	U
108-88-3	Toluene	1.6	J
10061-02-6	trans-1,3-Dichloropropene	7.1	U
97-63-2	Ethyl Methacrylate	7.1	U
79-00-5	1,1,2-Trichloroethane	7.1	U
127-18-4	Tetrachloroethene	7.1	U
142-28-9	1,3-Dichloropropane	7.1	U
591-78-6	2-Hexanone	35	U
124-48-1	Dibromochloromethane	7.1	U
106-93-4	1,2-Dibromoethane	7.1	U
108-90-7	Chlorobenzene	7.1	U
630-20-6	1,1,1,2-Tetrachloroethane	7.1	U
100-41-4	Ethylbenzene	7.1	U
1330-20-7	Xylene (m,p)	7.1	U
1330-20-7	Xylene (total)	7.1	U
95-47-6	Xylene (o)	7.1	U
100-42-5	Styrene	7.1	U
75-25-2	Bromoform	7.1	U
98-82-8	Isopropylbenzene	7.1	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.1	U
108-86-1	Bromobenzene	7.1	U
79-34-5	1,1,2,2-Tetrachloroethane	7.1	U
103-65-1	n-Propylbenzene	7.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-177458

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631278

Sample wt/vol: 14.1 (g/mL) G Lab File ID: 631278E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	7.1	U
110-57-6	trans-1,4-Dichloro-2-butene	7.1	U
95-49-8	2-Chlorotoluene	7.1	U
106-43-4	4-Chlorotoluene	7.1	U
108-67-8	1,3,5-Trimethylbenzene	7.1	U
98-06-6	tert-Butylbenzene	7.1	U
95-63-6	1,2,4-Trimethylbenzene	7.1	U
135-98-8	sec-Butylbenzene	7.1	U
541-73-1	1,3-Dichlorobenzene	7.1	U
99-87-6	4-Isopropyltoluene	7.1	U
106-46-7	1,4-Dichlorobenzene	7.1	U
95-50-1	1,2-Dichlorobenzene	7.1	U
104-51-8	n-Butylbenzene	7.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.1	U
120-82-1	1,2,4-Trichlorobenzene	7.1	U
87-68-3	Hexachlorobutadiene	7.1	U
91-20-3	Naphthalene	7.1	U
87-61-6	1,2,3-Trichlorobenzene	7.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-177476

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631276

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 631276E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.9	U
74-87-3	Chloromethane	7.9	U
75-01-4	Vinyl Chloride	7.9	U
74-83-9	Bromomethane	7.9	U
75-00-3	Chloroethane	7.9	U
75-69-4	Trichlorofluoromethane	7.9	U
107-02-8	Acrolein	39	U
75-35-4	1,1-Dichloroethene	7.9	U
76-13-1	Freon TF	7.9	U
67-64-1	Acetone	39	U
74-88-4	Methyl Iodide	7.9	U
75-15-0	Carbon Disulfide	7.9	U
107-05-1	Allyl Chloride	7.9	U
75-09-2	Methylene Chloride	7.9	U
107-13-1	Acrylonitrile	7.9	U
156-60-5	trans-1,2-Dichloroethene	7.9	U
1634-04-4	Methyl-t-Butyl Ether	7.9	U
540-59-0	1,2-Dichloroethene (total)	7.9	U
75-34-3	1,1-Dichloroethane	7.9	U
126-99-8	Chloroprene	7.9	U
108-05-4	Vinyl Acetate	7.9	U
594-20-7	2,2-Dichloropropane	7.9	U
156-59-2	cis-1,2-Dichloroethene	7.9	U
78-93-3	2-Butanone	39	J
107-12-0	Propionitrile	32	U
74-97-5	Bromochloromethane	7.9	U
126-98-7	Methacrylonitrile	7.9	U
109-99-9	Tetrahydrofuran	110	U
67-66-3	Chloroform	7.9	U
71-55-6	1,1,1-Trichloroethane	7.9	U
56-23-5	Carbon Tetrachloride	7.9	U
563-58-6	1,1-Dichloropropene	7.9	U
71-43-2	Benzene	7.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-177476

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631276

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 631276E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	7.9	U
78-83-1	Isobutyl Alcohol	400	U
79-01-6	Trichloroethene	7.9	U
78-87-5	1,2-Dichloropropane	7.9	U
74-95-3	Dibromomethane	7.9	U
80-62-6	Methyl Methacrylate	7.9	U
123-91-1	1,4-Dioxane	400	U
75-27-4	Bromodichloromethane	7.9	U
110-75-8	2-Chloroethyl Vinyl Ether	7.9	U
10061-01-5	cis-1,3-Dichloropropene	7.9	U
108-10-1	4-Methyl-2-pentanone	39	U
108-88-3	Toluene	3.4	J
10061-02-6	trans-1,3-Dichloropropene	7.9	U
97-63-2	Ethyl Methacrylate	7.9	U
79-00-5	1,1,2-Trichloroethane	7.9	U
127-18-4	Tetrachloroethene	7.9	U
142-28-9	1,3-Dichloropropane	7.9	U
591-78-6	2-Hexanone	39	U
124-48-1	Dibromochloromethane	7.9	U
106-93-4	1,2-Dibromoethane	7.9	U
108-90-7	Chlorobenzene	7.9	U
630-20-6	1,1,1,2-Tetrachloroethane	7.9	U
100-41-4	Ethylbenzene	7.9	U
1330-20-7	Xylene (m,p)	7.9	U
1330-20-7	Xylene (total)	7.9	U
95-47-6	Xylene (o)	7.9	U
100-42-5	Styrene	7.9	U
75-25-2	Bromoform	7.9	U
98-82-8	Isopropylbenzene	7.9	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.9	U
108-86-1	Bromobenzene	7.9	U
79-34-5	1,1,2,2-Tetrachloroethane	7.9	U
103-65-1	n-Propylbenzene	7.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-177476

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631276

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 631276E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	7.9	U
110-57-6	trans-1,4-Dichloro-2-butene	7.9	U
95-49-8	2-Chlorotoluene	7.9	U
106-43-4	4-Chlorotoluene	7.9	U
108-67-8	1,3,5-Trimethylbenzene	7.9	U
98-06-6	tert-Butylbenzene	7.9	U
95-63-6	1,2,4-Trimethylbenzene	7.9	U
135-98-8	sec-Butylbenzene	7.9	U
541-73-1	1,3-Dichlorobenzene	7.9	U
99-87-6	4-Isopropyltoluene	7.9	U
106-46-7	1,4-Dichlorobenzene	7.9	U
95-50-1	1,2-Dichlorobenzene	7.9	U
104-51-8	n-Butylbenzene	7.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.9	U
120-82-1	1,2,4-Trichlorobenzene	7.9	U
87-68-3	Hexachlorobutadiene	7.9	U
91-20-3	Naphthalene	7.9	U
87-61-6	1,2,3-Trichlorobenzene	7.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-MEOHBLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631279

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 631279E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	10	U
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	10	U
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
126-99-8	Chloroprene	10	U
108-05-4	Vinyl Acetate	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	50	U
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-MEOHBLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631279

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 631279E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-06-2	1,2-Dichloroethane	10	U
78-83-1	Isobutyl Alcohol	500	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	500	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
1330-20-7	Xylene (total)	10	U
95-47-6	Xylene (o)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propylbenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

A6-S-MEOHBLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: 21005 SAS No.: SDG No.: 108712

Matrix: (soil/water) SOIL Lab Sample ID: 631279

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 631279E

Level: (low/med) MED Date Received: 07/29/05

% Moisture: not dec. _____ Date Analyzed: 08/04/05

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
96-18-4	1,2,3-Trichloropropane	10	U
110-57-6	trans-1,4-Dichloro-2-butene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U