Craig Smith/SWR

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BLACK & VEATCH Special Projects Corp.

TRIP REPORT

57th & North Broadway Site
Trip Report
PCE Plume Investigation
Phase 2 - May 2007 Sampling Effort

BVSPC Project 044719.01.49
File E.1.1
June 8, 2007

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) has an ongoing remedial action at the 57th & North Broadway site, in Wichita, Sedgwick County, Kansas. Black & Veatch Special Projects Corp. (BVSPC) was tasked by the EPA to perform a direct-push investigation effort to further delineate the tetrachloroethene (PCE) contamination at the site. This contamination has been detected in monitoring well MW-306 and in the western in situ groundwater treatment system wells along 53rd Street. The first phase of the PCE plume delineation effort was conducted from March 28, 2007, through April 6, 2007. A trip report detailing the activities conducted during the first phase effort was prepared on May 17, 2007.

The second phase of the PCE plume delineation effort was conducted from May 29, 2007 through May 31, 2007. The scope of the second phase of the field work was agreed upon during a meeting held at EPA offices on April 10, 2007. Representatives from the Kansas Department of Health and Environment (KDHE) were in attendance at the meeting. The field activities were conducted in accordance with the following planning documents prepared by BVSPC:

- Project Plan, Volume 2-Confidential Business Information, September 26, 2005.
- Quality Assurance Project Plan, Addendum No. 1, Revision 1, January 11, 2007.

Ms. Genise Luecke, BVSPC Site Manager, was onsite directing the direct-push subcontractor, Below Ground Surface Inc. (BGS) of Lawrence, Kansas. BGS performed the direct-push effort as well as the onsite analytical services. BVSPC had two representatives onsite during the field effort. BGS had three personnel onsite. Mr. Steve Kinser with EPA were onsite for part of the sampling effort. Mr. Ashley Allen, with the KDHE, was also onsite during part of the sampling effort.

The field team provided daily updates to the EPA by submitting daily reports to EPA via e-mail each night. The daily reports summarized the activities completed that day along with which persons and equipment were on site, the number of borings installed, and the number of samples collected. The daily reports included a summary of the onsite analytical results and a field generated figure of the boring locations as attachments. Copies of the daily reports and photographs are provided in Attachment A. (Note that the attachments to the daily reports are not included because Table 2 and the figure included in this Trip Report include the data in its entirety rather than daily piecemeal.) Copies of the field log book pages are provided in Attachment B.

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FIELD SAMPLING EFFORT

The following activities were conducted during the PCE plume delineation sampling effort:

- Installed direct–push borings at 16 locations.
- Collected 62 primary groundwater samples from various depths below ground surface (bgs).
- Analyzed the groundwater samples for PCE, trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride in the field using mobile gas chromatographs (GCs).
- Collected duplicates of 10 percent of the field samples for offsite analysis at the EPA Region VII laboratory.
- Collected one surface soil sample for analysis by the mobile field laboratory.

The direct-push borings were installed at the locations shown on the attached figure. The latitude-longitude of each boring was recorded with a global positioning satellite (GPS) unit. The latitude-longitude of the borings are listed in Table 1 along with the depth to refusal (where measured), the approximate depth to water, and a description of the location of each boring.

Based on the results of the first phase of the PCE plume delineation effort, borings G-40 through G-43 were sampled from 35 feet bgs up to the top of the water table at 5-foot intervals. Borings G-44 through G-47 were installed on the abandoned railroad tracks which are raised about 5 feet above the surrounding terrain. Therefore, for consistency, these borings were sampled from 40 feet bgs up to the top of the water table at 5-foot intervals.

Based on the results obtained from the first eight borings installed during this second phase of field work, EPA obtained access from Allen's Auto Salvage to sample. This property abuts the northern border of the Midland Refinery property. The purpose of the borings on this property were to determine if the PCE contamination extended north (upgradient) of Midland. Four borings (G-48 through G-51) were installed on the Allen's Auto Salvage property. The boring locations were agreed upon by EPA and KDHE. These borings were sampled from 30 feet bgs up to the top of the water table at 5-foot intervals.

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As agreed upon in the April 10, 2007, meeting, borings G-52 and G-53 were installed upgradient and side-gradient of G-B253 to further delineate the low levels of PCE detected in the G-B253 samples by the onsite mobile laboratory. These two borings were samples from refusal up to the top of the water table at 5-foot intervals.

The following is a summary of the direct-push groundwater sample collection procedures:

1) Direct-push rods were hydraulically driven to refusal or the desired sampling maximum sample depth proposed at each location.
2) Once the sample depth has been reached, the rods were retracted approximately 4 feet to extend the sampling screen.
3) 1/4-inch polyethylene tubing was inserted through the probe rods and down into the sampling screen.
4) Approximately 2 to 4 liters was purged from the screened water-bearing zone before sampling. Purging and sampling was provided by oscillating the tubing up and down, by connecting the tubing to a low flow rate peristaltic pump, or a combination thereof. Purged water was disposed of to the ground. Field parameters including temperature, pH, specific conductivity, redox potential (ORP), turbidity, and dissolved oxygen (DO) were collected during purging and sampling using a flow-through cell. Purging information was recorded on the sampling point purge data field sheets.
5) Following purging, water samples were collected in appropriate sample containers in the following analyses order: onsite volatiles, offsite volatiles (if appropriate), field water quality. After the sample for onsite analysis was collected it was prepared for sample analysis. The samples collected for offsite analyses were secured and placed in a cooler for subsequent sample processing (either disposal or shipment).
6) After sampling of the specified interval was completed, the sampling tubing was withdrawn and bagged for disposal as investigative derived waste (IDW).
7) The rod and screen assembly was then raised to the next sampling interval (5 feet higher), and then steps (3) through (6) were repeated. It should be noted that new polyethylene tubing was used at each sampling depth to eliminate potential cross-contamination between sampling intervals.
8) Step (7) was repeated until all water-bearing intervals have been sampled.
9) Once the last sampling interval has been sampled, the rod and screen assembly was completely removed and disassembled for decontamination, and the hole was plugged with bentonite.

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Copies of the temporary direct-push sampling point purge data field sheets are provided in Attachment C.

It was noted by EPA and KDHE during the field effort that a concrete drainage ditch (or channel) was present on the Midland property. The drainage ditch was located just south of the north property fence and drained the property from the east to the west. The ditch discharges just inside the northwest corner of the property fence into a depression on the north side of the railroad tracks. EPA requested that a surface soil sample be collected from the depression. BGS supplied a sample bottle and makeshift sampling equipment including a rake and knife were decontaminated and used to collected the sample. The sample was collected from about 4 to 6 inches bgs and placed in the sample jar. The sample jar was put on ice and delivered to the mobile laboratory for analysis. PCE, TCE, cis-1,2-DCE, and vinyl chloride were non-detect in the soil sample with a detection limit of 20 micrograms per kilogram (ug/kg).

A total of 62 primary groundwater samples were collected for onsite analysis. A list of the samples collected is included in Table 2. Table 2 also lists the depth of each sample, the depth of the direct-push screen, the onsite laboratory results for each samples, the final field parameter readings for each sample, and the date and time of sample collection. The QAPP required that at least ten percent of the primary groundwater samples be submitted for confirmation analysis offsite at the EPA Region VII Laboratory. In addition, EPA requested that all the samples collected from borings G-52 and G-53 be submitted for offsite analysis. Therefore, a total of 16 primary samples (or 25 percent) were sent offsite for analysis. Table 3 lists the samples that were collected for offsite analysis.. Except for the samples from borings G-52 and G-53, samples were selected for offsite analysis by the BVSPC field team leader at the end of each day. Samples selected for offsite analysis included a range of concentrations from non-detect to the higher total VOC concentrations. An effort was also made to include a range of sample depth intervals. Table 4 presents a summary of the samples selected for offsite analysis based on onsite mobile laboratory concentrations of total volatile organic compounds (VOCs) and sample depth interval.

Quality assurance/quality control (QA/QC) for the offsite analytical laboratory consisted of duplicate samples, rinsate blanks, trip blanks, and matrix spike/matrix spike duplicate (MS/MSD) samples. QA/QC samples that were sent to the EPA Region VII Laboratory for analysis are also listed in Table 3. Copies of the sample collection field sheets and chain-of-custody records are provided in Attachment D.

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ONSITE ANALYTICAL RESULTS

The groundwater samples were analyzed by a field GC for PCE, TCE, cis-1,2-DCE, and vinyl chloride. The detection limits for PCE, TCE, and cis-1,2-DCE was 4.0 micrograms per liter (ug/L). The detection limit for vinyl chloride was 2.0 ug/L. The field analytical results are presented in Table 2. A complete copy of the analytical data report received from the onsite mobile laboratory is provided in Attachment E.

Field Quality Assurance/Quality Control (QA/QC)

QA/QC for the field analytical laboratory consisted of performance evaluation (PE) samples, duplicate samples, rinsate blanks, and MS/MSD samples.

PE samples consisted of samples with a known concentration of PCE, TCE, cis-1,2-DCE, and vinyl chloride prepared by the EPA Region VII laboratory. PE samples were provided to BGS by BVSPC at the beginning of every day. All the onsite PE sample results were within ±50 percent of the known concentrations, therefore, no recalibration in the field was required. The PE sample results are summarized in Table 5. If necessary, field analytical laboratory results were qualified with a "J" based on the results of the PE samples, as required by the QAPP.

Duplicate samples for onsite field GC analyses were collected and analyzed at a rate of approximately 5 percent (1 per 20 primary samples). Four duplicate samples were collected for onsite analysis. Table 6 presents the duplicate sample results and the calculated relative percent differences. All of the duplicate samples were well within the control limits set in the QAPP.

Rinsate blank samples were collected from the screens used to collected the groundwater samples after the screens had been decontaminated. The field change made to the collection of rinsate blank samples during the first phase of sampling was continued during the second phase. Because the same screen was used to collect all the groundwater samples from the same boring without decontamination in between the sample interval, BVSPC decided to collect a rinsate blank after approximately every ten borings rather than after every twenty samples. Two rinsate blank samples were collected. Table 7 lists the rinsate samples collected and the associated borings. All the onsite analytical results for the rinsate blank samples were non-detect.

MS/MSD samples were collected and analyzed onsite at a rate of approximately 5 percent (1 per 20 primary). Three MS/MSD samples were collected. All of the

MS/MSD recoveries were within QA/QC limits. The MS/MSD data is presented in Attachment E.

ATTACHMENTS

Attachment A	Daily Reports and Photographs
Attachment B	Field Log Book Pages
Attachment C	Temporary Direct-Push Sampling Point Purge Data Field Sheets
Attachment D	Sample Collection Field Sheets and Chain-of-Custody Records
Attachment E	Complete Onsite Analytical Results

Table 1
Sampling Point Information
PCE Plume Investigation
57th & North Broadway Site

Boring ID	Depth to Refusal (ft bgs)	Depth to Water (ft bgs)	Latitude	Longitude	Approximate Boring Location Description
G-40	NM	14	N37°47.283	W097°20.346	~ 100 feet W of G4-28
G-41	NM	14	N37°47.297	W097°20.366	~ 200 feet W of G4-28
G-42	NM	13	N37°47.308	W097°20.377	~ 300 feet W of G4-28
G-43	NM	14	N37°47.332	W097°20.415	~ 150 feet NE of G-B253 and ~100 feet W of MW-305
G-44	NM	16	N37°47.304	W097°20.354	~ 65 feet N of G-41
G-45	NM	16	N37°47.318	W097°20.368	~ 75 feet N of G-42
G-46	NM	16	N37°47.294	W097°20.344	~ 65 feet N of G-40
G-47	NM	15	N37°47.308	W097°20.360	~ centered between G-44 and G-45
G-48	NM	16	N37°47.330	W097°20.339	In Allen's Auto Salvage upgradient of concrete drain at Midland
G-49	NM	16	N37°47.327	W097°20.330	~ 50 feet E of G-48
G-50	NM	16	N37°47.326	W097°20.323	~ 50 feet E of G-49
G-51	NM	17	N37°47.330	W097°20.3311	~ 50 feet E of G-50
G-52	50	24	N37°47.363	W097°20.442	~ 350 feet N of G-B253 just S of railroad right of way
G-53	43	23	N37°47.314	W097°20.461	~ 100 feet W of G-B253

Note: All depths are estimates.
NM - Not measured
E - east
W - west
N - north
S - south

Table 2
Onsite Analysis Results Summary
PCE Plume Investigation
57th & North Broadway Site

Boring	Sample Depth (ft bgs)	Screen Interval (ft bgs)	Mobile Laboratory Results (ug/L)					Field Parameters						Sample Collection	
			PCE	TCE	DCE	VC	Total VOCs	pH	Sp. Cond.	Turbidity	DO	Temp.	ORP	Date	Time
G-40	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.75	1.085	548.0	0.78	16.03	69.3	5/29/2007	10:36
G-40-Dup	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.75	1.085	548.0	0.78	16.03	69.3	5/29/2007	10:36
G-40	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.78	1.059	1210.4	0.72	15.89	4.4	5/29/2007	10:51
G-40	25	21 - 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.65	0.939	997.4	0.55	15.65	-35.1	5/29/2007	11:03
G-40	20	16 - 20	12.8	ND (4)	ND (4)	ND (2)	12.8	6.30	0.644	1048.7	0.90	15.42	-0.3	5/29/2007	11:14
G-40	16	12 - 16	5.5	ND (4)	ND* (4)	ND (2)	5.5	6.42	1.319	197.4	1.50	15.10	29.3	5/29/2007	11:25
G-41	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.97	0.977	1231.2	0.54	17.57	-157.0	5/29/2007	12:48
G-41	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.86	0.931	285.7	0.63	15.88	-90.0	5/29/2007	13:00
G-41	25	21 - 25	332	29.8	ND (4)	ND (2)	361.8	6.85	0.942	1197.7	3.70	15.94	-34.1	5/29/2007	13:10
G-41	20	16 - 20	829	14.1 J	4.6	ND (2)	833.6	6.82	0.887	484.0	1.72	15.37	-12.6	5/29/2007	13:21
G-41	16	12 - 16	166	ND (4)	ND (4)	ND (2)	166	6.90	0.746	52.8	9.07	15.63	55.1	5/29/2007	13:32
G-42	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.83	0.954	160.2	0.82	16.64	34.3	5/29/2007	13:57
G-42	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.85	0.962	1158.0	0.67	16.33	-40.4	5/29/2007	21:07
G-42	25	21 - 25	16.3	5.4 J	ND (4)	ND (2)	16.3	6.76	0.946	479.0	0.74	16.00	-30.5	5/29/2007	14:18
G-42	20	16 - 20	62.1	ND* (4)	ND (4)	ND (2)	62.1	6.77	0.932	1211.8	0.96	15.81	-47.8	5/29/2007	14:28
G-42	16	12 - 16	53.6	ND (4)	ND (4)	ND (2)	53.6	7.06	1.631	212.5	8.44	17.00	0.0	5/29/2007	14:40
G-43	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.91	0.990	1242.4	0.52	19.13	-113.2	5/29/2007	15:14
G-43	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.76	0.964	811.8	0.57	16.24	-70.4	5/29/2007	15:23
G-43	25	21 - 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.79	0.973	869.4	0.63	15.84	-102.4	5/29/2007	15:34
G-43	20	16 - 20	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.61	0.902	525.4	0.72	15.63	-82.5	5/29/2007	15:45
G-43	16	12 - 16	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.44	0.789	1180.1	5.30	15.33	31.5	5/29/2007	15:54
G-44	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.85	1.091	1212.5	0.43	15.80	18.4	5/30/2007	8:06
G-44	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.88	1.087	692.1	0.34	15.66	-44.8	5/30/2007	8:20
G-44	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.90	1.014	1128.1	0.35	15.48	-55.6	5/30/2007	8:30
G-44	25	21 - 25	11.2 J	ND (4)	ND (4)	ND (2)	0	6.84	0.965	1198.4	0.34	15.99	-71.2	5/30/2007	8:41
G-44-Dup	25	21 - 25	11.4 J	ND (4)	ND (4)	ND (2)	0	6.84	0.965	1198.4	0.34	15.99	-71.2	5/30/2007	8:41
G-44	20	16 - 20	262	ND (4)	ND (4)	ND (2)	262	6.77	0.826	237.0	4.20	14.89	2.2	5/30/2007	8:56
G-45	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.95	0.976	1119.2	0.40	15.84	11.0	5/30/2007	9:27

Table 2
Onsite Analysis Results Summary
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Boring	Sample Depth (ft bgs)	Screen Interval (ft bgs)	Mobile Laboratory Results (ug/L)					Field Parameters						Sample Collection	
			PCE	TCE	DCE	VC	Total VOCs	pH	Sp. Cond.	Turbidity	DO	Temp.	ORP	Date	Time
G-45	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.95	0.995	1144.1	0.36	15.72	-74.1	5/30/2007	9:39
G-45	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.96	1.013	1070.4	0.36	15.21	-70.5	5/30/2007	9:50
G-45	25	21 - 25	234 J	ND (4)	ND (4)	ND (2)	0	6.94	0.760	960.1	3.94	14.92	-29.9	5/30/2007	10:00
G-45	20	16 - 20	150	ND (4)	ND (4)	ND (2)	150	7.03	0.610	90.5	5.69	14.64	-9.3	5/30/2007	10:10
G-46	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.91	1.100	415.4	0.44	16.10	7.3	5/30/2007	10:41
G-46	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.89	1.085	342.2	0.42	16.03	-42.1	5/30/2007	10:54
G-46	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.77	1.030	842.0	0.46	15.56	-68.3	5/30/2007	11:03
G-46	25	21 - 25	3.9 J	ND (4)	ND (4)	ND (2)	0	6.58	0.783	1035.9	0.43	15.26	-65.3	5/30/2007	11:16
G-46	20	16 - 20	11.3	ND (4)	ND (4)	ND (2)	11.3	6.54	0.638	346.2	8.20	15.07	52.8	5/30/2007	11:30
G-47	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.00	0.966	1212.6	0.61	15.86	-121.4	5/30/2007	13:09
G-47	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.94	0.966	1109.3	0.35	15.63	-102.4	5/30/2007	13:19
G-47	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.01	0.950	1203.3	0.46	15.60	-95.4	5/30/2007	13:32
G-47	25	21 - 25	175	8.2	ND* (4)	ND (2)	183.2	6.93	0.966	1012.1	0.37	15.26	-87.5	5/30/2007	13:43
G-47	20	16 - 20	800 J	12	ND (4)	ND (2)	12	6.88	0.828	1205.7	7.32	15.18	31.0	5/30/2007	13:52
G-48	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.99	0.849	1232.2	5.37	19.39	-13.4	5/30/2007	14:39
G-48	25	21 - 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.71	0.785	1108.0	3.56	16.61	6.0	5/30/2007	14:51
G-48	20	16 - 20	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.37	0.918	518.1	2.78	18.42	38.4	5/30/2007	15:03
G-49	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.74	0.869	1220.1	0.41	16.78	-64.8	5/30/2007	15:31
G-49-Dup	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.74	0.869	1220.1	0.41	16.78	-64.8	5/30/2007	15:31
G-49	25	21 - 25	ND (4)	ND (4)	6.6	ND (2)	6.6	0.43	0.724	1215.4	0.75	16.23	-76.0	5/30/2007	15:51
G-49	20	16 - 20	ND (4)	ND (4)	ND* (4)	ND (2)	ND	6.30	0.875	1212.8	0.90	16.01	-67.1	5/30/2007	16:00
G-50	30	26 - 30	ND (4)	ND (4)	5	ND (2)	5	6.66	0.921	1220.1	1.08	12.70	-22.5	5/30/2007	16:30
G-50	25	21 - 25	ND (4)	ND (4)	7.4	ND (2)	7.4	6.70	0.941	954.1	1.10	16.27	-78.9	5/30/2007	16:03
G-50	20	16 - 20	ND (4)	ND (4)	ND* (4)	ND (2)	ND	6.62	1.135	944.9	1.01	15.73	-47.4	5/30/2007	16:49
G-51	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.74	0.889	621.5	1.22	15.35	-106.3	5/31/2007	7:23
G-51	25	21 - 25	ND (4)	ND (4)	6.9	ND (2)	6.9	6.77	0.819	412.3	3.50	15.18	-91.7	5/31/2007	7:33
G-51	20	16 - 20	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.62	0.831	1185.1	2.71	14.88	-42.5	5/31/2007	7:41
G-52	50	46 50	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.82	0.990	748.3	3.15	15.73	-59.9	5/31/2007	8:20

Table 2
Onsite Analysis Results Summary
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57th & North Broadway Site

Boring	Sample Depth (ft bgs)	Screen Interval (ft bgs)	Mobile Laboratory Results (ug/L)					Field Parameters						Sample Collection	
			PCE	TCE	DCE	VC	Total VOCs	pH	Sp. Cond.	Turbidity	DO	Temp.	ORP	Date	Time
G-52	45	41 45	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.78	0.982	434.5	10.44	15.99	-52.4	5/31/2007	8:32
G-52	40	36 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.91	0.984	1213.0	8.61	16.04	-77.6	5/31/2007	8:43
G-52	35	31 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.73	0.948	162.1	9.34	16.38	-48.6	5/31/2007	8:56
G-52	30	26 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.63	0.836	121.9	7.36	15.12	-34.1	5/31/2007	9:05
G-52	25	21 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.81	0.666	439.2	9.54	15.22	-15.9	5/31/2007	9:26
G-53	43	39 43	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.01	1.026	909.0	NR	19.28	-191.8	5/31/2007	10:10
G-53	38	34 38	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.11	1.038	1242.4	8.44	19.25	-182.3	5/31/2007	10:24
G-53	33	29 33	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.38	1.003	1246.5	12.73	19.60	-79.4	5/31/2007	10:39
G-53-Dup	33	29 33	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.38	1.003	1246.5	12.73	19.60	-79.4	5/31/2007	10:39
G-53	28	24 28	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.30	0.931	1246.5	13.77	19.59	-81.9	5/31/2007	10:52
Rinsate 5-30-07		NA	ND (4)	ND (4)	ND (4)	ND (2)	ND	NA	NA	NA	NA	NA	NA	5/30/2007	15:00
Rinsate 5-31-07		NA	ND (4)	ND (4)	ND (4)	ND (2)	ND	NA	NA	NA	NA	NA	NA	5/31/2007	12:00
SOIL-01	NA		ND (20)	ND (20)	ND (20)	ND (20)	ND	NA	NA	NA	NA	NA	NA	5/31/2007	9:20

Notes:
ND = non-detect. Detection limit listed in parentheses.
J = Result is estimated.
Dup = duplicate sample.
NR = Not recorded.
* = Compound detected but below the reporting limit.

PCE = Tetrachloroethene
TCE = Trichloroethene
DCE = cis-1,2-dichloroethene
VC = vinyl chloride

Sp. Cond. = Specific conductivity in uS/cm
Turbidity in NTUs
DO = dissolved oxygen in mg/L
Temp = temperature in degrees C
ORP = oxygen reduction potential in mV

Table 3
Groundwater Samples Collected for Offsite Analysis
PCE Plume Investigation
57th & North Broadway Site

Onsite Sample ID	Offsite Sample ID	Comments
G-40-20	3448-1	MS/MSD
G-42-30	3448-2	Also 3448-2-FD
G-41-20	3448-3	
G-48-20	3448-4	
G-49-25	3448-5	
G-50-20	3448-6	
G-52-50	3448-8	
G-52-45	3448-9	
G-52-40	3448-10	
G-52-35	3448-11	
G-52-30	3448-12	
G-52-25	3448-13	
G-53-43	3448-15	
G-53-38	3448-16	
G-53-33	3448-17	
G-53-28	3448-18	
Rinsate 05-30-07	3448-7	
TB-05-30-07	3448-21-FB	Trip blank
TB-05-31-07	3365-22-FB	Trip blank
FD indicates duplicate sample. FB indicated field blank - trip blank.		

Table 4
Summary Comparision of Onsite and Offsite Samples
PCE Plume Investigation
57th & North Broadway Site

Onsite Laboratory Results Concentration Interval (ug/L, Total VOCs)	Number of Onsite Samples	% of Total	Number of Offsite Samples	% of Total
ND	42	67.74	13	81.25
ND-10	6	9.68	1	6.25
10-50	4	6.45	1	6.25
50-100	2	3.23	0	0
100-200	3	4.84	0	0
200-500	3	4.84	0	0
500 and above	2	3.23	1	6.25
Totals	62		16	

Sample Depth Interval (ft bgs)	Number of Onsite Samples	% of Total	Number of Offsite Samples	% of Total
0-15	0	0	0	0
16-20	16	25.81	4	25
21-25	13	20.97	2	12.5
26-30	14	22.58	3	18.75
31-35	10	16.13	2	12.5
36-40	6	9.68	2	12.5
41-45	2	3.23	2	12.5
46-50	1	1.61	1	6.25
Totals	62		16	

Table 5
Performance Evaluation (PE) Sample Results
PCE Plume Investigation
57th North Broadway Site

PE Sample ID	Analysis Date	GC	Analyte	Field Results	Spiked Concentration	% Difference	J-Coding Required?
3448-15-1	5/29/2007	Alpha	VC	57	80.2	28.9	N
			DCE	62.3	84	25.8	N
			TCE	18.3	22	16.8	N
			PCE	11.5	15.6	26.3	N
	Associated samples:		G-40-25, G-40-16, G-41-35, G-41-30, G-41-25, G-41-16, G-42-20, G-42-16, G-43-30				

PE Sample ID	Date	GC		Field Results	Spiked Concentration	% Difference	J-Coding Required?
3448-15-2	5/29/2007	Beta	VC	72.4	80.2	9.7	N
			DCE	63.5	84	24.4	N
			TCE	14.4	22	34.5	Y
			PCE	13.7	15.6	12.2	N
	Associated samples:		G-40-35, G-40-35-Dup, G-40-30, G-40-20, G-41-20, G-42-35, G-42-30, G-42-25, G-43-35, G-43-25				

PE Sample ID	Date	GC		Field Results	Spiked Concentration	% Difference	J-Coding Required?
3448-15-3	5/30/2007	Alpha	VC	88.6	80.2	10.5	N
			DCE	101	84	20.2	N
			TCE	19.8	22	10	N
			PCE	20.3	15.6	30.1	Y
	Associated samples:		G-44-35, G-44-25, G-44-25-Dup, G-45-35, G-45-30, G-45-25, G-46-40, G-46-25, G-47-35, G-47-20, G-48-25, G-49-30, G-49-30-Dup, G-49-20, G-50-25, G-50-20				

PE Sample ID	Date	GC		Field Results	Spiked Concentration	% Difference	J-Coding Required?
3448-15-4	5/30/2007	Beta	VC	70.7	80.2	11.8	N
			DCE	63.8	84	24	N
			TCE	15.4	22	30	N
			PCE	19.5	15.6	25	N
	Associated samples:		G-44-40, G-44-30, G-44-20, G-45-40, G-45-20, G-46-35, G-46-30, G-46-20, G-47-40, G-47-30, G-47-25, Rinsate-05-30-07, G-48-30, G-48-20, G-49-25, G-50-30				

Table 5
Performance Evaluation (PE) Sample Results
PCE Plume Investigation
57th North Broadway Site

PE Sample ID	Date	GC		Field Results	Spiked Concentration	% Difference	J-Coding Required?
3448-17-1	5/31/2007	Alpha	VC	62.3	80.2	22.3	N
			DCE	52.6	84	37.4	Y
			TCE	11.2	22	49.1	Y
			PCE	11.1	15.6	28.8	N
	Associated samples:		G-51-30, G-52-50, G-52-45, G-52-35, G-52-25, G-53-43, G-53-33, G-53-33-Dup				

PE Sample ID	Date	GC		Field Results	Spiked Concentration	% Difference	J-Coding Required?
3448-17-2	5/31/2007	Beta	VC	63.3	80.2	21.1	N
			DCE	60.7	84	27.7	N
			TCE	15.6	22	29.1	Y
			PCE	13.8	15.6	11.5	Y
	Associated samples:		G-51-25, G-51-20, G-52-40, G-52-30, Soil-01, G-53-38, G-53-28, Rinsate-05-31-07				

Notes:
QAPP specifies that positive results should be J-coded if the % difference is greater than ± 30 percent and less than ± 50 percent.
Mobile laboratory was equipped with two GCs, Alpha and Beta.
All results are listed in ug/L.

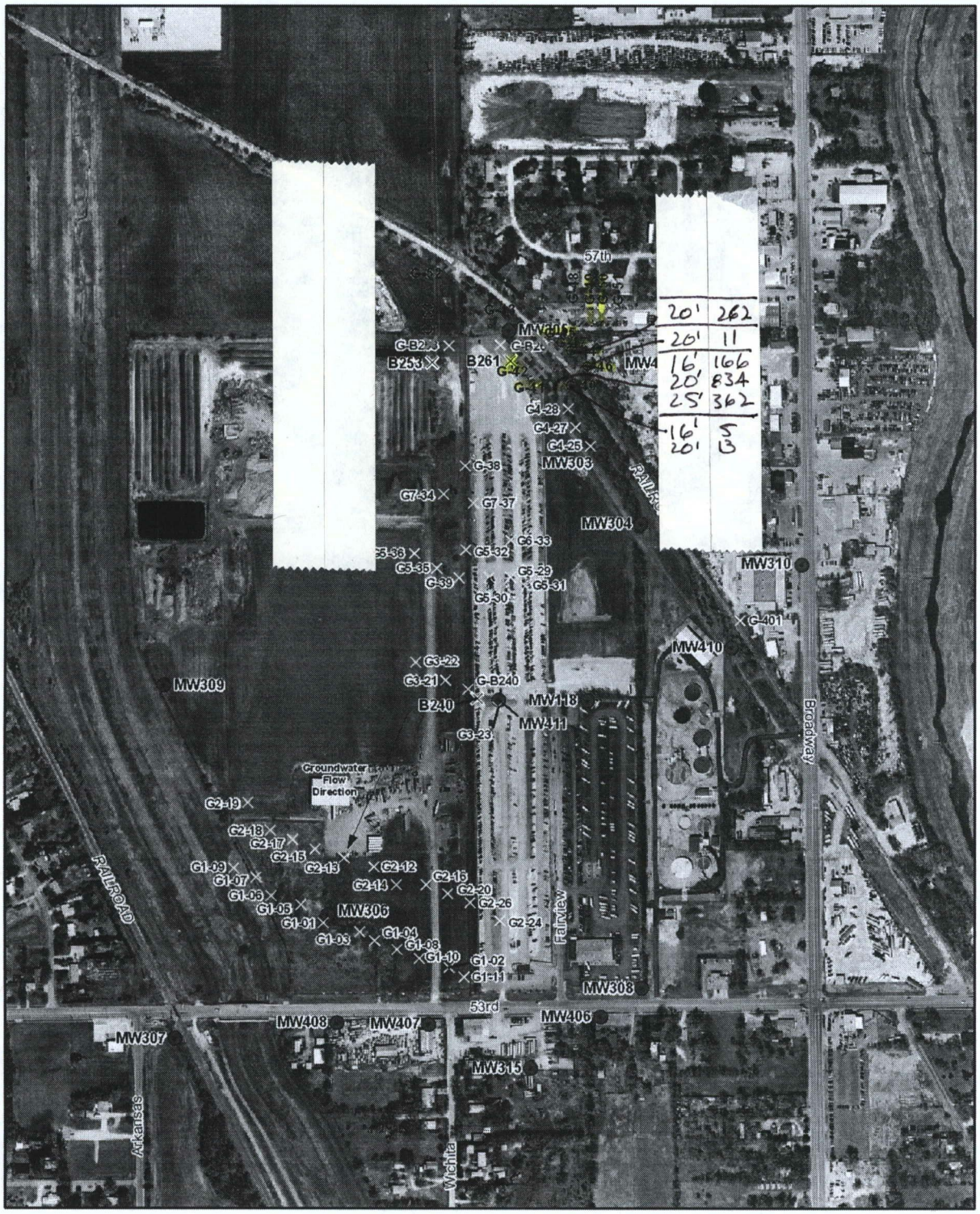
Table 6
Duplicate Sample Onsite Analysis Results - RPD Calculations
PCE Plume Investigation
57th & North Broadway Site

Boring ID	Sample Depth (ft bgs)	Screen Interval (ft bgs)	Mobile Laboratory Results (ug/L)			
			PCE	TCE	DCE	VC
G-40	35	35 - 31	ND (4)	ND (4)	ND (4)	ND (4)
G-40	35 dup	35 - 31	ND (4)	ND (4)	ND (4)	ND (4)
		RPD	**NC**	**NC**	**NC**	**NC**
G-44	25	25 - 21	11.2	ND (4)	ND (4)	ND (4)
G-44	25-dup	25 - 21	11.4	ND (4)	ND (4)	ND (4)
		RPD	**1.77**	**NC**	**NC**	**NC**
G-49	30	30 - 26	ND (4)	ND (4)	ND (4)	ND (4)
G-49	30-dup	30 - 26	ND (4)	ND (4)	ND (4)	ND (4)
		RPD	**NC**	**NC**	**NC**	**NC**
G-53	33	33 - 29	ND (4)	ND (4)	ND (4)	ND (2)
G-53	33 dup	33 - 29	ND (4)	ND (4)	ND (4)	ND (2)
		RPD	**NC**	**NC**	**NC**	**NC**

Notes:
ND = non-detect. Detection limit listed in parentheses.
J = Result is estimated.
Dup = duplicate sample.
NC = Not calculated because contaminant was ND in at least one of the two samples.

Table 7
Rinsate Blank Listing
PCE Plume Investigation
57th & North Broadway Site

Rinsate Sample	Associated Borings
Rinsate-05-30-07	G-40, G-41, G-42, G-43, G-45, G-46, G-47
Rinsate-05-31-07	G-48, G-49, G-50, G-51, G-52, G-53



× MAY-JUNE 2007 SAMPLING LOCATION (APPROXIMATE)

Legend

- ● Existing Monitoring Wells
- Sampling Point Location
- × Approximate Locations of Borings Sampled in 1998

400 200 0 400 Feet

N

Sampling Point Locations
PCE Plume Investigation
57th & North Broadway Site

Attachment A
Daily Reports and Photographs

DAILY REPORT

DATE May 29, 2007

DAY	S	M	T	W	TH	F	S

USEPA PM: Steve Kinser

PROJECT: 57th & North Broadway Site

JOB: PCE Plume Investigation – Phase 2

CONTRACT: EP-S7-05-05
Task Order 056

WEATHER	Bright Sun	Clear	**Overcast**	Rain	Snow
TEMPERATURE	to 32	32-50	**50-70**	70-85	85-up
WIND	Still	**Mod.**	High	**Report No. 1**	
HUMIDITY	Dry	**Mod.**	Humid		

TASK: Soil Sampling **Soil Boring** Aquifer Testing Well Installation **GW Sampling**

SUBCONTRACTORS ON SITE: **Black & Veatch (2): G. Luecke, G. Douglas; BGS (3): M. Ocsody, D. Freund, B. Cullen**

EQUIPMENT ON SITE: **Geoprobe, Mobile Lab, YSI, miscellaneous soil sampling equipment, three POVs**

WORK PERFORMED (INCLUDING SAMPLING MEDIA, SAMPLE NUMBERS, AND ANALYSES):

Mobilized to site. Set up mobile laboratory and located borings to be installed today.

Installed boring G-40 (approximately 100 feet NW of G4-28). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).

Installed boring G-41 (approximately 200 feet NW of G4-28). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).

Installed boring G-42 (approximately 300 feet NW of G4-28). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).

Installed boring G-43 (approximately 150 feet NE of G-B253 and 100 feet W of MW-305). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).

Soil Boring Summary:
Number of Borings Installed: 4
Total Footage Bored: 140 feet

Groundwater Sampling Summary:

Number of Samples Collected and Analyzed:

Sampling Point	Number of Samples	Notes
G-40	7	Included a duplicate and an MS/MSD
G-41	5	

PROJECT: 57th & North Broadway Site REPORT NO: 1

JOB: PCE Plume Investigation – Phase 2 DATE: May 29, 2007

G-42	5	
G-43	5	
TOTAL	22	

Number of Samples Collected for Offsite Analysis:

Sampling Point	Number of Samples	Notes
G-40	1	MS/MSD
G-41	1	
G-42	1	Duplicate
G-43	0	
TOTAL	3	

Samples for offsite analysis were packaged and placed on ice and will be shipped tomorrow (May 30).

Onsite analytical results are presented in Table 1 provided separately. Locations of the sampling points are provided on separate figure. Latitude/longitude of sampling points are listed below:

Sampling Point	Latitude	Longitude
G-40	N37°47.283	W097°20.346
G-41	N37°47.297	W097°20.366
G-42	N37°47.308	W097°20.377
G-43	N37°47.332	W097°20.415

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS): Calibrated YSI. Analyzed PE samples (3448-15-1 and 3448-15-2) in the onsite mobile laboratory.

HEALTH AND SAFETY LEVELS AND ACTIVITIES: Held safety meeting.

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN: None.

SPECIAL NOTES: None.

TOMORROW'S EXPECTATIONS: Continue installing borings, collecting groundwater samples, and analyzing groundwater samples.

PREPARED BY: Genise M. Luecke

REVIEWED BY:

DAILY REPORT

DATE May 30, 2007

DAY	S	M	T	W	TH	F	S

USEPA PM: Steve Kinser

PROJECT: 57th & North Broadway Site

JOB: PCE Plume Investigation – Phase 2

CONTRACT: EP-S7-05-05
Task Order 056

WEATHER	Bright Sun	Clear	**Overcast**	Rain	Snow
TEMPERATURE	to 32	32-50	50-70	**70-85**	85-up
WIND	Still	**Mod.**	High	**Report No. 2**	
HUMIDITY	Dry	**Mod.**	Humid		

TASK: Soil Sampling **Soil Boring** Aquifer Testing Well Installation **GW Sampling**

SUBCONTRACTORS ON SITE: **Black & Veatch (2): G. Luecke, G. Douglas; BGS (3): M. Ocsody, D. Freund, B. Cullen**

EQUIPMENT ON SITE: **Geoprobe, Mobile Lab, YSI, miscellaneous sampling equipment, three POVs**

WORK PERFORMED (INCLUDING SAMPLING MEDIA, SAMPLE NUMBERS, AND ANALYSES):

Steve Kinser, EPA, and Ashley Allen, KDHE, were onsite. Discussed locations of additional borings and it was decided that additional investigation is needed north of the fence on Midland's north property line. Steve Kinser obtained access to Allen's Auto Salvage which abuts the north side of Midland. Boring locations within Allen's Auto Salvage were laid out and agreed upon by EPA and KDHE.

Installed boring G-44 (approximately 65 feet NE of G4-41 at north side of railroad track). Collected samples from 5 depths (40, 35, 30, 25, and 20 feet bgs).

Installed boring G-45 (approximately 100 feet W of G4-44 and 75 feet NW of G-42 on north side of railroad track). Collected samples from 5 depths (40, 35, 30, 25, and 20 feet bgs).

Installed boring G-46 (approximately 100 feet E of G4-44 and 65 feet NW of G-40 on north side of railroad track). Collected samples from 5 depths (40, 35, 30, 25, and 20 feet bgs).

Installed boring G-47 (approximately halfway between G-44 and G-45 on north side of railroad track). Collected samples from 5 depths (40, 35, 30, 25, and 20 feet bgs). Collected a rinsate sample from the decontaminated screen used at this boring.

Installed boring G-48 (at Allen's Auto Salvage approximately 150 feet from the W property line). Collected samples from 3 depths (30, 25, and 20 feet bgs).

Installed boring G-49 (at Allen's Auto Salvage approximately 50 feet E of G-48). Collected samples from 3 depths (30, 25, and 20 feet bgs).

PROJECT: 57th & North Broadway Site **REPORT NO:** 3

JOB: PCE Plume Investigation – Phase 2 **DATE:** May 30, 2007

Installed boring G-50 (at Allen's Auto Salvage approximately 50 feet E of G-49). Collected samples from 3 depths (30, 25, and 20 feet bgs).

Installed rods and set screen at boring G-51 (at Allen's Auto Salvage approximately 50 feet E of G-50), but will collect groundwater samples tomorrow (May 31, 2007).

Soil Boring Summary:

Number of Borings Installed: 8 (only sampled 7)
Total Footage Bored: 296 feet

Groundwater Sampling Summary:

Number of Samples Collected and Analyzed:

Sampling Point	Number of Samples	Notes
G-44	6	Included a duplicate
G-45	6	Included a MS/MSD
G-46	5	
G-47	5	
G-48	3	
G-49	4	Included a duplicate
G-50	4	Included a MS/MSD
TOTAL	33	

Number of Samples Collected for Offsite Analysis:

Sampling Point	Number of Samples	Notes
G-44	0	
G-45	0	
G-46	0	
G-47	0	
G-48	1	
G-49	1	
G-50	1	
TOTAL	3	

Samples were packaged and shipped via FedEx to EPA Region VII laboratory.

Onsite analytical results are presented in Table 1 provided separately. Note that final results from borings G-47 through G-50 were not received although verbal results were. In boring G-47, PCE was detected at 800 ug/L in the shallowest (20 feet bgs) sample. In borings G-48 through G-50 (all on the Allen's Auto Salvage lot north of Midland), PCE or TCE was detected. DCE was detected in some of the samples but all the detections were all below 15 ug/L.

Locations of the sampling points are provided on separate figure. Latitude/longitude of sampling points are listed below:

Sampling Point	Latitude	Longitude
G-44	N37°47.304	W097°20.354

PROJECT: 57th & North Broadway Site **REPORT NO:** 3

JOB: PCE Plume Investigation – Phase 2 **DATE:** May 30, 2007

G-45	N37°47.318	W097°20.368
G-46	N37°47.294	W097°20.344
G-47	N37°47.308	W097°20.360
G-48	N37°47.330	W097°20.339
G-49	N37°47.327	W097°20.330
G-50	N37°47.326	W097°20.323

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS): Calibrated YSI. Analyzed PE samples (3448-15-3 and 3448-15-4) in the onsite mobile laboratory.

HEALTH AND SAFETY LEVELS AND ACTIVITIES: Held safety meeting.

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN: None.

SPECIAL NOTES: None.

TOMORROW'S EXPECTATIONS: Continue installing borings, collecting groundwater samples, and analyzing groundwater samples. It is anticipated that field activities will be completed tomorrow.

PREPARED BY: Genise M. Luecke

REVIEWED BY:

DAILY REPORT

DATE May 31, 2007

DAY	S	M	T	W	TH	F	S

USEPA PM: Steve Kinser

PROJECT: 57th & North Broadway Site

JOB: PCE Plume Investigation – Phase 2

CONTRACT: EP-S7-05-05
Task Order 056

WEATHER	**Bright Sun**	Clear	Overcast	Rain	Snow
TEMPERATURE	to 32	32-50	50-70	**70-85**	85-up
WIND	Still	**Mod.**	High	**Report No. 3**	
HUMIDITY	Dry	**Mod.**	Humid		

TASK: Soil Sampling **Soil Boring** Aquifer Testing Well Installation **GW Sampling**

SUBCONTRACTORS ON SITE: Black & Veatch (2): G. Luecke, G. Douglas; BGS (3): M. Ocsody, D. Freund, B. Cullen

EQUIPMENT ON SITE: Geoprobe, Mobile Lab, YSI, miscellaneous sampling equipment, three POVs

WORK PERFORMED (INCLUDING SAMPLING MEDIA, SAMPLE NUMBERS, AND ANALYSES):

Steve Kinser, EPA, was onsite. Steve requested that we collect a soil sample just outside the Midland fence where the concrete ditch discharges. Collected sample with make-shift decontaminated sampling equipment. Sample was analyzed by the mobile laboratory. No PCE, TCE, cis-1,2-DCE, or vinyl chloride was detected in this sample (SOIL-01). The detection limit was 20 ug/kg.

Sampled boring G-51 (at Allen's Auto Salvage approximately 50 feet E of G-50). Collected samples from 3 depths (30, 25, and 20 feet bgs).

Installed boring G-52 (approximately 350 feet N of G-B253). Collected samples from 6 depths (50, 45, 40, 35, 30, and 25 feet bgs).

Installed boring G-53 (approximately 100 feet W of GB-253). Collected samples from 4 depths (43, 38, 33, and 28 feet bgs). Collected a rinsate sample from the decontaminated screen used at this boring.

At request of EPA, all the samples from G-52 and G-53 were collected for off-site analysis.

Demobilized from the site.

Soil Boring Summary:
Number of Borings Installed: 2 (sampled 3)
Total Footage Bored: 93 feet

Groundwater Sampling Summary:

PROJECT: 57th & North Broadway Site **REPORT NO:** 3

JOB: PCE Plume Investigation – Phase 2 **DATE:** May 31, 2007

Number of Samples Collected and Analyzed:

Sampling Point	Number of Samples	Notes
G-51	3	
G-52	6	
G-53	5	Included a duplicate
TOTAL	14	

Number of Samples Collected for Offsite Analysis:

Sampling Point	Number of Samples	Notes
G-51	0	
G-52	6	
G-53	4	
TOTAL	10	

Samples were packaged for delivery to EPA Region VII laboratory tomorrow (June 1).

Locations of the sampling points are provided on separate figure. Latitude/longitude of sampling points are listed below:

Sampling Point	Latitude	Longitude
G-51	N37°47.330	W097°20.311
G-52	N37°47.363	W097°20.442
G-53	N37°47.314	W097°20.461
SOIL-01	N37°47.317	W097°20.351

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS): Calibrated YSI. Analyzed PE samples (3448-17-1 and 3448-17-2) in the onsite mobile laboratory.

HEALTH AND SAFETY LEVELS AND ACTIVITIES: Held safety meeting.

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN: None.

SPECIAL NOTES: None.

TOMORROW'S EXPECTATIONS: None

PREPARED BY: Genise M. Luecke

REVIEWED BY:

05/30/07. Facing east. Installing G-44, at north edge of former railroad track.

05/31/07. Soil sampling at fence where drainage leaves concrete ditch on Midland property.

05/31/07. Northwest corner of Midland property. End of the concreted ditch.

05/31/07. Facing east. North fence line of Midland property with concrete ditch.

Attachment B
Field Log Book Pages

127

05/29/07

PCE Plume Phase 2 Boring Locations

Boring #	Latitude (N)	Longitude (W)
G-40	37° 47.283	97° 20.346
G-41	47.297	20.366
G-42	47.309	20.377
G-43	47.332	20.415
G-44	47.304	20.354
G-45	47.318	20.368
G-46	47.294	20.344
G-47	47.308	20.360
G-48	47.330	20.339
G-49	47.327	20.330
G-50	47.326	20.323
G-51	37° 47.330	20.311
G-52	47.363	20.442
G-53	47.314	20.461

911 Trench

128

Boring locations (Cont.)

Boring #	Latitude (N)	Longitude (W)

129

05/29/07 D M Lueke

0610 Left AC for Site

0900 Arrived at site. Picked up supplies. M. Occoday, D. Freund, & B. Collen w/ BGS onsite w/ Greg Douglas BVSPC.

0920 Laid out points at north end of study area.

0940 Calibrated YSI held safety mtg. PE 3448-15-182 & BGS

1020 Installed and sampled G-40 ~100 west of 64-28.

1030 Collected 4 samples

1155 Moved to G-41 ~ 200 feet west of G-28. Installed rods and then broke for lunch

1250 returned to site after lunch. Collected 5 samples from G-41. Moved to G-42

1350 ~ 300 feet west of 64-28. Collected 5 samples from G-42 See separate field sheets.

D M Lueke

130

D M Lueke 5/29/07

1450 Moved to G-43. Collected 5 samples.

1535 Called Steve Kinsie w/ update and cell phone #

1555 Completed G-43 and demobed for day. Packaged samples for lab. Prepared Daily Report e-mailed reports to Steve Kinsie EPA

D M Lueke

5/30/07 DM Luecke

0700 Arrive at site. Calibrated PID. Held safety meeting & mtg at site.
Marked locations of 3 borings ~ 75' North of the G-40-41-42 borings on RR ROW. Fiber optics north of RR ROW.

0745 Began G-44 ~ 65' N of G-41 in RR ROW.
Collected 5 samples.
See [illegible] field sheet.

[illegible] Moved to G-45 ~100 feet
[illegible] W of G-44 in RR ROW -
30 [illegible] of G-42 (about 75 feet)

0920 Collected 5 samples
Moved to G-46 ~ [illegible] feet E of G-44 in RR ROW and ~ [illegible] feet N of G-40
Collected 5 samples

1100 EPA arrived onsite, Steve Kaiser, with KDHE Ashley Allen. Discussed strategy

1145 EPA went to get access.

DM Luecke

DM Luecke 5/30/07

1155 Finished G-46. Left site for lunch. Met w/ EPA and KDHE to discuss importance of concrete ditch along N property line of Midland.

1255 Returned to site. Began sampling G-47 located halfway between G-44 and G-45.
Collected 5 samples.
Steve Kaiser called w/ access to Allens Auto Salvage
Moved to G-48 inside Allens Auto Salvage
Collected 3 samples
With agreement from KDHE will drill 4 borings in the Auto Salvage 50-foot centers east of G-48

1500 Ashley Allen left site

05/30/07 G M Luecke

1515 Moved to G-49 ~ 50 ft west of G-48
Collected 3 samples

1615 Moved to G-50 ~ 50 ft west of G-49
Collected 3 samples

1700 Moved to G-51 ~ 50 feet west of G-50. Installed rods and Screen will sample in morning.

1715 Left site to package and ship samples.
Prepare daily reports and emailed report to Steve Kinser EPA.

G M Luecke

G M Luecke 5/31/07

0700 Arrived at site. Calibrated 4SI. Safety Meeting.
Staked boring G-52 S of G-B253.
Began sampling G-51
Collected 3 samples

0800 Moved to G-53 ~ 350 feet N of G-B253 just south of RR ROW
Collected 5 samples

0920 Collected SOIL-01 sample at end of drainage ditch coming off of Midland
LAT N 37° 47.317
LONG W 97° 20.351

0930 Steve Kinser left site. The soil samples was at his request and was given to the onsite lab.

1000 Moved to G-53 ~ 100 feet W of G-B253
Collected 4 samples

1100 Completed G-53. Began packaging samples for

RMM E 5/31/07

EPA Lab.

1200 Collected RINSATE-05-31-07 from screen at S-83

1245 Left site for KP after allowing sample results.

1655 Arrived KP. Sent samples prepared daily report and sent to EPA via e-mail.

[illegible]

Attachment C
Temporary Direct-Push Sampling Point Purge Data Field Sheets

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-40 Date Installed: 5/29/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.283 W 097° 20.346 G. Douglas

Notes/Photos: ~100 west of G4-28

Depth to Refusal: NM ft bgs Depth to Water Table: 14 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (L)	QA/QC? Onsite	QA/QC? Offsite
35	10:36	6.75	1.085	548.0	0.78	16.03	69.3	4 Liters	DUP	
30	10:51	6.78	1.059	1210.4	0.72	15.89	44.4	4 Lite		
25	11:03	6.65	0.939	997.4	0.55	15.65	-35.1	4	MS/MSD	
20	11:14	6.30	1.644	1048.7	0.80	15.42	-0.3	4		MS/MSD
16	11:25	6.42	1.319	197.4	1.50	15.10	29.3	2.5		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-41 Date Installed: 05/29/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.297 W 097° 20.366 G. Douglas

Notes/Photos: 200' West of G 4-28

Depth to Refusal: NM ft bgs Depth to Water Table: 14' ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (gal) L	QA/QC? Onsite	QA/QC? Offsite
35	12:48	6.97	977	1231.2	0.54	17.57	-157.0	2		
30	13:00	6.86	931	285.7	0.63	15.88	-90.0	3		
25	13:10	6.85	942	1197.9	3.70	15.94	-34.1	3		
20	13:21	6.82	887	484.0	1.72	15.37	-12.6	3		
16	13.32	6.90	746	52.8	9.07	15.63	55.1	3		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G- ~~4~~ 42 Date Installed: 05/29/07 Sampler(s): G. Luecke, G. Douglas

GPS Reading (Lat/Long): N 37° 47.308 W 097° 20.377

Notes/Photos: ~ 300' west of G4-28

slow water @ ~~20'~~ 16'

Depth to Refusal: NM ft bgs Depth to Water Table: 13 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged ~~(gal)~~	QA/QC? Onsite	QA/QC? Offsite
35	13.57	6.83	954	160.2	0.82	16.64	34.3	4		~~[illegible]~~
30	14.07	6.85	962	1158.0	0.67	16.33	-40.4	3		DUP
25	14.18	6.76	946	479.0	0.74	16.00	-30.5	3		
20	14.28	6.77	932	1211.8	0.94	15.81	-47.8	3.5		
16	14.40	7.06	1631	212.5	~~8.44~~ 8.44	17.00	•0	2.5		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-43 Date Installed: 5/29/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.332 W 097° 20.415 G. Douglas

Notes/Photos: ~150 feet NE of G-B253 and ~100 feet west of MW-305

Depth to Refusal: NM ft bgs Depth to Water Table: 14 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged ~~(gal)~~ L	QA/QC? Onsite	QA/QC? Offsite
35	15:14	6.91	990	1242.4	0.52	19.13	-113.2	2		
30	15.23	6.76	964	811.8	0.57	16.24	-70.4	3		
25	1534	6.79	973	869.4	0.63	15.84	-102.4	3.5		
20	1545	6.61	902	525.4	0.72	15.63	-82.5	3		
16	1554	6.44	789	1180.1	5.30	15.33	31.5	3		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-45 Date Installed: 5/30/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.318 W 097° 20.368 G. Douglas

Notes/Photos: ~100 feet W of G-44 in RR ROW ~75' NOf G-42

Depth to Refusal: N ft bgs Depth to Water Table: ~16 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged ~~(gal)~~ L	QA/QC? Onsite	QA/QC? Offsite
40	927	6.95	976	1119.2	0.40	15.84	11.0	4	MS/MSD	
35	939	6.95	995	1141.1	.36	15.72	-74.1	3.5		
30	950	6.96	1013	1070.4	.36	15.21	-70.5	3.5		
25	1000	6.94	760	960.1	3.94	14.92	-29.9	3.5		
20	1010	7.03	610	90.5	5.69	14.62	-9.3	2.5		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-44 Date Installed: 05/30/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.304 W 097° 20.354 G. Douglas

Notes/Photos: Probed to 40 feet because RR ROW is about 5' higher than surrounding ground. G-44 is ~65' N of G-41

Depth to Refusal: NM ft bgs Depth to Water Table: ~16 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged ~~(gal)~~ L	QA/QC? Onsite	QA/QC? Offsite
40	8:06	6.85	1091	1212.5	.043	15.60	18.4	4		
35	8:20	6.88	1087	692.1	0.34	15.66	-44.8	4		
30	8:30	6.90	1014	1128.1	.35	15.48	-55.6	3.5	~~DUP~~	
25	8:41	6.84	965	1198.4	.34	15.99	-71.2	3.5	DUP	
20	9:56	6.77	826	237.0	4.20	14.89	2.2	4		

WL 12'

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-46 Date Installed: 05/30/07 Sampler(s): G. Luecke
GPS Reading (Lat/Long): N 37° 47.294 W 097° 20.344 G. Douglas
Notes/Photos: ~100 feet E of G-44 & ~65 feet N of G-40 in LR row

Depth to Refusal: NM ft bgs Depth to Water Table: ~16 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (L)	QA/QC? Onsite	QA/QC? Offsite
40	1041	6.91	1100	415.4	0.44	16.80	7.3	3		
35	1054	6.89	1085	342.2	0.42	16.03	-42.1	3		
30	11:03	6.77	1030	842.0	0.46	15.56	-68.3	3		
25	1116	6.58	783	1035.9	0.43	15.26	-65.3	3		
20	1130	6.54	638	346.2	8.2	15.07	52.8	3		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-47 Date Installed: 05/30/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.308 W 097° 20.360 G. Douglas

Notes/Photos: Halfway between G-44 & G-45
Reusate collected from the screen

Depth to Refusal: NM ft bgs Depth to Water Table: 15 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (gal)	QA/QC? Onsite	QA/QC? Offsite
40	1309	7.00	966	1212.6	.61	15.86	-121.4	4		
35	1319	6.94	966	1109.3	.35	15.63	-102.4	4		
30	1332	7.01	950	1203.3	.46	15.6	-95.4	3		
25	1342	6.93	966	1012.1	.37	15.26	-87.5	3		
20	1352	6.88	[illegible]	1205.7	7.32	15.19	31.0	3		
			828							

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57^{th} & North Broadway Site

DP Point Number: G-48 Date Installed: 05/30/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.330 W 097° 20.339 G. Douglas

Notes/Photos: Inside Allen's Auto Salvage - upgradient of the concrete drain at Midland.
~~[illegible]~~ gm1

Depth to Refusal: NM ft bgs Depth to Water Table: ~16 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (~~gal~~ L)	QA/QC? Onsite	QA/QC? Offsite
30	1439	6.99	849	1232.2	5.37	19.39	-13.4	2		
25	1451	6.71	785	1108.0	3.56	16.61	26.0	2.5		
20	1503	6.37	918	518.1	2.78	18.42	38.4	2.5		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-49 Date Installed: 05/30/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.327 W 097° 20.530 G. Douglas

Notes/Photos: ~100' E of G-48
50 slant

Depth to Refusal: 46 ft bgs Depth to Water Table: ~16 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (gal) L	QA/QC? Onsite	QA/QC? Offsite
30	1531	6.74	869	1220.1	.41	16.78	-44.8	3	DUP	
25	1551	6.43	724	1215.4	0.75	16.23	-76.0	3		
20	1600	6.39	875	1212.8	0.9	16.01	-67.1	3		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-50 Date Installed: 05/30/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.326 W 097° 30.323 G. Douglas

Notes/Photos: ~ 50 E of G-49

Depth to Refusal: NM ft bgs Depth to Water Table: 16 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (gal) L	QA/QC? Onsite	QA/QC? Offsite
30	1630	6.66	921	1220.1	1.08	16.70	-22.5	3	MSMD	
25	1638	6.70	941	954.1	1.10	16.27	-78.9	3		
20	1649	6.62	1135	944.9	1.01	15.73	-47.4	3		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-51 Date Installed: 5/30/07 Sampled 5/31/07 Sampler(s): G. Luecke G. Douglas

GPS Reading (Lat/Long): N 37° 47.330 W 097° 20.311

Notes/Photos: ~50 feet east of G-50

Depth to Refusal: NM ft bgs Depth to Water Table: ~17 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (~~gal~~ L)	QA/QC? Onsite	QA/QC? Offsite
30	723	6.74	889	621.5	1.22	15.35	-106.3	3		
25	733	6.77	819	412.3	3.5	15.18	-91.7	3		
20	741	6.62	831	1185.1	2.71	14.88	-42.5	3		

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-52- Date Installed: 05/31/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.363 W 097° 20.442 G. Douglas

Notes/Photos: ~350 feet north of G-B253 just south of RR Row

Depth to Refusal: 50 ft bgs Depth to Water Table: ~24 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (~~gal~~ L)	QA/QC? Onsite	QA/QC? Offsite
50	820	6.82	990	748.3	3.15	15.73	-59.9	3		
45	832	6.78	982	434.5	10.44	15.99	-52.4	2.5		
40	843	6.91	984	1213.0	8.61	16.04	-77.6	2.5		
35	856	6.73	948	162.1	9.34	16.38	-48.6	2.5		
30	905	6.63	876	121.9	7.36	15.12	-34.1	3		
25	926	6.81	646	439.2	9.54	15.22	-15.9	2.5		
20	smg									

Temporary Direct-Push Sampling Point Purge Data Field Sheet
PCE Plume Investigation
57th & North Broadway Site

DP Point Number: G-53 Date Installed: 05/31/07 Sampler(s): G. Luecke

GPS Reading (Lat/Long): N 37° 47.514 W 097° 20.461 G. Douglas

Notes/Photos: ~100 feet W of G-B253

Collected minute 05-31-07 from this screen

Depth to Refusal: 43 ft bgs Depth to Water Table: ~23 ft bgs

Purge Information

Sample Depth (feet bgs)	Time	pH	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (gal)	QA/QC? Onsite	QA/QC? Offsite
43	1010	7.01	1026	909.0	~~43.6~~ NM	19.28	-191.8	2		
38	1024	7.11	1038	1242.4	8.44	19.25	-182.3	2		
33	1039	7.38	1003	1296.5	12.73	19.60	-79.4	2	DUP	
28	1052	7.30	931	1246.5	13.77	19.59	-81.9	2	~~MS/MSD~~	BMK
~~23~~										
~~18~~										

Attachment D
Sample Collection Field Sheets and Chain-of-Custody Records

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Steve Kinser	57th & North Broadway	30 / 05 / 07	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
3448-1					4	X					MS/MSD
3448-2					2	X					
3448-2-FD					2	X					
3448-3					2	X					
3448-4					2	X					
3448-5					2	X					
3448-6					2	X					
3448-7					2	X					
3448-21-FB					2	X					Trip Blank

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

1 ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

1 COMMERCIAL CARRIER Fed Ex

____ COURIER

____ SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] ☒ SEALED ☐ UNSEALED	5/30/07	1900	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 1 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-1-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-40-20

External Sample Number: G-40-20

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/29/07 11:14

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

	Container	Preservative	Holding Time	Analysis
8	A - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

MS/MSD
Volume

Onsite Mobile Lab Field Results:

PCE 12.8 ug/L

TCE <4 ug/L

Sample Collected By: YMZ

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 2 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-2-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-42-30

External Sample Number: G-42-30

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 09/29/07 1407

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Dup of 3448-2-Dup

Onsite Mobile Lab Field Results:

PCE <4 ug/L

TCE <4 ug/L

Sample Collected By: SGML

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 14 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-~~14~~ 2 FD

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-42-30

External Sample Number: G-42-30

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/09/07 14:07

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs In Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Dup of 3448-2

Onsite Mobile Lab Field Results:

PCE <4 ug/L

TCE <4 ug/L

Sample Collected By: YMZ

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 3 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-3-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-41-20

External Sample Number: G-41-20

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/29/07 13:21

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE 829 ug/L

TCE 14.1 ug/L

Cis DCE 4.6 ug/L

Sample Collected By: S MY

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 4 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-4-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-48-20

External Sample Number: G-48-20

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/30/07 15:03

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE _____ug/L

TCE _____ug/L

Sample Collected By: G M Luedke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 5 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-5-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-49-25

External Sample Number: G-49-25

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	05/30/07	15:51
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE _____ug/L

TCE _____ug/L

Sample Collected By: G M Lueke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 6 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-6-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-50-20

External Sample Number: G-50-20

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/30/07 16:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE _____ug/L

TCE _____ug/L

Sample Collected By: SM Luecke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 7 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-7-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: RINSATE 05-30-07

External Sample Number: RIN-05-30-07

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/30/07 15:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Rinsate

Onsite Mobile Lab Field Results:

PCE _____ug/L

TCE _____ug/L

Sample Collected By: D M Lueder

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 19 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-~~19~~-21-FB

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: Trip Blank

External Sample Number: TB-05-30-07

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	05/30/07 ~~05/23/2007~~	1750 ~~08:00~~
Longitude: ___ ___ ___	**End:**	~~05/23/2007~~	~~08:00~~

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE _____ ug/L NA TRIP BLANK

TCE _____ ug/L

Sample Collected By: S M Lucas

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Steve Kinser	57th & North Broadway	31 / 05 / 07	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
3448-8					2	✓					
3448-9					2	✓					
3448-10					2	✓					
3448-11					2	✓					
3448-12					2	✓					
3448-13					2	✓					
3448-15					2	✓					
3448-16					2	✓					
3448-17					2	✓					
3448-18					2	✓					
3448-20-FB					2	✓					

ASR Completed

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
____ PIECE(S) CONSISTING OF ____ BOX(ES)	____ COMMERCIAL CARRIER: ____
1 ICE CHEST(S): OTHER ____	____ COURIER
	X SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
D M Luecke ☐ SEALED ☒ UNSEALED	6/1/07		☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 8 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-8-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site.Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-52-50

External Sample Number: G-52-50

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/31/07 08:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE <4 ug/L

TCE <4 ug/L

Sample Collected By: D M Shreve

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 9 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-9-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-52-45

External Sample Number: G-52-45

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/31/07 08:32

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

#4 Vial small bubble, 5ml

Onsite Mobile Lab Field Results:

PCE <4 ug/L

TCE <4 ug/L

Sample Collected By: D'M Lucke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 10 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-10-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-52-40

External Sample Number: G-52-40

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/31/07 08:43

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE < 4 ug/L

TCE < 4 ug/L

Sample Collected By: G M Luecke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 11 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-11-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-52-35

External Sample Number: G-52-35

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/31/07 08:56

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs In Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE <4 ug/L

TCE <4 ug/L

Sample Collected By: M M Luecke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 12 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-12-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-52-30

External Sample Number: G-52-30

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/31/07 09:05
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE < 4 ug/L

TCE < 4 ug/L

Sample Collected By: J M Lusche

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 13 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-13-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-52-25

External Sample Number: G-52-25

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 05/31/07 09:26

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE < 4 ug/L

TCE < 4 ug/L

Sample Collected By: G M Luehe

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 15 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-15-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-53-43

External Sample Number: G-53-43

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	05/31/07 ~~05/23/2007~~	1010 ~~08:00~~
Longitude: ___ ___ ___	**End:**	~~05/23/2007~~	~~08:00~~

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs In Water by GC/MS for Low Detection Limits

mple Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE <4 ug/L

TCE <4 ug/L

Sample Collected By: D M Lueke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 16 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-16-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-53-38

External Sample Number: G-53-38

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___

Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	05/31/07 ~~05/23/2007~~	1024 ~~08:00~~
End:	~~05/23/2007~~	~~08:00~~

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs In Water by GC/MS for Low Detection Limits

mple Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE < 4 ug/L

TCE < 4 ug/L

Sample Collected By: D M Lueke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 17 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-17-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-53-33

External Sample Number: G-53-33

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___

Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	05/31/07 ~~05/23/2007~~	1039 ~~08:00~~
End:	~~05/23/2007~~	~~08:00~~

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

mple Comments:

(N/A)

Onsite Mobile Lab Field Results:

PCE < 4 ug/L

TCE < 4 ug/L

Sample Collected By: H M Fuchs

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 18 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-18-__

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: G-53-28

External Sample Number: G-53-28

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___

Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	~~05/23/2007~~ 05/31/07	~~08:00~~ 1052
End:	~~05/23/2007~~	~~08:00~~

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

mple Comments:
(N/A)

Onsite Mobile Lab Field Results:

PCE <4 ug/L

TCE <4 ug/L

Sample Collected By: G M Luecke

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3448 **Sample Number:** 18 **QC Code:** __ **Matrix:** Water **Tag ID:** 3448-~~18~~ 20-FB

Project ID: SK7EF01 **Project Manager:** Steven Kinser
Project Desc: 57th & North Broadway
City: Wichita **State:** Kansas
Program: Superfund
Site Name: 57TH AND NORTH BROADWAY STREETS SITE - SITE REMEDIATION **Site ID:** 07EF **Site OU:** 01

Location Desc: Trip Blank

External Sample Number: TB-05-31-07

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	05/31/07 ~~05/23/2007~~	1140 ~~08:00~~
Longitude: ___ ___ ___	**End:**	~~05/23/2007~~	~~08:00~~

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:
(N/A)

~~Onsite Mobile Lab Field Results:~~

~~PCE ______ug/L~~

~~TCE ______ug/L~~

NA DML

Sample Collected By: D M Luecke

Attachment E
Complete Onsite Analytical Results

GROUNDWATER RESULTS - MOBILE LAB SUMMARY SHEET
SECOND ROUND

Client: Black & Veatch Special Projects Corp.
Project: 57th & Broadway Site; Wichita, KS
Matrix: Water
Method: modified 8021b
Date: May 29 through May 31, 2007

	Action Levels ===>	5	5	70	2			
Sample ID	Date Collected & Analyzed	Sample Amount ml	TCE ug/l	PCE ug/l	cis-1,2-DCE ug/l	Vinyl Chloride ug/l	Surrogate 70-130%	GC Name	Notes
G-40-35	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	85%	Beta	
G-40-35-DUP	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	89%	Beta	
G-40-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	96%	Beta	
G-40-25	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	84%	Alpha	
G-40-20	05/29/07	10	< 4.0	**12.8**	< 4.0	< 2.0	94%	Beta	
G-40-16	05/29/07	10	< 4.0	**5.5**	< 4.0 j	< 2.0	85%	Alpha	
G-41-35	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	92%	Alpha	
G-41-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	85%	Alpha	
G-41-25	05/29/07	10	**29.8**	**332**	< 4.0	< 2.0	85%	Alpha	
G-41-20	05/29/07	10	**14.1**	**829**	**4.6**	< 2.0	96%	Beta	
G-41-16	05/29/07	10	< 4.0	**166**	< 4.0	< 2.0	88%	Alpha	
G-42-35	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Beta	
G-42-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	96%	Beta	
G-42-25	05/29/07	10	**5.4**	**16.3**	< 4.0	< 2.0	95%	Beta	
G-42-20	05/29/07	10	< 4.0 j	**62.1**	< 4.0	< 2.0	91%	Alpha	
G-42-16	05/29/07	10	< 4.0	**53.6**	< 4.0	< 2.0	95%	Alpha	
G-43-35	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-43-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Alpha	
G-43-25	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-43-20	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Beta	
G-43-16	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-44-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	88%	Beta	
G-44-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Alpha	

Notes: 1 - Unknown peaks detected
j: Compound detected but below reporting level

GROUNDWATER RESULTS - MOBILE LAB SUMMARY SHEET
SECOND ROUND

Sample ID	Date Collected & Analyzed	Sample Amount ml	TCE ug/l	PCE ug/l	cis-1,2-DCE ug/l	Vinyl Chloride ug/l	Surrogate 70-130%	GC Name	Notes
G-44-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	beta	
G-44-25	05/30/07	10	< 4.0	**11.2**	< 4.0	< 2.0	100%	Alpha	
G-44-25-DUP	05/30/07	10	< 4.0	**11.4**	< 4.0	< 2.0	93%	Alpha	
G-44-20	05/30/07	10	< 4.0	**262**	< 4.0	< 2.0	87%	Beta	
G-45-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Beta	
G-45-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Alpha	
G-45-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	102%	Alpha	
G-45-25	05/30/07	10	< 4.0 j	**234**	< 4.0	< 2.0	97%	Alpha	
G-45-20	05/30/07	10	< 4.0	**150**	< 4.0	< 2.0	102%	Beta	
G-46-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	95%	Alpha	
G-46-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	91%	Beta	
G-46-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	95%	Beta	
G-46-25	05/30/07	10	< 4.0	**3.9**	< 4.0	< 2.0	96%	Alpha	
G-46-20	05/30/07	10	< 4.0	**11.3**	< 4.0	< 2.0	96%	Beta	
G-47-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Beta	
G-47-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Alpha	
G-47-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	102%	Beta	
G-47-25	05/30/07	10	**8.2**	**175**	< 4.0 j	< 2.0	93%	Beta	
G-47-20	05/30/07	10	**12.0**	**800**	< 4.0	< 2.0	91%	Alpha	
Rinsate 5-30-07	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	99%	Beta	
G-48-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-48-25	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Alpha	
G-48-20	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	103%	Beta	
G-49-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	102%	Alpha	
G-49-30-DUP	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	92%	Alpha	
G-49-25	05/30/07	10	< 4.0	< 4.0	**6.6**	< 2.0	102%	Beta	
G-49-20	05/30/07	10	< 4.0	< 4.0	< 4.0 j	< 2.0	102%	Alpha	

Notes: 1 - Unknown peaks detected
j: Compound detected but below reporting level

GROUNDWATER RESULTS - MOBILE LAB SUMMARY SHEET
SECOND ROUND

Sample ID	Date Collected & Analyzed	Sample Amount ml	TCE ug/l	PCE ug/l	cis-1,2-DCE ug/l	Vinyl Chloride ug/l	Surrogate 70-130%	GC Name	Notes
G-50-30	05/30/07	10	< 4.0	< 4.0	**5.0**	< 2.0	107%	Beta	
G-50-25	05/30/07	10	< 4.0	< 4.0	**7.4**	< 2.0	95%	Alpha	
G-50-20	05/30/07	10	< 4.0	< 4.0	< 4.0 j	< 2.0	90%	Alpha	
G-51-30	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	104%	Alpha	
G-51-25	05/31/07	10	< 4.0	< 4.0	**6.9**	< 2.0	99%	Beta	
G-51-20	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	90%	Beta	
G-52-50	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	95%	Alpha	
G-52-45	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	107%	Alpha	
G-52-40	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Beta	
G-52-35	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Alpha	
G-52-30	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	105%	Beta	
G-52-25	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Alpha	
Soil-01	05/31/07	2	< 20.0	< 20.0	< 20.0	< 20.0	101%	Beta	Soil Sample
G-53-43	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	101%	Alpha	
G-53-38	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	106%	Beta	
G-53-33	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	105%	Alpha	
G-53-33-DUP	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	104%	Alpha	
G-53-28	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Beta	
Rinsate 5-31-07	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	

Notes: 1 - Unknown peaks detected
j - Compound detected but below reporting level

BELOW GROUND SURFACE, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME: 57th & Broadway ; Wichita, KS					NO. OF CONTAINERS	Onsite Lab-VOCs	REMARKS
SAMPLERS: BGS & BV								
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION			
	5-29-07			X	PE Sample 3448-15-1	1	X	
	"			X	PE Sample 3448-15-2	1	X	
	"			X	6-40-35	1	X	
	"			X	6-40-[redacted]35-Dup	1	X	
	"			X	6-40-25	1	X	
	"			X	6-40-25 MS/MSD	2	X	
	"			X	6-40-20	1	X	
	"			X	6-40-16	1	X	
	"			X	6-40-30	1	X	
	"			X	6-41-35	1	X	
	"			X	6-41-30	1	X	
	"			X	6-41-25	1	X	
	"			X	6-41-20	1	X	
	"			X	6-41-16	1	X	
	"			X	6-42-35	1	X	

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
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: *(Signature)*	Date / Time	Remarks	
			5/30/07		

BELOW GROUND SURFACE, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME: 57th & Broadway ; Wichita, KS					NO. OF CONTAINERS	Onsite Lab - VOCs							REMARKS
SAMPLERS:														
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION									
	5-29-07			X	G-42-30	1	X							
	"			X	G-42-25	1	X							
	"			X	G-42-20	1	X							
	"			X	G-42-16	1	X							
	"			X	G-43-35	1	X							
	"			X	G-43-30	1	X							
	"			X	G-43-25	1	X							
	"			X	G-43-20	1	X							
	"			X	G-43-16	1	X							
	5-30-07			X	PE Sample 3448-3	1	X							
	"			X	PE Sample 3448-4	1	X							
	"			X	G-44-40	1	X							
	"			X	G-44-35	1	X							
	"			X	G-44-30	1	X							
	"			X	G-44-25	1	X							

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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: *(Signature)*	Date / Time	Remarks	
			5/30/07		

BELOW GROUND SURFACE, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO.

PROJECT NAME: 57th & Broadway; Wichita, KS

SAMPLERS:

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Onsite Lab-VOCs	REMARKS
	5.30.07			x	G-44-25-Dup	1	x	
	↓			x	G-44-20	1	x	
				x	G-45-40	1	x	
				x	G-45-35	1	x	
				x	G-45-40 MS/MSD	2	x	
				x	G-45-30	1	x	
				x	G-45-25	1	x	
				x	G-45-20	1	x	
				x	G-46-40	1	x	
				x	G-46-35	1	x	
				x	G-46-30	1	x	
				x	G-46-25	1	x	
				x	G-46-20	1	x	
				x	G-47-40	1	x	
				x	G-47-35	1	x	

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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: *(Signature)*	Date / Time	Remarks	
			5/30/07		

BELOW GROUND SURFACE, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME: 57th & Broadway; Wichita, KS					NO. OF CON-TAINERS	Onsite-Lab VOCs							REMARKS
SAMPLERS:														
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION									
	5-30-07			X	G-47-30	1	X							
				X	G-47-25	1	X							
				X	G-47-20	1	X							
				X	Rinsate 5-30-07	1	X							
				X	G-48-30	1	X							
				X	G-48-25	1	X							
				X	G-48-20	1	X							
				X	G-49-30	1	X							
				X	G-49-25	1	X							
				X	G-49-30-Dup	1	X							
				X	G-49-20	1	X							
				X	G-50-30	1	X							
				X	G-50-30-MS/MSD	2	X							
				X	G-50-25	1	X							
				X	G-50-20	1	X							

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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: *(Signature)*	Date / Time	Remarks	
			5/30/07		

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME: 57th & Broadway; Wichita, KS					NO. OF CONTAINERS	Offsite Lab - VOCs	REMARKS
SAMPLERS:								
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION			
	5/8/07			X	G-51-30	1	X	
				X	G-51-25	1	X	
				X	G-51-20	1	X	
				X	G-52-50	1	X	
				X	G-52-45	1	X	
				X	G-52-40	1	X	
				X	G-52-35	1	X	
				X	G-52-30	1	X	
				X	Soil-01	1	X	Soil Sample
				X	G-52-25	1	X	
				X	G-53-43	1	X	
				X	G-53-38	1	X	
				X	G-53-33	1	X	
				X	G-53-33-Dup	1	X	
				X	G-53-28	1	X	

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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: *(Signature)*	Date / Time	Remarks	
			5/9/07 -		

BELOW GROUND SURFACE, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME: 57th & Broadway ; Wichita, KS					NO. OF CONTAINERS	Onsite Lab - VOCs						REMARKS
SAMPLERS:													
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION								
	5-31-07			1	Rinsate 5-31-07	1	X						

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
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: *(Signature)*	Date / Time	Remarks	
			5/31/07		

BGS
BELOW GROUND SURFACE, INC.

500 Lonetree Dr. Lawrence, KS 66044

Office: 785-865-2655
Fax: 785-312-7625
e-mail: midwestbgs@sbcglobal.net

Quality Assurance / Quality Control Summary

Black & Veatch Special Projects Corp.
57th & Broadway
Wichita, KS

Calibration Summary

The laboratory data for this project site was obtained using one (2) gas chromatograph; an SRI Gas Chromatograph with a 60-meter Restek Capillary Column equipped with a Photoionization Detector (PID) and Flame Ionization Detector (FID). The GC was initially calibrated using a 5-level calibration curve and checked each day using a midpoint level. The low end of the calibration level determined the reporting limit for this project.

Methods

The sample introduction method followed in this project included USEPA SW-846 Method 5030b Purge and Trap Injection. The analytical methods followed in this project included a modified version of USEPA SW-846 Method 8021b. A surrogate compound (Fluorobenzene) was added to every sample, calibration check, and duplicate sample. On every sample the surrogate recovery was within the acceptable recovery range.

Calibration Criteria

The initial multi-level calibration curve for all target analytes produced a correlation coefficient (r-value) of no less than 0.99. An initial calibration was conducted at the beginning of the project while continuing calibration verifications (CCV) were conducted at a rate of 1 per day per GC. A total of three calibration verifications were run. The results are included in the following attachment. EPA PE samples were ran after each CCV at the beginning of the day. The PE sample results are included in the following attachments

Method and Field Blanks

Blank samples were run after calibration checks and PE samples and after samples that exhibited elevated compound detections. Additional blank samples were analyzed if the initial blank sample contained carryover from the previous sample.

Sample Duplicates & MS/MSDs

Sample duplicates and MS/MSDs were collected and analyzed approximately every twenty samples. The results of the duplicates are included with the sample results summary sheets . and the results of the MS/MSDs are included in the following attachments.

Signed _____
Mike Ocsody, Analyst

CCV REPORT
57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: gc1- Calibration Verification-1
Date Analyzed: 5/29/07

Lab ID: 1211
GC: Alpha (1)
Method: Modified 8021b

Parameter	Units	Spike Concentration	CV Result	CV % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	19.8	99	70-130
cis-1,2-Dichloroethene	ug/l	20	15.3	77	70-130
Trichloroethene	ug/l	20	17.7	89	70-130
Tetrachloroethene	ug/l	20	17.5	88	70-130
Fluorobenzene (surr.)	%	40	33.3	83	70-130

Client: Black & Veatch
Sample ID: gc2- Calibration Verification-1
Date Analyzed: 5/29/07

Lab ID: 1270
GC: Beta (2)
Method: Modified 8021b

Parameter	Units	Spike Concentration	CV Result	CV % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	20.6	103	70-130
cis-1,2-Dichloroethene	ug/l	20	19.2	96	70-130
Trichloroethene	ug/l	20	17.3	87	70-130
Tetrachloroethene	ug/l	20	21	105	70-130
Fluorobenzene (surr.)	%	40	35.4	89	70-130

Client: Black & Veatch
Sample ID: gc1-Method Blank
Date Analyzed: 5/29/07

Lab ID: 1212
GC: Alpha
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Fluorobenzene (surr.)	70-130	%	96

CCV REPORT

57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: gc2-Method Blank
Date Analyzed: 5/29/07

Lab ID: 1271
GC: Alpha
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Fluorobenzene (surr.)	70-130	%	101

Client: Black & Veatch
Sample ID: gc1- Calibration Verification-2
Date Analyzed: 5/30/07

Lab ID: 1233
GC: Alpha
Method: Modified 8021b

Parameter	Units	Spike Concentration	CV Result	CV % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	21.7	109	70-130
cis-1,2-Dichloroethene	ug/l	20	18.4	92	70-130
Trichloroethene	ug/l	20	17.9	90	70-130
Tetrachloroethene	ug/l	20	21	105	70-130
Fluorobenzene (surr.)	%	40	38	95	70-130

Client: Black & Veatch
Sample ID: gc2- Calibration Verification-2
Date Analyzed: 5/30/07

Lab ID:
GC: Beta
Method: Modified 8021b

Parameter	Units	Spike Concentration	CV Result	CV % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	18.5	93	70-130
cis-1,2-Dichloroethene	ug/l	20	20.9	105	70-130
Trichloroethene	ug/l	20	18.5	93	70-130
Tetrachloroethene	ug/l	20	21.4	107	70-130
Fluorobenzene (surr.)	%	40	37.7	94	70-130

CCV REPORT
57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: gc1-Method Blank
Date Analyzed: 5/30/07

Lab ID: 1235
GC: Alpha
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Surr.-Fluorobenzene	70-130	%	98

Client: Black & Veatch
Sample ID: gc2-Method Blank
Date Analyzed: 5/30/07

Lab ID: 1288
GC: Beta
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Surr.-Fluorobenzene	70-130	%	104

Client: Black & Veatch
Sample ID: gc1- Calibration Verification-3
Date Analyzed: 5/31/07

Lab ID: 1256
GC: Alpha
Method: Modified 8021b

Parameter	Units	Spike Concentration	CV Result	CV % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	18.9	95	70-130
cis-1,2-Dichloroethene	ug/l	20	18.9	95	70-130
Trichloroethene	ug/l	20	18.9	95	70-130
Tetrachloroethene	ug/l	20	20.9	105	70-130
Fluorobenzene (surr.)	%	40	37.8	95	70-130

CCV REPORT
57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: gc2- Calibration Verification-3
Date Analyzed: 5/31/07

Lab ID: 1308
GC: Beta
Method: Modified 8021b

Parameter	Units	Spike Concentration	CV Result	CV % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	15.6	78	70-130
cis-1,2-Dichloroethene	ug/l	20	21.9	110	70-130
Trichloroethene	ug/l	20	20.4	102	70-130
Tetrachloroethene	ug/l	20	23.2	116	70-130
Fluorobenzene (surr.)	%	40	37.9	95	70-130

Client: Black & Veatch
Sample ID: gc1-Method Blank
Date Analyzed: 5/31/07

Lab ID: 1258
GC: Alpha
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Surr.-Fluorobenzene	70-130	%	99

Client: Black & Veatch
Sample ID: gc2-Method Blank
Date Analyzed: 5/31/07

Lab ID: 1310
GC: Beta
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Fluorobenzene (surr.)	70-130	%	98

MS/MSD REPORT
57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: G-40-25-MS
Date Analyzed: 5/29/07

Lab ID: 1217
GC: Alpha (1)
Method: Modified 8021b

Parameter	Units	Spike Concentration	MS Result	MS % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	14.9	75	70-130
cis-1,2-Dichloroethene	ug/l	20	14.8	74	70-130
Trichloroethene	ug/l	20	19.3	97	70-130
Tetrachloroethene	ug/l	20	18.9	95	70-130
Fluorobenzene (s)	%	40	34	85	70-130

Client: Black & Veatch
Sample ID: G-40-25-MSD
Date Analyzed: 5/29/07

Lab ID: 1218
GC: Alpha
Method: Modified 8021b

Parameter	Units	Spike Concentration	MSD Result	MSD % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	16.3	82	70-130
cis-1,2-Dichloroethene	ug/l	20	15.7	79	70-130
Trichloroethylene	ug/l	20	15.3	77	70-130
Tetrachloroethene	ug/l	20	20.1	101	70-130
Fluorobenzene (s)	%	40	32.1	80	70-130

Client: Black & Veatch
Sample ID: G-45-40-MS
Date Analyzed: 5/30/07

Lab ID: 1244
GC: Alpha
Method: Modified 8021b

Parameter	Units	Spike Concentration	MS Result	MS % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	15.3	77	70-130
cis-1,2-Dichloroethene	ug/l	20	17.3	87	70-130
Trichloroethene	ug/l	20	18.5	93	70-130
Tetrachloroethene	ug/l	20	19.3	97	70-130
Fluorobenzene (s)	%	40	34.2	86	70-130

MS/MSD REPORT
57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: G-45-40-MSD
Date Analyzed: 5/30/07

Lab ID: 1245
GC: Alpha
Method: Modified 8021b

Parameter	Units	Spike Concentration	MSD Result	MSD % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	18.2	91	70-130
cis-1,2-Dichloroethene	ug/l	20	21.4	107	70-130
Trichloroethylene	ug/l	20	20.5	103	70-130
Tetrachloroethene	ug/l	20	24.1	121	70-130
Fluorobenzene (s)	%	40	37.6	94	70-130

Client: Black & Veatch
Sample ID: G-50-30-MS
Date Analyzed: 5/30/07

Lab ID: 1306
GC: Beta (2)
Method: Modified 8021b

Parameter	Units	Spike Concentration	MS Result	MS % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	15.3	77	70-130
cis-1,2-Dichloroethene	ug/l	20	17.3	87	70-130
Trichloroethene	ug/l	20	18.5	93	70-130
Tetrachloroethene	ug/l	20	19.3	97	70-130
Fluorobenzene (s)	%	40	34.2	86	70-130

Client: Black & Veatch
Sample ID: G-50-30-MSD
Date Analyzed: 5/30/07

Lab ID: 1307
GC: Beta
Method: Modified 8021b

Parameter	Units	Spike Concentration	MSD Result	MSD % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	15.9	80	70-130
cis-1,2-Dichloroethene	ug/l	20	20.2	101	70-130
Trichloroethylene	ug/l	20	21.2	106	70-130
Tetrachloroethene	ug/l	20	21	105	70-130
Fluorobenzene (s)	%	40	41.1	103	70-130

PE SAMPLE RESULTS

57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: gc1- PE Sample 3448-15-1
Date Analyzed: 5/29/07

Lab ID: 1213
GC: Alpha (1)
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	57.0
cis-1,2-DCE	4.0	ug/l	62.3
TCE	4.0	ug/l	18.3
PCE	4.0	ug/l	11.5
Fluorobenzene (surr.)	70-130	%	97

Client: Black & Veatch
Sample ID: gc2- PE Sample 3448-15-2
Date Analyzed: 5/29/07

Lab ID: 1272
GC: Beta (2)
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	72.4
cis-1,2-DCE	4.0	ug/l	63.5
TCE	4.0	ug/l	14.4
PCE	4.0	ug/l	13.7
Fluorobenzene (surr.)	70-130	%	97

Client: Black & Veatch
Sample ID: gc1- PE Sample 3448-15-3
Date Analyzed: 5/30/07

Lab ID: 1234
GC: Alpha
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	88.6
cis-1,2-DCE	4.0	ug/l	101
TCE	4.0	ug/l	19.8
PCE	4.0	ug/l	20.3
Fluorobenzene (surr.)	70-130	%	100

PE SAMPLE RESULTS
57th & Broadway Site
Wichita, KS

Client: Black & Veatch
Sample ID: gc2- PE Sample 3448-15-4
Date Analyzed: 5/30/07
Lab ID: 1287
GC: Beta
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	70.7
cis-1,2-DCE	4.0	ug/l	63.8
TCE	4.0	ug/l	15.4
PCE	4.0	ug/l	19.5
Fluorobenzene (surr.)	70-130	%	104

Client: Black & Veatch
Sample ID: gc1- PE Sample 3448-17-1
Date Analyzed: 5/31/07
Lab ID:
GC: Alpha
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	62.3
cis-1,2-DCE	4.0	ug/l	52.6
TCE	4.0	ug/l	11.2
PCE	4.0	ug/l	11.1
Fluorobenzene (surr.)	70-130	%	86

Client: Black & Veatch
Sample ID: gc2- PE Sample 3448-17-2
Date Analyzed: 5/31/07
Lab ID:
GC: Beta
Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	63.3
cis-1,2-DCE	4.0	ug/l	60.7
TCE	4.0	ug/l	15.6
PCE	4.0	ug/l	13.8
Fluorobenzene (surr.)	70-130	%	93

Steven Kinser/SUPR/R7/USEPA/US
06/14/2007 09:57 AM

To AAllen@kdhe.state.ks.us
cc Craig Smith/SUPR/R7/USEPA/US@EPA, Diane Easley/SUPR/R7/USEPA/US@EPA
bcc
Subject Fw: May 2007 Trip Report

Ashley,

Attached is B&Vs report on the plume search. I am bringing hard copies to our meeting today.

Craig,

Here is the final report on the plume search. I have not had time to upload it to the FTP site if you think it is necessary go ahead, I am out of the office for them most part of the next week.

Steven E. Kinser R.G.
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Superfund Division (SUPR)
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May 2007 Trip Rpt.pdf