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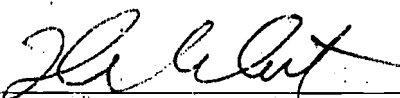
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Harman/Becker Motive
Site # 1996-06-183
Remediation Planning

**REDUCTIVE DECHLORINATION FIELD PILOT TEST
HARMAN/BECKER AUTOMOTIVE SYSTEMS
MARTINSVILLE, INDIANA
KERAMIDA PROJECT NO. 10300C**

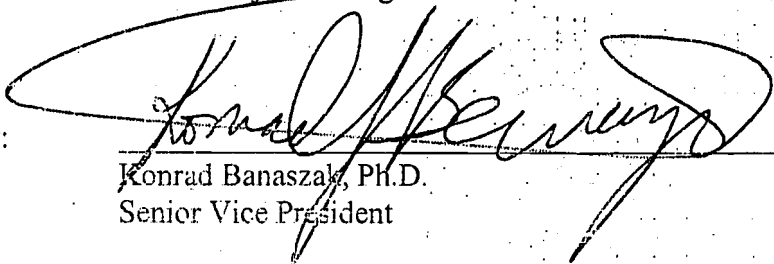
Submitted to: **HARMAN/BECKER AUTOMOTIVE SYSTEMS**
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Frank D. West, L.P.G.
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Senior Vice President

March 11, 2005

Setting The Standard of Excellence

ENGINEERS • HYDROGEOLOGISTS • SCIENTISTS • INDUSTRIAL HYGIENISTS • TOXICOLOGISTS
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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	METHODS.....	1
3.0	FINDINGS.....	3
4.0	DISCUSSION.....	5
5.0	CONCLUSIONS AND RECOMMENDATIONS	7
6.0	REFERENCES	8

TABLES

1	Summary of Carbon Substrate Injection Parameters
2	Summary of Groundwater Elevation Data
3	Groundwater VOC Analytical Results (ug/l)
4	Groundwater TOC Analytical Results (mg/l)
5	Summary of Field Measured Groundwater Quality Parameters

FIGURES

1	Pilot Test Site Plan
2	Pilot Test Groundwater VOC/TOC and Groundwater Quality Data
3	Millimoles of PCE, TCE, cDCE, and VC versus Time in PT-1
4	Groundwater Elevation and Cumulative Rainfall versus Time

ATTACHMENTS

1	Soil Boring Logs
2	Groundwater Sample Information Sheets
3	Laboratory Analytical Reports and Chain-of-Custody
4	Graphs

**REDUCTIVE DECHLORINATION FIELD PILOT TEST
HARMAN/BECKER AUTOMOTIVE SYSTEMS
MARTINSVILLE, INDIANA
KERAMIDA PROJECT NO. 10300C**

1.0 INTRODUCTION

KERAMIDA Environmental, Inc. (KERAMIDA) completed a field pilot test (FPT) to study the feasibility of reductive dechlorination as a remedial technology to reduce volatile organic compound (VOC) concentrations in the east parking lot area (i.e., the source area) at the Harman/Becker Automotive Systems (Client) facility located at 1201 South Ohio Street, Martinsville, Morgan County, Indiana (Site). The FPT consisted of 1) the injection of a carbon substrate into the subsurface to stimulate biological activity, and 2) subsequent groundwater sampling and analysis to evaluate the resulting biological breakdown of VOCs and the oxidative state of the aquifer necessary to sustain VOC breakdown. The goal of the FPT was to determine whether reductive dechlorination is a feasibly remedial alternative and, if so, to provide recommendations for the optimal application of the technology. A description of the FPT methods, findings, and recommendations are presented in this report.

2.0 METHODS

The FPT consisted of 1) the installation of observation points from which to collect groundwater samples for study, 2) the installation of injection points through which the carbon substrate was delivered to the subsurface, and 3) the collection of groundwater samples to measure groundwater quality parameters in the field and to analyze VOC concentrations in the laboratory. The methodology for each of these activities is presented in the following sections.

Observation Point Installation

Three observation points (PT-1, PT-2, and PT-3) were installed on November 22, 2004. The locations of the points are depicted in Figure 1. They were installed using a Geoprobe® percussion-drive drill rig. A continuous soil core was retrieved from each observation point borehole to observe subsurface soil textures and the water table surface. Boring logs for each of the observation points are included in Attachment 1.

The borings were terminated at 12 feet below ground surface (bgs) approximately three feet below the water table surface, which was observed at approximately 9 feet bgs. This depth was chosen because it correlated with the investigation methods used by Heritage Environmental Services (Heritage) during their foundational groundwater study of the source area conducted in 2003 (see East Parking Lot Investigation Report, Heritage, Revised December 15, 2003).

The observation points were installed at the center of the source area (i.e., the location of highest VOC groundwater concentration) and downgradient of the source area. PT-1 was installed at the location of former Heritage boring B-60, which exhibited the highest groundwater VOC concentration. To evaluate the radius of influence of the carbon substrate, observation points PT-2 and PT-3 were installed downgradient to the west-southwest approximately 70 feet and 140 feet from PT-1, respectively. These locations were selected primarily on the availability of accessible space (i.e., away from auto parking spaces).

The observation points were constructed of one-inch diameter PVC screen and casing. They were set at a depth of 12 feet bgs. The screened interval of the points extended from 7 to 12 feet bgs and the cased interval from 7 feet bgs to the ground surface. A silica sand pack was poured around the screen to a depth of approximately 3 feet bgs. Granular bentonite was poured on top of the sand pack to the ground surface. The points were finished at the surface with a PVC cap and a steel protective cover. The top of the casing (TOC) of each point was surveyed for elevation using the TOC of existing piezometer P-40 as an arbitrary benchmark elevation of 100.00 feet.

Carbon Substrate Injection

Based on the results of a reductive dechlorination bench scale microcosm study completed prior to the FPT (see Microcosm Study Report, KERAMIDA, December 21, 2004) a target substrate concentration of 100 mg/l total organic carbon (TOC) was recommended for the FPT. The approximate volume of groundwater in the treatment area was calculated at 60,000 gallons. The target 100 mg/l TOC concentration was achieved by injecting 300 gallons of 20,000 mg/l TOC substrate into the treatment area. The substrate was prepared in a plastic tank by mixing 20 gallons of corn syrup with 300 gallons of water. A re-circulation pump was placed at the bottom of the tank and was run continuously to maintain optimum mixture.

Injection activities were conducted on November 23, 2005. Six temporary injection points were installed using the Geoprobe® at the locations depicted in Figure 1. The treatment area (depicted in Figure 3) encompassed the area around former borings B-60 and B-63, which exhibited the highest VOC concentrations during the previous groundwater investigation. Three of the injection points were placed in the upgradient portion of the treatment area and three of the points were placed across the area of B-60 (the area of highest VOC concentration). For injection of the carbon substrate, a stainless-steel screen with a protective sheath was attached to the Geoprobe® drill rods and driven to a depth of 12 feet bgs. The drill rods and screen sheath were retracted approximately two feet to expose the stainless-steel screen. The carbon substrate was then injected through the Geoprobe® drill rods and the stainless-steel screen into the aquifer using a surface-mounted double diaphragm pump. The substrate was injected through one to two points at a time. Approximately 50 gallons of substrate was injected through each point. Injection pressures at the well head and the duration of injection were monitored for each point. A summary of injection parameters is included in Table 1.

Groundwater Sampling and Analysis

Groundwater samples were collected from observation points PT-1 through PT-3 prior to injection, and 11, 29, and 64 days after injection. The groundwater samples were collected using low-flow sampling methods. Groundwater quality parameters were measured in the field and recorded on Groundwater Sample Information Sheets. The sheets are provided in Attachment 2. Field measured parameters included: temperature, specific conductance, pH, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Groundwater samples were submitted to Heritage for VOC analysis using EPA Method 8260B and TOC analysis using EPA Method 9060.

3.0 FINDINGS

This section provides a description of the observed subsurface hydrogeology, laboratory analytical results, and measured groundwater quality parameters.

Hydrogeology

The observed subsurface soil textures and groundwater table were consistent with the previous work conducted by Heritage. The maximum depth of exploration was 12 feet bgs. The general soil profile consisted of approximately seven to nine feet of loamy sand that was underlain by sand. The loamy sand was dark grayish brown to dark yellowish brown, moist, and pliable to friable. The loamy sand was approximately seven feet thick at PT-1 and approximately nine feet thick at PT-3. The underlying sand was brown, wet to saturated, fine to coarse, and slightly gravelly and extended to the terminal depth of exploration.

During drilling, groundwater was encountered at approximately nine feet bgs. In PT-1, the soil column was observed to be wet, though not saturated, at approximately three and one-half feet bgs. It was noted that heavy rain had occurred at the Site the night before drilling began. Water levels were measured throughout the duration of the pilot test as part of groundwater sample collection. The water level data are summarized in Table 2. As seen in Table 2, prevailing water levels were approximately nine feet bgs at a general hydraulic gradient of 10^{-3} . This is consistent with historically measured water levels and gradient at the Site. Heavy rains appeared to raise the water level in PT-1 on November 22, 2004 and in PT-2 and PT-3 on January 25, 2005. On November 22, the hydraulic gradient was significantly greater than normal (approximately 0.020) because of the unusually high water level in PT-1. This high water level was measured shortly after the installation of PT-1 and may not represent true static water level conditions. The relatively high water levels in PT-2 and PT-3 on January 25 showed a reversal of the groundwater flow at a gradient of approximately 0.045. The significance of groundwater flow and gradient is further discussed in Section 4.0.

Groundwater Analytical Results

The groundwater VOC analytical results are summarized in Table 3. Groundwater TOC analytical results are summarized in Table 4. Copies of the laboratory analytical reports are provided in Attachment 3.

The primary VOCs detected in the groundwater included tetrachloroethene (PCE) and its daughter products (a.k.a., breakdown products) trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene (tDCE), and vinyl chloride (VC).

Field Measured Groundwater Quality Parameters

A summary of the field measure groundwater quality parameters is present in Table 5. The complete groundwater quality measurements are documented on the groundwater sample information sheets in Attachment 2.

4.0 DISCUSSION

This section presents a discussion of the observed affects of the carbon substrate on dissolved VOC and TOC groundwater concentrations, the oxidative state of the aquifer, and the horizontal extent (i.e., radius of influence) of the observed affects. The primary groundwater VOCs, TOC, and the field measured groundwater quality parameter results versus time are summarized in Table 6 and depicted in Figure 2. Graphic depictions of VOC concentrations versus time and water quality parameters versus time are provided in Attachment 4.

Groundwater VOC Results

Changes in groundwater VOC concentrations were clearly observed in PT-1. PCE concentrations increased shortly after injection (as evidenced by the 11-day groundwater results) and generally leveled off for the remainder of the study. The increase was not unexpected as biological fermentation of the corn syrup can produce alcohols that enhance the solubility of PCE in the aqueous phase resulting in de-sorption of PCE from the aquifer sediments into the groundwater (this phenomenon was also observed in the microcosm study). Similarly, TCE and cDCE concentrations most markedly increased during the first 11 days, but in contrast to PCE, continued to increase as the reductive dechlorination (i.e., breakdown) of the PCE produced more TCE and cDCE. This is most clearly portrayed by graphing the millimoles (the number of molecules of each solvent) of PCE versus daughter products over time. As seen in graph Figure 3, between day 29 and day 64 the moles (i.e., number of molecules) of PCE began to decrease as the moles TCE and especially cDCE increased.

Groundwater TOC Results

Increases in TOC concentrations were observed in PT-1 demonstrating that the corn syrup was flowing and dispersing through the sand aquifer. Its concentration spiked at 29 days and attenuated significantly by day 64. Increasing TOC concentrations were not observed in PT-2 or PT-3, indicating that either the radius of influence (ROI) was less than the distance to PT-2 (70 feet) or insufficient time had elapsed to observe the desired affect.

Field Measured Groundwater Quality Parameters

Commensurate to the VOC and TOC data, changes in the field measured groundwater quality parameters were observed in PT-1, but not in downgradient observation points PT-2 and PT-3. As shown in Table 3, the ORP in PT-1 dropped to its lowest value on day 29 demonstrating that the reductive aquifer environment necessary for the breakdown of PCE had been achieved. The ORP data for day 64 still showed a reducing aquifer environment. Additionally, the pH declined along with the ORP. These changes are precisely what is needed to have reductive dechlorination occur. In contrast, the PT-2 and PT-3 ORP and pH data were unchanged.

Radius of Influence (ROI)

Carbon substrate influence was not observed beyond PT-1. Of particular interest was the 180-degree reversal in the groundwater flow and the steep gradient observed during the January 25, 2005 sampling event. The cause of this phenomenon is unknown and, if it occurs frequently, will certainly impact the effective ROI by working against the typical westerly groundwater flow. The impact of the flow reversal to the ROI during the pilot test was difficult to assess and warrants additional monitoring. Also of consideration with respect to ROI was the significant rainfall that fell during the pilot test. Average rainfall in Martinsville between November and January is 9.53 inches (Purdue University, Monthly 1971-2000 Precipitation normals for Martinsville). A total of 15.5 inches of rainfall fell between November 2004 and January 2005 and 12.33 inches fell during the pilot test period (November 22, 2004 through January 25, 2005). Figure 4 graphically depicts the measured groundwater elevations and cumulative precipitation during the pilot test showing how the rainfall affected water levels in the observation points. Rainfall infiltration will affect delivery of the carbon substrate via 1) changes in groundwater

flow, 2) dilution of the carbon substrate because of additional water load, and/or 3) additional hydraulic head forcing the carbon substrate to depths below the intake screens of the observation points, rendering the observation points blind to potential presence of the substrate. The reverse in groundwater flow observed on January 25, 2005, may be an infrequent and temporary effect of high groundwater levels from rain events discharging to features such as the parking lot sewers. In the final analysis, additional monitoring is warranted to better evaluate achievable ROIs for full-scale implementation of the technology.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the pilot test demonstrated that a reduction of the oxidative state of the aquifer and the breakdown of PCE is achievable. One or more sampling events is recommended to 1) monitor for a reduction in PCE concentrations in groundwater, which have yet to be observed, 2) monitor the oxidative state of the aquifer to better assess the duration of affect of the treatments, and 3) monitor the downgradient observation points to better evaluate the radius of influence of the technology.

6.0 REFERENCES

DeLorme (1999), 3-D TopoQuads, Indiana.

Heritage Environmental Services, *East Parking Lot Investigation Report*, October 30, 2003,
Revised December 15, 2003.

KERAMIDA Environmental, Inc., *Microcosm Study*, December 21, 2004.

Purdue Applied Meteorological Group, Department of Agronomy, Plant and Soils Lab, Indiana
Climate Page, <http://shadow.agry.purdue.edu/sc.index.html>

Table 1
Summary of Carbon Substrate Injection Parameters
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 South Ohio Street, Martinsville, Indiana
KERAMIDA Project No. 10300C

Injection Point	TOC Concentration (mg/l)	Volume Injected (gallons)	Injection Time (min)	Injection Rate (gpm)	Pressure (psi)	Screen Interval (bgs)	Remarks
IP-1	20,000	50	13	3.8	5	10-12	
IP-2	20,000	50	13	3.8	5	10-12	
IP-3	20,000	50	14	3.6	0	10-12	
IP-4	20,000	50	11	4.5	3	10-12	first injection
IP-4	20,000	50	16	3.1	5	10-12	second injection
IP-5	20,000	50	11	4.5	3	10-12	
IP-6	20,000	0	0	no flow	10	8-12	short circuit to surface
IP-6A	20,000	0	0	no flow	10	8-12	short circuit to surface

Notes:

mg/l - milligram per liter

gpm - gallons per minute

psi - pounds per square inch

bgs - below ground surface

Table 2
Summary of Groundwater Elevation Data
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 South Ohio Street, Martinsville, Indiana
KERAMIDA Project No. 10300C

Observation Point	TOC Elevation (feet)	Date	Time	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet)
PT-1	100.83	11/22/2004	12:30	3.54	97.29
			15:00	9.38	91.45
		11/23/2004	11:30	9.47	91.36
			14:10	9.20	91.63
			15:30	9.43	91.40
		12/3/2004	10:30	9.22	91.61
		12/21/2004	15:40	9.33	91.50
		1/25/2005	10:50	9.91	90.92
PT-2	100.32	11/22/2004	13:10	9.20	91.12
			15:00	9.24	91.08
		11/23/2004	11:30	9.24	91.08
			15:30	9.25	91.07
		12/3/2004	11:20	8.90	91.42
		12/21/2004	15:05	9.04	91.28
		1/25/2005	11:40	6.54	93.78
PT-3	100.33	11/22/2004	14:00	9.30	91.03
			15:00	9.33	91.00
		11/23/2004	11:30	9.39	90.94
			15:30	9.42	90.91
		12/3/2004	11:50	9.04	91.29
		12/21/2004	14:30	9.19	91.14
		1/25/2005	12:00	6.61	93.72

Notes:

Piezometer P-40 used as an arbitrary bench mark elevation of 100.00 feet

TOC - Top of Casing of the observation point

Table 3
Groundwater VOC Analytical Results (ug/L)
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 S. Ohio St., Martinsville, IN
KERAMIDA Project No. 10300C

Sample No.	Date Sampled	Sample Depth (feet)	Lab Sample No.	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane (Methyl Bromide)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene
PT-1	11/22/2004	7-12	A682297	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/3/2004		A683701	170	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/21/2004		A685884	1,200	< 500.	< 100.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
	12/21/2004 dup		A685887	1,500	< 500.	< 100.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
	1/25/2005		A688378	280	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	1/25/2005 dup.		A688379	< 1000.	< 5000.	< 1000.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.
PT-2	11/22/2004	7-12	A682298	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	11/22/2004 dup		A682299	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/3/2004		A683702	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/21/2004		A685885	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	1/25/2005		A688380	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
PT-3	11/22/2004	7-12	A682300	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/3/2004		A683703	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/21/2004		A685886	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	1/25/2005		A688381	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
TRIP BLANK	11/22/2004	NA	A682301	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/21/2004		A685888	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	1/25/2005		A688382	< 10.	< 50.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
RISC Default Closure Level - Residential ⁽¹⁾				950	0.055	NA	5	NA	1,500 ⁽²⁾	80	80	11	NA	77 ⁽²⁾	NA	1,300	5	100
RISC Default Closure Level - Industrial ⁽¹⁾				92,000	51	NA	52	NA	4,100 ⁽²⁾	80	360	140	NA	1,000 ⁽²⁾	NA	10,000	22	2,000

VOCs = Volatile Organic Compounds

Samples analyzed using EPA SW-846 Method 8260

ug/L = micrograms per liter

NA = Not Applicable

⁽¹⁾ Indiana Department of Environmental Management RISC Technical Guide, Final, February 15, 2001 and including updates through January

⁽²⁾ Calculated using surrogate toxicity values and RISC equations from the RISC Technical Guide.

Table 3
Groundwater VOC Analytical Results (ug/L)
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 S. Ohio St., Martinsville, IN
KERAMIDA Project No. 10300C

Sample No.	Date Sampled	Sample Depth (feet)	Lab Sample No.	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	2-Chloroethyl vinyl ether	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	trans-1,4-Dichloro-2-butene
PT-1	11/22/2004	7-12	A682297	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	12/3/2004		A683701	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	12/21/2004		A685884	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 20.
	12/21/2004 dup		A685887	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 20.
	1/25/2005		A688378	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	1/25/2005 dup.		A688379	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 200.
PT-2	11/22/2004	7-12	A682298	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	11/22/2004 dup		A682299	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	12/3/2004		A683702	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	12/21/2004		A685885	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	1/25/2005		A688380	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	1/25/2005 dup.		A688381	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
PT-3	11/22/2004	7-12	A682300	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	12/3/2004		A683703	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	12/21/2004		A685886	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	1/25/2005		A688381	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
TRIP BLANK	11/22/2004	NA	A682301	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	12/21/2004		A685888	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
	1/25/2005		A688382	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 2.
RISC Default Closure Level - Residential ⁽¹⁾				NA	62	80	NA	NA	NA	NA	NA	NA	NA	600	6.9	75	NA	NA
RISC Default Closure Level - Industrial ⁽¹⁾				NA	990	1,000	NA	NA	NA	NA	NA	NA	NA	9,200	92	120	NA	NA

VOCs = Volatile Organic Compounds

Samples analyzed using EPA SW-846 Method 8260

ug/L = micrograms per liter

NA = Not Applicable

⁽¹⁾ Indiana Department of Environmental Management RISC Technical Guide, Final, February 15, 2001 and including updates through January

⁽²⁾ Calculated using surrogate toxicity values and RISC equations from the RISC Technical Guide.

Table 3
Groundwater VOC Analytical Results (ug/L)
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 S. Ohio St., Martinsville, IN
KERAMIDA Project No. 10300C

Sample No.	Date Sampled	Sample Depth (feet)	Lab Sample No.	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Ethyl methacrylate	2-Hexanone	Hexachlorobutadiene
PT-1	11/22/2004	7-12	A682297	1.5	< 1.	2.5	2,800	13	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	12/3/2004		A683701	< 1.	< 1.	3.6	6,300	58	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	12/21/2004		A685884	< 10.	< 10.	< 10.	5,700	19	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 100.	< 100.	< 10.
	12/21/2004 dup		A685887	< 10.	< 10.	< 10.	6,000	24	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 100.	< 100.	< 10.
	1/25/2005		A688378	3.5	< 1.	7.6	6,900	37	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	1/25/2005 dup.		A688379	< 100.	< 100.	< 100.	7,400	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 1000.	< 1000.	< 100.
PT-2	11/22/2004	7-12	A682298	14	< 1.	4.7	4,400	32	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	11/22/2004 dup		A682299	13	< 1.	4.7	4,700	31	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	12/3/2004		A683702	< 1.	< 1.	3.9	3,400	23	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	12/21/2004		A685885	7.6	< 1.	4.6	2,800	15	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	1/25/2005		A688380	5.1	< 1.	2.4	1,500	11	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
PT-3	11/22/2004	7-12	A682300	21	< 1.	3.1	2,600	19	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	12/3/2004		A683703	18	< 1.	3	2,000	17	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	12/21/2004		A685886	21	< 1.	4	2,000	16	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	1/25/2005		A688381	12	< 1.	1.6	1,100	10	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
TRIP BLANK	11/22/2004	NA	A682301	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	12/21/2004		A685888	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
	1/25/2005		A688382	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 10.	< 10.	< 1.
RISC Default Closure Level - Residential ⁽¹⁾				990	5	7	70	100	5	NA	NA	NA	5.6	5.6	700	NA	460 ⁽²⁾	7.3
RISC Default Closure Level - Industrial ⁽¹⁾				10,000	31	5,100	1,000	2,000	42	NA	NA	NA	29	29	10,000	NA	6,100 ⁽²⁾	20

VOCs = Volatile Organic Compounds

Samples analyzed using EPA SW-846 Method 8260

ug/L = micrograms per liter

NA = Not Applicable

⁽¹⁾ Indiana Department of Environmental Management RISC Technical Guide, Final, February 15, 2001 and including updates through January

⁽²⁾ Calculated using surrogate toxicity values and RISC equations from the RISC Technical Guide.

Table 3
Groundwater VOC Analytical Results (ug/L)
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 S. Ohio St., Martinsville, IN
KERAMIDA Project No. 10300C

Sample No.	Date Sampled	Sample Depth (feet)	Lab Sample No.	Iodomethane	Isopropylbenzene	p-Isopropyltoluene	Methylene chloride	Methyl-ethyl-ketone (MEK) (2-Butanone)	Methyl-tert-butyl ether (MTBE)	4-Methyl-2-pentanone (MIBK)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene
PT-1	11/22/2004	7-12	A682297	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	2.2	< 1.	< 1.	< 1.	< 1.	4,200	< 1.	< 1.
	12/3/2004		A683701	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	8,300	< 1.	< 1.
	12/21/2004		A685884	< 10.	< 10.	< 10.	14	640	< 10.	< 100.	< 10.	< 10.	< 10.	< 10.	< 10.	6,900	< 10.	< 10.
	12/21/2004 dup.		A685887	< 10.	< 10.	< 10.	11	760	< 10.	< 100.	< 10.	< 10.	< 10.	< 10.	< 10.	7,500	< 10.	< 10.
	1/25/2005		A688378	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	2.8	< 1.	6,300	< 1.	< 1.
	1/25/2005 dup.		A688379	< 100.	< 100.	< 100.	< 100.	< 1000.	< 100.	< 1000.	< 100.	< 100.	< 100.	< 100.	< 100.	7,500	< 100.	< 100.
PT-2	11/22/2004	7-12	A682298	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	2,000	< 1.	< 1.
	11/22/2004 dup.		A682299	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	2,100	< 1.	< 1.
	12/3/2004		A683702	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	2,100	< 1.	< 1.
	12/21/2004		A685885	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	2,900	2.7	< 1.
	1/25/2005		A688380	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	2,000	1.6	< 1.
PT-3	11/22/2004	7-12	A682300	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	1	< 1.	< 1.	< 1.	< 1.	930	< 1.	< 1.
	12/3/2004		A683703	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	1,300	< 1.	< 1.
	12/21/2004		A685886	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	1,600	< 1.	< 1.
	1/25/2005		A688381	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	1,300	< 1.	< 1.
TRIP BLANK	11/22/2004	NA	A682301	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/21/2004		A685888	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	1/25/2005		A688382	< 1.	< 1.	< 1.	< 1.	< 10.	< 1.	< 10.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
RISC Default Closure Level - Residential ⁽¹⁾				0.85	830 ⁽²⁾	NA	5.0	8,400	40	2,200	8.3	77 ⁽²⁾	100	6.9	0.9	5	1,000	NA
RISC Default Closure Level - Industrial ⁽¹⁾				2.9	10,000 ⁽²⁾	NA	380	61,000	870	8,200	2,000	1,000 ⁽²⁾	20,000	110	14	55	20,000	NA

VOCs = Volatile Organic Compounds

Samples analyzed using EPA SW-846 Method 8260

ug/L = micrograms per liter

NA = Not Applicable

⁽¹⁾ Indiana Department of Environmental Management RISC Technical Guide, Final, February 15, 2001 and including updates through January

⁽²⁾ Calculated using surrogate toxicity values and RISC equations from the RISC Technical Guide.

Table 3
Groundwater VOC Analytical Results (ug/L)
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 S. Ohio St., Martinsville, IN
KERAMIDA Project No. 10300C

Sample No.	Date Sampled	Sample Depth (feet)	Lab Sample No.	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	Vinyl chloride	Xylenes, (Total)
PT-1	11/22/2004	7-12	A682297	< 1.	< 1.	< 1.	220	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/3/2004		A683701	< 1.	< 1.	< 1.	410	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/21/2004		A685884	< 10.	< 10.	< 10.	460	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
	12/21/2004 dup.		A685887	< 10.	< 10.	< 10.	550	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
	1/25/2005		A688378	< 1.	< 1.	< 1.	590	< 1.	< 1.	< 1.	< 1.	< 1.	2	< 1.
	1/25/2005 dup.		A688379	< 100.	< 100.	< 100.	600	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.	< 100.
PT-2	11/22/2004	7-12	A682298	< 1.	2.4	< 1.	200	< 1.	< 1.	< 1.	< 1.	< 1.	100	< 1.
	11/22/2004 dup.		A682299	< 1.	2.4	< 1.	200	< 1.	< 1.	< 1.	< 1.	< 1.	84	< 1.
	12/3/2004		A683702	< 1.	< 1.	< 1.	170	< 1.	< 1.	< 1.	< 1.	< 1.	86	< 1.
	12/21/2004		A685885	< 1.	2.2	< 1.	220	< 1.	< 1.	< 1.	< 1.	< 1.	120	< 1.
	1/25/2005		A688380	< 1.	1.5	< 1.	110	< 1.	< 1.	< 1.	< 1.	< 1.	36	< 1.
PT-3	11/22/2004	7-12	A682300	< 1.	8.6	< 1.	100	< 1.	< 1.	< 1.	< 1.	< 1.	110	< 1.
	12/3/2004		A683703	< 1.	9.8	< 1.	130	< 1.	< 1.	< 1.	< 1.	< 1.	75	< 1.
	12/21/2004		A685886	< 1.	13	< 1.	120	< 1.	< 1.	< 1.	< 1.	< 1.	140	< 1.
	1/25/2005		A688381	< 1.	4.7	< 1.	78	< 1.	< 1.	< 1.	< 1.	< 1.	25	< 1.
TRIP BLANK	11/22/2004	NA	A682301	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	12/21/2004		A685888	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
	1/25/2005		A688382	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.
RISC Default Closure Level - Residential ⁽¹⁾				70	200	5	5	NA	NA	16	16	550	2.0	10,000
RISC Default Closure Level - Industrial ⁽¹⁾				1,000	29,000	50	7.2	NA	NA	5,100	5,100	100,000	2.0	20,000

VOCs = Volatile Organic Compounds

Samples analyzed using EPA SW-846 Method 8260

ug/L = micrograms per liter

NA = Not Applicable

⁽¹⁾ Indiana Department of Environmental Management RISC Technical Guide, Final, February 15, 2001 and including updates through January

⁽²⁾ Calculated using surrogate toxicity values and RISC equations from the RISC Technical Guide.

Table 4
Groundwater Total Organic Carbon Analytical Results (mg/L)
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 S. Ohio St., Martinsville, IN
KERAMIDA Project No. 10300C

Sample No.	Date Sampled	Sample Depth (feet)	Lab Sample No.	TOC
PT-1	11/22/2004	7-12	A682297	7.8
	12/3/2004		A683701	8,200
	12/21/2004		A685884	9,400
	12/21/2004 dup.		A685887	9,600
	1/25/2005		A688378	220
	1/25/2005 dup.		A688379	190
PT-2	11/22/2004	7-12	A682298	5.6
	11/22/2004 dup.		A682299	6.5
	12/3/2004		A683702	6
	12/21/2004		A685885	49
	1/25/2005		A688380	< 1
PT-3	11/22/2004	7-12	A682300	5.4
	12/3/2004		A683703	5.1
	12/21/2004		A685886	29
	1/25/2005		A688381	< 1
RISC Default Closure Level - Residential ⁽¹⁾				
RISC Default Closure Level - Industrial ⁽¹⁾				

Samples analyzed using EPA SW-846 Method 8021

ug/L = micrograms per liter

NA = Not Applicable

⁽¹⁾ Indiana Department of Environmental Management RISC Technical Guide, Final, February 15, 2001 and including updates through January 2004.

Table 5
Summary of Field Measured Groundwater Quality Parameters
VOC Source Area Reductive Dechlorination Field Pilot Test
Harman/Becker Automotive Systems, Inc.
1201 S. Ohio St., Martinsville, IN
KERAMIDA Project No. 10300C

Parameter	PT-1				PT-2				PT-3			
	11/22/04	12/3/04	12/21/04	1/25/05	11/22/04	12/3/04	12/21/04	1/25/05	11/22/04	12/3/04	12/21/04	1/25/05
ORP (mV0	222	168	-114	-83	267	253	123	279	245	265	107	76
DO (mg/l)	2.60	0.37	6.64	0.66	0.49	1.24	1.15	1.81	0.61	1.42	1.11	2.01
pH	6.80	5.87	5.58	6.07	6.63	6.60	6.68	6.71	6.96	6.74	6.73	6.91
SC (umohs)	404	1750	2355	505	318	1155	1010	400	1132	1203	1125	670
Temp (°C)	16.79	16.85	16.25	12.32	19.12	17.91	17.22	12.97	18.15	17.04	16.65	12.38

Notes:

ORP = oxidation reduction potential

mV = millivolts

DO = dissolved oxygen

mg/l= milligrams per liter

SC = specific conductance

mmohs = micromohs

C = centigrade

KERAMIDA Environmental, Inc.

LOG OF BORING PT-1

(Page 1 of 1)

Harman-Becker Automotive Systems
1201 South Ohio Street
Martinsville, Morgan County, Indiana

Project ID : 10300C
Date Drilled : 11/22/04
Drilling Method : Push-Probe
Geologist/Tech : Frank West
Drilling Co : KEI

General Location : At B-60
: Source Area

KERAMIDA Project No. 10300C

Depth in feet	GRAPHIC	DESCRIPTION	Samples	Rec %	FID ppm	REMARKS	Well: PT-1 Elev.: 100.83
0		Asphalt, gravel fill			NA		
		Loamy Sand, moist, 10YR 4/4 (dark yellowish brown)	1	75	NA		Bentonite Grout
4					NA		Riser
			2	75	NA		
8		Grades to medium sand, 10YR 4/4 - 10YR 4/6 (dark yellowish brown), wet (non-satiated)			NA		Sand Pack
		Fine Sand, 10YR 5/3 (brown), wet (satiated)	3	50	NA		Screen
12					NA		
16							

Note: Heavy rain previous night and morning.
PT-1 is a 1-inch PVC temporary piezometer.

KERAMIDA Environmental, Inc.

LOG OF BORING PT-2

(Page 1 of 1)

Harman-Becker Automotive Systems
1201 South Ohio Street
Martinsville, Morgan County, IndianaProject ID : 10300C
Date Drilled : 11/22/04
Drilling Method : Push-Probe
Geologist/Tech : Frank West
Drilling Co : KEI

General Location : Downgradient of PT-1

KERAMIDA Project No. 10300C

Depth in feet	GRAPHIC	DESCRIPTION	Samples	Rec %	FID ppm	REMARKS	Well: PT-2 Elev.: 100.32
0		Asphalt, gravel fill			NA		
		Loamy Sand, moist, friable, 10YR 4/4 (dark yellowish brown)	1	75	NA		Bentonite Grout
4		Same as above, pliable to friable with depth, moist, 10YR 3/4 (dark yellowish brown)	2	100	NA		Riser
8		Grades to medium to coarse sand, trace gravel, 10YR 5/3 (brown), wet (non-satiated) wet (satiated) at 9'	3	75	NA		Sand Pack
12					NA		Screen
16							

Note: PT-2 is a 1-inch PVC temporary piezometer.

KERAMIDA Environmental, Inc.

LOG OF BORING PT-3

(Page 1 of 1)

Harman-Becker Automotive Systems
1201 South Ohio Street
Martinsville, Morgan County, IndianaProject ID : 10300C
Date Drilled : 11/22/04
Drilling Method : Push-Probe
Geologist/Tech : Frank West
Drilling Co : KEI

General Location : Downgradient of B-60

KERAMIDA Project No. 10300C

Depth in feet	GRAPHIC	DESCRIPTION	Samples	Rec %	FID ppm	REMARKS	Well: PT-3 Elev.: 100.33
0		Asphalt, gravel fill					
		Loamy Sand, moist, 10YR 4/4 (dark yellowish brown)	1	75	NA		Bentonite Grout
4					NA		Riser
			2	85	NA		
8		Same as above, wet (non-satiated)			NA		Sand Pack
		Grades to medium to coarse sand, trace gravel, 10YR 5/3 (brown), wet (satiated)	3	75	NA		Screen
12					NA		
16							

Note: PT-3 is a 1-inch PVC temporary piezometer.

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Harman/Becker</u>	KEI Project #: <u>10300C</u>
Sample I.D.: <u>PT-1</u>	Well Location: <u>near B-60</u>

Monitoring Well Data	
Well Material	<u>(PVC/SS/Teflon)</u>
Inside Diameter, in.	<u>(1.246)</u>
Stick up or stick down height	<u>3'0</u> ft
Total depth of well (TD)	<u>12.15 w/ stick up</u> ft
Depth to product	<u> </u> ft
Depth to water (DTW)	<u>3.54</u> ft

Sample Types (circle all applicable)	
☒ Monitoring Well	
☒ Grab/Composite	
☐ Split Sample	
Duplicate (Duplicate ID: <u>PT-1 Dup</u>)	<u>PH 11/22</u>
MS/MSD	
Other	

Conventional sampling	
Height of water column (H = TD - DTW)	ft
Conversion value (CV)*	x
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	B / P

⇐OR⇒

used peristaltic pump

Micropurge sampling	
Depth of pump ^{Tube} placement (place mid-screen)	<u>9.5</u> <u>10.5</u> ft
Bubbles purged from flow cell?	☒ N
Is drawdown > 0.3 feet	? Y / N
Was passive sampling used?	Y / ☒ N
Flowrate =	<u> </u> mL/min
ID number from controller console	# <u> </u>

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s)	Stability	1234	1230						
		Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Performed									
Temperature (°C)	+/- 3%		<u>16.79</u>						
Spec. Cond (µmhos)	+/- 3%		<u>404</u>						
D.O. (mg/L)	+/- 10%**		<u>2.60</u>						
pH	+/- 0.1		<u>6.80</u>						
ORP (mV)	+/- 10 mV**		<u>222</u>						
Turbidity (NTU)	+/- 10%**								
H ₂ S (mg/L)									
Fe ²⁺ (mg/L)									

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: 1/2 gallons → running dry on slow draw

Sample Date: 11/22/04 Sample Time: 12:39 (military time)

Was metals sample filtered prior to preservation? YES ☒ NO method: 0.45 µm cartridge / other:

Color of water before filtration: brown After filtration:

Reaction upon addition of preservatives? ☒ YES ☐ NO explain: effervescence w/ HCl

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition:

Signature: Stanley Hunnicutt

Date: 11/22/04

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KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Harman/Becker</u>	KEI Project #: <u>10300C</u>
Sample I.D.: <u>PT-2</u>	Well Location: <u>near B-55</u>

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1.246)
Stick up or stick down height	_____ ft
Total depth of well (TD)	<u>12</u> ft
Depth to product	_____ ft
Depth to water (DTW)	<u>9.20</u> ft

Sample Types (circle all applicable)	
Monitoring Well	
Grab/Composite	
Split Sample	
Duplicate (Duplicate ID: <u>PT-2 Dup</u>)	
MS/MSD	
Other _____	

Conventional sampling	
Height of water column (H = TD - DTW)	_____ ft
Conversion value (CV)*	x
1 Well volume = H x CV	= _____ gal
3 Well volumes =	= _____ gal
Purge method (B = bailer, P = pump)	B / P

⇐OR⇒

Micro-purge sampling	
Depth of ^{tubing} pump placement (place mid-screen)	<u>10.5</u> ft
Bubbles purged from flow cell?	(Y) N
Is drawdown > 0.3 feet	? Y / N
Was passive sampling used?	Y / (N)
Flowrate =	_____ mL/min
ID number from controller console	# _____

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

1305 1311

Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
Performed	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>19.12</u>						
Spec. Cond (µmhos)	+/- 3%	<u>318</u>						
D.O. (mg/L)	+/- 10%**	<u>0.49</u>						
pH	+/- 0.1	<u>6.63</u>						
ORP (mV)	+/- 10 mV**	<u>267</u>						
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: 1/4 gallons

Sample Date: 11/22/04 Sample Time: 13:12 (military time)

Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____

Color of water before filtration: brown After filtration: _____

Reaction upon addition of preservatives? YES (NO) explain: _____

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: _____

Signature: Sean Hunnicutt Date: 11/22/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Harman/Becker</u>	KEI Project #: <u>10300C</u>
Sample I.D.: <u>PT-3</u>	Well Location: <u>near B-</u>

Monitoring Well Data	
Well Material	(<u>PVC/SS/Teflon</u>)
Inside Diameter, in.	<u>(1.246)</u>
Stick up or stick down height	<u> </u> ft
Total depth of well (TD)	<u>12.0</u> ft
Depth to product	<u> </u> ft
Depth to water (DTW)	<u>9.3</u> ft

Sample Types (circle all applicable)	
Monitoring Well	
<u>Grab</u> Composite	
Split Sample	
Duplicate (Duplicate ID: <u> </u>)	
<u>MS/MSD</u>	
Other <u> </u>	

used peristaltic pump

Conventional sampling	
Height of water column (H = TD - DTW)	ft
Conversion value (CV)*	<u>x</u>
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	<u>B / P</u>

⇐OR⇒

Micropurge sampling	
Depth of <u>pump</u> placement (place mid-screen)	ft
Bubbles purged from flow cell?	<u>Y</u> /N
Is drawdown > 0.3 feet	? Y/N
Was passive sampling used?	Y <u>N</u>
Flowrate =	<u> </u> mL/min
ID number from controller console	# <u> </u>

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

		1355	1359						
Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result	Result
<u>Performed</u>	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)	
Temperature (°C)	+/- 3%	<u>18.15</u>							
Spec. Cond (µmhos)	+/- 3%	<u>1132</u>							
D.O. (mg/L)	+/- 10%**	<u>0.61</u>							
pH	+/- 0.1	<u>6.96</u>							
ORP (mV)	+/- 10 mV**	<u>245</u>							
Turbidity (NTU)	+/- 10%**								
H ₂ S (mg/L)									
Fe ²⁺ (mg/L)									

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: 1/2 gallons

Sample Date: 11/22/04

Sample Time: 14:00 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: brown After filtration:

Reaction upon addition of preservatives? YES NO explain:

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition:

Signature: Alan Hunnicutt

Date: 11/22/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Herman/Becker</u>	KEI Project #: <u>10700C</u>
Sample I.D.: <u>PT-1</u>	Well Location: <u>Source Area</u>

Monitoring Well Data	
Well Material	<u>(PVC/SS/Teflon)</u>
Inside Diameter, in.	<u>(1 2 4 6)</u>
Stick up or stick down height	<u>0</u> ft
Total depth of well (TD)	<u>12</u> ft
Depth to product	ft
Depth to water (DTW)	<u>9.22</u> ft

Sample Types (circle all applicable)	
Monitoring Well	☒
Grab/Composite	☐
Split Sample	☐
Duplicate (Duplicate ID: _____)	☐
MS/MSD	☐
Other _____	☐

Conventional sampling	
Height of water column (H = TD - DTW)	ft
Conversion value (CV)*	x
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	B / P

←OR→

Used Peristaltic Pump
Take **Micropurge sampling**

Depth of pump placement (place mid-screen)	<u>10.5</u> ft
Bubbles purged from flow cell?	<u>Y</u> / N
Is drawdown > 0.3 feet	<u>Y</u> / <u>N</u>
Was passive sampling used?	<u>Y</u> / N
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

10/10:22 10:25 - Stop, Running D.Y.

Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
Performed	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>16.85</u>						
Spec. Cond (µmhos)	+/- 3%	<u>1750</u>						
D.O. (mg/L)	+/- 10%**	<u>0.37</u>						
pH	+/- 0.1	<u>5.87</u>						
ORP (mV)	+/- 10 mV**	<u>168</u>						
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations: Strong rotten corn syrup odor in water

Volume of water purged from well: 1/2 gallons

Sample Date: 12/3/04 Sample Time: 10:30 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: Yellow After filtration: _____

Reaction upon addition of preservatives? YES NO explain: _____

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: _____

Signature: [Signature] Date: 12/3/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Harman/Becker</u>	KEI Project #: <u>10300 G</u>
Sample I.D.: <u>PT-2</u>	Well Location: <u>East Parking Lot</u>

Monitoring Well Data	
Well Material	<u>(PVC/SS/Teflon)</u>
Inside Diameter, in.	<u>(1.246)</u>
Stick up or stick down height	<u>0</u> ft
Total depth of well (TD)	<u>12'</u> ft
Depth to product	<u>—</u> ft
Depth to water (DTW)	<u>8.90</u> ft

Sample Types (circle all applicable)	
☒ Monitoring Well	
☒ Grab/Composite	
☐ Split Sample	
Duplicate (Duplicate ID: _____)	
MS/MSD	
Other _____	

Conventional sampling	
Height of water column (H = TD - DTW)	ft
Conversion value (CV)*	x
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	B / P

←OR→

Peristaltic Pump Micropurge sampling	
Depth of pump placement (place mid-screen)	<u>10.5</u> ft
Bubbles purged from flow cell?	☒ Y ☐ N
Is drawdown > 0.3 feet	☒ Y ☐ N
Was passive sampling used?	☒ Y ☐ N
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
Performed	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>16.96</u>	<u>17.83</u>	<u>17.84</u>	<u>17.91</u>			
Spec. Cond (µmhos)	+/- 3%	<u>1179</u>	<u>1159</u>	<u>1159</u>	<u>1155</u>			
D.O. (mg/L)	+/- 10%**	<u>1.66</u>	<u>1.30</u>	<u>1.26</u>	<u>1.24</u>			
pH	+/- 0.1	<u>6.71</u>	<u>6.62</u>	<u>6.60</u>	<u>6.60</u>			
ORP (mV)	+/- 10 mV**	<u>232</u>	<u>244</u>	<u>249</u>	<u>253</u>			
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: 21 gallons

Sample Date: 12/3/04

Sample Time: 11:25 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: Clear After filtration: _____

Reaction upon addition of preservatives? YES ☒ NO explain: _____

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: _____

Signature: John White

Date: 12/3/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Herman Becker</u>	KEI Project #: <u>102000</u>
Sample I.D.: <u>PT-3</u>	Well Location: <u>East Parking Lot</u>

Monitoring Well Data	
Well Material	<u>(PVC/SS/Teflon)</u>
Inside Diameter, in.	<u>(12.46)</u>
Stick up or stick down height	<u>0</u> ft
Total depth of well (TD)	<u>12</u> ft
Depth to product	<u>—</u> ft
Depth to water (DTW)	<u>9.04</u> ft

Sample Types (circle all applicable)
<u>Monitoring Well</u>
<u>Grab</u> Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other _____

Conventional sampling	
Height of water column (H = TD - DTW)	ft
Conversion value (CV)*	x
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	B / P

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	<u>10.5</u> ft
Bubbles purged from flow cell?	<u>(Y)</u> N
Is drawdown > 0.3 feet	<u>Y</u> (X)
Was passive sampling used?	<u>Y</u> (X)
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

		<u>1140</u>	<u>1143</u>	<u>1146</u>	<u>1149</u>			
Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
<u>Performed</u>	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>17.27</u>	<u>17.15</u>	<u>17.04</u>				
Spec. Cond (µmhos)	+/- 3%	<u>1214</u>	<u>1207</u>	<u>1203</u>				
D.O. (mg/L)	+/- 10%**	<u>1.38</u>	<u>1.39</u>	<u>1.42</u>				
pH	+/- 0.1	<u>6.75</u>	<u>6.75</u>	<u>6.74</u>				
ORP (mV)	+/- 10 mV**	<u>261</u>	<u>264</u>	<u>265</u>				
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: ~1 gallons

Sample Date: 12/3/04 Sample Time: 11:50 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: Clear After filtration: _____

Reaction upon addition of preservatives? YES (NO) explain: _____

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: _____

Signature: [Signature] Date: 12/3/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Harman Becker</u>	KEI Project #: <u>10300 C</u>
Sample I.D.: <u>PT-1</u>	Well Location: <u>East Parking Lot</u>

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	_____ ft
Total depth of well (TD)	<u>12</u> ft
Depth to product	_____ ft
Depth to water (DTW)	<u>9.33</u> ft

Sample Types (circle all applicable)	
Monitoring Well	
Grab/Composite	
Split Sample	
Duplicate (Duplicate ID: <u>Duplicate</u>)	
MS/MSD	
Other _____	

Conventional sampling	
Height of water column (H = TD - DTW)	_____ ft
Conversion value (CV)*	x
1 Well volume = H x CV	= _____ gal
3 Well volumes =	= _____ gal
Purge method (B = bailer, P = pump)	B / P

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	<u>10.5-11</u> ft
Bubbles purged from flow cell?	(Y/N)
Is drawdown > 0.3 feet	(Y/N)
Was passive sampling used?	(Y/N)
Flowrate =	_____ mL/min
ID number from controller console	# _____

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
<u>Performed</u>	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>16.23</u>						
Spec. Cond (µmhos)	+/- 3%	<u>2355</u>						
D.O. (mg/L)	+/- 10%**	<u>6.64</u>						
pH	+/- 0.1	<u>5.58</u>						
ORP (mV)	+/- 10 mV**	<u>-114</u>						
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations: Slow Recharge; strong "corn syrup" odor.

Volume of water purged from well: ~0.25 gallons

Sample Date: 12/21/04 Sample Time: 15:40 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: Brown After filtration: _____

Reaction upon addition of preservatives? (YES) NO explain: Effervesce

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: Good

Signature: [Signature] Date: 12/21/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Harman Becker</u>	KEI Project #: <u>10300 C</u>
Sample I.D.: <u>PT-2</u>	Well Location: <u>East Parking Lot</u>

Monitoring Well Data	
Well Material	<u>(PVC/SS/Teflon)</u>
Inside Diameter, in.	<u>(1 2 4 6)</u>
Stick up or stick down height	_____ ft
Total depth of well (TD)	<u>12</u> ft
Depth to product	_____ ft
Depth to water (DTW)	<u>9.04</u> ft

Sample Types (circle all applicable)	
☒ Monitoring Well	
☒ Grab/Composite	
☐ Split Sample	
Duplicate (Duplicate ID: _____)	
☒ MS/MSD	
Other _____	

Conventional sampling	⇐OR⇒	Micropurge sampling
Height of water column (H = TD - DTW) _____ ft		Depth of pump placement (place mid-screen) <u>10.5'</u> ft
Conversion value (CV)* <u>x</u>		Bubbles purged from flow cell? <u>(Y) N</u>
1 Well volume = H x CV = _____ gal		Is drawdown > 0.3 feet <u>Y (N)</u>
3 Well volumes = _____ gal		Was passive sampling used? <u>Y (N)</u>
Purge method (B = bailer, P = pump) _____ B / P		Flowrate = _____ mL/min
		ID number from controller console # _____

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

		1449	1452	1455	1458	1501	1504		
Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result	Result
Performed	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)	
Temperature (°C)	+/- 3%	17.10	17.20	17.20	17.21	17.22			
Spec. Cond (µmhos)	+/- 3%	1077	1034	1020	1011	1010			
D.O. (mg/L)	+/- 10%**	0.92	0.79	1.01	1.14	1.15			
pH	+/- 0.1	6.75	6.71	6.69	6.68	6.68			
ORP (mV)	+/- 10 mV**	110	115	119	121	123			
Turbidity (NTU)	+/- 10%**								
H ₂ S (mg/L)									
Fe ²⁺ (mg/L)									

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: ~1.5 gallons

Sample Date: 12/21/04 Sample Time: 15:05 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: _____ After filtration: _____

Reaction upon addition of preservatives? YES NO explain: _____

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: _____

Signature: [Signature] Date: 12/21/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: <u>Harman Becker</u>	KEI Project #: <u>10300 C</u>
Sample I.D.: <u>PT-3</u>	Well Location: <u>East parking lot</u>

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	<u>12.0</u> ft
Depth to product	ft
Depth to water (DTW)	<u>9.19</u> ft

Sample Types (circle all applicable)	
Monitoring Well	
Grab/Composite	
Split Sample	
Duplicate (Duplicate ID: _____)	
MS/MSD	
Other _____	

Conventional sampling	
Height of water column (H = TD - DTW)	ft
Conversion value (CV)*	x
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	B / P

←OR→

Micropurge sampling	
Depth of pump placement (place mid-screen)	<u>10.5</u> ft
Bubbles purged from flow cell?	Y / <u>N</u>
Is drawdown > 0.3 feet	Y / <u>N</u>
Was passive sampling used?	Y / <u>N</u>
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

		1416	1419	1422	1425	1428		
Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
<u>Performed</u>	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>16.52</u>	<u>16.63</u>	<u>16.69</u>	<u>16.65</u>			
Spec. Cond (µmhos)	+/- 3%	<u>1112</u>	<u>1117</u>	<u>1122</u>	<u>1125</u>			
D.O. (mg/L)	+/- 10%**	<u>1.29</u>	<u>1.06</u>	<u>1.07</u>	<u>1.11</u>			
pH	+/- 0.1	<u>6.77</u>	<u>6.74</u>	<u>6.74</u>	<u>6.73</u>			
ORP (mV)	+/- 10 mV**	<u>99</u>	<u>100</u>	<u>105</u>	<u>107</u>			
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

Check stability after three readings and every reading thereafter until achieved.

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: 21 gallons

Sample Date: 12/21/04

Sample Time: 14:30 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: _____ After filtration: _____

Reaction upon addition of preservatives? YES NO explain: _____

Appearance of Water: (Clear) Slightly Turbid/Turbid/Very Turbid)

Well condition: _____

Signature: [Signature]

Date: 12/21/04

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: Harman/Becker	KEI Project #: 10300C
Sample I.D.: PT-1	Well Location: See Map

Monitoring Well Data	
Well Material	(PVC/SS)
Inside Diameter, in.	(1.246)
Stick up or stick down height	ft
Total depth of well (TD)	12 ft
Depth to product	ft
Depth to water (DTW)	9.41 ft

Sample Types (circle all applicable)	
Monitoring Well	
Grab	Composite
Split-Sample	
Duplicate	(Duplicate ID: PT-1 Dup)
MS/MSD	
Other	

Conventional sampling	
Height of water column (H = TD - DTW)	ft
Conversion value (CV)*	x
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	B / P

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	~11 ft
Bubbles purged from flow cell?	Y/N
Is drawdown > 0.3 feet	Y/N
Was passive sampling used?	Y/N
Flowrate =	mL/min
ID number from controller console	# NA

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
Performed	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	12.35	12.37	12.32				
Spec. Cond (µmhos)	+/- 3%	0.568	0.578	0.505				
D.O. (mg/L)	+/- 10%**	1.80	0.70	0.66				
pH	+/- 0.1	5.95	6.06	6.07				
ORP (mV)	+/- 10 mV**	-82.1	-84.1	-83.3				
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: _____ gallons

Sample Date: 1 / 24 / 2005 Sample Time: 10:50 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: lt Brown After filtration: NA

Reaction upon addition of preservatives? YES NO explain: _____

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: Good

Analysis to be performed: VOCs, TOCs

Signature: Coey Rees

Date: 1/25/05

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: Harman/Becker	KEI Project #: 10300C
Sample I.D.: <u>DT-2</u>	Well Location: See Map

Monitoring Well Data	
Well Material	(<u>PVC/SS</u>)
Inside Diameter, in.	(<u>1.246</u>)
Stick up or stick down height	_____ ft
Total depth of well (TD)	<u>12</u> ft
Depth to product	_____ ft
Depth to water (DTW)	<u>6.54</u> ft

Sample Types (circle all applicable)	
☒ <u>Monitoring Well</u>	
☒ <u>Grab</u> Composite	
Split Sample	
Duplicate (Duplicate ID: _____)	
MS/MSD	
Other _____	

Conventional sampling	
Height of water column (H = TD - DTW)	_____ ft
Conversion value (CV)*	x _____
1 Well volume = H x CV	= _____ gal
3 Well volumes =	= _____ gal
Purge method (B = bailer, P = pump)	B / P

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	~ <u>11</u> ft
Bubbles purged from flow cell?	☒ Y / ☐ N
Is drawdown > 0.3 feet	Y / ☐ N
Was passive sampling used?	Y / ☒ N
Flowrate =	_____ mL/min
ID number from controller console	# <u>NA</u>

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
<u>Performed</u>	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>13.28</u>	<u>12.96</u>	<u>12.97</u>				
Spec. Cond (µmhos)	+/- 3%	<u>0.406</u>	<u>0.401</u>	<u>0.400</u>				
D.O. (mg/L)	+/- 10%**	<u>2.09</u>	<u>1.79</u>	<u>1.81</u>				
pH	+/- 0.1	<u>6.81</u>	<u>6.73</u>	<u>6.71</u>				
ORP (mV)	+/- 10 mV**	<u>31.0</u>	<u>27.7</u>	<u>27.9</u>				
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: _____ gallons

Sample Date: 1 / 25 / 2005

Sample Time: 11 : 40 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: lt Brown After filtration: NA

Reaction upon addition of preservatives? YES ☒ NO explain: _____

Appearance of Water: (Clear/Slightly Turbid) ☒ Turbid / Very Turbid

Well condition: Good

Analysis to be performed: VOCs, TOCs

Signature: _____

Date: 1/25/2005

1/25/05

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: Harman/Becker	KEI Project #: 10300C
Sample I.D.: <u>PT-3</u>	Well Location: See Map

Monitoring Well Data	
Well Material	(<u>PVC/SS</u>)
Inside Diameter, in.	(<u>1.25</u>) 6
Stick up or stick down height	_____ ft
Total depth of well (TD)	<u>12</u> ft
Depth to product	_____ ft
Depth to water (DTW)	<u>6.61</u> ft

Sample Types (circle all applicable)	
<u>Monitoring Well</u> Grab Composite Split Sample Duplicate (Duplicate ID: _____) MS/MSD Other _____	

Conventional sampling	
Height of water column (H = TD - DTW)	_____ ft
Conversion value (CV)*	x
1 Well volume = H x CV	= _____ gal
3 Well volumes =	= _____ gal
Purge method (B = bailer, P = pump)	B / P

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	<u>~11</u> ft
Bubbles purged from flow cell?	<u>Y</u> / N
Is drawdown > 0.3 feet	<u>Y</u> / N
Was passive sampling used?	Y / <u>N</u>
Flowrate =	_____ mL/min
ID number from controller console	# <u>NA</u>

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s)	Stability	Result	Result	Result	Result	Result	Result	Result
<u>Performed</u>	Range	(3 min)	(6 min)	(9 min)	(12 min)	(15 min)	(18 min)	(21 min)
Temperature (°C)	+/- 3%	<u>12.52</u>	<u>12.44</u>	<u>12.38</u>				
Spec. Cond (µmhos)	+/- 3%	<u>0.718</u>	<u>0.688</u>	<u>0.670</u>				
D.O. (mg/L)	+/- 10%**	<u>2.54</u>	<u>2.33</u>	<u>2.21</u>				
pH	+/- 0.1	<u>6.99</u>	<u>6.96</u>	<u>6.91</u>				
ORP (mV)	+/- 10 mV**	<u>81.9</u>	<u>78.7</u>	<u>75.7</u>				
Turbidity (NTU)	+/- 10%**							
H ₂ S (mg/L)								
Fe ²⁺ (mg/L)								

**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: _____ gallons

Sample Date: 1 / 25 / 2005

Sample Time: 12:00 (military time)

Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____

Color of water before filtration: 1 ft Brown After filtration: NA

Reaction upon addition of preservatives? YES (NO) explain: _____

Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)

Well condition: Cap missing / No metal cover (replaced)

Analysis to be performed: VOCs, TOCs

Signature: Corey Rein

Date: 1/24/2005 1/25/05



7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
Fax: 317/486-5095
Internet: <http://www.heritage-enviro.com>

**QUALITY ASSURANCE REPORT PACKAGE # 2438
FOR
KERAMIDA ENVIRONMENTAL, INC.**

**FRANK WEST
KERAMIDA ENVIRONMENTAL, INC.
330 N. COLLEGE AVENUE
INDIANAPOLIS, INDIANA 46202**

SAMPLE RANGE:

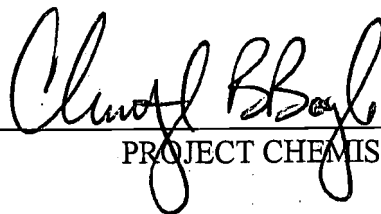
A682297 – A682302

PROJECT:

**HARMAN BECKER
NOVEMBER, 2004**

**HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 WEST MORRIS STREET
INDIANAPOLIS, INDIANA 46231
PHONE: (317) 243-8304
FAX: (317) 486-5095**

APPROVED BY: _____


PROJECT CHEMIST





330 North College Avenue
Indianapolis, Indiana 46202
(317) 685-6600 - FAX (317) 685-6610

Project No. 10300C		Project Name Harman Becker		Analyses														MATRIX SW GW WW Soil Air Waste Oil	QA/QC Level	Detection Level	Comments
Report to: Frank West		Samplers: (signature) Hunnichett																			
Client		# and Type of Containers																			
Sampled By: KERAMIDA Environmental, Inc.		2145971																			
Sample ID/Description	Date	Time	Comp	Grab	HCl	NaOH	HNO ₃	H ₂ SO ₄	Other	VOCs	TOC	TELP	VOCs								
PT-1	11/22	1239		✓				1	3	✓	✓								GW II AL82297		
PT-2	11/22	1312		✓	3			1	3	✓	✓								GW II 298		
PT-2 Dup	11/22	1312		✓	3			1	3	✓	✓								GW II 299		
PT-3	11/22	1400		✓	9			3		✓	✓								GW II MS/MSD 300		
Trip Blank	11/22	-		✓	2					✓									GW II 301		
WC-112204	11/22	1446		✓				1				✓	0513.3/1108.1						Soil III AL82302		
Relinquished by: Sign/Date/Time Bob Eyer 11/23/04 1200		Received by: Sign/Date/Time		Relinquished by: Sign/Date/Time														Received for Lab: Sign/Date/Time Frank West 11/23/04 1215			
Relinquished by: Sign/Date/Time		Received by: Sign/Date/Time		Relinquished by: Sign/Date/Time														Received for Lab: Sign/Date/Time			
Remarks:				1) No method substitution will be performed by the laboratory without KERAMIDA authorization 2) Please notify KERAMIDA immediately upon receipt, if sample integrity is in question 3) If analysis cannot be conducted within required holding times, please notify KERAMIDA immediately 4) If requested detection limits cannot be achieved, please contact KERAMIDA immediately														Sample Condition: Bottle Intact? <u>Yes</u> /No Field Filtered? <u>Yes</u> /No COC Seals Present & Intact? <u>Yes</u> /No VOC Free of Headspace? <u>Yes</u> /No VOC Preserved? <u>Yes</u> /No L.D. Temperature upon Receipt: 20.5			

Lab Project Number: 6089680

Client Project ID: TOC Samples 11/19-22/04

Lab Sample No: 607723285
Client Sample ID: A682297 PT-1

Project Sample Number: 6089680-002
Matrix: Water

Date Collected: 11/22/04 12:39
Date Received: 12/08/04 10:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
Total Organic Carbon	Method: EPA 9060							
Total Organic Carbon	7.8	mg/l	5.0	12/15/04	ACM	7440-44-0	2	

Date: 12/17/04

Page: 2 of 8

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6089680

Client Project ID: TOC Samples 11/19-22/04

Lab Sample No: 607723301
Client Sample ID: A682299 PT-2 DUP

Project Sample Number: 6089680-004
Matrix: Water

Date Collected: 11/22/04 13:12
Date Received: 12/08/04 10:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
Total Organic Carbon	Method: EPA 9060							
Total Organic Carbon	6.5	mg/l	5.0	12/15/04	ACM	7440-44-0	4	

Date: 12/17/04

Page: 4 of 8

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6089680
Client Project ID: TOC Samples 11/19-22/04

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)
MS(D) Matrix Spike (Duplicate)
DUP Sample Duplicate
ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
RPD Relative Percent Difference
[1] 9060 range was 346.5-359.5; reported result is the average of quad analysis.
[2] 9060 range was 5.9-11.35; reported result is the average of quad analysis.

Date: 12/17/04

Page: 8 of 8

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
[1]	9060 range was 346.5-359.5; reported result is the average of quad analysis.
[2]	9060 range was 5.9-11.35; reported result is the average of quad analysis.

REPORT OF LABORATORY ANALYSIS

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1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	1.5	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	2.5	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	13	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	2.2	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L



Sample Comments

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 6 C.

Sample chain of custody number 1 OF 1.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QAS

Approved by: PAULINE SPENCE 05-JAN-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	14	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	4.7	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	32	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	2.4	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L



Sample Comments

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 6 C.
Sample chain of custody number 1 OF 1.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QAS

Approved by: PAULINE SPENCE 05-JAN-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLORO BENZENE (O-DICHLORO BENZENE)	BDL	1.0	ug/L
1,3-DICHLORO BENZENE (M-DICHLORO BENZENE)	BDL	1.0	ug/L
1,4-DICHLORO BENZENE (P-DICHLORO BENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	13	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	4.7	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	31	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLORO BENZENE	BDL	1.0	ug/L
1,2,4-TRICHLORO BENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	2.4	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A682299 PT-2 DUP

Sample Comments

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 6 C.

Sample chain of custody number 1 OF 1.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QAS

Approved by: PAULINE SPENCE 05-JAN-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE (O-DICHLOROETHANE)	BDL	1.0	ug/L
1,3-DICHLOROETHANE (M-DICHLOROETHANE)	BDL	1.0	ug/L
1,4-DICHLOROETHANE (P-DICHLOROETHANE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	21	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	3.1	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	19	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	1.0	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROETHANE	BDL	1.0	ug/L
1,2,4-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	8.6	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L



Average of quad analysis.

Sample Comments

- See Note for Parameter

BDL Below Detection Limit

E Estimated. Exceeds calibration range

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 6 C.

Sample chain of custody number 1 OF 1.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED

9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QAS

Approved by: PAULINE SPENCE 05-JAN-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	BDL	1.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	BDL	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L



CERTIFICATE OF ANALYSIS

Service Location HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	Received 23-NOV-04	Project	Lab ID A682302
	Completed 08-DEC-04	PO Number 10300C	
	Printed 06-JAN-05	Sampled 22-NOV-04 14:46	

Report To FRANK WEST KERAMIDA ENVIRONMENTAL 330 NORTH COLLEGE AVE. INDIANAPOLIS, IN 46202	Bill To ACCOUNTS PAYABLE KERAMIDA ENVIRONMENTAL, INC. 330 N. COLLEGE AVENUE INDIANAPOLIS, IN 46202
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Sample Description CLIENT ID: WC-112204 MATRIX TYPE: SLUDGE, SOIL, SOLID OR SEDIMENT SUBMITTER CODE: 1618 PROJECT NAME: HARMAN BECKER PROJECT NUMBER: 10300C
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ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311				
Analyst: J. MINNIEAR, II		Analysis Date: 01-DEC-04 04:34 Instrument: PREP		Test: P108.1.0
Parameter	Result	Det. Limit	Units	
TOTAL SAMPLE WEIGHT	20		Grams	
EXTRACTED SAMPLE	20		Grams	

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8260B			NELAC:Y	
Analyst: H. WILLIAMS		Analysis Date: 03-DEC-04 07:04 Instrument: GC/MS VOA		Test: O513.3.0
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0				
Parameter	Result	Det. Limit	Units	
BENZENE	BDL	50	ug/L	
CARBON TETRACHLORIDE	BDL	50	ug/L	
CHLOROBENZENE	BDL	50	ug/L	
CHLOROFORM	BDL	50	ug/L	
1,2-DICHLOROETHANE	BDL	50	ug/L	
1,1-DICHLOROETHYLENE	BDL	50	ug/L	
METHYL ETHYL KETONE	BDL	100	ug/L	
TETRACHLOROETHYLENE	81	50	ug/L	
TRICHLOROETHYLENE	BDL	50	ug/L	
VINYL CHLORIDE	BDL	100	ug/L	
...				
SURROGATE RECOVERY				

DICHLOROETHANE-D4	113		% Rec	
TOLUENE-D8	94		% Rec	



CERTIFICATE OF ANALYSIS

Service Location HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	Received 23-NOV-04	Project	Lab ID A682302
	Completed 08-DEC-04	PO Number 10300C	
	Printed 06-JAN-05	Sampled 22-NOV-04 14:46	

Report To STAN HUNNICUTT KERAMIDA ENVIRONMENTAL 330 NORTH COLLEGE AVENUE INDIANAPOLIS, IN 46202	Bill To ACCOUNTS PAYABLE KERAMIDA ENVIRONMENTAL, INC. 330 N. COLLEGE AVENUE INDIANAPOLIS, IN 46202
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Sample Description CLIENT ID: WC-112204 MATRIX TYPE: SLUDGE, SOIL, SOLID OR SEDIMENT SUBMITTER CODE: 1618 PROJECT NAME: HARMAN BECKER PROJECT NUMBER: 10300C
--

ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311			
Analyst: J. MINNIEAR, II		Analysis Date: 01-DEC-04 04:34 Instrument: PREP	
		Test: P108.1.0	
Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	20		Grams
EXTRACTED SAMPLE	20		Grams

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8260B			NELAC-Y
Analyst: H. WILLIAMS		Analysis Date: 03-DEC-04 07:04 Instrument: GC/MS-VOA	
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0		Test: 0513.3.0	
Parameter	Result	Det. Limit	Units
BENZENE	BDL	50	ug/L
CARBON TETRACHLORIDE	BDL	50	ug/L
CHLOROBENZENE	BDL	50	ug/L
CHLOROFORM	BDL	50	ug/L
1,2-DICHLOROETHANE	BDL	50	ug/L
1,1-DICHLOROETHYLENE	BDL	50	ug/L
METHYL ETHYL KETONE	BDL	100	ug/L
TETRACHLOROETHYLENE	81	50	ug/L
TRICHLOROETHYLENE	BDL	50	ug/L
VINYL CHLORIDE	BDL	100	ug/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	118		% Rec
TOLUENE-D8	94		% Rec

QUALITY ASSURANCE REPORT

Service Location Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304				Report Date : 06-Jan-05
Submitter FRANK WEST KERAMIDA ENVIRONMENTAL 330 NORTH COLLEGE AVE. INDIANAPOLIS, IN 46202				
Client ID	Lab Sample ID	Date/Time Sampled	Date Received	Date Complete
PT-1.....	A682297	22-Nov-04 12:39	23-Nov-04	04-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
PT-2.....	A682298	22-Nov-04 13:12	23-Nov-04	04-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
PT-2 DUP.....	A682299	22-Nov-04 13:12	23-Nov-04	04-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
PT-3.....	A682300	22-Nov-04 14:00	23-Nov-04	04-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
TRIP BLANK.....	A682301	22-Nov-04	23-Nov-04	08-Dec-04
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
WC-112204.....	A682302	22-Nov-04 14:46	23-Nov-04	08-Dec-04
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R479919		Analyst: R SHAMP		Run Date: 02-Dec-04		Instrument: GC/MS VOA		(cont.)		
Analytical		Reviewer: L SMITH		Review Date: 07-Dec-04						
QCType	Lab ID	Source	Parameter	True/Samp	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1673892		ETHYL METHACRYLATE	1.1120						7.3
CAL01	Q1673892		2-HEXANONE	0.8723						7.2
CAL01	Q1673892		HEXACHLOROBUTADIENE	0.4923						14.8
CAL01	Q1673892		IODOMETHANE	0.6145						8.3
CAL01	Q1673892		ISOPROPYLBENZENE (CUMENE)	4.2967						6.4
CAL01	Q1673892		4-ISOPROPYLTOLUENE (P-	4.2414						7.7
CAL01	Q1673892		DICHLOROMETHANE (METHYLENE	0.3351						9.4
CAL01	Q1673892		METHYL ETHYL KETONE	0.0273						5.8
CAL01	Q1673892		METHYL-T-BUTYL ETHER (MTBE)	0.6791						5.3
CAL01	Q1673892		METHYL ISOBUTYL KETONE	0.3974						9.5
CAL01	Q1673892		NAPHTHALENE	3.9389						4.1
CAL01	Q1673892		N-PROPYLBENZENE	0.5376						5.5
CAL01	Q1673892		STYRENE	2.7796						6.6
CAL01	Q1673892		1,1,1,2-TETRACHLOROETHANE	1.1227						5.1
CAL01	Q1673892		1,1,2,2-TETRACHLOROETHANE	0.9386						10.9
CAL01	Q1673892		TETRACHLOROETHENE	1.4043						8.6
CAL01	Q1673892		TOLUENE	1.1626						8.9
CAL01	Q1673892		1,2,3-TRICHLOROBENZENE	1.3362						5.6
CAL01	Q1673892		1,2,4-TRICHLOROBENZENE	1.5076						6.3
CAL01	Q1673892		1,1,1-TRICHLOROETHANE	0.4865						4
CAL01	Q1673892		1,1,2-TRICHLOROETHANE	0.2497						5.7
CAL01	Q1673892		TRICHLOROETHENE	0.4397						2.3
CAL01	Q1673892		TRICHLOROFLUOROMETHANE	0.4623						12.8
CAL01	Q1673892		1,2,3-TRICHLOROPROPANE			QDR				1.000
CAL01	Q1673892		1,2,4-TRIMETHYLBENZENE	4.0664						5.7
CAL01	Q1673892		1,3,5-TRIMETHYLBENZENE	3.8329						7.6
CAL01	Q1673892		VINYL ACETATE	1.3357						7.7
CAL01	Q1673892		VINYL CHLORIDE	0.3732						4.4
CAL01	Q1673892		DICHLOROETHANE-D4	0.3149						4.2
CAL01	Q1673892		TOLUENE-D8	0.9130						9.4
CAL01	Q1673892		4-BROMOFLUOROBENZENE	0.9995						5.1
CAL01	Q1673892		DIBROMOFLUOROMETHANE	0.2697						2.7
CCVD	Q1681396		Analysis Date/Time: 02-Dec-04 05:33							
CCVD	Q1681396		ACETONE (2-PROPANONE)	0.1482			0.1771			19.5
CCVD	Q1681396		ACROLEIN	0.0082			0.0153			86.6
CCVD	Q1681396		ACRYLONITRILE	0.1088			0.1053			3.2
CCVD	Q1681396		BENZENE	1.1176			1.3227			18.4
CCVD	Q1681396		BROMOBENZENE	1.8800			2.0232			7.6
CCVD	Q1681396		BROMOCHLOROMETHANE	0.2059			0.2283			10.9
CCVD	Q1681396		BROMODICHLOROMETHANE	0.3633			0.4093			12.7
CCVD	Q1681396		BROMOFORM	0.5462			0.4992			8.6
CCVD	Q1681396		BROMOMETHANE	0.2718			0.2738			0.7
CCVD	Q1681396		N-BUTYLBENZENE	1.6649			1.6353			1.8
CCVD	Q1681396		SEC-BUTYLBENZENE	4.9328			4.7176			4.4
CCVD	Q1681396		TERT-BUTYLBENZENE	2.1596			1.9598			9.3
CCVD	Q1681396		CARBON DISULFIDE	0.8220			0.9946			21
CCVD	Q1681396		CARBON TETRACHLORIDE	0.4582			0.4726			3.1
CCVD	Q1681396		CHLOROBENZENE	2.9136			2.8792			1.2
CCVD	Q1681396		DIBROMOCHLOROMETHANE	0.9991			0.8797			12
CCVD	Q1681396		CHLOROETHANE	0.2854			0.2713			4.9
CCVD	Q1681396		CHLOROFORM	0.5107			0.5878			15.1
CCVD	Q1681396		CHLOROMETHANE	0.5468			0.4907			10.3
CCVD	Q1681396		2-CHLOROTOLUENE (O-	1.3632			1.3160			3.5

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R479919	Analyst: R SHAMP		Run Date: 02-Dec-04		Instrument: GC/MS VOA			(cont.)		
Analytical	Reviewer: L SMITH		Review Date: 07-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
BLA01	Q1681397		Analysis Date/Time: 02-Dec-04 06:01							
BLA01	Q1681397		ACETONE (2-PROPANONE)			BDL	3.7	ug/L		
BLA01	Q1681397		ACROLEIN			BDL	32	ug/L		
BLA01	Q1681397		ACRYLONITRILE			BDL	4.9	ug/L		
BLA01	Q1681397		BENZENE			BDL	0.34	ug/L		
BLA01	Q1681397		BROMOBENZENE			BDL	0.24	ug/L		
BLA01	Q1681397		BROMOCHLOROMETHANE			BDL	0.56	ug/L		
BLA01	Q1681397		BROMODICHLOROMETHANE			BDL	0.24	ug/L		
BLA01	Q1681397		BROMOFORM			BDL	0.39	ug/L		
BLA01	Q1681397		BROMOMETHANE			BDL	0.98	ug/L		
BLA01	Q1681397		N-BUTYLBENZENE			BDL	0.71	ug/L		
BLA01	Q1681397		SEC-BUTYLBENZENE			BDL	0.45	ug/L		
BLA01	Q1681397		TERT-BUTYLBENZENE			BDL	0.37	ug/L		
BLA01	Q1681397		CARBON DISULFIDE			BDL	0.32	ug/L		
BLA01	Q1681397		CARBON TETRACHLORIDE			BDL	0.39	ug/L		
BLA01	Q1681397		CHLOROBENZENE			BDL	0.35	ug/L		
BLA01	Q1681397		DIBROMOCHLOROMETHANE			BDL	0.37	ug/L		
BLA01	Q1681397		CHLOROETHANE			BDL	0.38	ug/L		
BLA01	Q1681397		CHLOROFORM			BDL	0.4	ug/L		
BLA01	Q1681397		CHLOROMETHANE			BDL	0.37	ug/L		
BLA01	Q1681397		2-CHLOROTOLUENE (O-			BDL	0.28	ug/L		
BLA01	Q1681397		4-CHLOROTOLUENE (P-			BDL	0.28	ug/L		
BLA01	Q1681397		2-CHLOROETHYLVINYLETHER			BDL	0.26	ug/L		
BLA01	Q1681397		1,2-DIBROMO-3-CHLOROPROPANE			BDL	0.87	ug/L		
BLA01	Q1681397		1,2-DIBROMOETHANE (EDB)			BDL	0.34	ug/L		
BLA01	Q1681397		DIBROMOMETHANE			BDL	0.49	ug/L		
BLA01	Q1681397		1,2-DICHLOROETHANE (O-			BDL	0.32	ug/L		
BLA01	Q1681397		1,3-DICHLOROETHANE (M-			BDL	0.3	ug/L		
BLA01	Q1681397		1,4-DICHLOROETHANE (P-			BDL	0.28	ug/L		
BLA01	Q1681397		DICHLORODIFLUOROMETHANE			BDL	0.32	ug/L		
BLA01	Q1681397		TRANS-1,4-DICHLORO-2-BUTENE			BDL	1.8	ug/L		
BLA01	Q1681397		1,1-DICHLOROETHANE			BDL	0.35	ug/L		
BLA01	Q1681397		1,2-DICHLOROETHANE			BDL	0.31	ug/L		
BLA01	Q1681397		1,1-DICHLOROETHENE			BDL	0.36	ug/L		
BLA01	Q1681397		CIS-1,2-DICHLOROETHENE			BDL	0.42	ug/L		
BLA01	Q1681397		TRANS-1,2-DICHLOROETHENE			BDL	0.36	ug/L		
BLA01	Q1681397		1,2-DICHLOROPROPANE			BDL	0.32	ug/L		
BLA01	Q1681397		1,3-DICHLOROPROPANE			BDL	0.32	ug/L		
BLA01	Q1681397		2,2-DICHLOROPROPANE			BDL	0.49	ug/L		
BLA01	Q1681397		1,1-DICHLOROPROPENE			BDL	0.52	ug/L		
BLA01	Q1681397		CIS-1,3-DICHLOROPROPENE			BDL	0.23	ug/L		
BLA01	Q1681397		TRANS-1,3-DICHLOROPROPENE			BDL	0.31	ug/L		
BLA01	Q1681397		ETHYL BENZENE			BDL	0.36	ug/L		
BLA01	Q1681397		ETHYL METHACRYLATE			BDL	0.3	ug/L		
BLA01	Q1681397		2-HEXANONE			BDL	2.2	ug/L		
BLA01	Q1681397		HEXACHLOROBTADIENE			BDL	0.91	ug/L		
BLA01	Q1681397		IODOMETHANE			BDL	0.67	ug/L		
BLA01	Q1681397		ISOPROPYLBENZENE (CUMENE)			BDL	0.29	ug/L		
BLA01	Q1681397		4-ISOPROPYLTOLUENE (P-			BDL	0.5	ug/L		
BLA01	Q1681397		DICHLOROMETHANE (METHYLENE			BDL	0.93	ug/L		
BLA01	Q1681397		METHYL ETHYL KETONE			BDL	4	ug/L		
BLA01	Q1681397		METHYL-T-BUTYL ETHER (MTBE)			BDL	0.31	ug/L		
BLA01	Q1681397		METHYL ISOBUTYL KETONE			BDL	1.3	ug/L		

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R479919	Analyst: R SHAMP		Run Date: 02-Dec-04		Instrument: GC/MS VOA			(cont.)		
Analytical	Reviewer: L SMITH		Review Date: 07-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
SPI01	Q1681399	A682300	SEC-BUTYLBENZENE	0	10		10.9	ug/L	109	
SPI01	Q1681399	A682300	TERT-BUTYLBENZENE	0	10		10.7	ug/L	107	
SPI01	Q1681399	A682300	CARBON DISULFIDE	0	10	1	14.8	ug/L	148	
SPI01	Q1681399	A682300	CARBON TETRACHLORIDE	0	10		11.3	ug/L	113	
SPI01	Q1681399	A682300	CHLOROBENZENE	0	10		10.7	ug/L	107	
SPI01	Q1681399	A682300	DIBROMOCHLOROMETHANE	0	10		10.8	ug/L	108	
SPI01	Q1681399	A682300	CHLOROETHANE	0	10		11.1	ug/L	111	
SPI01	Q1681399	A682300	CHLOROFORM	0	10		12.1	ug/L	121	
SPI01	Q1681399	A682300	CHLOROMETHANE	0	10		10.2	ug/L	102	
SPI01	Q1681399	A682300	2-CHLOROTOLUENE (O-	0	10		11.4	ug/L	114	
SPI01	Q1681399	A682300	4-CHLOROTOLUENE (P-	0	10		11.5	ug/L	115	
SPI01	Q1681399	A682300	2-CHLOROETHYLVINYLETHER	0	10	1	0	ug/L	0	
SPI01	Q1681399	A682300	1,2-DIBROMO-3-CHLOROPROPANE	0	10		11.1	ug/L	111	
SPI01	Q1681399	A682300	1,2-DIBROMOETHANE (EDB)	0	10		11.9	ug/L	119	
SPI01	Q1681399	A682300	DIBROMOMETHANE	0	10		11.6	ug/L	116	
SPI01	Q1681399	A682300	1,2-DICHLOROBENZENE (O-	0	10		11.1	ug/L	111	
SPI01	Q1681399	A682300	1,3-DICHLOROBENZENE (M-	0	10		11.5	ug/L	115	
SPI01	Q1681399	A682300	1,4-DICHLOROBENZENE (P-	0	10		11.4	ug/L	114	
SPI01	Q1681399	A682300	DICHLORODIFLUOROMETHANE	0	10		10.2	ug/L	102	
SPI01	Q1681399	A682300	TRANS-1,4-DICHLORO-2-BUTENE	0	20	1	29.9	ug/L	149.5	
SPI01	Q1681399	A682300	1,1-DICHLOROETHANE	21.1	10		34.9	ug/L	138	
SPI01	Q1681399	A682300	1,2-DICHLOROETHANE	0	10		11.1	ug/L	111	
SPI01	Q1681399	A682300	1,1-DICHLOROETHENE	3.05	10		14.2	ug/L	111.5	
SPI01	Q1681399	A682300	CIS-1,2-DICHLOROETHENE	1690	10	NQR		ug/L		
SPI01	Q1681399	A682300	TRANS-1,2-DICHLOROETHENE	19.3	10	1	35.3	ug/L	160	
SPI01	Q1681399	A682300	1,2-DICHLOROPROPANE	0	10		11.3	ug/L	113	
SPI01	Q1681399	A682300	1,3-DICHLOROPROPANE	0	10		9.2	ug/L	92	
SPI01	Q1681399	A682300	2,2-DICHLOROPROPANE	0	10		8.17	ug/L	81.7	
SPI01	Q1681399	A682300	1,1-DICHLOROPROPENE	0	10		11	ug/L	110	
SPI01	Q1681399	A682300	CIS-1,3-DICHLOROPROPENE	0	10		11.1	ug/L	111	
SPI01	Q1681399	A682300	TRANS-1,3-DICHLOROPROPENE	0	10		10.6	ug/L	106	
SPI01	Q1681399	A682300	ETHYL BENZENE	0	10		10.7	ug/L	107	
SPI01	Q1681399	A682300	2-HEXANONE	0	50		59.3	ug/L	118.6	
SPI01	Q1681399	A682300	HEXACHLOROBUTADIENE	0	10		8.63	ug/L	86.3	
SPI01	Q1681399	A682300	IODOMETHANE	0	10		13.8	ug/L	138	
SPI01	Q1681399	A682300	ISOPROPYLBENZENE (CUMENE)	0	10		10.1	ug/L	101	
SPI01	Q1681399	A682300	4-ISOPROPYLTOLUENE (P-	0	10		10.3	ug/L	103	
SPI01	Q1681399	A682300	DICHLOROMETHANE (METHYLENE	0	10		11.9	ug/L	119	
SPI01	Q1681399	A682300	METHYL ETHYL KETONE	0	50	1	254	ug/L	508	
SPI01	Q1681399	A682300	METHYL-T-BUTYL ETHER (MTBE)	0	10		15.6	ug/L	156	
SPI01	Q1681399	A682300	METHYL ISOBUTYL KETONE	0	50		62.6	ug/L	125.2	
SPI01	Q1681399	A682300	NAPHTHALENE	1.03	10		12.6	ug/L	115.7	
SPI01	Q1681399	A682300	N-PROPYLBENZENE	0	10		12.2	ug/L	122	
SPI01	Q1681399	A682300	STYRENE	0	10		10.4	ug/L	104	
SPI01	Q1681399	A682300	1,1,1,2-TETRACHLOROETHANE	0	10		10.5	ug/L	105	
SPI01	Q1681399	A682300	1,1,2,2-TETRACHLOROETHANE	0	10		13.6	ug/L	136	
SPI01	Q1681399	A682300	TETRACHLOROETHENE	831	10	NQR		ug/L		
SPI01	Q1681399	A682300	TOLUENE	0	10		12.5	ug/L	125	
SPI01	Q1681399	A682300	1,2,3-TRICHLOROBENZENE	0	10		9.74	ug/L	97.4	
SPI01	Q1681399	A682300	1,2,4-TRICHLOROBENZENE	0	10		9.08	ug/L	90.8	
SPI01	Q1681399	A682300	1,1,1-TRICHLOROETHANE	8.62	10		21	ug/L	123.8	
SPI01	Q1681399	A682300	1,1,2-TRICHLOROETHANE	0	10		12.6	ug/L	126	
SPI01	Q1681399	A682300	TRICHLOROETHENE	112	10	NQR		ug/L		

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R479919		Analyst: R SHAMP		Run Date: 02-Dec-04		Instrument: GC/MS VOA		(cont.)		
Analytical		Reviewer: L SMITH		Review Date: 07-Dec-04						
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
DPS01	Q1681400	A682300	4-ISOPROPYLTOLUENE (P-	0	10		8.46	ug/L	84.6	19.6
DPS01	Q1681400	A682300	DICHLOROMETHANE (METHYLENE	0	10		9.36	ug/L	93.6	23.9
DPS01	Q1681400	A682300	METHYL ETHYL KETONE	0	50	1	199	ug/L	398	24.3
DPS01	Q1681400	A682300	METHYL-T-BUTYL ETHER (MTBE)	0	10		12	ug/L	119.8	26.3
DPS01	Q1681400	A682300	METHYL ISOBUTYL KETONE	0	50		55.7	ug/L	111.4	11.7
DPS01	Q1681400	A682300	NAPHTHALENE	1.03	10		9.94	ug/L	89.1	26
DPS01	Q1681400	A682300	N-PROPYLBENZENE	0	10		9.63	ug/L	96.3	23.5
DPS01	Q1681400	A682300	STYRENE	0	10		9.72	ug/L	97.2	6.8
DPS01	Q1681400	A682300	1,1,1,2-TETRACHLOROETHANE	0	10		9.31	ug/L	93.1	12
DPS01	Q1681400	A682300	1,1,2,2-TETRACHLOROETHANE	0	10		9.56	ug/L	95.6	34.9
DPS01	Q1681400	A682300	TETRACHLOROETHENE	831	10	NQR		ug/L		
DPS01	Q1681400	A682300	TOLUENE	0	10		12.1	ug/L	120.8	3.4
DPS01	Q1681400	A682300	1,2,3-TRICHLOROBENZENE	0	10		7.99	ug/L	79.9	19.7
DPS01	Q1681400	A682300	1,2,4-TRICHLOROBENZENE	0	10		7.49	ug/L	74.9	19.2
DPS01	Q1681400	A682300	1,1,1-TRICHLOROETHANE	8.62	10		17.4	ug/L	88.2	33.6
DPS01	Q1681400	A682300	1,1,2-TRICHLOROETHANE	0	10		11.6	ug/L	115.7	8.5
DPS01	Q1681400	A682300	TRICHLOROETHENE	112	10	NQR		ug/L		
DPS01	Q1681400	A682300	TRICHLOROFLUOROMETHANE	0	10		8.3	ug/L	83	25.3
DPS01	Q1681400	A682300	1,2,3-TRICHLOROPROPANE	0	10		8.59	ug/L	85.9	33.1
DPS01	Q1681400	A682300	1,2,4-TRIMETHYLBENZENE	0	10		9.05	ug/L	90.5	23.8
DPS01	Q1681400	A682300	1,3,5-TRIMETHYLBENZENE	0	10		9.05	ug/L	90.5	21.2
DPS01	Q1681400	A682300	VINYL ACETATE	0	10		11.2	ug/L	112.2	20.6
DPS01	Q1681400	A682300	VINYL CHLORIDE	111	10	NQR		ug/L		

Q1673892	Value reported for analytes calibrated by linear (LIN) or									
Q1673892	quadratic (QDR) equations is r2 (Coef. of Determination).									
Q1681397	Reporting limits lowered to the MDL per project specific requirement.									
Q1681399	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery									
Q1681399	possible. Unacidified sample not available.									
Q1681400	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery									
Q1681400	possible. Unacidified sample not available.									

R479977	Analyst: R SHAMP		Run Date: 03-Dec-04		Instrument: GC/MS VOA					
Analytical	Reviewer: H WILLIAMS		Review Date: 09-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1673892		Analysis Date/Time: 15-Nov-04 09:17							
CAL01	Q1673892		ACETONE (2-PROPANONE)	0.1482						5.4
CAL01	Q1673892		ACROLEIN	0.0082						11.3
CAL01	Q1673892		ACRYLONITRILE	0.1088						7.8
CAL01	Q1673892		BENZENE	1.1176						2.8
CAL01	Q1673892		BROMOBENZENE	1.6800						7.1
CAL01	Q1673892		BROMOCHLOROMETHANE	0.2059						3.2
CAL01	Q1673892		BROMODICHLOROMETHANE	0.3633						2.8
CAL01	Q1673892		BROMOFORM	0.5462						7.1
CAL01	Q1673892		BROMOMETHANE	0.2718						7.5
CAL01	Q1673892		N-BUTYLBENZENE	1.6649						9.4
CAL01	Q1673892		SEC-BUTYLBENZENE	4.9328						6.2
CAL01	Q1673892		TERT-BUTYLBENZENE	2.1596						4.7
CAL01	Q1673892		CARBON DISULFIDE	0.8220						6.2
CAL01	Q1673892		CARBON TETRACHLORIDE	0.4582						8

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R479977	Analyst: R SHAMP		Run Date: 03-Dec-04		Instrument: GC/MS VOA		(cont.)			
Analytical	Reviewer: H WILLIAMS		Review Date: 09-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1673892		1,3,5-TRIMETHYLBENZENE	3.8329						7.6
CAL01	Q1673892		VINYL ACETATE	1.3357						7.7
CAL01	Q1673892		VINYL CHLORIDE	0.3732						4.4
CAL01	Q1673892		DICHLOROETHANE-D4	0.3149						4.2
CAL01	Q1673892		TOLUENE-D8	0.9130						9.4
CAL01	Q1673892		4-BROMOFLUOROBENZENE	0.9995						5.1
CAL01	Q1673892		DIBROMOFLUOROMETHANE	0.2697						2.7
CCVD	Q1681809		Analysis Date/Time: 03-Dec-04 05:46							
CCVD	Q1681809		ACETONE (2-PROPANONE)	0.1482			0.1771			19.5
CCVD	Q1681809		ACROLEIN	0.0082			0.0116			41.5
CCVD	Q1681809		ACRYLONITRILE	0.1088			0.0957			12
CCVD	Q1681809		BENZENE	1.1176			1.1697			4.7
CCVD	Q1681809		BROMOBENZENE	1.8800			1.8234			3
CCVD	Q1681809		BROMOCHLOROMETHANE	0.2059			0.2199			6.8
CCVD	Q1681809		BROMODICHLOROMETHANE	0.3633			0.3705			2
CCVD	Q1681809		BROMOFORM	0.5462			0.5242			4
CCVD	Q1681809		BROMOMETHANE	0.2718			0.2755			1.4
CCVD	Q1681809		N-BUTYLBENZENE	1.6649			1.7206			3.3
CCVD	Q1681809		SEC-BUTYLBENZENE	4.9328			4.1377			16.1
CCVD	Q1681809		TERT-BUTYLBENZENE	2.1596			1.8301			15.3
CCVD	Q1681809		CARBON DISULFIDE	0.8220			0.9845			19.8
CCVD	Q1681809		CARBON TETRACHLORIDE	0.4582			0.4698			2.5
CCVD	Q1681809		CHLOROBENZENE	2.9136			2.9935			2.7
CCVD	Q1681809		DIBROMOCHLOROMETHANE	0.9991			0.9559			4.3
CCVD	Q1681809		CHLOROETHANE	0.2854			0.2836			0.6
CCVD	Q1681809		CHLOROFORM	0.5107			0.5482			7.3
CCVD	Q1681809		CHLOROMETHANE	0.5468			0.4942			9.6
CCVD	Q1681809		2-CHLOROTOLUENE (O-	1.3632			1.2564			7.8
CCVD	Q1681809		4-CHLOROTOLUENE (P-	1.3938			1.2417			10.9
CCVD	Q1681809		2-CHLOROETHYLVINYLETHER	0.1675			0.2022			20.7
CCVD	Q1681809		1,2-DIBROMO-3-CHLOROPROPANE	0.2549			0.2075			18.6
CCVD	Q1681809		1,2-DIBROMOETHANE (EDB)	0.2802			0.3028			8.1
CCVD	Q1681809		DIBROMOMETHANE	0.1880			0.2027			7.8
CCVD	Q1681809		1,2-DICHLOROBENZENE (O-	2.5596			2.5249			1.4
CCVD	Q1681809		1,3-DICHLOROBENZENE (M-	2.5802			2.2536			12.7
CCVD	Q1681809		1,4-DICHLOROBENZENE (P-	2.6552			2.6133			1.6
CCVD	Q1681809		DICHLORODIFLUOROMETHANE	0.2840			0.2448			13.8
CCVD	Q1681809		TRANS-1,4-DICHLORO-2-BUTENE	0.3390			0.4233			24.9
CCVD	Q1681809		1,1-DICHLOROETHANE	0.6144			0.6484			5.5
CCVD	Q1681809		1,2-DICHLOROETHANE	0.5082			0.5045			0.7
CCVD	Q1681809		1,1-DICHLOROETHENE	0.3270			0.3021			7.6
CCVD	Q1681809		CIS-1,2-DICHLOROETHENE	0.3357			0.4500			34
CCVD	Q1681809		TRANS-1,2-DICHLOROETHENE	0.3184			0.3274			2.8
CCVD	Q1681809		1,2-DICHLOROPROPANE	0.3121			0.3469			11.2
CCVD	Q1681809		1,3-DICHLOROPROPANE	1.2438			1.2774			2.7
CCVD	Q1681809		1,1-DICHLOROPROPENE	0.1574			0.1667			5.9
CCVD	Q1681809		CIS-1,3-DICHLOROPROPENE	0.3682			0.4276			16.1
CCVD	Q1681809		TRANS-1,3-DICHLOROPROPENE	10		LIN	10.558			5.6
CCVD	Q1681809		ETHYL BENZENE	1.4750			1.5636			6
CCVD	Q1681809		ETHYL METHACRYLATE	1.1120			0.9275			16.6
CCVD	Q1681809		2-HEXANONE	0.8723			0.9335			7
CCVD	Q1681809		HEXACHLOROBUTADIENE	0.4923			0.4675			5
CCVD	Q1681809		IODOMETHANE	0.6145			0.7401			20.4

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-E260B						O510.5			(cont.)		
R479977		Analyst: R SHAMP		Run Date: 03-Dec-04		Instrument: GC/MS VOA			(cont.)		
Analytical		Reviewer: H WILLIAMS		Review Date: 09-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
BLA01	Q1681810		1,2-DIBROMOETHANE (EDB)			BDL	0.34	ug/L			
BLA01	Q1681810		DIBROMOMETHANE			BDL	0.49	ug/L			
BLA01	Q1681810		1,2-DICHLOROBENZENE (O-			BDL	0.32	ug/L			
BLA01	Q1681810		1,3-DICHLOROBENZENE (M-			BDL	0.3	ug/L			
BLA01	Q1681810		1,4-DICHLOROBENZENE (P-			BDL	0.28	ug/L			
BLA01	Q1681810		DICHLORODIFLUOROMETHANE			BDL	0.32	ug/L			
BLA01	Q1681810		TRANS-1,4-DICHLORO-2-BUTENE			BDL	1.8	ug/L			
BLA01	Q1681810		1,1-DICHLOROETHANE			BDL	0.35	ug/L			
BLA01	Q1681810		1,2-DICHLOROETHANE			BDL	0.31	ug/L			
BLA01	Q1681810		1,1-DICHLOROETHENE			BDL	0.36	ug/L			
BLA01	Q1681810		CIS-1,2-DICHLOROETHENE			BDL	0.42	ug/L			
BLA01	Q1681810		TRANS-1,2-DICHLOROETHENE			BDL	0.36	ug/L			
BLA01	Q1681810		1,2-DICHLOROPROPANE			BDL	0.32	ug/L			
BLA01	Q1681810		1,3-DICHLOROPROPANE			BDL	0.32	ug/L			
BLA01	Q1681810		2,2-DICHLOROPROPANE			BDL	0.49	ug/L			
BLA01	Q1681810		1,1-DICHLOROPROPENE			BDL	0.52	ug/L			
BLA01	Q1681810		CIS-1,3-DICHLOROPROPENE			BDL	0.23	ug/L			
BLA01	Q1681810		TRANS-1,3-DICHLOROPROPENE			BDL	0.31	ug/L			
BLA01	Q1681810		ETHYL BENZENE			BDL	0.36	ug/L			
BLA01	Q1681810		ETHYL METHACRYLATE			BDL	0.3	ug/L			
BLA01	Q1681810		2-HEXANONE			BDL	2.2	ug/L			
BLA01	Q1681810		HEXACHLOROBUTADIENE			BDL	0.91	ug/L			
BLA01	Q1681810		IODOMETHANE			BDL	0.67	ug/L			
BLA01	Q1681810		ISOPROPYLBENZENE (CUMENE)			BDL	0.29	ug/L			
BLA01	Q1681810		4-ISOPROPYLTOLUENE (P-			BDL	0.5	ug/L			
BLA01	Q1681810		DICHLOROMETHANE (METHYLENE			BDL	0.93	ug/L			
BLA01	Q1681810		METHYL ETHYL KETONE			BDL	4	ug/L			
BLA01	Q1681810		METHYL-T-BUTYL ETHER (MTBE)			BDL	0.31	ug/L			
BLA01	Q1681810		METHYL ISOBUTYL KETONE			BDL	1.3	ug/L			
BLA01	Q1681810		NAPHTHALENE			J	0.55	ug/L			
BLA01	Q1681810		N-PROPYLBENZENE			BDL	0.43	ug/L			
BLA01	Q1681810		STYRENE			BDL	0.27	ug/L			
BLA01	Q1681810		1,1,1,2-TETRACHLOROETHANE			BDL	0.29	ug/L			
BLA01	Q1681810		1,1,2,2-TETRACHLOROETHANE			BDL	0.46	ug/L			
BLA01	Q1681810		TETRACHLOROETHENE			J	0.74	ug/L			
BLA01	Q1681810		TOLUENE			BDL	0.37	ug/L			
BLA01	Q1681810		1,2,3-TRICHLOROBENZENE			BDL	0.95	ug/L			
BLA01	Q1681810		1,2,4-TRICHLOROBENZENE			BDL	0.6	ug/L			
BLA01	Q1681810		1,1,1-TRICHLOROETHANE			BDL	0.42	ug/L			
BLA01	Q1681810		1,1,2-TRICHLOROETHANE			BDL	0.44	ug/L			
BLA01	Q1681810		TRICHLOROETHENE			BDL	0.37	ug/L			
BLA01	Q1681810		CIS-1,2-DICHLOROETHENE			BDL	0.42	ug/L			
BLA01	Q1681810		TRICHLOROFLUOROMETHANE			BDL	0.25	ug/L			
BLA01	Q1681810		1,2,3-TRICHLOROPROPANE			BDL	0.76	ug/L			
BLA01	Q1681810		1,2,4-TRIMETHYLBENZENE			BDL	0.47	ug/L			
BLA01	Q1681810		1,3,5-TRIMETHYLBENZENE			BDL	0.39	ug/L			
BLA01	Q1681810		VINYL ACETATE			BDL	0.55	ug/L			
BLA01	Q1681810		VINYL CHLORIDE			BDL	0.48	ug/L			
BLA01	Q1681810		DICHLOROETHANE-D4							101	
BLA01	Q1681810		TOLUENE-D8							102	
BLA01	Q1681810		4-BROMOFLUOROBENZENE							94	
BLA01	Q1681810		DIBROMOFLUOROMETHANE							97	
LCS01	Q1681811		Analysis Date/Time: 03-Dec-04 06:49								

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R479977	Analyst: R SHAMP		Run Date: 03-Dec-04		Instrument: GC/MS VOA			(cont.)		
Analytical	Reviewer: H WILLIAMS		Review Date: 09-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
SPI01	Q1681815	A682781	HEXACHLOROBUTADIENE	0	10		7.5	ug/L	75	
SPI01	Q1681815	A682781	IODOMETHANE	0	10		10.2	ug/L	102	
SPI01	Q1681815	A682781	ISOPROPYLBENZENE (CUMENE)	0	10		8.54	ug/L	85.4	
SPI01	Q1681815	A682781	4-ISOPROPYLTOLUENE (P-	0	10		7.76	ug/L	77.6	
SPI01	Q1681815	A682781	DICHLOROMETHANE (METHYLENE	0	10		8.37	ug/L	83.7	
SPI01	Q1681815	A682781	METHYL ETHYL KETONE	0	50		63.9	ug/L	127.8	
SPI01	Q1681815	A682781	METHYL-T-BUTYL ETHER (MTBE)	0	10		11.7	ug/L	117	
SPI01	Q1681815	A682781	METHYL ISOBUTYL KETONE	0	50		67.7	ug/L	135.4	
SPI01	Q1681815	A682781	NAPHTHALENE	0	10		8.54	ug/L	85.4	
SPI01	Q1681815	A682781	N-PROPYLBENZENE	0	10		9.36	ug/L	93.6	
SPI01	Q1681815	A682781	STYRENE	0	10		9.37	ug/L	93.7	
SPI01	Q1681815	A682781	1,1,1,2-TETRACHLOROETHANE	0	10		8.98	ug/L	89.8	
SPI01	Q1681815	A682781	1,1,2,2-TETRACHLOROETHANE	0	10		10.8	ug/L	108	
SPI01	Q1681815	A682781	TETRACHLOROETHENE	0	10		8.76	ug/L	87.6	
SPI01	Q1681815	A682781	TOLUENE	0	10		11	ug/L	110	
SPI01	Q1681815	A682781	1,2,3-TRICHLOROBENZENE	0	10		8.47	ug/L	84.7	
SPI01	Q1681815	A682781	1,2,4-TRICHLOROBENZENE	0	10		7.55	ug/L	75.5	
SPI01	Q1681815	A682781	1,1,1-TRICHLOROETHANE	0	10		9.52	ug/L	95.2	
SPI01	Q1681815	A682781	1,1,2-TRICHLOROETHANE	0	10		11.9	ug/L	119	
SPI01	Q1681815	A682781	TRICHLOROETHENE	0	10		9.59	ug/L	95.9	
SPI01	Q1681815	A682781	CIS-1,2-DICHLOROETHENE	0	10		10	ug/L	100	
SPI01	Q1681815	A682781	TRICHLOROFLUOROMETHANE	0	10		9.14	ug/L	91.4	
SPI01	Q1681815	A682781	1,2,3-TRICHLOROPROPANE	0	10		9.6	ug/L	96	
SPI01	Q1681815	A682781	1,2,4-TRIMETHYLBENZENE	0	10		9	ug/L	90	
SPI01	Q1681815	A682781	1,3,5-TRIMETHYLBENZENE	0	10		8.84	ug/L	88.4	
SPI01	Q1681815	A682781	VINYL ACETATE	0	10		11.7	ug/L	117	
SPI01	Q1681815	A682781	VINYL CHLORIDE	0	10		8.27	ug/L	82.7	
DPS01	Q1681816	A682781	Analysis Date/Time: 03-Dec-04 16:48							
DPS01	Q1681816	A682781	ACETONE (2-PROPANONE)	0	50		54.7	ug/L	109.3	0.5
DPS01	Q1681816	A682781	ACROLEIN	0	100		127	ug/L	127	98.4
DPS01	Q1681816	A682781	ACRYLONITRILE	0	100		156	ug/L	155.7	86.3
DPS01	Q1681816	A682781	BENZENE	0	10		11.6	ug/L	115.6	5.9
DPS01	Q1681816	A682781	BROMOBENZENE	0	10		10.6	ug/L	106.3	2.2
DPS01	Q1681816	A682781	BROMOCHLOROMETHANE	0	10		10.1	ug/L	101.4	0.6
DPS01	Q1681816	A682781	BROMODICHLOROMETHANE	0	10		10.8	ug/L	108.3	2.1
DPS01	Q1681816	A682781	BROMOFORM	0	10		10.6	ug/L	106.2	5
DPS01	Q1681816	A682781	BROMOMETHANE	0	10		8.07	ug/L	80.7	8
DPS01	Q1681816	A682781	N-BUTYLBENZENE	0	10		8.3	ug/L	83	12.1
DPS01	Q1681816	A682781	SEC-BUTYLBENZENE	0	10		8.72	ug/L	87.2	7.4
DPS01	Q1681816	A682781	TERT-BUTYLBENZENE	0	10		8.73	ug/L	87.3	6.6
DPS01	Q1681816	A682781	CARBON DISULFIDE	0	10		10.6	ug/L	106.4	2.3
DPS01	Q1681816	A682781	CARBON TETRACHLORIDE	0	10		10.3	ug/L	102.7	6.1
DPS01	Q1681816	A682781	CHLOROBENZENE	0	10		9.74	ug/L	97.4	4.2
DPS01	Q1681816	A682781	DIBROMOCHLOROMETHANE	0	10		9.87	ug/L	98.7	4.6
DPS01	Q1681816	A682781	CHLOROETHANE	0	10		8.24	ug/L	82.4	16
DPS01	Q1681816	A682781	CHLOROFORM	0	10		10.3	ug/L	102.6	0.6
DPS01	Q1681816	A682781	CHLOROMETHANE	0	10		8.9	ug/L	89	0.8
DPS01	Q1681816	A682781	2-CHLOROTOLUENE (O-	0	10		9.44	ug/L	94.4	6.6
DPS01	Q1681816	A682781	4-CHLOROTOLUENE (P-	0	10		9.6	ug/L	96	6
DPS01	Q1681816	A682781	2-CHLOROETHYLVINYLETHER	0	10		0	ug/L	0	
DPS01	Q1681816	A682781	1,2-DIBROMO-3-CHLOROPROPANE	0	10		9.72	ug/L	97.2	0.8
DPS01	Q1681816	A682781	1,2-DIBROMOETHANE (EDB)	0	10		11	ug/L	110.4	0.5
DPS01	Q1681816	A682781	DIBROMOMETHANE	0	10		11.2	ug/L	112.4	3.1

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B						O510.5		(cont.)			
R479977	Analyst: R SHAMP		Run Date: 03-Dec-04		Instrument: GC/MS VOA		(cont.)				
Analytical	Reviewer: H WILLIAMS		Review Date: 09-Dec-04								
Q1681816	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery possible. Unacidified sample not available.										
Q1681816											
R480012	Analyst: R SHAMP		Run Date: 06-Dec-04		Instrument: GC/MS VOA						
Analytical	Reviewer: H WILLIAMS		Review Date: 09-Dec-04								
QCType	Lab ID	Source	Parameter	True/Samp	Spike Val	RQL	Observed	Units	% Rec	RPD	
CAL01	Q1673892		Analysis Date/Time: 15-Nov-04 09:17								
CAL01	Q1673892		CIS-1,2-DICHLOROETHENE	0.3357						4.7	
CAL01	Q1673892		TETRACHLOROETHENE	1.4043						8.6	
CAL01	Q1673892		TRICHLOROETHENE	0.4397						2.3	
CAL01	Q1673892		DICHLOROETHANE-D4	0.3149						4.2	
CAL01	Q1673892		TOLUENE-D8	0.9130						9.4	
CAL01	Q1673892		4-BROMOFLUOROBENZENE	0.9995						5.1	
CAL01	Q1673892		DIBROMOFLUOROMETHANE	0.2697						2.7	
CCVD	Q1682051		Analysis Date/Time: 06-Dec-04 05:25								
CCVD	Q1682051		CIS-1,2-DICHLOROETHENE	0.3357			0.3427			2.1	
CCVD	Q1682051		TETRACHLOROETHENE	1.4043			1.1859			15.6	
CCVD	Q1682051		TRICHLOROETHENE	0.4397			0.4314			1.9	
CCVD	Q1682051		DICHLOROETHANE-D4	0.3149			0.3180			1	
CCVD	Q1682051		TOLUENE-D8	0.9130			0.9769			7	
CCVD	Q1682051		4-BROMOFLUOROBENZENE	0.9995			0.9025			9.7	
CCVD	Q1682051		DIBROMOFLUOROMETHANE	0.2697			0.2617			3	
BLA01	Q1682052		Analysis Date/Time: 06-Dec-04 05:53								
BLA01	Q1682052		CIS-1,2-DICHLOROETHENE			BDL	1.0	ug/L			
BLA01	Q1682052		TETRACHLOROETHENE			BDL	1.0	ug/L			
BLA01	Q1682052		TRICHLOROETHENE			BDL	1.0	ug/L			
BLA01	Q1682052		DICHLOROETHANE-D4						102		
BLA01	Q1682052		TOLUENE-D8						109		
BLA01	Q1682052		4-BROMOFLUOROBENZENE						101		
BLA01	Q1682052		DIBROMOFLUOROMETHANE						100		
SAMPLE	A682299		Analysis Date/Time: 06-Dec-04 14:21								
SAMPLE	A682299		See Certificate of Analysis, Rep: 1								
SAMPLE	A682300		Analysis Date/Time: 06-Dec-04 15:17								
SAMPLE	A682300		See Certificate of Analysis, Rep: 1								
SPI01	Q1682058	A682988	Analysis Date/Time: 06-Dec-04 16:13								
SPI01	Q1682058	A682988	CIS-1,2-DICHLOROETHENE	0	10		11.5	ug/L	115		
SPI01	Q1682058	A682988	TETRACHLOROETHENE	0	10		9.19	ug/L	91.9		
SPI01	Q1682058	A682988	TRICHLOROETHENE	0	10		10.3	ug/L	103		
DPS01	Q1682059	A682988	Analysis Date/Time: 06-Dec-04 16:41								
DPS01	Q1682059	A682988	CIS-1,2-DICHLOROETHENE	0	10		10.2	ug/L	101.9	12.1	
DPS01	Q1682059	A682988	TETRACHLOROETHENE	0	10		7.69	ug/L	76.9	17.8	
DPS01	Q1682059	A682988	TRICHLOROETHENE	0	10		9.12	ug/L	91.2	12.2	
Q1673892	Value reported for analytes calibrated by linear (LIN) or										
Q1673892	quadratic (QDR) equations is r2 (Coef. of Determination).										
Q1682058	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery possible. Unacidified sample not available.										
Q1682058											
Q1682059	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery possible. Unacidified sample not available.										
Q1682059											
Qualifiers											

HERITAGE ENVIRONMENTAL SERVICES, LLC

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8260B
Prep : ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

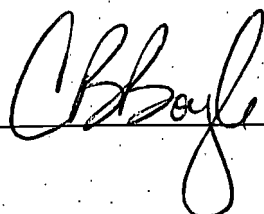
O513.3 (cont.)

R479715 Analytical	Analyst: H WILLIAMS Reviewer: L SMITH		Run Date: 03-Dec-04 Review Date: 14-Dec-04		Instrument: GC/MS VOA		(cont.)			
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
SAMPLE A682302			See Certificate of Analysis, Rep: 0							
SPI01	Q1681647	A682302	Analysis Date/Time: 03-Dec-04 11:23							
SPI01	Q1681647	A682302	BENZENE	0	50		45.2	ug/L	90.4	
SPI01	Q1681647	A682302	CARBON TETRACHLORIDE	0	50		64.6	ug/L	129.2	
SPI01	Q1681647	A682302	CHLOROBENZENE	0	50		45.6	ug/L	91.2	
SPI01	Q1681647	A682302	CHLOROFORM	0	50		56.8	ug/L	113.6	
SPI01	Q1681647	A682302	1,2-DICHLOROETHANE	0	50		62.2	ug/L	124.4	
SPI01	Q1681647	A682302	1,1-DICHLOROETHYLENE	0	50		44.4	ug/L	88.8	
SPI01	Q1681647	A682302	METHYL ETHYL KETONE	0	50		48.4	ug/L	96.8	
SPI01	Q1681647	A682302	TETRACHLOROETHYLENE	8.1	50		62.3	ug/L	108.4	
SPI01	Q1681647	A682302	TRICHLOROETHYLENE	0	50		51.8	ug/L	103.6	
SPI01	Q1681647	A682302	VINYL CHLORIDE	0	50		39.9	ug/L	79.8	
CAL01	Q1678975	Analysis Date/Time: 30-Nov-04 08:41								
CAL01	Q1678975		BENZENE	0.8520						6.5
CAL01	Q1678975		CARBON TETRACHLORIDE	0.7233						8.6
CAL01	Q1678975		CHLOROBENZENE	1.0620						6.5
CAL01	Q1678975		CHLOROFORM	0.8901						7.5
CAL01	Q1678975		1,2-DICHLOROETHANE	0.5474						10.9
CAL01	Q1678975		1,1-DICHLOROETHYLENE	0.3682						11
CAL01	Q1678975		METHYL ETHYL KETONE	0.1355						6.8
CAL01	Q1678975		TETRACHLOROETHYLENE	0.5812						13.3
CAL01	Q1678975		TRICHLOROETHYLENE	0.4615						8.9
CAL01	Q1678975		VINYL CHLORIDE	0.2481						7
CAL01	Q1678975		DICHLOROETHANE-D4	0.4942						3.9
CAL01	Q1678975		TOLUENE-D8	1.0210						9.2
CAL01	Q1678975		4-BROMOFLUOROBENZENE	0.9697						8.7

Q1678975	Value reported for analytes calibrated by linear (LIN) or
Q1678975	quadratic (QDR) equations is r2 (Coef. of Determination).
Q1681646	ENTIRE LCS REPORTED, MSD DID NOT PURGE.
Q1681647	MSD DID NOT PURGE.

Qualifiers	
BDL	Below Detection Limit

Approved : _____



06-Jan-05 04:01

NJC2438

Last Page B18

HERITAGE ENVIRONMENTAL SERVICES, LLC



7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
Fax: 317/486-5095
Internet: <http://www.heritage-enviro.com>

**QUALITY ASSURANCE REPORT PACKAGE # 2478
FOR
KERAMIDA ENVIRONMENTAL, INC.**

**FRANK WEST
KERAMIDA ENVIRONMENTAL, INC.
330 N. COLLEGE AVENUE
INDIANAPOLIS, INDIANA 46202**

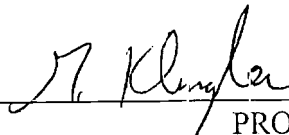
SAMPLE RANGE:

A683701 – A683703

PROJECT:

**HARMAN/BECKER
DECEMBER, 2004**

**HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 WEST MORRIS STREET
INDIANAPOLIS, INDIANA 46231
PHONE: (317) 243-8304
FAX: (317) 486-5095**

APPROVED BY: 
PROJECT CHEMIST



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HERITAGE ENVIRONMENTAL SERVICES, LLC.

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231

www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 33602

Customer name/number: <u>KERAMIDA</u>		Submitter #		Analyses Requested (Note special detection limits or methods)										Send Report To:				
Project Name: <u>Harman/Becker</u>		Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other		Number of Containers <u>100s 8260</u> <u>TOC</u>												Co:		
Z Quote No: <u>145971</u> (Given to you by your contact)																Add:		
PO No. or Project/Activity ID: <u>10300C</u>																Attn: <u>Frank West</u>		
PRINT HERITAGE TSR NAME:																Phone: <u>(317) 685 6625</u> Yes		
CUSTOMER STATUS: New / Existing																Fax: <u>(317) 685 6610</u>		
If no previous credit has been established with Heritage, prepayment (check, VISA, etc) is required at the time of sample submittal to the laboratory.																E-mail: <u>fwest@keramida.com</u>		
Sampled By: <u>Frank West</u>																Standard: <u>X</u> Rush Date <u>1/1</u> Mo Day Yr		
																(Accelerated TAT subject to Additional Charge) (Date must be Accepted and Approved by Lab)		
Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken												Remarks:		Lab use only Sample No.
<u>12/3/04</u>	<u>1030</u>	<u>AM</u>	<u>X</u>	<u>PT-1</u>		<u>GW</u>	<u>5</u>	<u>X</u>	<u>X</u>							<u>AL63701</u>		
	<u>1125</u>	<u>PM</u>	<u>X</u>	<u>PT-2</u>		<u>↓</u>	<u>↓</u>	<u>X</u>	<u>X</u>							<u>702</u>		
	<u>1150</u>	<u>PM</u>	<u>X</u>	<u>PT-3</u>		<u>↓</u>	<u>↓</u>	<u>X</u>	<u>X</u>							<u>703</u>		
		<u>PM</u>																
		<u>AM</u>																
		<u>PM</u>																
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		<u>PM</u>																
		<u>AM</u>																
		<u>PM</u>																
Relinquished by: (Signature) <u>FW</u>		Date/Time <u>12/3/04 1550</u>		Received by: (Signature) <u>W Baker/Jett</u>		Laboratory use only										Yes No		Comments: <u>RISC Residential Protection Limits Standard Report</u>
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Custody seals present/intact?												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Broken containers?										<u>✓</u>		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		COC agree with sample labels?										<u>✓</u>		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Correct containers for testing?										<u>✓</u>		
Received for Lab by: (Signature) <u>T.Hey</u>		Date <u>12-4-04</u> Temp. <u>1.4</u> °C		Time <u>1845</u> ROT: <u>Yes</u> / No		Headspace issues acceptable?										<u>✓</u>		
						Holding time(s) acceptable?										<u>✓</u>		
						Preservative pH's acceptable?										<u>✓</u>		
						Was pH left unadjusted?										<u>✓</u>		

Distribution: White original and yellow copies to accompany sample to the laboratory.
Pink copy to be retained by the client.



1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	3.6	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	58	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L
TRICHLOROETHENE	EX	1.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	1.0	ug/L



Sample Comments

Sample was received on ice at temperature 1.4 C.
Sample chain of custody number 33602.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QAS

Approved by: PAULINE SPENCE 07-JAN-05



1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	3.9	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	23	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L
TRICHLOROETHENE	EX	1.0	ug/L
TRICHLOROFUOROMETHANE	BDL	1.0	ug/L



Sample Comments

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Sample chain of custody number 33602.

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9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QA

Approved by: PAULINE SPENCE 07-JAN-05



1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	18	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	3.0	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	17	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	9.8	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L
TRICHLOROETHENE	E 130	1.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	1.0	ug/L



Sample Comments

Sample was received on ice at temperature 1.4 C.
Sample chain of custody number 33602.

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PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QA

Approved by: PAULINE SPENCE 07-JAN-05



Pace Analytical Services, Inc.
9608 Loret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6090132
Client Project ID: R480368

Lab Sample No: 607764636 Project Sample Number: 6090132-001 Date Collected: 12/03/04 10:30
Client Sample ID: A683701 PT-1 Matrix: Water Date Received: 12/20/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
Total Organic Carbon	Method: EPA 415.2							
Total Organic Carbon	8200	mg/l	1000	12/29/04	JNS	7440-44-0		

Date: 01/05/05

Page: 1 of 7

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9608 Loret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6090132
Client Project ID: R480368

Lab Sample No: 607764651
Client Sample ID: A683703 PT-3

Project Sample Number: 6090132-003
Matrix: Water

Date Collected: 12/03/04 11:50
Date Received: 12/20/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
Total Organic Carbon	Method: EPA 415.2							
Total Organic Carbon	5.1	mg/l	1.0	12/22/04	ACM	7440-44-0		

Date: 01/05/05

Page: 3 of 7

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9608 Lariat Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

QUALITY CONTROL DATA

Lab Project Number: 6090132
Client Project ID: R480368

QC Batch: 184603 Analysis Method: EPA 415.2
QC Batch Method: EPA 415.2 Analysis Description: Total Organic Carbon
Associated Lab Samples: 607764644 607764651

METHOD BLANK: 607767340
Associated Lab Samples: 607764644 607764651

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Total Organic Carbon	mg/l	ND	1.0	

LABORATORY CONTROL SAMPLE: 607767357

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Total Organic Carbon	mg/l	5.000	5.040	101	

MATRIX SPIKE: 607767373

Parameter	Units	504094616 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Total Organic Carbon	mg/l	4.440	5.000	9.260	96	

SAMPLE DUPLICATE: 607767365

Parameter	Units	504094616 Result	DUP Result	RPD	Footnotes
Total Organic Carbon	mg/l	4.400	4.400	0	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9608 Lariat Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6090132
Client Project ID: R480368

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)
MS(D) Matrix Spike (Duplicate)
DUP Sample Duplicate
ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
RPD Relative Percent Difference
[1] Matrix (MS) and or surrogate spike recovery (S) was affected by the sample matrix. Refer to the batch QC recoveries (Blank and LCS) to demonstrate that the analytical system was operating in control.

Date: 01/05/05

Page: 7 of 7

REPORT OF LABORATORY ANALYSIS

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QUALITY ASSURANCE REPORT

Report Date : 07-Jan-05

Service Location

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, IN 46231
(317) 243-8304

Submitter

FRANK WEST
KERAMIDA ENVIRONMENTAL
330 NORTH COLLEGE AVE.
INDIANAPOLIS, IN 46202

Client ID	Lab Sample ID	Date/Time Sampled	Date Received	Date Complete
PT-1.....	A683701	03-Dec-04 10:30	04-Dec-04	06-Jan-05
		PROJECT NAME HARMAN BECKER		
		PROJECT NUMBER 10300B		
PT-2.....	A683702	03-Dec-04 11:25	04-Dec-04	06-Jan-05
		PROJECT NAME HARMAN BECKER		
		PROJECT NUMBER 10300B		
PT-3.....	A683703	03-Dec-04 11:50	04-Dec-04	06-Jan-05
		PROJECT NAME HARMAN BECKER		
		PROJECT NUMBER 10300B		

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R480332	Analyst: R SHAMP		Run Date: 12-Dec-04		Instrument: GC/MS VOA			(cont.)		
Analytical	Reviewer: L SMITH		Review Date: 15-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1677347		ETHYL METHACRYLATE	0.6778						5
CAL01	Q1677347		2-HEXANONE	0.2962						2.2
CAL01	Q1677347		HEXACHLOROBUTADIENE	0.5808						1.8
CAL01	Q1677347		IODOMETHANE			LIN				1.000
CAL01	Q1677347		ISOPROPYLBENZENE (CUMENE)	3.1414						6.7
CAL01	Q1677347		4-ISOPROPYLTOLUENE (P-	2.7719						6.5
CAL01	Q1677347		DICHLOROMETHANE (METHYLENE			QDR				1.000
CAL01	Q1677347		METHYL ETHYL KETONE	0.0787						3.8
CAL01	Q1677347		METHYL-T-BUTYL ETHER (MTBE)	0.6066						4.3
CAL01	Q1677347		METHYL ISOBUTYL KETONE	0.1710						2.9
CAL01	Q1677347		NAPHTHALENE	1.6875						10
CAL01	Q1677347		N-PROPYLBENZENE	0.4409						8.5
CAL01	Q1677347		STYRENE	1.6258						4.3
CAL01	Q1677347		1,1,1,2-TETRACHLOROETHANE	0.4215						6.1
CAL01	Q1677347		1,1,2,2-TETRACHLOROETHANE	0.5911						2.2
CAL01	Q1677347		TETRACHLOROETHENE	0.5397						2.8
CAL01	Q1677347		TOLUENE	0.9088						6.3
CAL01	Q1677347		1,2,3-TRICHLOROBENZENE	0.8240						6.6
CAL01	Q1677347		1,2,4-TRICHLOROBENZENE	0.8704						7
CAL01	Q1677347		1,1,1-TRICHLOROETHANE	0.2982						6.6
CAL01	Q1677347		1,1,2-TRICHLOROETHANE	0.1771						5.5
CAL01	Q1677347		TRICHLOROETHENE	0.1849						7.3
CAL01	Q1677347		TRICHLOROFLUOROMETHANE	0.2602						6.9
CAL01	Q1677347		1,2,3-TRICHLOROPROPANE	0.2083						3.4
CAL01	Q1677347		1,2,4-TRIMETHYLBENZENE	2.7017						7.6
CAL01	Q1677347		1,3,5-TRIMETHYLBENZENE	2.7052						8.8
CAL01	Q1677347		VINYL ACETATE	0.8372						5.2
CAL01	Q1677347		VINYL CHLORIDE	0.1929						4
CAL01	Q1677347		DICHLOROETHANE-D4	0.3758						0.8
CAL01	Q1677347		TOLUENE-D8	1.2114						1.1
CAL01	Q1677347		4-BROMOFLUOROBENZENE	1.1187						1.4
CAL01	Q1677347		DIBROMOFLUOROMETHANE	0.2841						0.4
CCVD	Q1684473		Analysis Date/Time: 12-Dec-04 09:25							
CCVD	Q1684473		ACETONE (2-PROPANONE)	0.0485			0.0537			10.7
CCVD	Q1684473		ACROLEIN	100		QDR	99.983			400
CCVD	Q1684473		ACRYLONITRILE	0.0272			0.0162			40.4
CCVD	Q1684473		BENZENE	0.8684			0.9388			8.1
CCVD	Q1684473		BROMOBENZENE	1.4586			1.8775			28.7
CCVD	Q1684473		BROMOCHLOROMETHANE	0.0810			0.1010			24.7
CCVD	Q1684473		BROMODICHLOROMETHANE	0.2605			0.2860			9.8
CCVD	Q1684473		BROMOFORM	0.3267			0.3381			3.5
CCVD	Q1684473		BROMOMETHANE	10		QDR	15.595			56
CCVD	Q1684473		N-BUTYLBENZENE	1.3953			1.0862			22.2
CCVD	Q1684473		SEC-BUTYLBENZENE	3.7962			3.1628			16.7
CCVD	Q1684473		TERT-BUTYLBENZENE	1.7185			1.5156			11.8
CCVD	Q1684473		CARBON DISULFIDE	0.7449			0.8538			14.6
CCVD	Q1684473		CARBON TETRACHLORIDE	0.2454			0.2793			13.8
CCVD	Q1684473		CHLOROBENZENE	1.3949			1.3464			3.5
CCVD	Q1684473		DIBROMOCHLOROMETHANE	0.4294			0.4620			7.6
CCVD	Q1684473		CHLOROETHANE	0.0994			0.1200			20.7
CCVD	Q1684473		CHLOROFORM	0.3342			0.3902			16.8
CCVD	Q1684473		CHLOROMETHANE	0.3099			0.2329			24.8
CCVD	Q1684473		2-CHLOROTOLUENE (O-	0.7590			0.7657			0.9

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R480332	Analyst: R SHAMP		Run Date: 12-Dec-04		Instrument: GC/MS VOA			(cont.)		
Analytical	Reviewer: L SMITH		Review Date: 15-Dec-04							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CCVD	Q1684473		DIBROMOFLUOROMETHANE	0.2841			0.3095			8.9
BLA01	Q1684474		Analysis Date/Time: 12-Dec-04 09:59							
BLA01	Q1684474		ACETONE (2-PROPANONE)			BDL	10.	ug/L		
BLA01	Q1684474		ACROLEIN			BDL	25.	ug/L		
BLA01	Q1684474		ACRYLONITRILE			BDL	5.0	ug/L		
BLA01	Q1684474		BENZENE			BDL	1.0	ug/L		
BLA01	Q1684474		BROMOBENZENE			BDL	1.0	ug/L		
BLA01	Q1684474		BROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		BROMODICHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		BROMOFORM			BDL	1.0	ug/L		
BLA01	Q1684474		BROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		N-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1684474		SEC-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1684474		TERT-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1684474		CARBON DISULFIDE			BDL	1.0	ug/L		
BLA01	Q1684474		CARBON TETRACHLORIDE			BDL	1.0	ug/L		
BLA01	Q1684474		CHLOROBENZENE			BDL	1.0	ug/L		
BLA01	Q1684474		DIBROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		CHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		CHLOROFORM			BDL	1.0	ug/L		
BLA01	Q1684474		CHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		2-CHLOROTOLUENE (O-			BDL	1.0	ug/L		
BLA01	Q1684474		4-CHLOROTOLUENE (P-			BDL	1.0	ug/L		
BLA01	Q1684474		2-CHLOROETHYLVINYLETHER			BDL	1.0	ug/L		
BLA01	Q1684474		1,2-DIBROMO-3-CHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1684474		1,2-DIBROMOETHANE (EDB)			BDL	1.0	ug/L		
BLA01	Q1684474		DIBROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		1,2-DICHLOROETHANE (O-			BDL	1.0	ug/L		
BLA01	Q1684474		1,3-DICHLOROETHANE (M-			BDL	1.0	ug/L		
BLA01	Q1684474		1,4-DICHLOROETHANE (P-			BDL	1.0	ug/L		
BLA01	Q1684474		DICHLORODIFLUOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		TRANS-1,4-DICHLORO-2-BUTENE			BDL	2.0	ug/L		
BLA01	Q1684474		1,1-DICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		1,2-DICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		1,1-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1684474		CIS-1,2-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1684474		TRANS-1,2-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1684474		1,2-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1684474		1,3-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1684474		2,2-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1684474		1,1-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q1684474		CIS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q1684474		TRANS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q1684474		ETHYL BENZENE			BDL	1.0	ug/L		
BLA01	Q1684474		ETHYL METHACRYLATE			BDL	1.0	ug/L		
BLA01	Q1684474		2-HEXANONE			BDL	5.0	ug/L		
BLA01	Q1684474		HEXACHLOROBUTADIENE			BDL	1.0	ug/L		
BLA01	Q1684474		IODOMETHANE			BDL	1.0	ug/L		
BLA01	Q1684474		ISOPROPYLBENZENE (CUMENE)			BDL	1.0	ug/L		
BLA01	Q1684474		4-ISOPROPYLTOLUENE (P-			BDL	1.0	ug/L		
BLA01	Q1684474		DICHLOROMETHANE (METHYLENE			BDL	1.0	ug/L		
BLA01	Q1684474		METHYL ETHYL KETONE			BDL	5.0	ug/L		
BLA01	Q1684474		METHYL-T-BUTYL ETHER (MTBE)			BDL	1.0	ug/L		

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5 (cont.)

R480332 Analytical		Analyst: R SHAMP Reviewer: L SMITH		Run Date: 12-Dec-04 Review Date: 15-Dec-04		Instrument: GC/MS VOA		(cont.)		
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
SPI01	Q1684483	A683725	CHLOROBENZENE	0	10		8.52	ug/L	85.2	
SPI01	Q1684483	A683725	DIBROMOCHLOROMETHANE	0	10		9.72	ug/L	97.2	
SPI01	Q1684483	A683725	CHLOROETHANE	0	10		10.7	ug/L	107	
SPI01	Q1684483	A683725	CHLOROFORM	0	10		11	ug/L	110	
SPI01	Q1684483	A683725	CHLOROMETHANE	0	10		6.64	ug/L	66.4	
SPI01	Q1684483	A683725	2-CHLOROTOLUENE (O-	0	10		8.4	ug/L	84	
SPI01	Q1684483	A683725	4-CHLOROTOLUENE (P-	0	10		8.28	ug/L	82.8	
SPI01	Q1684483	A683725	2-CHLOROETHYL VINYLETHER	0	10	1	0	ug/L	0	
SPI01	Q1684483	A683725	1,2-DIBROMO-3-CHLOROPROPANE	0	10		8	ug/L	80	
SPI01	Q1684483	A683725	1,2-DIBROMOETHANE (EDB)	0	10		10	ug/L	100	
SPI01	Q1684483	A683725	DIBROMOMETHANE	0	10		10.8	ug/L	108	
SPI01	Q1684483	A683725	1,2-DICHLOROBENZENE (O-	0	10		8.63	ug/L	86.3	
SPI01	Q1684483	A683725	1,3-DICHLOROBENZENE (M-	0	10		8.36	ug/L	83.6	
SPI01	Q1684483	A683725	1,4-DICHLOROBENZENE (P-	0	10		8.16	ug/L	81.6	
SPI01	Q1684483	A683725	DICHLORODIFLUOROMETHANE	0	10		7.54	ug/L	75.4	
SPI01	Q1684483	A683725	TRANS-1,4-DICHLORO-2-BUTENE	0	20		14.5	ug/L	72.5	
SPI01	Q1684483	A683725	1,1-DICHLOROETHANE	0	10		9.77	ug/L	97.7	
SPI01	Q1684483	A683725	1,2-DICHLOROETHANE	0	10		11.4	ug/L	114	
SPI01	Q1684483	A683725	1,1-DICHLOROETHENE	0	10		9.83	ug/L	98.3	
SPI01	Q1684483	A683725	CIS-1,2-DICHLOROETHENE	0	10		9.92	ug/L	99.2	
SPI01	Q1684483	A683725	TRANS-1,2-DICHLOROETHENE	0	10		10.1	ug/L	101	
SPI01	Q1684483	A683725	1,2-DICHLOROPROPANE	0	10		9.14	ug/L	91.4	
SPI01	Q1684483	A683725	1,3-DICHLOROPROPANE	0	10		9.5	ug/L	95	
SPI01	Q1684483	A683725	2,2-DICHLOROPROPANE	0	10	1	5.43	ug/L	54.3	
SPI01	Q1684483	A683725	1,1-DICHLOROPROPENE	0	10		9.07	ug/L	90.7	
SPI01	Q1684483	A683725	CIS-1,3-DICHLOROPROPENE	0	10		7.29	ug/L	72.9	
SPI01	Q1684483	A683725	TRANS-1,3-DICHLOROPROPENE	0	10		7.95	ug/L	79.5	
SPI01	Q1684483	A683725	ETHYL BENZENE	0	10		8.37	ug/L	83.7	
SPI01	Q1684483	A683725	HEXANONE	0	50		45.8	ug/L	91.6	
SPI01	Q1684483	A683725	HEXACHLORO BUTADIENE	0	10		5.25	ug/L	52.5	
SPI01	Q1684483	A683725	IODOMETHANE	0	10	1	22.9	ug/L	229	
SPI01	Q1684483	A683725	ISOPROPYLBENZENE (CUMENE)	0	10		7.34	ug/L	73.4	
SPI01	Q1684483	A683725	4-ISOPROPYLTOLUENE (P-	0	10	1	5.92	ug/L	59.2	
SPI01	Q1684483	A683725	DICHLOROMETHANE (METHYLENE	0	10		10.3	ug/L	103	
SPI01	Q1684483	A683725	METHYL ETHYL KETONE	0	50		52.1	ug/L	104.2	
SPI01	Q1684483	A683725	METHYL-T-BUTYL ETHER (MTBE)	0	10		9.33	ug/L	93.3	
SPI01	Q1684483	A683725	METHYL ISOBUTYL KETONE	0	50		47.8	ug/L	95.6	
SPI01	Q1684483	A683725	NAPHTHALENE	0	10		7.2	ug/L	72	
SPI01	Q1684483	A683725	N-PROPYLBENZENE	0	10		7.49	ug/L	74.9	
SPI01	Q1684483	A683725	STYRENE	0	10		7.95	ug/L	79.5	
SPI01	Q1684483	A683725	1,1,1,2-TETRACHLOROETHANE	0	10		10.1	ug/L	101	
SPI01	Q1684483	A683725	1,1,1,2,2-TETRACHLOROETHANE	0	10		10.3	ug/L	103	
SPI01	Q1684483	A683725	TETRACHLOROETHENE	0	10		9.43	ug/L	94.3	
SPI01	Q1684483	A683725	TOLUENE	0	10		9.33	ug/L	93.3	
SPI01	Q1684483	A683725	1,2,3-TRICHLOROBENZENE	0	10		7.11	ug/L	71.1	
SPI01	Q1684483	A683725	1,2,4-TRICHLOROBENZENE	0	10		6.32	ug/L	63.2	
SPI01	Q1684483	A683725	1,1,1-TRICHLOROETHANE	0	10		10.8	ug/L	108	
SPI01	Q1684483	A683725	1,1,2-TRICHLOROETHANE	0	10		10.6	ug/L	106	
SPI01	Q1684483	A683725	TRICHLOROETHENE	0	10		10.6	ug/L	106	
SPI01	Q1684483	A683725	TRICHLOROFLUOROMETHANE	0	10		10.9	ug/L	109	
SPI01	Q1684483	A683725	1,2,3-TRICHLOROPROPANE	0	10		11	ug/L	110	
SPI01	Q1684483	A683725	1,2,4-TRIMETHYLBENZENE	0	10		6.96	ug/L	69.6	
SPI01	Q1684483	A683725	1,3,5-TRIMETHYLBENZENE	0	10		7.13	ug/L	71.3	

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)				
R480332		Analyst: R SHAMP		Run Date: 12-Dec-04		Instrument: GC/MS VOA					(cont.)	
Analytical		Reviewer: L SMITH		Review Date: 15-Dec-04								
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD		
DPS01	Q1684484	A683725	METHYL ISOBUTYL KETONE	0	50		51.5	ug/L	103.1	7.5		
DPS01	Q1684484	A683725	NAPHTHALENE	0	10		8.61	ug/L	86.1	17.8		
DPS01	Q1684484	A683725	N-PROPYLBENZENE	0	10		8.1	ug/L	81	7.8		
DPS01	Q1684484	A683725	STYRENE	0	10		8.33	ug/L	83.3	4.7		
DPS01	Q1684484	A683725	1,1,1,2-TETRACHLOROETHANE	0	10		10.9	ug/L	108.7	7.3		
DPS01	Q1684484	A683725	1,1,2,2-TETRACHLOROETHANE	0	10		11.3	ug/L	112.9	9.2		
DPS01	Q1684484	A683725	TETRACHLOROETHENE	0	10		10.4	ug/L	104	9.8		
DPS01	Q1684484	A683725	TOLUENE	0	10		10.4	ug/L	104.5	11.3		
DPS01	Q1684484	A683725	1,2,3-TRICHLOROBENZENE	0	10		8.44	ug/L	84.4	17.1		
DPS01	Q1684484	A683725	1,2,4-TRICHLOROBENZENE	0	10		7.32	ug/L	73.2	14.7		
DPS01	Q1684484	A683725	1,1,1-TRICHLOROETHANE	0	10		12	ug/L	119.7	10.3		
DPS01	Q1684484	A683725	1,1,2-TRICHLOROETHANE	0	10		11.8	ug/L	117.6	10.4		
DPS01	Q1684484	A683725	TRICHLOROETHENE	0	10		11.3	ug/L	113.1	6.5		
DPS01	Q1684484	A683725	TRICHLOROFLUOROMETHANE	0	10		12.3	ug/L	122.7	11.8		
DPS01	Q1684484	A683725	1,2,3-TRICHLOROPROPANE	0	10		11.2	ug/L	112	1.8		
DPS01	Q1684484	A683725	1,2,4-TRIMETHYLBENZENE	0	10		7.92	ug/L	79.2	12.9		
DPS01	Q1684484	A683725	1,3,5-TRIMETHYLBENZENE	0	10		8.07	ug/L	80.7	12.4		
DPS01	Q1684484	A683725	VINYL ACETATE	0	10		7.5	ug/L	75	12		
DPS01	Q1684484	A683725	VINYL CHLORIDE	0	10		10.7	ug/L	106.6	12.4		

Q1677347	Value reported for analytes calibrated by linear (LIN) or									
Q1677347	quadratic (QDR) equations is r2 (Coef. of Determination).									
Q1684475	! Compounds do not meet QC criteria in LCS or MS/MSD. Compounds fail high,									
Q1684475	if detected in samples will reanalyze.									
Q1684484	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery									
Q1684484	possible. Unacidified sample not available.									

R480383		Analyst: R SHAMP		Run Date: 13-Dec-04		Instrument: GC/MS VOA				
Analytical		Reviewer: L SMITH		Review Date: 16-Dec-04						
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1673892		Analysis Date/Time: 15-Nov-04 09:17							
CAL01	Q1673892		TETRACHLOROETHENE	1.4043						8.6
CAL01	Q1673892		CIS-1,2-DICHLOROETHENE	0.3357						4.7
CAL01	Q1673892		TRICHLOROETHENE	0.4397						2.3
CAL01	Q1673892		DICHLOROETHANE-D4	0.3149						4.2
CAL01	Q1673892		TOLUENE-D8	0.9130						9.4
CAL01	Q1673892		4-BROMOFLUOROBENZENE	0.9995						5.1
CAL01	Q1673892		DIBROMOFLUOROMETHANE	0.2697						2.7
CCVD	Q1684730		Analysis Date/Time: 13-Dec-04 07:51							
CCVD	Q1684730		TETRACHLOROETHENE	1.4043			1.2009			14.5
CCVD	Q1684730		CIS-1,2-DICHLOROETHENE	0.3357			0.3531			5.2
CCVD	Q1684730		TRICHLOROETHENE	0.4397			0.4185			4.8
CCVD	Q1684730		DICHLOROETHANE-D4	0.3149			0.3289			4.4
CCVD	Q1684730		TOLUENE-D8	0.9130			1.0598			16.1
CCVD	Q1684730		4-BROMOFLUOROBENZENE	0.9995			0.9803			1.9
CCVD	Q1684730		DIBROMOFLUOROMETHANE	0.2697			0.2756			2.2
BLA01	Q1684731		Analysis Date/Time: 13-Dec-04 08:19							
BLA01	Q1684731		TETRACHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1684731		CIS-1,2-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1684731		TRICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1684731		DICHLOROETHANE-D4						108	



7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
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Internet: <http://www.heritage-enviro.com>

**QUALITY ASSURANCE REPORT PACKAGE # 2560
FOR
KERAMIDA ENVIRONMENTAL, INC.**

**CHUCK GOODWIN
KERAMIDA ENVIRONMENTAL, INC.
330 N. COLLEGE AVENUE
INDIANAPOLIS, INDIANA 46202**

SAMPLE #'S:

A685884-A685888

PROJECT:

**HARMAN BECKER
DECEMBER, 2004**

**HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 WEST MORRIS STREET
INDIANAPOLIS, INDIANA 46231
PHONE: (317) 243-8304
FAX: (317) 486-5095**

APPROVED BY: _____

DC Edwards

PROJECT CHEMIST





330 North College Avenue

Indianapolis, Indiana 46202

(317) 685-6600 - FAX (317) 685-6610

Sheet 1 of 1

COC# 1310

[illegible]



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	10	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	10	ug/L
DIBROMOMETHANE	BDL	10	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	10	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	10	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	10	ug/L
DICHLORODIFLUOROMETHANE	BDL	10	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	20	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	BDL	10	ug/L
1,1-DICHLOROETHENE	BDL	10	ug/L
CIS-1,2-DICHLOROETHENE	EX	10	ug/L
TRANS-1,2-DICHLOROETHENE	19	10	ug/L
1,2-DICHLOROPROPANE	BDL	10	ug/L
1,3-DICHLOROPROPANE	BDL	10	ug/L
2,2-DICHLOROPROPANE	BDL	10	ug/L
1,1-DICHLOROPROPENE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	BDL	10	ug/L
ETHYL METHACRYLATE	BDL	100	ug/L
2-HEXANONE	BDL	100	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
IODOMETHANE	BDL	10	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	10	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	10	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	B 14	10	ug/L
METHYL ETHYL KETONE	640	100	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	10	ug/L
METHYL ISOBUTYL KETONE	BDL	100	ug/L
NAPHTHALENE	BDL	10	ug/L
N-PROPYLBENZENE	BDL	10	ug/L
STYRENE	BDL	10	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L
TETRACHLOROETHENE	EX	10	ug/L
TOLUENE	BDL	10	ug/L
1,2,3-TRICHLOROBENZENE	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A685884 PT-1

1:50 Dilution.

TOTAL ORGANIC CARBON EPA 415.1

NELAC:Y

Vendor: PACE INCORPORATED

Analysis Date: 09-FEB-05

Instrument: TOC

Test: O401.1.0

Parameter

Result

Det. Limit

Units

TOTAL ORGANIC CARBON (TOC)

9800

1000

mg/L

Sample Comments

AMENDED REPORT - DCE - 07-FEB-05 :ADDED PACE TOC ANALYSIS

B Detected in blank

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 4.2 C.

Sample chain of custody number 1310.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

Approved by: DEBORAH EDWARDS 11-FEB-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	7.6	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	4.6	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	15	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	2.7	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	2.2	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A685885 PT-2

Results for this sample are estimated.

TOTAL ORGANIC CARBON EPA 415.1

NELAC:Y

Vendor: PACE INCORPORATED

Analysis Date: 09-FEB-05

Instrument: TOC

Test: O401.1.0

Parameter

Result

Det. Limit

Units

TOTAL ORGANIC CARBON (TOC)

BDL

1.0

mg/L

Sample Comments

AMENDED REPORT - DCE - 07-FEB-05 :ADDED PACE TOC ANALYSIS

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 4.2 C.

Sample chain of custody number 1310.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED

9608 LOIRET BOULEVARD, LENEXA, KS 66219

Approved by: DEBORAH EDWARDS 11-FEB-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	21	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	4.0	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	16	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	13	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A685886 PT-3

TOTAL ORGANIC CARBON EPA 415.1		NELAC:Y	
Vendor: PACE INCORPORATED		Analysis Date: 09-FEB-05	Instrument: TOC
		Test: O401.1.0	
Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	BDL	1.0	mg/L

Sample Comments

AMENDED REPORT - DCE - 07-FEB-05 :ADDED PACE TOC ANALYSIS

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 4.2 C.
Sample chain of custody number 1310.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

Approved by: DEBORAH EDWARDS 11-FEB-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	10	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	10	ug/L
DIBROMOMETHANE	BDL	10	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	10	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	10	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	10	ug/L
DICHLORODIFLUOROMETHANE	BDL	10	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	20	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	BDL	10	ug/L
1,1-DICHLOROETHENE	BDL	10	ug/L
CIS-1,2-DICHLOROETHENE	EX	10	ug/L
TRANS-1,2-DICHLOROETHENE	24	10	ug/L
1,2-DICHLOROPROPANE	BDL	10	ug/L
1,3-DICHLOROPROPANE	BDL	10	ug/L
2,2-DICHLOROPROPANE	BDL	10	ug/L
1,1-DICHLOROPROPENE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	BDL	10	ug/L
ETHYL METHACRYLATE	BDL	100	ug/L
2-HEXANONE	BDL	100	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
IODOMETHANE	BDL	10	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	10	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	10	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	B 11	10	ug/L
METHYL ETHYL KETONE	760	100	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	10	ug/L
METHYL ISOBUTYL KETONE	BDL	100	ug/L
NAPHTHALENE	BDL	10	ug/L
N-PROPYLBENZENE	BDL	10	ug/L
STYRENE	BDL	10	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L
TETRACHLOROETHENE	EX	10	ug/L
TOLUENE	BDL	10	ug/L
1,2,3-TRICHLOROBENZENE	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A685887 DUPLICATE

1:50 Dilution.

TOTAL ORGANIC CARBON EPA 415.1

NELAC:Y

Vendor: PACE INCORPORATED

Analysis Date: 09-FEB-05

Instrument: TOC

Test: O401.1.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	11000	1000	mg/L

Sample Comments

AMENDED REPORT - DCE - 07-FEB-05 :ADDED PACE TOC ANALYSIS

B Detected in blank

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 4.2 C.
Sample chain of custody number 1310.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

Approved by: DEBORAH EDWARDS 11-FEB-05



1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	BDL	1.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	BDL	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L

QUALITY ASSURANCE REPORT

Service Location Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304				Report Date : 17-Jan-05
Submitter CHUCK GOODWIN KERAMIDA ENVIRONMENTAL 330 NORTH COLLEGE AVENUE INDIANAPOLIS, IN 46202				
Client ID	Lab Sample ID	Date/Time Sampled	Date Received	Date Complete
PT-1.....	A685884	21-Dec-04 15:40	28-Dec-04	14-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
PT-2.....	A685885	21-Dec-04 15:05	28-Dec-04	12-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
PT-3.....	A685886	21-Dec-04 14:30	28-Dec-04	14-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
DUPLICATE.....	A685887	21-Dec-04	28-Dec-04	14-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				
TRIP BLANK.....	A685888	21-Dec-04	28-Dec-04	12-Jan-05
PROJECT NAME HARMAN BECKER				
PROJECT NUMBER 10300C				

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							0510.5		(cont.)		
R481083		Analyst: R SHAMP		Run Date: 28-Dec-04		Instrument: GC/MS VOA		(cont.)			
Analytical		Reviewer: L SMITH		Review Date: 04-Jan-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
CAL01	Q1677347		BENZENE	0.8684						5.4	
CAL01	Q1677347		BROMOBENZENE	1.4586						4.8	
CAL01	Q1677347		BROMOCHLOROMETHANE	0.0810						10.9	
CAL01	Q1677347		BROMODICHLOROMETHANE	0.2605						8.5	
CAL01	Q1677347		BROMOFORM	0.3267						7.9	
CAL01	Q1677347		BROMOMETHANE			QDR				0.995	
CAL01	Q1677347		N-BUTYLBENZENE	1.3953						8.1	
CAL01	Q1677347		SEC-BUTYLBENZENE	3.7962						8.1	
CAL01	Q1677347		TERT-BUTYLBENZENE	1.7185						5.1	
CAL01	Q1677347		CARBON DISULFIDE	0.7449						6	
CAL01	Q1677347		CARBON TETRACHLORIDE	0.2454						7.5	
CAL01	Q1677347		CHLOROBENZENE	1.3949						4.4	
CAL01	Q1677347		DIBROMOCHLOROMETHANE	0.4294						5.7	
CAL01	Q1677347		CHLOROETHANE	0.0994						5.1	
CAL01	Q1677347		CHLOROFORM	0.3342						3.6	
CAL01	Q1677347		CHLOROMETHANE	0.3099						2.9	
CAL01	Q1677347		2-CHLOROTOLUENE (O-	0.7590						2.3	
CAL01	Q1677347		4-CHLOROTOLUENE (P-	0.7508						3.8	
CAL01	Q1677347		2-CHLOROETHYLVINYLETHER	0.1405						10.4	
CAL01	Q1677347		1,2-DIBROMO-3-CHLOROPROPANE	0.1564						6.8	
CAL01	Q1677347		1,2-DIBROMOETHANE (EDB)	0.1764						8.7	
CAL01	Q1677347		DIBROMOMETHANE	0.1173						5.7	
CAL01	Q1677347		1,2-DICHLOROBENZENE (O-	1.4615						3.9	
CAL01	Q1677347		1,3-DICHLOROBENZENE (M-	1.5263						2.2	
CAL01	Q1677347		1,4-DICHLOROBENZENE (P-	1.5743						3	
CAL01	Q1677347		DICHLORODIFLUOROMETHANE	0.2077						4.2	
CAL01	Q1677347		TRANS-1,4-DICHLORO-2-BUTENE	0.2461						5.2	
CAL01	Q1677347		1,1-DICHLOROETHANE	0.3549						4.4	
CAL01	Q1677347		1,2-DICHLOROETHANE	0.2462						5.4	
CAL01	Q1677347		1,1-DICHLOROETHENE	0.1666						3.7	
CAL01	Q1677347		CIS-1,2-DICHLOROETHENE	0.2073						3.9	
CAL01	Q1677347		TRANS-1,2-DICHLOROETHENE	0.1877						4.7	
CAL01	Q1677347		1,2-DICHLOROPROPANE	0.2097						3.7	
CAL01	Q1677347		1,3-DICHLOROPROPANE	0.7819						2.5	
CAL01	Q1677347		2,2-DICHLOROPROPANE	0.2824						7.1	
CAL01	Q1677347		1,1-DICHLOROPROPENE	0.0963						4.6	
CAL01	Q1677347		CIS-1,3-DICHLOROPROPENE	0.3323						6.9	
CAL01	Q1677347		TRANS-1,3-DICHLOROPROPENE	0.2824						6.8	
CAL01	Q1677347		ETHYL BENZENE	0.7925						4.4	
CAL01	Q1677347		ETHYL METHACRYLATE	0.6778						5	
CAL01	Q1677347		2-HEXANONE	0.2962						2.2	
CAL01	Q1677347		HEXACHLOROBUTADIENE	0.5808						1.8	
CAL01	Q1677347		IODOMETHANE			LIN				1.000	
CAL01	Q1677347		ISOPROPYLBENZENE (CUMENE)	3.1414						6.7	
CAL01	Q1677347		4-ISOPROPYLTOLUENE (P-	2.7719						6.5	
CAL01	Q1677347		DICHLOROMETHANE (METHYLENE			QDR				1.000	
CAL01	Q1677347		METHYL ETHYL KETONE	0.0787						3.8	
CAL01	Q1677347		METHYL-T-BUTYL ETHER (MTBE)	0.6066						4.3	
CAL01	Q1677347		METHYL ISOBUTYL KETONE	0.1710						2.9	
CAL01	Q1677347		NAPHTHALENE	1.6875						10	
CAL01	Q1677347		N-PROPYLBENZENE	0.4409						8.5	
CAL01	Q1677347		STYRENE	1.6258						4.3	
CAL01	Q1677347		1,1,1,2-TETRACHLOROETHANE	0.4215						6.1	

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B						O510.5		(cont.)		
R481083		Analyst: R SHAMP		Run Date: 28-Dec-04		Instrument: GC/MS VOA		(cont.)		
Analytical		Reviewer: L SMITH		Review Date: 04-Jan-05						
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CCVD	Q1690146		TRANS-1,2-DICHLOROETHENE	0.1877			0.1953			4
CCVD	Q1690146		1,2-DICHLOROPROPANE	0.2097			0.1974			5.9
CCVD	Q1690146		1,3-DICHLOROPROPANE	0.7819			0.7744			1
CCVD	Q1690146		2,2-DICHLOROPROPANE	0.2824			0.2688			4.8
CCVD	Q1690146		1,1-DICHLOROPROPENE	0.0963			0.0917			4.8
CCVD	Q1690146		CIS-1,3-DICHLOROPROPENE	0.3323			0.2981			10.3
CCVD	Q1690146		TRANS-1,3-DICHLOROPROPENE	0.2824			0.2644			6.4
CCVD	Q1690146		ETHYL BENZENE	0.7925			0.6982			11.9
CCVD	Q1690146		ETHYL METHACRYLATE	0.6778			0.4868			28.2
CCVD	Q1690146		2-HEXANONE	0.2962			0.2628			11.3
CCVD	Q1690146		HEXACHLOROBUTADIENE	0.5808			0.4657			19.8
CCVD	Q1690146		IODOMETHANE	10		QDR	20.564			105.6
CCVD	Q1690146		ISOPROPYLBENZENE (CUMENE)	3.1414			2.7018			14
CCVD	Q1690146		4-ISOPROPYLTOLUENE (P-	2.7719			2.1191			23.6
CCVD	Q1690146		DICHLOROMETHANE (METHYLENE	10		LIN	11.340			13.4
CCVD	Q1690146		METHYL ETHYL KETONE	0.0787			0.0764			2.9
CCVD	Q1690146		METHYL-T-BUTYL ETHER (MTBE)	0.6066			0.5757			5.1
CCVD	Q1690146		METHYL ISOBUTYL KETONE	0.1710			0.1604			6.2
CCVD	Q1690146		NAPHTHALENE	1.6875			1.5243			9.7
CCVD	Q1690146		N-PROPYLBENZENE	0.4409			0.3894			11.7
CCVD	Q1690146		STYRENE	1.6258			1.3917			14.4
CCVD	Q1690146		1,1,1,2-TETRACHLOROETHANE	0.4215			0.4237			0.5
CCVD	Q1690146		1,1,2,2-TETRACHLOROETHANE	0.5911			0.5782			2.2
CCVD	Q1690146		TETRACHLOROETHENE	0.5397			0.5247			2.8
CCVD	Q1690146		TOLUENE	0.9088			0.8814			3
CCVD	Q1690146		1,2,3-TRICHLOROBENZENE	0.8240			0.7248			12
CCVD	Q1690146		1,2,4-TRICHLOROBENZENE	0.8704			0.7437			14.6
CCVD	Q1690146		1,1,1-TRICHLOROETHANE	0.2982			0.3274			9.8
CCVD	Q1690146		1,1,2-TRICHLOROETHANE	0.1771			0.1976			11.6
CCVD	Q1690146		TRICHLOROETHENE	0.1849			0.2040			10.3
CCVD	Q1690146		TRICHLOROFLUOROMETHANE	0.2602			0.2912			11.9
CCVD	Q1690146		1,2,3-TRICHLOROPROPANE	0.2083			0.2713			30.2
CCVD	Q1690146		1,2,4-TRIMETHYLBENZENE	2.7017			2.3131			14.4
CCVD	Q1690146		1,3,5-TRIMETHYLBENZENE	2.7052			2.2911			15.3
CCVD	Q1690146		VINYL ACETATE	0.8372			0.7588			9.4
CCVD	Q1690146		VINYL CHLORIDE	0.1929			0.1898			1.6
CCVD	Q1690146		DICHLOROETHANE-D4	0.3758			0.4671			24.3
CCVD	Q1690146		TOLUENE-D8	1.2114			1.2227			0.9
CCVD	Q1690146		4-BROMOFLUOROBENZENE	1.1187			1.0816			3.3
CCVD	Q1690146		DIBROMOFLUOROMETHANE	0.2841			0.3183			12
BLA01	Q1690150	Analysis Date/Time: 28-Dec-04 06:27								
BLA01	Q1690150		ACETONE (2-PROPANONE)			BDL	10.	ug/L		
BLA01	Q1690150		ACROLEIN			BDL	25.	ug/L		
BLA01	Q1690150		ACRYLONITRILE			BDL	5.0	ug/L		
BLA01	Q1690150		BENZENE			BDL	1.0	ug/L		
BLA01	Q1690150		BROMOBENZENE			BDL	1.0	ug/L		
BLA01	Q1690150		BROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1690150		BROMODICHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1690150		BROMOFORM			BDL	1.0	ug/L		
BLA01	Q1690150		BROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q1690150		N-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1690150		SEC-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1690150		TERT-BUTYLBENZENE			BDL	1.0	ug/L		

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

0510.5 (cont.)

R481083

Analyst: R SHAMP

Run Date: 28-Dec-04

Instrument: GC/MS VOA

(cont.)

Analytical

Reviewer: L SMITH

Review Date: 04-Jan-05

QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
BLA01	Q1690150		TRICHLOROFLUOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1690150		1,2,3-TRICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1690150		1,2,4-TRIMETHYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1690150		1,3,5-TRIMETHYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1690150		VINYL ACETATE			BDL	1.0	ug/L		
BLA01	Q1690150		VINYL CHLORIDE			BDL	1.0	ug/L		
BLA01	Q1690150		DICHLOROETHANE-D4						119	
BLA01	Q1690150		TOLUENE-D8						94	
BLA01	Q1690150		4-BROMOFLUOROBENZENE						98	
BLA01	Q1690150		DIBROMOFLUOROMETHANE						111	
LCS01	Q1690153		Analysis Date/Time: 28-Dec-04 07:03							
LCS01	Q1690153		ACROLEIN	100			554	ug/L	554	
LCS01	Q1690153		BROMOCHLOROMETHANE	10			10.4	ug/L	104	
LCS01	Q1690153		BROMOMETHANE	10			12.5	ug/L	125	
LCS01	Q1690153		CHLOROFORM	10			10.4	ug/L	104	
LCS01	Q1690153		2-CHLOROETHYL VINYLETHER	10			5.42	ug/L	54.2	
LCS01	Q1690153		DIBROMOMETHANE	10			9.82	ug/L	98.2	
LCS01	Q1690153		TRANS-1,2-DICHLOROETHENE	10			8.97	ug/L	89.7	
LCS01	Q1690153		IODOMETHANE	10			19.2	ug/L	192	
LCS01	Q1690153		DICHLOROMETHANE (METHYLENE	10			9.16	ug/L	91.6	
LCS01	Q1690153		1,1,1-TRICHLOROETHANE	10			10.1	ug/L	101	
SAMPLE	A685884		Analysis Date/Time: 28-Dec-04 13:54							
SAMPLE	A685884		See Certificate of Analysis, Rep: 0							
SAMPLE	A685887		Analysis Date/Time: 28-Dec-04 14:26							
SAMPLE	A685887		See Certificate of Analysis, Rep: 0							
SPI01	Q1690156	A685406	Analysis Date/Time: 28-Dec-04 16:01							
SPI01	Q1690156	A685406	ACETONE (2-PROPANONE)	0	50		67.6	ug/L	135.2	
SPI01	Q1690156	A685406	ACROLEIN	0	100		582	ug/L	582	
SPI01	Q1690156	A685406	ACRYLONITRILE	0	100		68.7	ug/L	68.7	
SPI01	Q1690156	A685406	BENZENE	30.5	10		43.1	ug/L	126	
SPI01	Q1690156	A685406	BROMOBENZENE	0	10		13.8	ug/L	138	
SPI01	Q1690156	A685406	BROMOCHLOROMETHANE	0	10		14.2	ug/L	142	
SPI01	Q1690156	A685406	BROMODICHLOROMETHANE	0	10		13.6	ug/L	136	
SPI01	Q1690156	A685406	BROMOFORM	0	10		11.9	ug/L	119	
SPI01	Q1690156	A685406	BROMOMETHANE	0	10		17.4	ug/L	174	
SPI01	Q1690156	A685406	N-BUTYLBENZENE	0	10		8.28	ug/L	82.8	
SPI01	Q1690156	A685406	SEC-BUTYLBENZENE	0	10		8.66	ug/L	86.6	
SPI01	Q1690156	A685406	TERT-BUTYLBENZENE	0	10		9.17	ug/L	91.7	
SPI01	Q1690156	A685406	CARBON DISULFIDE	0	10		12.2	ug/L	122	
SPI01	Q1690156	A685406	CARBON TETRACHLORIDE	0	10		14.2	ug/L	142	
SPI01	Q1690156	A685406	CHLOROBENZENE	0	10		10.7	ug/L	107	
SPI01	Q1690156	A685406	DIBROMOCHLOROMETHANE	0	10		12	ug/L	120	
SPI01	Q1690156	A685406	CHLOROETHANE	0	10		14.3	ug/L	143	
SPI01	Q1690156	A685406	CHLOROFORM	0	10		14.2	ug/L	142	
SPI01	Q1690156	A685406	CHLOROMETHANE	0	10		6.65	ug/L	66.5	
SPI01	Q1690156	A685406	2-CHLOROTOLUENE (O-	0	10		10.4	ug/L	104	
SPI01	Q1690156	A685406	4-CHLOROTOLUENE (P-	0	10		10.7	ug/L	107	
SPI01	Q1690156	A685406	2-CHLOROETHYL VINYLETHER	0	10		0	ug/L		
SPI01	Q1690156	A685406	1,2-DIBROMO-3-CHLOROPROPANE	0	10		10.8	ug/L	108	
SPI01	Q1690156	A685406	1,2-DIBROMOETHANE (EDB)	0	10		12.1	ug/L	121	
SPI01	Q1690156	A685406	DIBROMOMETHANE	0	10		13.8	ug/L	138	
SPI01	Q1690156	A685406	1,2-DICHLOROETHANE (O-	0	10		11.2	ug/L	112	
SPI01	Q1690156	A685406	1,3-DICHLOROETHANE (M-	0	10		10.9	ug/L	109	

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VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8:260B

O510.5 (cont.)

R481083		Analyst: R SHAMP		Run Date: 28-Dec-04		Instrument: GC/MS VOA			(cont.)		
Analytical		Reviewer: L SMITH		Review Date: 04-Jan-05							
QCType	Lab ID	Source	Parameter	True/Samp	Spike Val	RQL	Observed	Units	% Rec	RPD	
DPS01	Q1690157	A685406	N-BUTYLBENZENE	0	10		7.38	ug/L	73.8	11.5	
DPS01	Q1690157	A685406	SEC-BUTYLBENZENE	0	10		7.89	ug/L	78.9	9.3	
DPS01	Q1690157	A685406	TERT-BUTYLBENZENE	0	10		8.33	ug/L	83.3	9.6	
DPS01	Q1690157	A685406	CARBON DISULFIDE	0	10		11.2	ug/L	112.1	8.1	
DPS01	Q1690157	A685406	CARBON TETRACHLORIDE	0	10		13.3	ug/L	133	6.8	
DPS01	Q1690157	A685406	CHLOROBENZENE	0	10		9.85	ug/L	98.5	8.4	
DPS01	Q1690157	A685406	DIBROMOCHLOROMETHANE	0	10		11.1	ug/L	110.9	7.8	
DPS01	Q1690157	A685406	CHLOROETHANE	0	10		12.4	ug/L	124.3	14.3	
DPS01	Q1690157	A685406	CHLOROFORM	0	10		12.7	ug/L	127	10.8	
DPS01	Q1690157	A685406	CHLOROMETHANE	0	10		5.94	ug/L	59.4	11.3	
DPS01	Q1690157	A685406	2-CHLOROTOLUENE (O-	0	10		9.88	ug/L	98.8	5.3	
DPS01	Q1690157	A685406	4-CHLOROTOLUENE (P-	0	10		9.36	ug/L	93.6	13.4	
DPS01	Q1690157	A685406	2-CHLOROETHYLVINYLETHER	0	10	!	0	ug/L	0		
DPS01	Q1690157	A685406	1,2-DIBROMO-3-CHLOROPROPANE	0	10		9.47	ug/L	94.7	12.8	
DPS01	Q1690157	A685406	1,2-DIBROMOETHANE (EDB)	0	10		11.5	ug/L	114.9	5.5	
DPS01	Q1690157	A685406	DIBROMOMETHANE	0	10		12.5	ug/L	125.3	9.3	
DPS01	Q1690157	A685406	1,2-DICHLOROBENZENE (O-	0	10		10	ug/L	100.3	11.2	
DPS01	Q1690157	A685406	1,3-DICHLOROBENZENE (M-	0	10		9.83	ug/L	98.3	10.6	
DPS01	Q1690157	A685406	1,4-DICHLOROBENZENE (P-	0	10		9.32	ug/L	93.2	12.4	
DPS01	Q1690157	A685406	DICHLORODIFLUOROMETHANE	0	10		7.01	ug/L	70.1	11.2	
DPS01	Q1690157	A685406	TRANS-1,4-DICHLORO-2-BUTENE	0	20		19.4	ug/L	96.8	12.2	
DPS01	Q1690157	A685406	1,1-DICHLOROETHANE	0	10		11.3	ug/L	113	10.4	
DPS01	Q1690157	A685406	1,2-DICHLOROETHANE	1.07	10		14.5	ug/L	134.7	10	
DPS01	Q1690157	A685406	1,1-DICHLOROETHENE	0	10		11.1	ug/L	111	8.3	
DPS01	Q1690157	A685406	CIS-1,2-DICHLOROETHENE	0	10		11.5	ug/L	115.3	7.6	
DPS01	Q1690157	A685406	TRANS-1,2-DICHLOROETHENE	0	10		11.8	ug/L	117.9	12.4	
DPS01	Q1690157	A685406	1,2-DICHLOROPROPANE	0	10		10.7	ug/L	106.7	9.8	
DPS01	Q1690157	A685406	1,3-DICHLOROPROPANE	0	10		10.5	ug/L	105.2	10.5	
DPS01	Q1690157	A685406	2,2-DICHLOROPROPANE	0	10		10.3	ug/L	103.2	7.8	
DPS01	Q1690157	A685406	1,1-DICHLOROPROPENE	0	10		11	ug/L	109.8	5.8	
DPS01	Q1690157	A685406	CIS-1,3-DICHLOROPROPENE	0	10		9.49	ug/L	94.9	11.1	
DPS01	Q1690157	A685406	TRANS-1,3-DICHLOROPROPENE	0	10		9.93	ug/L	99.3	12.3	
DPS01	Q1690157	A685406	ETHYL BENZENE	0	10		10.3	ug/L	103.4	3.9	
DPS01	Q1690157	A685406	2-HEXANONE	0	50		51.1	ug/L	102.2	10.2	
DPS01	Q1690157	A685406	HEXACHLORO BUTADIENE	0	10		8.21	ug/L	82.1	16.5	
DPS01	Q1690157	A685406	IODOMETHANE	0	10	!	24.7	ug/L	247.1	4.8	
DPS01	Q1690157	A685406	ISOPROPYLBENZENE (CUMENE)	0	10		9.29	ug/L	92.9	8.7	
DPS01	Q1690157	A685406	4-ISOPROPYLTOLUENE (P-	0	10		7.44	ug/L	74.4	15.8	
DPS01	Q1690157	A685406	DICHLOROMETHANE (METHYLENE	0	10		11.8	ug/L	117.6	11.4	
DPS01	Q1690157	A685406	METHYL ETHYL KETONE	0	50		57.5	ug/L	115	5.3	
DPS01	Q1690157	A685406	METHYL-T-BUTYL ETHER (MTBE)	0	10		11.4	ug/L	113.7	7.6	
DPS01	Q1690157	A685406	METHYL ISOBUTYL KETONE	0	50		53.9	ug/L	107.8	9.4	
DPS01	Q1690157	A685406	NAPHTHALENE	0	10		10.5	ug/L	105	12.4	
DPS01	Q1690157	A685406	N-PROPYLBENZENE	0	10		9.21	ug/L	92.1	3.7	
DPS01	Q1690157	A685406	STYRENE	0	10		9.37	ug/L	93.7	9.5	
DPS01	Q1690157	A685406	1,1,1,2-TETRACHLOROETHANE	0	10		11.3	ug/L	113.1	9	
DPS01	Q1690157	A685406	1,1,2,2-TETRACHLOROETHANE	0	10		11.3	ug/L	113	5.5	
DPS01	Q1690157	A685406	TETRACHLOROETHENE	0	10		10.9	ug/L	108.9	6.3	
DPS01	Q1690157	A685406	TOLUENE	0	10		11	ug/L	110.1	8.6	
DPS01	Q1690157	A685406	1,2,3-TRICHLOROBENZENE	0	10		9.46	ug/L	94.6	9.6	
DPS01	Q1690157	A685406	1,2,4-TRICHLOROBENZENE	0	10		9.27	ug/L	92.7	12.8	
DPS01	Q1690157	A685406	1,1,1-TRICHLOROETHANE	0	10		12.5	ug/L	125	12.9	
DPS01	Q1690157	A685406	1,1,2-TRICHLOROETHANE	0	10		11.8	ug/L	118.3	9	

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

0510.5

(cont.)

R481143		Analyst: H WILLIAMS		Run Date: 29-Dec-04		Instrument: GC/MS VOA		(cont.)		
Analytical		Reviewer: R SHAMP		Review Date: 06-Jan-05						
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1684770		TOLUENE-D8	0.9928						3.3
CAL01	Q1684770		4-BROMOFLUOROBENZENE	0.9029						3.2
CAL01	Q1684770		DIBROMOFLUOROMETHANE	0.2722						4.6

Q1684770	Value reported for analytes calibrated by linear (LIN) or									
Q1684770	quadratic (QDR) equations is r2 (Coef. of Determination).									
Q1690649	Analytes present greater than 1/2 of the detection limit are reported.									
Q1690657	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery									
Q1690657	possible. Unacidified sample not available.									
Q1690658	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery									
Q1690658	possible. Unacidified sample not available.									

R481205	Analyst: R SHAMP		Run Date: 03-Jan-05		Instrument: GC/MS VOA					
Analytical	Reviewer: L SMITH		Review Date: 06-Jan-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1684770		Analysis Date/Time: 14-Dec-04 09:48							
CAL01	Q1684770		ACETONE (2-PROPANONE)	0.1293						8.3
CAL01	Q1684770		ACROLEIN			QDR				1.000
CAL01	Q1684770		ACRYLONITRILE	0.0796						5.1
CAL01	Q1684770		BENZENE	1.1609						5.3
CAL01	Q1684770		BROMOBENZENE	1.8282						5.1
CAL01	Q1684770		BROMOCHLOROMETHANE	0.1896						8.2
CAL01	Q1684770		BROMODICHLOROMETHANE	0.3650						1.5
CAL01	Q1684770		BROMOFORM	0.5309						4.3
CAL01	Q1684770		BROMOMETHANE	0.2301						13.6
CAL01	Q1684770		N-BUTYLBENZENE			LIN				0.999
CAL01	Q1684770		SEC-BUTYLBENZENE	3.7744						12.4
CAL01	Q1684770		TERT-BUTYLBENZENE	1.6528						9
CAL01	Q1684770		CARBON DISULFIDE	0.9281						8.3
CAL01	Q1684770		CARBON TETRACHLORIDE	0.4356						4.9
CAL01	Q1684770		CHLOROBENZENE	2.3798						3
CAL01	Q1684770		DIBROMOCHLOROMETHANE	0.9021						4.1
CAL01	Q1684770		CHLOROETHANE	0.2406						13.5
CAL01	Q1684770		CHLOROFORM	0.5026						12.6
CAL01	Q1684770		CHLOROMETHANE			LIN				1.000
CAL01	Q1684770		2-CHLOROTOLUENE (O-	1.0575						8.7
CAL01	Q1684770		4-CHLOROTOLUENE (P-	1.1004						4.2
CAL01	Q1684770		2-CHLOROETHYLVINYLETHER			QDR				1.000
CAL01	Q1684770		1,2-DIBROMO-3-CHLOROPROPANE	0.2054						8.3
CAL01	Q1684770		1,2-DIBROMOETHANE (EDB)	0.2817						3.1
CAL01	Q1684770		DIBROMOMETHANE	0.1861						7.9
CAL01	Q1684770		1,2-DICHLOROBENZENE (O-	1.9970						4.2
CAL01	Q1684770		1,3-DICHLOROBENZENE (M-	2.0830						5.2
CAL01	Q1684770		1,4-DICHLOROBENZENE (P-	2.1083						3.5
CAL01	Q1684770		DICHLORODIFLUOROMETHANE	0.2787						9.6
CAL01	Q1684770		TRANS-1,4-DICHLORO-2-BUTENE	0.4004						4.8
CAL01	Q1684770		1,1-DICHLOROETHANE	0.5779						5.6
CAL01	Q1684770		1,2-DICHLOROETHANE	0.4805						6.3
CAL01	Q1684770		1,1-DICHLOROETHENE	0.2625						2.2
CAL01	Q1684770		CIS-1,2-DICHLOROETHENE	0.3157						1.7

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R481205	Analyst: R SHAMP		Run Date: 03-Jan-05		Instrument: GC/MS VOA			(cont.)		
Analytical	Reviewer: L SMITH		Review Date: 06-Jan-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CCVD	Q1691109		CARBON TETRACHLORIDE	0.4356			0.5224			19.9
CCVD	Q1691109		CHLOROBENZENE	2.3798			2.4653			3.6
CCVD	Q1691109		DIBROMOCHLOROMETHANE	0.9021			0.9589			6.3
CCVD	Q1691109		CHLOROETHANE	0.2406			0.2566			6.7
CCVD	Q1691109		CHLOROFORM	0.5026			0.5353			6.5
CCVD	Q1691109		CHLOROMETHANE	10		LIN	10.406			4.1
CCVD	Q1691109		2-CHLOROTOLUENE (O-	1.0575			1.1831			11.9
CCVD	Q1691109		4-CHLOROTOLUENE (P-	1.1004			1.2103			10
CCVD	Q1691109		2-CHLOROETHYL VINYLETHER	10		QDR	9.092			9.1
CCVD	Q1691109		1,2-DIBROMO-3-CHLOROPROPANE	0.2054			0.1925			6.3
CCVD	Q1691109		1,2-DIBROMOETHANE (EDB)	0.2817			0.2915			3.5
CCVD	Q1691109		DIBROMOMETHANE	0.1861			0.1913			2.8
CCVD	Q1691109		1,2-DICHLOROBENZENE (O-	1.9970			2.2759			14
CCVD	Q1691109		1,3-DICHLOROBENZENE (M-	2.0830			2.3407			12.4
CCVD	Q1691109		1,4-DICHLOROBENZENE (P-	2.1033			2.3946			13.6
CCVD	Q1691109		DICHLORODIFLUOROMETHANE	0.2737			0.2539			8.9
CCVD	Q1691109		TRANS-1,4-DICHLORO-2-BUTENE	0.4004			0.3191			20.3
CCVD	Q1691109		1,1-DICHLOROETHANE	0.5779			0.5822			0.7
CCVD	Q1691109		1,2-DICHLOROETHANE	0.4805			0.5275			9.8
CCVD	Q1691109		1,1-DICHLOROETHENE	0.2625			0.2717			3.5
CCVD	Q1691109		CIS-1,2-DICHLOROETHENE	0.3157			0.3246			2.8
CCVD	Q1691109		TRANS-1,2-DICHLOROETHENE	0.2989			0.3188			6.7
CCVD	Q1691109		1,2-DICHLOROPROPANE	0.3098			0.2896			6.5
CCVD	Q1691109		1,3-DICHLOROPROPANE	1.1688			1.1211			4.1
CCVD	Q1691109		1,1-DICHLOROPROPENE	0.1480			0.1396			5.7
CCVD	Q1691109		CIS-1,3-DICHLOROPROPENE	0.3890			0.3797			2.4
CCVD	Q1691109		TRANS-1,3-DICHLOROPROPENE	0.3292			0.3087			6.2
CCVD	Q1691109		ETHYL BENZENE	1.2495			1.2890			3.2
CCVD	Q1691109		ETHYL METHACRYLATE	0.8253			0.7335			11.1
CCVD	Q1691109		2-HEXANONE	0.8062			0.7999			0.8
CCVD	Q1691109		HEXACHLOROBUTADIENE	0.3925			0.4710			20
CCVD	Q1691109		IODOMETHANE	0.6295			0.6898			9.6
CCVD	Q1691109		ISOPROPYLBENZENE (CUMENE)	10		LIN	9.919			0.8
CCVD	Q1691109		4-ISOPROPYLTOLUENE (P-	10		LIN	10.001			0
CCVD	Q1691109		DICHLOROMETHANE (METHYLENE	0.3086			0.3263			5.7
CCVD	Q1691109		METHYL ETHYL KETONE	0.0309			0.0264			14.6
CCVD	Q1691109		METHYL ISOBUTYL KETONE	0.4040			0.4052			0.3
CCVD	Q1691109		NAPHTHALENE	10		QDR	10.137			1.4
CCVD	Q1691109		N-PROPYLBENZENE	0.4549			0.4706			3.5
CCVD	Q1691109		STYRENE	2.3811			2.5564			7.4
CCVD	Q1691109		1,1,1,2-TETRACHLOROETHANE	0.9405			1.0267			9.2
CCVD	Q1691109		1,1,2,2-TETRACHLOROETHANE	0.9363			0.7329			21.7
CCVD	Q1691109		TETRACHLOROETHENE	1.0905			1.3574			24.5
CCVD	Q1691109		TOLUENE	1.2301			1.2666			3
CCVD	Q1691109		1,2,3-TRICHLOROBENZENE	1.0277			1.1870			15.5
CCVD	Q1691109		1,2,4-TRICHLOROBENZENE	1.0950			1.1931			9
CCVD	Q1691109		1,1,1-TRICHLOROETHANE	0.4605			0.5282			14.7
CCVD	Q1691109		1,1,2-TRICHLOROETHANE	0.2748			0.2807			2.1
CCVD	Q1691109		TRICHLOROETHENE	0.3859			0.4328			12.2
CCVD	Q1691109		TRICHLOROFLUOROMETHANE	0.4121			0.4695			13.9
CCVD	Q1691109		1,2,3-TRICHLOROPROPANE	10		QDR	10.253			2.5
CCVD	Q1691109		1,2,4-TRIMETHYLBENZENE	3.2304			3.6735			13.7
CCVD	Q1691109		1,3,5-TRIMETHYLBENZENE	3.1510			3.5135			11.5

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5 (cont.)

R481205 Analytical		Analyst: R SHAMP Reviewer: L SMITH		Run Date: 03-Jan-05 Review Date: 06-Jan-05		Instrument: GC/MS VOA		(cont.)		
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
BLA01	Q1691110		ISOPROPYLBENZENE (CUMENE)			BDL	0.29	ug/L		
BLA01	Q1691110		4-ISOPROPYLTOLUENE (P-			BDL	0.5	ug/L		
BLA01	Q1691110		DICHLOROMETHANE (METHYLENE		J		0.56	ug/L		
BLA01	Q1691110		METHYL ETHYL KETONE			BDL	4	ug/L		
BLA01	Q1691110		METHYL-T-BUTYL ETHER (MTBE)			BDL	0.31	ug/L		
BLA01	Q1691110		METHYL ISOBUTYL KETONE			BDL	1.3	ug/L		
BLA01	Q1691110		NAPHTHALENE			BDL	0.39	ug/L		
BLA01	Q1691110		N-PROPYLBENZENE			BDL	0.43	ug/L		
BLA01	Q1691110		STYRENE			BDL	0.27	ug/L		
BLA01	Q1691110		1,1,1,2-TETRACHLOROETHANE			BDL	0.29	ug/L		
BLA01	Q1691110		1,1,2,2-TETRACHLOROETHANE			BDL	0.46	ug/L		
BLA01	Q1691110		TETRACHLOROETHENE			BDL	0.44	ug/L		
BLA01	Q1691110		TOLUENE			BDL	0.37	ug/L		
BLA01	Q1691110		1,2,3-TRICHLOROBENZENE			BDL	0.95	ug/L		
BLA01	Q1691110		1,2,4-TRICHLOROBENZENE			BDL	0.6	ug/L		
BLA01	Q1691110		1,1,1-TRICHLOROETHANE			BDL	0.42	ug/L		
BLA01	Q1691110		1,1,2-TRICHLOROETHANE			BDL	0.44	ug/L		
BLA01	Q1691110		TRICHLOROETHENE			BDL	0.37	ug/L		
BLA01	Q1691110		TRICHLOROFLUOROMETHANE			BDL	0.25	ug/L		
BLA01	Q1691110		1,2,3-TRICHLOROPROPANE			BDL	0.76	ug/L		
BLA01	Q1691110		1,2,4-TRIMETHYLBENZENE			BDL	0.47	ug/L		
BLA01	Q1691110		1,3,5-TRIMETHYLBENZENE			BDL	0.39	ug/L		
BLA01	Q1691110		VINYL ACETATE			BDL	0.55	ug/L		
BLA01	Q1691110		VINYL CHLORIDE			BDL	0.48	ug/L		
BLA01	Q1691110		XYLENES (O/M/P-XYLENE)			BDL	0.62	ug/L		
BLA01	Q1691110		DICHLOROETHANE-D4						118	
BLA01	Q1691110		TOLUENE-D8						101	
BLA01	Q1691110		4-BROMOFLUOROBENZENE						106	
BLA01	Q1691110		DIBROMOFLUOROMETHANE						110	
LCS01	Q1691111		Analysis Date/Time: 03-Jan-05 07:32							
LCS01	Q1691111		ACROLEIN	100			130	ug/L	130	
LCS01	Q1691111		2-CHLOROETHYLVINYLETHER	10			8.67	ug/L	86.7	
LCS01	Q1691111		CIS-1,2-DICHLOROETHENE	10			10.8	ug/L	108	
LCS01	Q1691111		METHYL ETHYL KETONE	50			43.9	ug/L	87.8	
LCS01	Q1691111		TETRACHLOROETHENE	10			11.3	ug/L	113	
LCS01	Q1691111		TRICHLOROETHENE	10			11.5	ug/L	115	
LCS01	Q1691111		VINYL CHLORIDE	10			11.6	ug/L	116	
SAMPLE	A685885		Analysis Date/Time: 03-Jan-05 10:49							
SAMPLE	A685885		See Certificate of Analysis, Rep: 0							
SAMPLE	A685886		Analysis Date/Time: 03-Jan-05 11:17							
SAMPLE	A685886		See Certificate of Analysis, Rep: 0							
SPI01	Q1691112	A685885	Analysis Date/Time: 03-Jan-05 16:26							
SPI01	Q1691112	A685885	ACETONE (2-PROPANONE)	0	50		50.8	ug/L	101.6	
SPI01	Q1691112	A685885	ACROLEIN	0	100		69	ug/L	69	
SPI01	Q1691112	A685885	ACRYLONITRILE	0	100		159	ug/L	159	
SPI01	Q1691112	A685885	BENZENE	0	10		10.5	ug/L	105	
SPI01	Q1691112	A685885	BROMOBENZENE	0	10		9.47	ug/L	94.7	
SPI01	Q1691112	A685885	BROMOCHLOROMETHANE	0	10		11.1	ug/L	111	
SPI01	Q1691112	A685885	BROMODICHLOROMETHANE	0	10		10.5	ug/L	105	
SPI01	Q1691112	A685885	BROMOFORM	0	10		10.7	ug/L	107	
SPI01	Q1691112	A685885	BROMOMETHANE	0	10		11.6	ug/L	116	
SPI01	Q1691112	A685885	N-BUTYLBENZENE	0	10		8.69	ug/L	86.9	
SPI01	Q1691112	A685885	SEC-BUTYLBENZENE	0	10		10	ug/L	100	

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8:60B

O510.5 (cont.)

R481205 Analytical		Analyst: R SHAMP Reviewer: L SMITH		Run Date: 03-Jan-05 Review Date: 06-Jan-05		Instrument: GC/MS VOA		(cont.)		
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
SPI01	Q1691112	A685885	1,2,3-TRICHLOROPROPANE	0	10		10.1	ug/L	101	
SPI01	Q1691112	A685885	1,2,4-TRIMETHYLBENZENE	0	10		11	ug/L	110	
SPI01	Q1691112	A685885	1,3,5-TRIMETHYLBENZENE	0	10		10.9	ug/L	109	
SPI01	Q1691112	A685885	VINYL ACETATE	0	10		8.51	ug/L	85.1	
SPI01	Q1691112	A685885	VINYL CHLORIDE	10	10	NQR	129	ug/L		
SPI01	Q1691112	A685885	XYLENES (O/M/P-XYLENE)	0	30		32.6	ug/L	108.7	
DPS01	Q1691113	A685885	Analysis Date/Time: 03-Jan-05 16:54							
DPS01	Q1691113	A685885	ACETONE (2-PROPANONE)	0	50		47.3	ug/L	94.6	7.1
DPS01	Q1691113	A685885	ACROLEIN	0	100		130	ug/L	129.7	61.1
DPS01	Q1691113	A685885	ACRYLONITRILE	0	100		136	ug/L	135.9	15.9
DPS01	Q1691113	A685885	BENZENE	0	10		9.77	ug/L	97.7	6.8
DPS01	Q1691113	A685885	BROMOBENZENE	0	10		9.07	ug/L	90.7	4.3
DPS01	Q1691113	A685885	BROMOCHLOROMETHANE	0	10		10.6	ug/L	105.6	4.7
DPS01	Q1691113	A685885	BROMODICHLOROMETHANE	0	10		10.5	ug/L	105.2	0.3
DPS01	Q1691113	A685885	BROMOFORM	0	10		9.97	ug/L	99.7	7.4
DPS01	Q1691113	A685885	BROMOMETHANE	0	10		10.4	ug/L	103.6	11.6
DPS01	Q1691113	A685885	N-BUTYLBENZENE	0	10		8.17	ug/L	81.7	6.2
DPS01	Q1691113	A685885	SEC-BUTYLBENZENE	0	10		9.59	ug/L	95.9	4.6
DPS01	Q1691113	A685885	TERT-BUTYLBENZENE	0	10		9.74	ug/L	97.4	4.6
DPS01	Q1691113	A685885	CARBON DISULFIDE	0	10		8.9	ug/L	89	5.3
DPS01	Q1691113	A685885	CARBON TETRACHLORIDE	0	10		11.3	ug/L	113.3	2.3
DPS01	Q1691113	A685885	CHLOROBENZENE	0	10		10.3	ug/L	103.1	3.6
DPS01	Q1691113	A685885	DIBROMOCHLOROMETHANE	0	10		10.8	ug/L	108.2	3.4
DPS01	Q1691113	A685885	CHLOROETHANE	0	10		9.85	ug/L	98.5	8.1
DPS01	Q1691113	A685885	CHLOROFORM	0	10		10.3	ug/L	103	8.6
DPS01	Q1691113	A685885	CHLOROMETHANE	0	10		9.38	ug/L	93.8	8.7
DPS01	Q1691113	A685885	2-CHLOROTOLUENE (O-	0	10		10.1	ug/L	101.3	5.9
DPS01	Q1691113	A685885	4-CHLOROTOLUENE (P-	0	10		10.4	ug/L	104.1	4.7
DPS01	Q1691113	A685885	2-CHLOROETHYL VINYL ETHER	0	10	!	0	ug/L	0	
DPS01	Q1691113	A685885	1,2-DIBROMO-3-CHLOROPROPANE	0	10		9.17	ug/L	91.7	9.1
DPS01	Q1691113	A685885	1,2-DIBROMOETHANE (EDB)	0	10		9.89	ug/L	98.9	4.2
DPS01	Q1691113	A685885	DIBROMOMETHANE	0	10		9.3	ug/L	93	6.3
DPS01	Q1691113	A685885	1,2-DICHLOROBENZENE (O-	0	10		10.7	ug/L	107.1	1.9
DPS01	Q1691113	A685885	1,3-DICHLOROBENZENE (M-	0	10		10.2	ug/L	102.4	6.1
DPS01	Q1691113	A685885	1,4-DICHLOROBENZENE (P-	0	10		10.6	ug/L	105.9	0.9
DPS01	Q1691113	A685885	DICHLORODIFLUOROMETHANE	0	10		6.87	ug/L	68.7	16.2
DPS01	Q1691113	A685885	TRANS-1,4-DICHLORO-2-BUTENE	0	20		11.5	ug/L	57.6	8.7
DPS01	Q1691113	A685885	1,1-DICHLOROETHANE	7.55	10		17	ug/L	94.8	11
DPS01	Q1691113	A685885	1,2-DICHLOROETHANE	0	10		10.2	ug/L	102.2	5.9
DPS01	Q1691113	A685885	1,1-DICHLOROETHENE	4.6	10		13.9	ug/L	93.1	7.7
DPS01	Q1691113	A685885	CIS-1,2-DICHLOROETHENE	1620	10	NQR	1720	ug/L		
DPS01	Q1691113	A685885	TRANS-1,2-DICHLOROETHENE	15.1	10		25.7	ug/L	106.1	16.4
DPS01	Q1691113	A685885	1,2-DICHLOROPROPANE	0	10		9.71	ug/L	97.1	2.8
DPS01	Q1691113	A685885	1,3-DICHLOROPROPANE	0	10		7.06	ug/L	70.6	3.3
DPS01	Q1691113	A685885	2,2-DICHLOROPROPANE	0	10		8.01	ug/L	80.1	4.5
DPS01	Q1691113	A685885	1,1-DICHLOROPROPENE	0	10		9.51	ug/L	95.1	2.1
DPS01	Q1691113	A685885	CIS-1,3-DICHLOROPROPENE	0	10		8.36	ug/L	83.6	1.8
DPS01	Q1691113	A685885	TRANS-1,3-DICHLOROPROPENE	0	10		8.88	ug/L	88.8	1.1
DPS01	Q1691113	A685885	ETHYL BENZENE	0	10		10.1	ug/L	101.3	5.8
DPS01	Q1691113	A685885	2-HEXANONE	0	50		52.2	ug/L	104.3	1
DPS01	Q1691113	A685885	HEXACHLOROBTADIENE	0	10		9.3	ug/L	93	7.5
DPS01	Q1691113	A685885	IODOMETHANE	0	10		10.4	ug/L	104.4	3.2
DPS01	Q1691113	A685885	ISOPROPYLBENZENE (CUMENE)	0	10		9.4	ug/L	94	5.8

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5 (cont.)

R481293		Analyst: H WILLIAMS		Run Date: 07-Jan-05		Instrument: GC/MS VOA		(cont.)		
Analytical		Reviewer: L SMITH		Review Date: 12-Jan-05						
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1692458		CARBON TETRACHLORIDE	0.6160						6.8
CAL01	Q1692458		CHLOROBENZENE	0.8803						5.6
CAL01	Q1692458		DIBROMOCHLOROMETHANE	0.5116						6.8
CAL01	Q1692458		CHLOROETHANE	10.0		QDR				0.997
CAL01	Q1692458		CHLOROFORM	0.6223						6.1
CAL01	Q1692458		CHLOROMETHANE	0.1945						7.7
CAL01	Q1692458		2-CHLOROTOLUENE (O-	2.0647						5.5
CAL01	Q1692458		4-CHLOROTOLUENE (P-	2.0638						7.3
CAL01	Q1692458		2-CHLOROETHYLVINYLETHER	0.0602						13.3
CAL01	Q1692458		1,2-DIBROMO-3-CHLOROPROPANE	0.0816						12.6
CAL01	Q1692458		1,2-DIBROMOETHANE (EDB)	0.3139						4.1
CAL01	Q1692458		DIBROMOMETHANE	0.1877						5.5
CAL01	Q1692458		1,2-DICHLOROBENZENE (O-	1.0953						4.9
CAL01	Q1692458		1,3-DICHLOROBENZENE (M-	1.4035						6.7
CAL01	Q1692458		1,4-DICHLOROBENZENE (P-	1.4841						2
CAL01	Q1692458		DICHLORODIFLUOROMETHANE	0.3472						11.4
CAL01	Q1692458		TRANS-1,4-DICHLORO-2-BUTENE	0.0433						11.5
CAL01	Q1692458		1,1-DICHLOROETHANE	0.5748						3.6
CAL01	Q1692458		1,2-DICHLOROETHANE	0.2196						9.8
CAL01	Q1692458		1,1-DICHLOROETHENE	0.2654						3.5
CAL01	Q1692458		CIS-1,2-DICHLOROETHENE	0.3079						4.4
CAL01	Q1692458		TRANS-1,2-DICHLOROETHENE	0.3333						2.7
CAL01	Q1692458		1,2-DICHLOROPROPANE	0.2548						3.8
CAL01	Q1692458		1,3-DICHLOROPROPANE	0.2967						5.8
CAL01	Q1692458		2,2-DICHLOROPROPANE	0.4808						3.9
CAL01	Q1692458		1,1-DICHLOROPROPENE	0.4112						10.7
CAL01	Q1692458		CIS-1,3-DICHLOROPROPENE	0.3316						9.3
CAL01	Q1692458		TRANS-1,3-DICHLOROPROPENE	0.2174						7.3
CAL01	Q1692458		ETHYL BENZENE	1.2909						12
CAL01	Q1692458		ETHYL METHACRYLATE	0.1773						10.7
CAL01	Q1692458		2-HEXANONE	0.0527						4.6
CAL01	Q1692458		HEXACHLOROBUTADIENE	1.9962						13.5
CAL01	Q1692458		IODOMETHANE	0.6575						7.9
CAL01	Q1692458		ISOPROPYLBENZENE (CUMENE)	2.5150						8.3
CAL01	Q1692458		4-ISOPROPYLTOLUENE (P-	2.1123						7
CAL01	Q1692458		DICHLOROMETHANE (METHYLENE	0.2914						6.8
CAL01	Q1692458		METHYL ETHYL KETONE	0.0184						14.9
CAL01	Q1692458		METHYL-T-BUTYL ETHER (MTBE)	0.2687						8.1
CAL01	Q1692458		METHYL ISOBUTYL KETONE	0.0648						9.2
CAL01	Q1692458		NAPHTHALENE	10.0		LIN				0.993
CAL01	Q1692458		N-PROPYLBENZENE	3.0426						6
CAL01	Q1692458		STYRENE	0.6181						13
CAL01	Q1692458		1,1,1,2-TETRACHLOROETHANE	0.4641						9.2
CAL01	Q1692458		1,1,2,2-TETRACHLOROETHANE	0.4123						7.9
CAL01	Q1692458		TETRACHLOROETHENE	0.9562						12.1
CAL01	Q1692458		TOLUENE	0.4661						8
CAL01	Q1692458		1,2,3-TRICHLOROBENZENE	10.0		LIN				0.992
CAL01	Q1692458		1,2,4-TRICHLOROBENZENE	10.0		LIN				0.996
CAL01	Q1692458		1,1,1-TRICHLOROETHANE	0.5895						7.5
CAL01	Q1692458		1,1,2-TRICHLOROETHANE	0.1339						7
CAL01	Q1692458		TRICHLOROETHENE	0.4122						8.3
CAL01	Q1692458		TRICHLOROFLUOROMETHANE	0.5505						10
CAL01	Q1692458		1,2,3-TRICHLOROPROPANE	0.1060						12.5

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8:260B

O510.5 (cont.)

R481293
AnalyticalAnalyst: H WILLIAMS
Reviewer: L SMITHRun Date: 07-Jan-05
Review Date: 12-Jan-05

Instrument: GC/MS VOA

(cont.)

QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CCVD	Q1692480		HEXACHLOROBUTADIENE	1.9962			1.7581			11.9
CCVD	Q1692480		IODOMETHANE	0.6575			1.1074			68.4
CCVD	Q1692480		ISOPROPYLBENZENE (CUMENE)	2.5150			2.5470			1.3
CCVD	Q1692480		4-ISOPROPYLTOLUENE (P-	2.1123			2.0982			0.7
CCVD	Q1692480		DICHLOROMETHANE (METHYLENE	0.2914			0.2861			1.8
CCVD	Q1692480		METHYL ETHYL KETONE	0.0184			0.0163			11.4
CCVD	Q1692480		METHYL-T-BUTYL ETHER (MTBE)	0.2687			0.3203			19.2
CCVD	Q1692480		METHYL ISOBUTYL KETONE	0.0648			0.0708			9.3
CCVD	Q1692480		NAPHTHALENE	10.0		LIN	7.25			27.5
CCVD	Q1692480		N-PROPYLBENZENE	3.0426			3.1213			2.6
CCVD	Q1692480		STYRENE	0.6131			0.6623			7.2
CCVD	Q1692480		1,1,1,2-TETRACHLOROETHANE	0.4641			0.4903			5.6
CCVD	Q1692480		1,1,2,2-TETRACHLOROETHANE	0.4123			0.4289			4
CCVD	Q1692480		TETRACHLOROETHENE	0.9562			1.0333			8.1
CCVD	Q1692480		TOLUENE	0.4651			0.5054			8.4
CCVD	Q1692480		1,2,3-TRICHLOROBENZENE	10.0		LIN	7.79			22.1
CCVD	Q1692480		1,2,4-TRICHLOROBENZENE	10.0		LIN	7.89			21.1
CCVD	Q1692480		1,1,1-TRICHLOROETHANE	0.5895			0.5612			4.8
CCVD	Q1692480		1,1,2-TRICHLOROETHANE	0.1339			0.1421			6.1
CCVD	Q1692480		TRICHLOROETHENE	0.4122			0.4382			6.3
CCVD	Q1692480		TRICHLOROFLUOROMETHANE	0.5505			0.4691			14.8
CCVD	Q1692480		1,2,3-TRICHLOROPROPANE	0.1060			0.1028			3
CCVD	Q1692480		1,2,4-TRIMETHYLBENZENE	1.8191			1.8081			0.6
CCVD	Q1692480		1,3,5-TRIMETHYLBENZENE	1.9159			1.9040			0.6
CCVD	Q1692480		VINYL ACETATE	0.4803			0.6341			32
CCVD	Q1692480		VINYL CHLORIDE	0.2075			0.1972			5
CCVD	Q1692480		DICHLOROETHANE-D4	0.2099			0.2183			4
CCVD	Q1692480		TOLUENE-D8	0.8367			0.8654			3.4
CCVD	Q1692480		4-BROMOFLUOROBENZENE	1.3496			1.3544			0.4
CCVD	Q1692480		DIBROMOFLUOROMETHANE	0.5846			0.5852			0.1
BLA01	Q1692481		Analysis Date/Time: 07-Jan-05 04:54							
BLA01	Q1692481		ACETONE (2-PROPANONE)			BDL	10.	ug/L		
BLA01	Q1692481		ACROLEIN			BDL	25.	ug/L		
BLA01	Q1692481		ACRYLONITRILE			BDL	25.	ug/L		
BLA01	Q1692481		BENZENE			BDL	1.0	ug/L		
BLA01	Q1692481		BROMOBENZENE			BDL	1.0	ug/L		
BLA01	Q1692481		BROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1692481		BROMODICHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1692481		BROMOFORM			BDL	1.0	ug/L		
BLA01	Q1692481		BROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q1692481		N-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1692481		SEC-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1692481		TERT-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1692481		CARBON DISULFIDE			BDL	1.0	ug/L		
BLA01	Q1692481		CARBON TETRACHLORIDE			BDL	1.0	ug/L		
BLA01	Q1692481		CHLOROBENZENE			BDL	1.0	ug/L		
BLA01	Q1692481		DIBROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1692481		CHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1692481		CHLOROFORM			BDL	1.0	ug/L		
BLA01	Q1692481		CHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1692481		2-CHLOROTOLUENE (O-			BDL	1.0	ug/L		
BLA01	Q1692481		4-CHLOROTOLUENE (P-			BDL	1.0	ug/L		
BLA01	Q1692481		2-CHLOROETHYLVINYLETHER			BDL	1.0	ug/L		

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

0510.5 (cont.)

R481293 Analytical		Analyst: H WILLIAMS Reviewer: L SMITH		Run Date: 07-Jan-05 Review Date: 12-Jan-05		Instrument: GC/MS VOA		(cont.)		
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
LCS01	Q1692482		Analysis Date/Time: 07-Jan-05 05:37							
LCS01	Q1692482		ACROLEIN	100			283	ug/L	283	
LCS01	Q1692482		ACRYLONITRILE	100			351	ug/L	351	
LCS01	Q1692482		2-CHLOROETHYLVINYLETHER	10			10.4	ug/L	104	
LCS01	Q1692482		IODOMETHANE	10			15.2	ug/L	152	
SAMPLE	A685888		Analysis Date/Time: 07-Jan-05 06:21							
SAMPLE	A685888		See Certificate of Analysis, Rep: 0							
SPI01	Q1692742	A686206	Analysis Date/Time: 07-Jan-05 13:12							
SPI01	Q1692742	A686206	ACETONE (2-PROPANONE)	0	50		61.1	ug/L	122.2	
SPI01	Q1692742	A686206	ACROLEIN	0	100		128	ug/L	128	
SPI01	Q1692742	A686206	ACRYLONITRILE	0	100	1	250	ug/L	250	
SPI01	Q1692742	A686206	BENZENE	0	10		9.74	ug/L	97.4	
SPI01	Q1692742	A686206	BROMOBENZENE	0	10		10.7	ug/L	107	
SPI01	Q1692742	A686206	BROMOCHLOROMETHANE	0	10		12.8	ug/L	128	
SPI01	Q1692742	A686206	BROMODICHLOROMETHANE	0	10		12.9	ug/L	129	
SPI01	Q1692742	A686206	BROMOFORM	0	10		11.3	ug/L	113	
SPI01	Q1692742	A686206	BROMOMETHANE	0	10		13.6	ug/L	136	
SPI01	Q1692742	A686206	N-BUTYLBENZENE	0	10		9.65	ug/L	96.5	
SPI01	Q1692742	A686206	SEC-BUTYLBENZENE	0	10		9.24	ug/L	92.4	
SPI01	Q1692742	A686206	TERT-BUTYLBENZENE	0	10		10.6	ug/L	106	
SPI01	Q1692742	A686206	CARBON DISULFIDE	0	10		11.4	ug/L	114	
SPI01	Q1692742	A686206	CARBON TETRACHLORIDE	0	10		11.3	ug/L	113	
SPI01	Q1692742	A686206	CHLOROBENZENE	0	10		11.4	ug/L	114	
SPI01	Q1692742	A686206	DIBROMOCHLOROMETHANE	0	10		12.6	ug/L	126	
SPI01	Q1692742	A686206	CHLOROETHANE	0	10		10.6	ug/L	106	
SPI01	Q1692742	A686206	CHLOROFORM	0	10		11.7	ug/L	117	
SPI01	Q1692742	A686206	CHLOROMETHANE	0	10		7.83	ug/L	78.3	
SPI01	Q1692742	A686206	2-CHLOROTOLUENE (O-	0	10		10.5	ug/L	105	
SPI01	Q1692742	A686206	4-CHLOROTOLUENE (P-	0	10		10.7	ug/L	107	
SPI01	Q1692742	A686206	2-CHLOROETHYLVINYLETHER	0	10	1	0	ug/L	0	
SPI01	Q1692742	A686206	1,2-DIBROMO-3-CHLOROPROPANE	0	10		10.5	ug/L	105	
SPI01	Q1692742	A686206	1,2-DIBROMOETHANE (EDB)	0	10		12.3	ug/L	123	
SPI01	Q1692742	A686206	DIBROMOMETHANE	0	10		12.7	ug/L	127	
SPI01	Q1692742	A686206	1,2-DICHLOROBENZENE (O-	0	10		11.1	ug/L	111	
SPI01	Q1692742	A686206	1,3-DICHLOROBENZENE (M-	0	10		10.4	ug/L	104	
SPI01	Q1692742	A686206	1,4-DICHLOROBENZENE (P-	0	10		10.3	ug/L	103	
SPI01	Q1692742	A686206	DICHLORODIFLUOROMETHANE	0	10		7.51	ug/L	75.1	
SPI01	Q1692742	A686206	TRANS-1,4-DICHLORO-2-BUTENE	0	20		18.2	ug/L	91	
SPI01	Q1692742	A686206	1,1-DICHLOROETHANE	0	10		10.3	ug/L	103	
SPI01	Q1692742	A686206	1,2-DICHLOROETHANE	0	10		14.4	ug/L	144	
SPI01	Q1692742	A686206	1,1-DICHLOROETHENE	0	10		9.82	ug/L	98.2	
SPI01	Q1692742	A686206	CIS-1,2-DICHLOROETHENE	0	10		11	ug/L	110	
SPI01	Q1692742	A686206	TRANS-1,2-DICHLOROETHENE	0	10		9.77	ug/L	97.7	
SPI01	Q1692742	A686206	1,2-DICHLOROPROPANE	0	10		11.6	ug/L	116	
SPI01	Q1692742	A686206	1,3-DICHLOROPROPANE	0	10		13.2	ug/L	132	
SPI01	Q1692742	A686206	2,2-DICHLOROPROPANE	0	10		10.3	ug/L	103	
SPI01	Q1692742	A686206	1,1-DICHLOROPROPENE	0	10		11.3	ug/L	113	
SPI01	Q1692742	A686206	CIS-1,3-DICHLOROPROPENE	0	10		12.4	ug/L	124	
SPI01	Q1692742	A686206	TRANS-1,3-DICHLOROPROPENE	0	10		12.5	ug/L	125	
SPI01	Q1692742	A686206	ETHYL BENZENE	0	10		11.1	ug/L	111	
SPI01	Q1692742	A686206	XYLENES (O/M/P-XYLENE)	0	30		30.6	UG/L	102	
SPI01	Q1692742	A686206	2-HEXANONE	0	50		63.8	ug/L	127.6	
SPI01	Q1692742	A686206	HEXACHLOROBTADIENE	0	10		10.3	ug/L	103	

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5 (cont.)

R481293		Analyst: H WILLIAMS		Run Date: 07-Jan-05		Instrument: GC/MS VOA				(cont.)	
Analytical		Reviewer: L SMITH		Review Date: 12-Jan-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
DPS01	Q1692743	A686206	1,4-DICHLOROBENZENE (P-	0	10		9.57	ug/L	95.7	7.5	
DPS01	Q1692743	A686206	DICHLORODIFLUOROMETHANE	0	10		7.27	ug/L	72.7	3.2	
DPS01	Q1692743	A686206	TRANS-1,4-DICHLORO-2-BUTENE	0	20		18.5	ug/L	92.4	1.4	
DPS01	Q1692743	A686206	1,1-DICHLOROETHANE	0	10		9.66	ug/L	96.6	6	
DPS01	Q1692743	A686206	1,2-DICHLOROETHANE	0	10		12.7	ug/L	127	12.3	
DPS01	Q1692743	A686206	1,1-DICHLOROETHENE	0	10		9.56	ug/L	95.6	2.7	
DPS01	Q1692743	A686206	CIS-1,2-DICHLOROETHENE	0	10		10.5	ug/L	104.6	5	
DPS01	Q1692743	A686206	TRANS-1,2-DICHLOROETHENE	0	10		9.49	ug/L	94.9	2.9	
DPS01	Q1692743	A686206	1,2-DICHLOROPROPANE	0	10		10.9	ug/L	108.6	6.9	
DPS01	Q1692743	A686206	1,3-DICHLOROPROPANE	0	10		12.2	ug/L	121.8	7.7	
DPS01	Q1692743	A686206	2,2-DICHLOROPROPANE	0	10		9.66	ug/L	96.6	6.3	
DPS01	Q1692743	A686206	1,1-DICHLOROPROPENE	0	10		10.8	ug/L	108.2	4.7	
DPS01	Q1692743	A686206	CIS-1,3-DICHLOROPROPENE	0	10		11.2	ug/L	112.2	9.7	
DPS01	Q1692743	A686206	TRANS-1,3-DICHLOROPROPENE	0	10		11.8	ug/L	117.5	6.1	
DPS01	Q1692743	A686206	ETHYL BENZENE	0	10		10.8	ug/L	107.9	2.6	
DPS01	Q1692743	A686206	XYLENES (O/M/P-XYLENE)	0	30		29.8	UG/L	99.3	2.7	
DPS01	Q1692743	A686206	2-HEXANONE	0	50		63.6	ug/L	127.2	0.4	
DPS01	Q1692743	A686206	HEXACHLOROBUTADIENE	0	10		10.2	ug/L	101.7	1	
DPS01	Q1692743	A686206	IODOMETHANE	0	10	!	18.3	ug/L	183.3	1.5	
DPS01	Q1692743	A686206	ISOPROPYLBENZENE (CUMENE)	0	10		9.26	ug/L	92.6	1.1	
DPS01	Q1692743	A686206	4-ISOPROPYLTOLUENE (P-	0	10		9.69	ug/L	96.9	2.4	
DPS01	Q1692743	A686206	DICHLOROMETHANE (METHYLENE	1.34	10		12.4	ug/L	110.9	1.5	
DPS01	Q1692743	A686206	METHYL ETHYL KETONE	0	50		50.3	ug/L	100.6	8.9	
DPS01	Q1692743	A686206	METHYL-T-BUTYL ETHER (MTBE)	0	10		14.5	ug/L	145	4.7	
DPS01	Q1692743	A686206	METHYL ISOBUTYL KETONE	0	50		64.4	ug/L	128.8	6.5	
DPS01	Q1692743	A686206	NAPHTHALENE	0	10		8.08	ug/L	80.8	3.1	
DPS01	Q1692743	A686206	N-PROPYLBENZENE	0	10		9.49	ug/L	94.9	0.3	
DPS01	Q1692743	A686206	STYRENE	0	10		10.8	ug/L	107.7	3.7	
DPS01	Q1692743	A686206	1,1,1,2-TETRACHLOROETHANE	0	10		11.9	ug/L	118.5	7.5	
DPS01	Q1692743	A686206	1,1,2,2-TETRACHLOROETHANE	0	10		10.1	ug/L	101.1	6.2	
DPS01	Q1692743	A686206	TETRACHLOROETHENE	0	10		11	ug/L	109.9	2.2	
DPS01	Q1692743	A686206	TOLUENE	0	10		10.5	ug/L	105.2	6.3	
DPS01	Q1692743	A686206	1,2,3-TRICHLOROBENZENE	0	10		9.03	ug/L	90.3	6	
DPS01	Q1692743	A686206	1,2,4-TRICHLOROBENZENE	0	10		9.35	ug/L	93.5	7.1	
DPS01	Q1692743	A686206	1,1,1-TRICHLOROETHANE	0	10		11	ug/L	109.6	6.3	
DPS01	Q1692743	A686206	1,1,2-TRICHLOROETHANE	0	10		11.3	ug/L	113.1	6.7	
DPS01	Q1692743	A686206	TRICHLOROETHENE	0	10		10.9	ug/L	109.2	6.5	
DPS01	Q1692743	A686206	TRICHLOROFLUOROMETHANE	0	10		9.56	ug/L	95.6	5.3	
DPS01	Q1692743	A686206	1,2,3-TRICHLOROPROPANE	0	10		10	ug/L	100.1	10.4	
DPS01	Q1692743	A686206	1,2,4-TRIMETHYLBENZENE	0	10		10.1	ug/L	100.5	0.9	
DPS01	Q1692743	A686206	1,3,5-TRIMETHYLBENZENE	0	10		9.78	ug/L	97.8	1.6	
DPS01	Q1692743	A686206	VINYL ACETATE	0	10		13.7	ug/L	137	12.4	
DPS01	Q1692743	A686206	VINYL CHLORIDE	0	10		8.03	ug/L	80.3	0.6	

Q1692458	Value reported for analytes calibrated by linear (LIN) or	
Q1692458	quadratic (QDR) equations is r2 (Coef. of Determination).	
Q1692481	Analytes present greater than 1/2 of the detection limit are reported.	
Q1692742	2-Chloroethyl vinyl ether degrades under acidic conditions.	No recovery
Q1692742	possible. Unacidified sample not available.	
Q1692743	2-Chloroethyl vinyl ether degrades under acidic conditions.	No recovery
Q1692743	possible. Unacidified sample not available.	

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B				O510.5	(cont.)
R481329 Analytical	Analyst: R SHAMP Reviewer: L SMITH	Run Date: 04-Jan-05 Review Date: 11-Jan-05	Instrument: GC/MS VOA		(cont.)
Q1692030	Acrolein and Iodomethane do not meet QC criteria in LCS or MS/MSD. Compounds				
Q1692030	fail high, if detected in samples will reanalyze.				
Q1692033	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery				
Q1692033	possible. Unacidified sample not available.				
Q1692034	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery				
Q1692034	possible. Unacidified sample not available.				

Qualifiers

I Outside Lab Generated Control Limits
BDL Below Detection Limit
J Estimated, below calibration range.
LIN Linear Regression Used
NQR No QC Result, High Sample Concentration.
QDR Quadratic Equation Used

HERITAGE ENVIRONMENTAL SERVICES, LLC



7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
Fax: 317/486-5095
Internet: <http://www.heritage-enviro.com>

**QUALITY ASSURANCE REPORT PACKAGE # 2638.1
FOR
KERAMIDA ENVIRONMENTAL, INC.**

**FRANK WEST
KERAMIDA ENVIRONMENTAL, INC.
330 N. COLLEGE AVENUE
INDIANAPOLIS, INDIANA 46202**

SAMPLE #'S:

A688378 – A688382

PROJECT:

**HARMON/BECKER
JANUARY, 2005**

**HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 WEST MORRIS STREET
INDIANAPOLIS, INDIANA 46231
PHONE: (317) 243-8304
FAX: (317) 486-5095**

APPROVED BY: _____

AC Edwards

PROJECT CHEMIST



Recycled Paper

(317) 685-6600 - FAX (317) 685-6610

Sheet 1 of 1

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[illegible]



1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	2.0	ug/L
1,1-DICHLOROETHANE	3.5	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	7.6	1.0	ug/L
CIS-1,2-DICHLOROETHENE	EX	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	37	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
ETHYL METHACRYLATE	BDL	10	ug/L
2-HEXANONE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
IODOMETHANE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
METHYL ISOBUTYL KETONE	BDL	10	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	2.8	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	EX	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L
TRICHLOROETHENE	EX	1.0	ug/L
TRICHLOROFUOROMETHANE	BDL	1.0	ug/L



Sample Comments

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

As indicated, some testing was performed at the following locations:

PACE INCORPORATED
9608 LOIRET BOULEVARD, LENEXA, KS 66219

P.K. Spence QAS

Approved by: PAULINE SPENCE 09-FEB-05



1,2-DIBROMOETHANE (EDB)	BDL	100	ug/L
DIBROMOMETHANE	BDL	100	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	100	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	100	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	100	ug/L
DICHLORODIFLUOROMETHANE	BDL	100	ug/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	200	ug/L
1,1-DICHLOROETHANE	BDL	100	ug/L
1,2-DICHLOROETHANE	BDL	100	ug/L
1,1-DICHLOROETHENE	BDL	100	ug/L
CIS-1,2-DICHLOROETHENE	7400	100	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	100	ug/L
1,2-DICHLOROPROPANE	BDL	100	ug/L
1,3-DICHLOROPROPANE	BDL	100	ug/L
2,2-DICHLOROPROPANE	BDL	100	ug/L
1,1-DICHLOROPROPENE	BDL	100	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	100	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	100	ug/L
ETHYL BENZENE	BDL	100	ug/L
ETHYL METHACRYLATE	BDL	1000	ug/L
2-HEXANONE	BDL	1000	ug/L
HEXACHLOROBUTADIENE	BDL	100	ug/L
IODOMETHANE	BDL	100	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	100	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	100	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	100	ug/L
METHYL ETHYL KETONE	BDL	1000	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	100	ug/L
METHYL ISOBUTYL KETONE	BDL	1000	ug/L
NAPHTHALENE	BDL	100	ug/L
N-PROPYLBENZENE	BDL	100	ug/L
STYRENE	BDL	100	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	100	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	100	ug/L
TETRACHLOROETHENE	7500	100	ug/L
TOLUENE	BDL	100	ug/L
1,2,3-TRICHLOROBENZENE	BDL	100	ug/L
1,2,4-TRICHLOROBENZENE	BDL	100	ug/L
1,1,1-TRICHLOROETHANE	BDL	100	ug/L
1,1,2-TRICHLOROETHANE	BDL	100	ug/L
TRICHLOROETHENE	600	100	ug/L
TRICHLOROFUOROMETHANE	BDL	100	ug/L



CERTIFICATE OF ANALYSIS

Service Location HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	Received 26-JAN-05	Project	Lab ID A688380
	Completed 08-FEB-05	PO Number 10300C	
	Printed 09-FEB-05	Sampled 25-JAN-05 11:40	

Report To FRANK WEST KERAMIDA ENVIRONMENTAL 330 NORTH COLLEGE AVE. INDIANAPOLIS, IN 46202	Bill To ACCOUNTS PAYABLE KERAMIDA ENVIRONMENTAL, INC. 330 N. COLLEGE AVENUE INDIANAPOLIS, IN 46202
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Sample Description CLIENT ID: PT-2 MATRIX TYPE: NON-SPECIFIC WATER SUBMITTER CODE: 1618 PROJECT NAME: HARMAN BECKER PROJECT NUMBER: 10300C
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VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B				NELAC-Y
Analyst: H. WILLIAMS		Analysis Date: 31-JAN-05 14:0		Instrument: GC/MS VOA
				Test: O510.5.0
Parameter	Result	Det. Limit	Units	
ACETONE (2-PROPANONE)	BDL	10	ug/L	
ACROLEIN	BDL	50	ug/L	
ACRYLONITRILE	BDL	10	ug/L	
BENZENE	BDL	1.0	ug/L	
BROMOBENZENE	BDL	1.0	ug/L	
BROMOCHLOROMETHANE	BDL	1.0	ug/L	
BROMODICHLOROMETHANE	BDL	1.0	ug/L	
BROMOFORM	BDL	1.0	ug/L	
BROMOMETHANE	BDL	1.0	ug/L	
N-BUTYLBENZENE	BDL	1.0	ug/L	
SEC-BUTYLBENZENE	BDL	1.0	ug/L	
TERT-BUTYLBENZENE	BDL	1.0	ug/L	
CARBON DISULFIDE	BDL	1.0	ug/L	
CARBON TETRACHLORIDE	BDL	1.0	ug/L	
CHLOROBENZENE	BDL	1.0	ug/L	
DIBROMOCHLOROMETHANE	BDL	1.0	ug/L	
CHLOROETHANE	BDL	1.0	ug/L	
CHLOROFORM	BDL	1.0	ug/L	
CHLOROMETHANE	BDL	1.0	ug/L	
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	1.0	ug/L	
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	1.0	ug/L	
2-CHLOROETHYL VINYLETHER	BDL	1.0	ug/L	
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L	



1,2,3-TRICHLOROPROPANE	BDL	1.0	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	1.0	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	1.0	ug/L
VINYL ACETATE	BDL	1.0	ug/L
VINYL CHLORIDE	36	1.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	1.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	114		% Rec
TOLUENE-D8	113		% Rec
4-BROMOFLUOROBENZENE	92		% Rec
DIBROMOFLUOROMETHANE	113		% Rec

Dilution necessary due to high concentration of target compounds.

Prep Method SW846-5030B Purge and Trap

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B			NELAC:Y
Analyst: H. WILLIAMS	Analysis Date: 01-FEB-05 08:0	Instrument: GC/MS VOA	Test: O510.5.1
Parameter	Result	Det. Limit	Units
CIS-1,2-DICHLOROETHENE	1500	20	ug/L
TETRACHLOROETHENE	2000	20	ug/L
TRICHLOROETHENE	110	20	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	113		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	100		% Rec
DIBROMOFLUOROMETHANE	108		% Rec

1:20 Dilution

Prep Method SW846-5030B Purge and Trap

TOTAL ORGANIC CARBON EPA 415.1			NELAC:Y
Vendor: PACE INCORPORATED	Analysis Date: 07-FEB-05	Instrument: TOC	Test: O401.1.0
Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	BDL	1.0	mg/L

Sample Comments

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 7.8 C.

Sample chain of custody number 1732.



CERTIFICATE OF ANALYSIS

Service Location HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	Received 26-JAN-05	Project	Lab ID A688381
	Completed 08-FEB-05	PO Number 10300C	
	Printed 09-FEB-05	Sampled 25-JAN-05 12:00	

Report To FRANK WEST KERAMIDA ENVIRONMENTAL 330 NORTH COLLEGE AVE. INDIANAPOLIS, IN 46202	Bill To ACCOUNTS PAYABLE KERAMIDA ENVIRONMENTAL, INC. 330 N. COLLEGE AVENUE INDIANAPOLIS, IN 46202
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Sample Description CLIENT ID: PT-3 MATRIX TYPE: NON-SPECIFIC WATER SUBMITTER CODE: 1618 PROJECT NAME: HARMAN BECKER PROJECT NUMBER: 10300C
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VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B				NELAC-Y
Analyst: H. WILLIAMS		Analysis Date: 31-JAN-05 16:2		Instrument: GC/MS VOA
				Test: 0510.5.0
Parameter	Result	Det. Limit	Units	
ACETONE (2-PROPANONE)	BDL	10	ug/L	
ACROLEIN	BDL	50	ug/L	
ACRYLONITRILE	BDL	10	ug/L	
BENZENE	BDL	1.0	ug/L	
BROMOBENZENE	BDL	1.0	ug/L	
BROMOCHLOROMETHANE	BDL	1.0	ug/L	
BROMODICHLOROMETHANE	BDL	1.0	ug/L	
BROMOFORM	BDL	1.0	ug/L	
BROMOMETHANE	BDL	1.0	ug/L	
N-BUTYLBENZENE	BDL	1.0	ug/L	
SEC-BUTYLBENZENE	BDL	1.0	ug/L	
TERT-BUTYLBENZENE	BDL	1.0	ug/L	
CARBON DISULFIDE	BDL	1.0	ug/L	
CARBON TETRACHLORIDE	BDL	1.0	ug/L	
CHLOROBENZENE	BDL	1.0	ug/L	
DIBROMOCHLOROMETHANE	BDL	1.0	ug/L	
CHLOROETHANE	BDL	1.0	ug/L	
CHLOROFORM	BDL	1.0	ug/L	
CHLOROMETHANE	BDL	1.0	ug/L	
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	1.0	ug/L	
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	1.0	ug/L	
2-CHLOROETHYL VINYLETHER	BDL	1.0	ug/L	
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L	



1,2,3-TRICHLOROPROPANE	BDL	1.0	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	1.0	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	1.0	ug/L
VINYL ACETATE	BDL	1.0	ug/L
VINYL CHLORIDE	25	1.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	1.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	117		% Rec
TOLUENE-D8	115		% Rec
4-BROMOFLUOROBENZENE	90		% Rec
DIBROMOFLUOROMETHANE	113		% Rec

Dilution necessary due to high concentration of target compounds.

Prep Method SW846-5030B Purge and Trap

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B			NELAC:Y
Analyst: H. WILLIAMS	Analysis Date: 02-FEB-05 09:4	Instrument: GC/MS VOA	Test: O510.5.1
Parameter	Result	Det. Limit	Units
CIS-1,2-DICHLOROETHENE	1100	25	ug/L
TETRACHLOROETHENE	1300	25	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	109		% Rec
TOLUENE-D8	110		% Rec
4-BROMOFLUOROBENZENE	98		% Rec
DIBROMOFLUOROMETHANE	111		% Rec

1:25 Dilution

Prep Method SW846-5030B Purge and Trap

TOTAL ORGANIC CARBON EPA 415.1			NELAC:Y
Vendor: PACE INCORPORATED	Analysis Date: 07-FEB-05	Instrument: TOC	Test: O401.1.0
Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	BDL	1.0	mg/L

Sample Comments

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 7.8 C.

Sample chain of custody number 1732.



CERTIFICATE OF ANALYSIS

Service Location HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	Received 26-JAN-05	Project	Lab ID A688382
	Completed 01-FEB-05	PO Number 10300C	
	Printed 09-FEB-05	Sampled 25-JAN-05	

Report To FRANK WEST KERAMIDA ENVIRONMENTAL 330 NORTH COLLEGE AVE. INDIANAPOLIS, IN 46202	Bill To ACCOUNTS PAYABLE KERAMIDA ENVIRONMENTAL, INC. 330 N. COLLEGE AVENUE INDIANAPOLIS, IN 46202
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Sample Description CLIENT ID: TRIP BLANK MATRIX TYPE: NON-SPECIFIC WATER SUBMITTER CODE: 1618 PROJECT NAME: HARMAN BECKER PROJECT NUMBER: 10300C
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VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B			NELAC-Y
Analyst: H. WILLIAMS			Analysis Date: 28-JAN-05 14:5 Instrument: GC/MS VOA Test: 0510.5.0
Parameter	Result	Det. Limit	Units
ACETONE (2-PROPANONE)	BDL	10	ug/L
ACROLEIN	BDL	50	ug/L
ACRYLONITRILE	BDL	10	ug/L
BENZENE	BDL	1.0	ug/L
BROMOBENZENE	BDL	1.0	ug/L
BROMOCHLOROMETHANE	BDL	1.0	ug/L
BROMODICHLOROMETHANE	BDL	1.0	ug/L
BROMOFORM	BDL	1.0	ug/L
BROMOMETHANE	BDL	1.0	ug/L
N-BUTYLBENZENE	BDL	1.0	ug/L
SEC-BUTYLBENZENE	BDL	1.0	ug/L
TERT-BUTYLBENZENE	BDL	1.0	ug/L
CARBON DISULFIDE	BDL	1.0	ug/L
CARBON TETRACHLORIDE	BDL	1.0	ug/L
CHLOROBENZENE	BDL	1.0	ug/L
DIBROMOCHLOROMETHANE	BDL	1.0	ug/L
CHLOROETHANE	BDL	1.0	ug/L
CHLOROFORM	BDL	1.0	ug/L
CHLOROMETHANE	BDL	1.0	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	1.0	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	1.0	ug/L
2-CHLOROETHYLVINYLETHER	BDL	1.0	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A688382 TRIP BLANK

1,2,3-TRICHLOROPROPANE	BDL	1.0	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	1.0	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	1.0	ug/L
VINYL ACETATE	BDL	1.0	ug/L
VINYL CHLORIDE	BDL	1.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	1.0	ug/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	118		% Rec
TOLUENE-D8	109		% Rec
4-BROMOFLUOROBENZENE	98		% Rec
DIBROMOFLUOROMETHANE	117		% Rec
Prep Method SW846-5030B Purge and Trap			

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature 7.8 C.
Sample chain of custody number 1732.

Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.

P.K. Spence QAS

Approved by: PAULINE SPENCE 01-FEB-05

TOTAL ORGANIC CARBON EPA 415.1

O401.1

R482442

Analyst: PACE INCORPORATED Run Date: 07-Feb-05

Instrument: TOC

Analytical

Reviewer:

Review Date: 08-Feb-05

QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
	SAMPLE A688378		See Certificate of Analysis, Rep: 0							
	SAMPLE A688379		See Certificate of Analysis, Rep: 0							
	SAMPLE A688380		See Certificate of Analysis, Rep: 0							
	SAMPLE A688381		See Certificate of Analysis, Rep: 0							

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5

R482032

Analyst: H WILLIAMS

Run Date: 27-Jan-05

Instrument: GC/MS VOA

Analytical

Reviewer: L SMITH

Review Date: 31-Jan-05

QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CCVD	Q1697459		Analysis Date/Time: 27-Jan-05 05:57							
CCVD	Q1697459		ACETONE (2-PROPANONE)	0.0174			0.0172			1.1
CCVD	Q1697459		ACROLEIN	0.0081			0.0200			146.9
CCVD	Q1697459		ACRYLONITRILE	0.0134			0.0329			145.5
CCVD	Q1697459		BENZENE	0.7255			0.8192			12.9
CCVD	Q1697459		BROMOBENZENE	1.0468			1.1493			9.8
CCVD	Q1697459		BROMOCHLOROMETHANE	0.1740			0.2104			20.9
CCVD	Q1697459		BROMODICHLOROMETHANE	0.5158			0.5462			5.9
CCVD	Q1697459		BROMOFORM	0.3138			0.3548			13.1
CCVD	Q1697459		BROMOMETHANE	10.0		QDR	11.1			11
CCVD	Q1697459		N-BUTYLBENZENE	2.3147			2.3586			1.9
CCVD	Q1697459		SEC-BUTYLBENZENE	3.0796			3.1843			3.4
CCVD	Q1697459		TERT-BUTYLBENZENE	1.7715			1.8917			6.8
CCVD	Q1697459		CARBON DISULFIDE	0.8664			1.0464			20.8
CCVD	Q1697459		CARBON TETRACHLORIDE	0.6076			0.6863			13
CCVD	Q1697459		CHLOROBENZENE	0.9375			1.0287			9.7
CCVD	Q1697459		DIBROMOCHLOROMETHANE	0.5282			0.5709			8.1
CCVD	Q1697459		CHLOROETHANE	0.1172			0.1494			27.5
CCVD	Q1697459		CHLOROFORM	0.6306			0.7012			11.2
CCVD	Q1697459		CHLOROMETHANE	0.2010			0.2023			0.6
CCVD	Q1697459		2-CHLOROTOLUENE (O-	2.2913			2.4480			6.8
CCVD	Q1697459		4-CHLOROTOLUENE (P-	2.3296			2.5673			10.2
CCVD	Q1697459		2-CHLOROETHYL VINYLETHER	0.0738			0.0703			4.7
CCVD	Q1697459		1,2-DIBROMO-3-CHLOROPROPANE	0.0860			0.0757			12
CCVD	Q1697459		1,2-DIBROMOETHANE (EDB)	0.3356			0.3575			6.5
CCVD	Q1697459		DIBROMOMETHANE	0.1859			0.2042			9.8
CCVD	Q1697459		1,2-DICHLOROBENZENE (O-	1.1291			1.2114			7.3
CCVD	Q1697459		1,3-DICHLOROBENZENE (M-	1.4464			1.6283			12.6
CCVD	Q1697459		1,4-DICHLOROBENZENE (P-	1.5089			1.5706			4.1
CCVD	Q1697459		DICHLORODIFLUOROMETHANE	0.3605			0.3534			2
CCVD	Q1697459		TRANS-1,4-DICHLORO-2-BUTENE	0.0567			0.0488			13.9
CCVD	Q1697459		1,1-DICHLOROETHANE	0.5579			0.6147			10.2
CCVD	Q1697459		1,2-DICHLOROETHANE	0.2419			0.2656			9.8
CCVD	Q1697459		1,1-DICHLOROETHENE	0.2823			0.3116			10.4
CCVD	Q1697459		CIS-1,2-DICHLOROETHENE	0.3241			0.3726			15
CCVD	Q1697459		TRANS-1,2-DICHLOROETHENE	0.3536			0.3787			7.1
CCVD	Q1697459		1,2-DICHLOROPROPANE	0.2718			0.2966			9.1
CCVD	Q1697459		1,3-DICHLOROPROPANE	0.3293			0.3621			10
CCVD	Q1697459		2,2-DICHLOROPROPANE	0.5441			0.5724			5.2
CCVD	Q1697459		1,1-DICHLOROPROPENE	0.4424			0.5127			15.9
CCVD	Q1697459		CIS-1,3-DICHLOROPROPENE	0.3633			0.3834			5.5
CCVD	Q1697459		TRANS-1,3-DICHLOROPROPENE	0.2323			0.2519			8.4

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5

(cont.)

R482032 Analytical		Analyst: H WILLIAMS Reviewer: L SMITH		Run Date: 27-Jan-05 Review Date: 31-Jan-05		Instrument: GC/MS VOA		(cont.)		
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
BLA01	Q1697463		2-CHLOROTOLUENE (O-			BDL	1.0	ug/L		
BLA01	Q1697463		4-CHLOROTOLUENE (P-			BDL	1.0	ug/L		
BLA01	Q1697463		2-CHLOROETHYL VINYLETHER			BDL	1.0	ug/L		
BLA01	Q1697463		1,2-DIBROMO-3-CHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2-DIBROMOETHANE (EDB)			BDL	1.0	ug/L		
BLA01	Q1697463		DIBROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2-DICHLOROBENZENE (O-			BDL	1.0	ug/L		
BLA01	Q1697463		1,3-DICHLOROBENZENE (M-			BDL	1.0	ug/L		
BLA01	Q1697463		1,4-DICHLOROBENZENE (P-			BDL	1.0	ug/L		
BLA01	Q1697463		DICHLORODIFLUOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		TRANS-1,4-DICHLORO-2-BUTENE			BDL	1.0	ug/L		
BLA01	Q1697463		1,1-DICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2-DICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,1-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1697463		CIS-1,2-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1697463		TRANS-1,2-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,3-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1697463		2,2-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,1-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q1697463		CIS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q1697463		TRANS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q1697463		ETHYL BENZENE			BDL	1.0	ug/L		
BLA01	Q1697463		ETHYL METHACRYLATE			BDL	1.0	ug/L		
BLA01	Q1697463		2-HEXANONE			BDL	5.0	ug/L		
BLA01	Q1697463		HEXACHLOROBUTADIENE			BDL	1.0	ug/L		
BLA01	Q1697463		IODOMETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		ISOPROPYLBENZENE (CUMENE)			BDL	1.0	ug/L		
BLA01	Q1697463		4-ISOPROPYLTOLUENE (P-			BDL	1.0	ug/L		
BLA01	Q1697463		DICHLOROMETHANE (METHYLENE			BDL	1.0	ug/L		
BLA01	Q1697463		METHYL ETHYL KETONE			BDL	5.0	ug/L		
BLA01	Q1697463		METHYL-T-BUTYL ETHER (MTBE)			BDL	1.0	ug/L		
BLA01	Q1697463		METHYL ISOBUTYL KETONE			BDL	5.0	ug/L		
BLA01	Q1697463		NAPHTHALENE			BDL	1.0	ug/L		
BLA01	Q1697463		N-PROPYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1697463		STYRENE			BDL	1.0	ug/L		
BLA01	Q1697463		1,1,1,2-TETRACHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,1,2,2-TETRACHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		TETRACHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1697463		TOLUENE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2,3-TRICHLOROBENZENE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2,4-TRICHLOROBENZENE			BDL	1.0	ug/L		
BLA01	Q1697463		1,1,1-TRICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,1,2-TRICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		TRICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q1697463		TRICHLOROFLUOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2,3-TRICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q1697463		1,2,4-TRIMETHYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1697463		1,3,5-TRIMETHYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1697463		VINYL ACETATE			BDL	1.0	ug/L		
BLA01	Q1697463		VINYL CHLORIDE			BDL	1.0	ug/L		
BLA01	Q1697463		XYLENES (O/M/P-XYLENE)			BDL	1	ug/L		
BLA01	Q1697463		DICHLOROETHANE-D4							112

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

0510.5

(cont.)

R482032	Analyst: H WILLIAMS			Run Date: 27-Jan-05		Instrument: GC/MS VOA		(cont.)			
Analytical	Reviewer: L SMITH			Review Date: 31-Jan-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
SPI01	Q1697471	A688375	ETHYL BENZENE	0	10		10.6	ug/L	106		
SPI01	Q1697471	A688375	XYLENES (O/M/P-XYLENE)	0	30		31.2	UG/L	104		
SPI01	Q1697471	A688375	2-HEXANONE	0	50		55.9	ug/L	111.8		
SPI01	Q1697471	A688375	HEXACHLOROBUTADIENE	0	10		10.2	ug/L	102		
SPI01	Q1697471	A688375	IODOMETHANE	0	10		11.8	ug/L	118		
SPI01	Q1697471	A688375	ISOPROPYLBENZENE (CUMENE)	0	10		8.93	ug/L	89.3		
SPI01	Q1697471	A688375	4-ISOPROPYLTOLUENE (P-	0	10		9.47	ug/L	94.7		
SPI01	Q1697471	A688375	DICHLOROMETHANE (METHYLENE	0	10		9.49	ug/L	94.9		
SPI01	Q1697471	A688375	METHYL ETHYL KETONE	0	50		50.4	ug/L	100.8		
SPI01	Q1697471	A688375	METHYL-T-BUTYL ETHER (MTBE)	0	10		10.2	ug/L	102		
SPI01	Q1697471	A688375	METHYL ISOBUTYL KETONE	0	50		62.5	ug/L	125		
SPI01	Q1697471	A688375	NAPHTHALENE	0	10		9.11	ug/L	91.1		
SPI01	Q1697471	A688375	N-PROPYLBENZENE	0	10		9.02	ug/L	90.2		
SPI01	Q1697471	A688375	STYRENE	0	10		11.2	ug/L	112		
SPI01	Q1697471	A688375	1,1,1,2-TETRACHLOROETHANE	0	10		12.1	ug/L	121		
SPI01	Q1697471	A688375	1,1,2,2-TETRACHLOROETHANE	0	10		10.4	ug/L	104		
SPI01	Q1697471	A688375	TETRACHLOROETHENE	0	10		10.9	ug/L	109		
SPI01	Q1697471	A688375	TOLUENE	0	10		11.3	ug/L	113		
SPI01	Q1697471	A688375	1,2,3-TRICHLOROBENZENE	0	10		9.58	ug/L	95.8		
SPI01	Q1697471	A688375	1,2,4-TRICHLOROBENZENE	0	10		9.29	ug/L	92.9		
SPI01	Q1697471	A688375	1,1,1-TRICHLOROETHANE	0	10		10.8	ug/L	108		
SPI01	Q1697471	A688375	1,1,2-TRICHLOROETHANE	0	10		12.4	ug/L	124		
SPI01	Q1697471	A688375	TRICHLOROETHENE	120	10		141	ug/L	210		
SPI01	Q1697471	A688375	TRICHLOROFLUOROMETHANE	0	10		11	ug/L	110		
SPI01	Q1697471	A688375	1,2,3-TRICHLOROPROPANE	0	10		10.6	ug/L	106		
SPI01	Q1697471	A688375	1,2,4-TRIMETHYLBENZENE	0	10		9.24	ug/L	92.4		
SPI01	Q1697471	A688375	1,3,5-TRIMETHYLBENZENE	0	10		9.49	ug/L	94.9		
SPI01	Q1697471	A688375	VINYL ACETATE	0	10		9.91	ug/L	99.1		
SPI01	Q1697471	A688375	VINYL CHLORIDE	0	10		8.14	ug/L	81.4		
DPS01	Q1697472	A688375	Analysis Date/Time: 27-Jan-05 15:14								
DPS01	Q1697472	A688375	ACETONE (2-PROPANONE)	0	50		49.3	ug/L	98.7	1.7	
DPS01	Q1697472	A688375	ACROLEIN	0	100		185	ug/L	184.9	79.8	
DPS01	Q1697472	A688375	ACRYLONITRILE	0	100		223	ug/L	223	78.8	
DPS01	Q1697472	A688375	BENZENE	0	10		10.4	ug/L	104.1	3.7	
DPS01	Q1697472	A688375	BROMOBENZENE	0	10		10.2	ug/L	102.2	4.6	
DPS01	Q1697472	A688375	BROMOCHLOROMETHANE	0	10		11.5	ug/L	115.2	1	
DPS01	Q1697472	A688375	BROMODICHLOROMETHANE	0	10		10.8	ug/L	107.7	7.4	
DPS01	Q1697472	A688375	BROMOFORM	0	10		11.9	ug/L	118.7	5.2	
DPS01	Q1697472	A688375	BROMOMETHANE	0	10		10.5	ug/L	105	1	
DPS01	Q1697472	A688375	N-BUTYLBENZENE	0	10		8.85	ug/L	88.5	2.1	
DPS01	Q1697472	A688375	SEC-BUTYLBENZENE	0	10		8.98	ug/L	89.8	0.2	
DPS01	Q1697472	A688375	TERT-BUTYLBENZENE	0	10		9.42	ug/L	94.2	3	
DPS01	Q1697472	A688375	CARBON DISULFIDE	0	10		10.6	ug/L	105.8	13.4	
DPS01	Q1697472	A688375	CARBON TETRACHLORIDE	0	10		11.1	ug/L	111.4	0.5	
DPS01	Q1697472	A688375	CHLOROBENZENE	0	10		10.2	ug/L	102	5.7	
DPS01	Q1697472	A688375	DIBROMOCHLOROMETHANE	0	10		10.7	ug/L	106.6	10.2	
DPS01	Q1697472	A688375	CHLOROETHANE	0	10		10.8	ug/L	107.5	5.9	
DPS01	Q1697472	A688375	CHLOROFORM	2.2	10		12.8	ug/L	106	2.8	
DPS01	Q1697472	A688375	CHLOROMETHANE	0	10		8.22	ug/L	82.2	2.9	
DPS01	Q1697472	A688375	2-CHLOROTOLUENE (O-	0	10		9.44	ug/L	94.4	3.3	
DPS01	Q1697472	A688375	4-CHLOROTOLUENE (P-	0	10		9.61	ug/L	96.1	2.2	
DPS01	Q1697472	A688375	2-CHLOROETHYLVINYLETHER	0	10		0	ug/L	0		
DPS01	Q1697472	A688375	1,2-DIBROMO-3-CHLOROPROPANE	0	10		9.23	ug/L	92.3	6.4	

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5 (cont.)

R482032		Analyst: H WILLIAMS		Run Date: 27-Jan-05		Instrument: GC/MS VOA		(cont.)		
Analytical		Reviewer: L SMITH		Review Date: 31-Jan-05						
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1693959		BROMOCHLOROMETHANE	0.1740						10
CAL01	Q1693959		BROMODICHLOROMETHANE	0.5158						8.3
CAL01	Q1693959		BROMOFORM	0.3138						13.5
CAL01	Q1693959		BROMOMETHANE	10.0		QDR				0.997
CAL01	Q1693959		N-BUTYLBENZENE	2.3147						5.7
CAL01	Q1693959		SEC-BUTYLBENZENE	3.0796						6.9
CAL01	Q1693959		TERT-BUTYLBENZENE	1.7715						12
CAL01	Q1693959		CARBON DISULFIDE	0.8664						6.8
CAL01	Q1693959		CARBON TETRACHLORIDE	0.6076						10.8
CAL01	Q1693959		CHLOROBENZENE	0.9375						7.5
CAL01	Q1693959		DIBROMOCHLOROMETHANE	0.5282						8.2
CAL01	Q1693959		CHLOROETHANE	0.1172						13.3
CAL01	Q1693959		CHLOROFORM	0.6306						11.7
CAL01	Q1693959		CHLOROMETHANE	0.2010						8.3
CAL01	Q1693959		2-CHLOROTOLUENE (O-	2.2913						6.9
CAL01	Q1693959		4-CHLOROTOLUENE (P-	2.3296						12.6
CAL01	Q1693959		2-CHLOROETHYLVINYLETHER	0.0738						6.4
CAL01	Q1693959		1,2-DIBROMO-3-CHLOROPROPANE	0.0860						10.5
CAL01	Q1693959		1,2-DIBROMOETHANE (EDB)	0.3356						4.9
CAL01	Q1693959		DIBROMOMETHANE	0.1859						9.4
CAL01	Q1693959		1,2-DICHLOROBENZENE (O-	1.1291						6.7
CAL01	Q1693959		1,3-DICHLOROBENZENE (M-	1.4464						7.3
CAL01	Q1693959		1,4-DICHLOROBENZENE (P-	1.5089						7.2
CAL01	Q1693959		DICHLORODIFLUOROMETHANE	0.3605						5.9
CAL01	Q1693959		TRANS-1,4-DICHLORO-2-BUTENE	0.0567						9.1
CAL01	Q1693959		1,1-DICHLOROETHANE	0.5579						7.1
CAL01	Q1693959		1,2-DICHLOROETHANE	0.2419						14.9
CAL01	Q1693959		1,1-DICHLOROETHENE	0.2823						8
CAL01	Q1693959		CIS-1,2-DICHLOROETHENE	0.3241						8.3
CAL01	Q1693959		TRANS-1,2-DICHLOROETHENE	0.3536						11.1
CAL01	Q1693959		1,2-DICHLOROPROPANE	0.2718						9.2
CAL01	Q1693959		1,3-DICHLOROPROPANE	0.3293						7.8
CAL01	Q1693959		2,2-DICHLOROPROPANE	0.5441						9
CAL01	Q1693959		1,1-DICHLOROPROPENE	0.4424						14.6
CAL01	Q1693959		CIS-1,3-DICHLOROPROPENE	0.3633						5.6
CAL01	Q1693959		TRANS-1,3-DICHLOROPROPENE	0.2323						9.9
CAL01	Q1693959		ETHYL BENZENE	1.4226						12.4
CAL01	Q1693959		ETHYL METHACRYLATE	0.1951						3.4
CAL01	Q1693959		2-HEXANONE	0.0576						8.1
CAL01	Q1693959		HEXACHLOROBUTADIENE	2.0583						8.8
CAL01	Q1693959		IODOMETHANE	1.0806						10.6
CAL01	Q1693959		ISOPROPYLBENZENE (CUMENE)	2.8177						4.9
CAL01	Q1693959		4-ISOPROPYLTOLUENE (P-	2.3189						10
CAL01	Q1693959		DICHLOROMETHANE (METHYLENE	10.0		LIN				1.000
CAL01	Q1693959		METHYL ETHYL KETONE	0.0186						14.7
CAL01	Q1693959		METHYL-T-BUTYL ETHER (MTBE)	0.3223						7.6
CAL01	Q1693959		METHYL ISOBUTYL KETONE	0.0705						10.8
CAL01	Q1693959		NAPHTHALENE	10.0		QDR				0.998
CAL01	Q1693959		N-PROPYLBENZENE	3.3978						4.9
CAL01	Q1693959		STYRENE	0.6643						14.1
CAL01	Q1693959		1,1,1,2-TETRACHLOROETHANE	0.4899						10.6
CAL01	Q1693959		1,1,2,2-TETRACHLOROETHANE	0.4367						6.5
CAL01	Q1693959		TETRACHLOROETHENE	0.9929						11.2

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

0510.5 (cont.)

R482097

Analyst: H WILLIAMS

Run Date: 31-Jan-05

Instrument: GC/MS VOA

(cont.)

Analytical

Reviewer: R SHAMP

Review Date: 02-Feb-05

QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CAL01	Q1693959		4-CHLOROTOLUENE (P-	2.3296						12.6
CAL01	Q1693959		2-CHLOROETHYL VINYLETHER	0.0738						6.4
CAL01	Q1693959		1,2-DIBROMO-3-CHLOROPROPANE	0.0860						10.5
CAL01	Q1693959		1,2-DIBROMOETHANE (EDB)	0.3356						4.9
CAL01	Q1693959		DIBROMOMETHANE	0.1859						9.4
CAL01	Q1693959		1,2-DICHLOROBENZENE (O-	1.1291						6.7
CAL01	Q1693959		1,3-DICHLOROBENZENE (M-	1.4464						7.3
CAL01	Q1693959		1,4-DICHLOROBENZENE (P-	1.5089						7.2
CAL01	Q1693959		DICHLORODIFLUOROMETHANE	0.3605						5.9
CAL01	Q1693959		TRANS-1,4-DICHLORO-2-BUTENE	0.0567						9.1
CAL01	Q1693959		1,1-DICHLOROETHANE	0.5579						7.1
CAL01	Q1693959		1,2-DICHLOROETHANE	0.2419						14.9
CAL01	Q1693959		1,1-DICHLOROETHENE	0.2823						8
CAL01	Q1693959		CIS-1,2-DICHLOROETHENE	0.3241						8.3
CAL01	Q1693959		TRANS-1,2-DICHLOROETHENE	0.3536						11.1
CAL01	Q1693959		1,2-DICHLOROPROPANE	0.2718						9.2
CAL01	Q1693959		1,3-DICHLOROPROPANE	0.3293						7.8
CAL01	Q1693959		2,2-DICHLOROPROPANE	0.5441						9
CAL01	Q1693959		1,1-DICHLOROPROPENE	0.4424						14.6
CAL01	Q1693959		CIS-1,3-DICHLOROPROPENE	0.3633						5.6
CAL01	Q1693959		TRANS-1,3-DICHLOROPROPENE	0.2323						9.9
CAL01	Q1693959		ETHYL BENZENE	1.4226						12.4
CAL01	Q1693959		ETHYL METHACRYLATE	0.1951						3.4
CAL01	Q1693959		2-HEXANONE	0.0576						8.1
CAL01	Q1693959		HEXACHLOROBUTADIENE	2.0583						8.8
CAL01	Q1693959		IODOMETHANE	1.0806						10.6
CAL01	Q1693959		ISOPROPYLBENZENE (CUMENE)	2.8177						4.9
CAL01	Q1693959		4-ISOPROPYLTOLUENE (P-	2.3189						10
CAL01	Q1693959		DICHLOROMETHANE (METHYLENE	10.0			LIN			1.000
CAL01	Q1693959		METHYL ETHYL KETONE	0.0186						14.7
CAL01	Q1693959		METHYL-T-BUTYL ETHER (MTBE)	0.3223						7.6
CAL01	Q1693959		METHYL ISOBUTYL KETONE	0.0705						10.8
CAL01	Q1693959		NAPHTHALENE	10.0			QDR			0.998
CAL01	Q1693959		N-PROPYLBENZENE	3.3978						4.9
CAL01	Q1693959		STYRENE	0.6643						14.1
CAL01	Q1693959		1,1,1,2-TETRACHLOROETHANE	0.4899						10.6
CAL01	Q1693959		1,1,2,2-TETRACHLOROETHANE	0.4367						6.5
CAL01	Q1693959		TETRACHLOROETHENE	0.9929						11.2
CAL01	Q1693959		TOLUENE	0.4955						10.3
CAL01	Q1693959		1,2,3-TRICHLOROBENZENE	1.0004						12.7
CAL01	Q1693959		1,2,4-TRICHLOROBENZENE	1.3128						11.6
CAL01	Q1693959		1,1,1-TRICHLOROETHANE	0.6043						12
CAL01	Q1693959		1,1,2-TRICHLOROETHANE	0.1355						10.3
CAL01	Q1693959		TRICHLOROETHENE	0.4427						10.4
CAL01	Q1693959		TRICHLOROFLUOROMETHANE	0.5331						8.3
CAL01	Q1693959		1,2,3-TRICHLOROPROPANE	0.1183						3.8
CAL01	Q1693959		1,2,4-TRIMETHYLBENZENE	2.0555						8.2
CAL01	Q1693959		1,3,5-TRIMETHYLBENZENE	2.1767						8.7
CAL01	Q1693959		VINYL ACETATE	0.6252						6.8
CAL01	Q1693959		VINYL CHLORIDE	0.2042						9.2
CAL01	Q1693959		DICHLOROETHANE-D4	0.2153						16.8
CAL01	Q1693959		TOLUENE-D8	0.8181						9.1
CAL01	Q1693959		4-BROMOFLUOROBENZENE	1.4749						9.9

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5 (cont.)

R482097		Analyst: H WILLIAMS		Run Date: 31-Jan-05		Instrument: GC/MS VOA		(cont.)			
Analytical		Reviewer: R SHAMP		Review Date: 02-Feb-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
CCVD	Q1697969		METHYL ISOBUTYL KETONE	0.0705			0.0712			1	
CCVD	Q1697969		NAPHTHALENE	10.0		QDR	8.59			14.1	
CCVD	Q1697969		N-PROPYLBENZENE	3.3978			3.3234			2.2	
CCVD	Q1697969		STYRENE	0.6643			0.7084			6.6	
CCVD	Q1697969		1,1,1,2-TETRACHLOROETHANE	0.4899			0.4998			2	
CCVD	Q1697969		1,1,2,2-TETRACHLOROETHANE	0.4367			0.4281			2	
CCVD	Q1697969		TETRACHLOROETHENE	0.9929			0.9829			1	
CCVD	Q1697969		TOLUENE	0.4955			0.5170			4.3	
CCVD	Q1697969		1,2,3-TRICHLOROBENZENE	1.0004			0.8088			19.2	
CCVD	Q1697969		1,2,4-TRICHLOROBENZENE	1.3128			1.0809			17.7	
CCVD	Q1697969		1,1,1-TRICHLOROETHANE	0.6043			0.5888			2.6	
CCVD	Q1697969		1,1,2-TRICHLOROETHANE	0.1355			0.1394			2.9	
CCVD	Q1697969		TRICHLOROETHENE	0.4427			0.4467			0.9	
CCVD	Q1697969		TRICHLOROFLUOROMETHANE	0.5331			0.5004			6.1	
CCVD	Q1697969		1,2,3-TRICHLOROPROPANE	0.1133			0.1130			4.5	
CCVD	Q1697969		1,2,4-TRIMETHYLBENZENE	2.0555			1.9369			5.8	
CCVD	Q1697969		1,3,5-TRIMETHYLBENZENE	2.1757			2.1031			3.4	
CCVD	Q1697969		VINYL ACETATE	0.6252			0.6145			1.7	
CCVD	Q1697969		VINYL CHLORIDE	0.2042			0.1927			5.6	
CCVD	Q1697969		DICHLOROETHANE-D4	0.2153			0.2316			7.6	
CCVD	Q1697969		TOLUENE-D8	0.8181			0.8859			8.3	
CCVD	Q1697969		4-BROMOFLUOROBENZENE	1.4749			1.5291			3.7	
CCVD	Q1697969		DIBROMOFLUOROMETHANE	0.5606			0.6114			9.1	
BLA01	Q1697974		Analysis Date/Time: 31-Jan-05 07:15								
BLA01	Q1697974		ACETONE (2-PROPANONE)			BDL	10.	ug/L			
BLA01	Q1697974		ACROLEIN			BDL	25.	ug/L			
BLA01	Q1697974		ACRYLONITRILE			BDL	5.0	ug/L			
BLA01	Q1697974		BENZENE			BDL	1.0	ug/L			
BLA01	Q1697974		BROMOBENZENE			BDL	1.0	ug/L			
BLA01	Q1697974		BROMOCHLOROMETHANE			BDL	1.0	ug/L			
BLA01	Q1697974		BROMODICHLOROMETHANE			BDL	1.0	ug/L			
BLA01	Q1697974		BROMOFORM			BDL	1.0	ug/L			
BLA01	Q1697974		BROMOMETHANE			BDL	1.0	ug/L			
BLA01	Q1697974		N-BUTYLBENZENE			BDL	1.0	ug/L			
BLA01	Q1697974		SEC-BUTYLBENZENE			BDL	1.0	ug/L			
BLA01	Q1697974		TERT-BUTYLBENZENE			BDL	1.0	ug/L			
BLA01	Q1697974		CARBON DISULFIDE			BDL	1.0	ug/L			
BLA01	Q1697974		CARBON TETRACHLORIDE			BDL	1.0	ug/L			
BLA01	Q1697974		CHLOROBENZENE			BDL	1.0	ug/L			
BLA01	Q1697974		DIBROMOCHLOROMETHANE			BDL	1.0	ug/L			
BLA01	Q1697974		CHLOROETHANE			BDL	1.0	ug/L			
BLA01	Q1697974		CHLOROFORM			BDL	1.0	ug/L			
BLA01	Q1697974		CHLOROMETHANE			BDL	1.0	ug/L			
BLA01	Q1697974		2-CHLOROTOLUENE (O-			BDL	1.0	ug/L			
BLA01	Q1697974		4-CHLOROTOLUENE (P-			BDL	1.0	ug/L			
BLA01	Q1697974		2-CHLOROETHYLVINYLETHER			BDL	1.0	ug/L			
BLA01	Q1697974		1,2-DIBROMO-3-CHLOROPROPANE			BDL	1.0	ug/L			
BLA01	Q1697974		1,2-DIBROMOETHANE (EDB)			BDL	1.0	ug/L			
BLA01	Q1697974		DIBROMOMETHANE			BDL	1.0	ug/L			
BLA01	Q1697974		1,2-DICHLOROBENZENE (O-			BDL	1.0	ug/L			
BLA01	Q1697974		1,3-DICHLOROBENZENE (M-			BDL	1.0	ug/L			
BLA01	Q1697974		1,4-DICHLOROBENZENE (P-			BDL	1.0	ug/L			
BLA01	Q1697974		DICHLORODIFLUOROMETHANE			BDL	1.0	ug/L			

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B							O510.5	(cont.)		
R482097	Analyst: H WILLIAMS		Run Date: 31-Jan-05		Instrument: GC/MS VOA			(cont.)		
Analytical	Reviewer: R SHAMP		Review Date: 02-Feb-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
LCS01	Q1697975		2,2-DICHLOROPROPANE	10			9.84	ug/L	98.4	
LCS01	Q1697975		TETRACHLOROETHENE	10			10.5	ug/L	105	
LCS01	Q1697975		TRICHLOROETHENE	10			10.6	ug/L	106	
LCS01	Q1697975		VINYL CHLORIDE	10			8.62	ug/L	86.2	
SAMPLE	A688380		Analysis Date/Time: 31-Jan-05 14:09							
SAMPLE	A688380		See Certificate of Analysis, Rep: 0							
SAMPLE	A688379		Analysis Date/Time: 31-Jan-05 14:43							
SAMPLE	A688379		See Certificate of Analysis, Rep: 0							
SAMPLE	A688381		Analysis Date/Time: 31-Jan-05 16:25							
SAMPLE	A688381		See Certificate of Analysis, Rep: 0							
SAMPLE	A688378		Analysis Date/Time: 31-Jan-05 17:00							
SAMPLE	A688378		See Certificate of Analysis, Rep: 1							
SPI01	Q1697980	A688380	Analysis Date/Time: 31-Jan-05 15:17							
SPI01	Q1697980	A688380	ACETONE (2-PROPANONE)	0	50		67.6	ug/L	135.2	
SPI01	Q1697980	A688380	ACROLEIN	0	100	I	180	ug/L	180	
SPI01	Q1697980	A688380	ACRYLONITRILE	0	100		188	ug/L	188	
SPI01	Q1697980	A688380	BENZENE	0	10		10.5	ug/L	105	
SPI01	Q1697980	A688380	BROMOBENZENE	0	10		10.8	ug/L	108	
SPI01	Q1697980	A688380	BROMOCHLOROMETHANE	0	10		10.5	ug/L	105	
SPI01	Q1697980	A688380	BROMODICHLOROMETHANE	0	10		11.3	ug/L	113	
SPI01	Q1697980	A688380	BROMOFORM	0	10		14.5	ug/L	145	
SPI01	Q1697980	A688380	BROMOMETHANE	0	10		12.8	ug/L	128	
SPI01	Q1697980	A688380	N-BUTYLBENZENE	0	10		9.21	ug/L	92.1	
SPI01	Q1697980	A688380	SEC-BUTYLBENZENE	0	10		9	ug/L	90	
SPI01	Q1697980	A688380	TERT-BUTYLBENZENE	0	10		10.2	ug/L	102	
SPI01	Q1697980	A688380	CARBON DISULFIDE	0	10		11.6	ug/L	116	
SPI01	Q1697980	A688380	CARBON TETRACHLORIDE	0	10		11.9	ug/L	119	
SPI01	Q1697980	A688380	CHLOROBENZENE	0	10		10.9	ug/L	109	
SPI01	Q1697980	A688380	DIBROMOCHLOROMETHANE	0	10	I	14	ug/L	140	
SPI01	Q1697980	A688380	CHLOROETHANE	0	10		8.27	ug/L	82.7	
SPI01	Q1697980	A688380	CHLOROFORM	0	10		10.2	ug/L	102	
SPI01	Q1697980	A688380	CHLOROMETHANE	0	10		9.88	ug/L	98.8	
SPI01	Q1697980	A688380	2-CHLOROTOLUENE (O-	0	10		9.53	ug/L	95.3	
SPI01	Q1697980	A688380	4-CHLOROTOLUENE (P-	0	10		9.81	ug/L	98.1	
SPI01	Q1697980	A688380	2-CHLOROETHYLVINYLETHER	0	10	I	0	ug/L		
SPI01	Q1697980	A688380	1,2-DIBROMO-3-CHLOROPROPANE	0	10		10.2	ug/L	102	
SPI01	Q1697980	A688380	1,2-DIBROMOETHANE (EDB)	0	10		11.4	ug/L	114	
SPI01	Q1697980	A688380	DIBROMOMETHANE	0	10		11	ug/L	110	
SPI01	Q1697980	A688380	1,2-DICHLOROBENZENE (O-	0	10		10.7	ug/L	107	
SPI01	Q1697980	A688380	1,3-DICHLOROBENZENE (M-	0	10		10.7	ug/L	107	
SPI01	Q1697980	A688380	1,4-DICHLOROBENZENE (P-	0	10		10.3	ug/L	103	
SPI01	Q1697980	A688380	DICHLORODIFLUOROMETHANE	0	10		10.1	ug/L	101	
SPI01	Q1697980	A688380	TRANS-1,4-DICHLORO-2-BUTENE	0	20		17.8	ug/L	89	
SPI01	Q1697980	A688380	1,1-DICHLOROETHANE	5.1	10		15.8	ug/L	107	
SPI01	Q1697980	A688380	1,2-DICHLOROETHANE	0	10		11.5	ug/L	115	
SPI01	Q1697980	A688380	1,1-DICHLOROETHENE	2.2	10		13.5	ug/L	113	
SPI01	Q1697980	A688380	CIS-1,2-DICHLOROETHENE	730	10	NQR	711	ug/L		
SPI01	Q1697980	A688380	TRANS-1,2-DICHLOROETHENE	11	10		21.2	ug/L	102	
SPI01	Q1697980	A688380	1,2-DICHLOROPROPANE	0	10		9.46	ug/L	94.6	
SPI01	Q1697980	A688380	1,3-DICHLOROPROPANE	0	10	I	3.5	ug/L	35	
SPI01	Q1697980	A688380	2,2-DICHLOROPROPANE	0	10	I	4.73	ug/L	47.3	
SPI01	Q1697980	A688380	1,1-DICHLOROPROPENE	0	10		10.4	ug/L	104	
SPI01	Q1697980	A688380	CIS-1,3-DICHLOROPROPENE	0	10		10.5	ug/L	105	

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B						O510.5			(cont.)		
R482097		Analyst: H WILLIAMS		Run Date: 31-Jan-05		Instrument: GC/MS VOA			(cont.)		
Analytical		Reviewer: R SHAMP		Review Date: 02-Feb-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
DPS01	Q1697981	A688380	1,2-DIBROMO-3-CHLOROPROPANE	0	10		9.15	ug/L	91.5	10.6	
DPS01	Q1697981	A688380	1,2-DIBROMOETHANE (EDB)	0	10		11	ug/L	110.3	3.5	
DPS01	Q1697981	A688380	DIBROMOMETHANE	0	10		10.7	ug/L	107.3	2.8	
DPS01	Q1697981	A688380	1,2-DICHLOROBENZENE (O-	0	10		10.5	ug/L	105.2	2.1	
DPS01	Q1697981	A688380	1,3-DICHLOROBENZENE (M-	0	10		10.1	ug/L	101.3	5.7	
DPS01	Q1697981	A688380	1,4-DICHLOROBENZENE (P-	0	10		9.47	ug/L	94.7	8.2	
DPS01	Q1697981	A688380	DICHLORODIFLUOROMETHANE	0	10		9.75	ug/L	97.5	3.7	
DPS01	Q1697981	A688380	TRANS-1,4-DICHLORO-2-BUTENE	0	20		14.5	ug/L	72.5	20.4	
DPS01	Q1697981	A688380	1,1-DICHLOROETHANE	5.1	10		15.5	ug/L	104	2.8	
DPS01	Q1697981	A688380	1,2-DICHLOROETHANE	0	10		10.9	ug/L	108.9	5.2	
DPS01	Q1697981	A688380	1,1-DICHLOROETHENE	2.2	10		13.1	ug/L	109.2	3.1	
DPS01	Q1697981	A688380	CIS-1,2-DICHLOROETHENE	7.30	10	NQR	732	ug/L			
DPS01	Q1697981	A688380	TRANS-1,2-DICHLOROETHENE	11	10		21.7	ug/L	107	4.8	
DPS01	Q1697981	A688380	1,2-DICHLOROPROPANE	0	10		8.86	ug/L	88.6	6.6	
DPS01	Q1697981	A688380	1,3-DICHLOROPROPANE	0	10	!	3.02	ug/L	30.2	14.7	
DPS01	Q1697981	A688380	2,2-DICHLOROPROPANE	0	10	!	4.28	ug/L	42.8	10	
DPS01	Q1697981	A688380	1,1-DICHLOROPROPENE	0	10		9.8	ug/L	98	5.5	
DPS01	Q1697981	A688380	CIS-1,3-DICHLOROPROPENE	0	10		9.9	ug/L	99	5.5	
DPS01	Q1697981	A688380	TRANS-1,3-DICHLOROPROPENE	0	10		10.8	ug/L	108.3	3.2	
DPS01	Q1697981	A688380	ETHYL BENZENE	0	10		10.5	ug/L	104.7	9.5	
DPS01	Q1697981	A688380	2-HEXANONE	0	50		48.7	ug/L	97.4	10	
DPS01	Q1697981	A688380	HEXACHLOROBUTADIENE	0	10		11.5	ug/L	114.8	14.3	
DPS01	Q1697981	A688380	IODOMETHANE	0	10		12.5	ug/L	125.1	8.6	
DPS01	Q1697981	A688380	ISOPROPYLBENZENE (CUMENE)	0	10		8.09	ug/L	80.9	8.3	
DPS01	Q1697981	A688380	4-ISOPROPYLTOLUENE (P-	0	10		9.08	ug/L	90.8	9.4	
DPS01	Q1697981	A688380	DICHLOROMETHANE (METHYLENE	0	10		10.4	ug/L	104.3	12.9	
DPS01	Q1697981	A688380	METHYL ETHYL KETONE	0	50		42.4	ug/L	84.7	5.2	
DPS01	Q1697981	A688380	METHYL-T-BUTYL ETHER (MTBE)	0	10		12.5	ug/L	124.7	5.5	
DPS01	Q1697981	A688380	METHYL ISOBUTYL KETONE	0	50		53.5	ug/L	106.9	7.7	
DPS01	Q1697981	A688380	NAPHTHALENE	0	10		10.5	ug/L	105	9.7	
DPS01	Q1697981	A688380	N-PROPYLBENZENE	0	10		8.14	ug/L	81.4	10.6	
DPS01	Q1697981	A688380	STYRENE	0	10		10	ug/L	100	4.1	
DPS01	Q1697981	A688380	1,1,1,2-TETRACHLOROETHANE	0	10		12.8	ug/L	128.2	0.5	
DPS01	Q1697981	A688380	1,1,2,2-TETRACHLOROETHANE	0	10		8.99	ug/L	89.9	7.4	
DPS01	Q1697981	A688380	TETRACHLOROETHENE	319	10		330	ug/L	110.4	50.1	
DPS01	Q1697981	A688380	TOLUENE	0	10		11	ug/L	110	0	
DPS01	Q1697981	A688380	1,2,3-TRICHLOROBENZENE	0	10		11	ug/L	109.8	3.7	
DPS01	Q1697981	A688380	1,2,4-TRICHLOROBENZENE	0	10		10.6	ug/L	106	1	
DPS01	Q1697981	A688380	1,1,1-TRICHLOROETHANE	1.5	10		11.6	ug/L	101	3.9	
DPS01	Q1697981	A688380	1,1,2-TRICHLOROETHANE	0	10		11.5	ug/L	115.1	5.2	
DPS01	Q1697981	A688380	TRICHLOROETHENE	110	10	!	113	ug/L	30	88.6	
DPS01	Q1697981	A688380	TRICHLOROFLUOROMETHANE	0	10		10.2	ug/L	101.7	21.5	
DPS01	Q1697981	A688380	1,2,3-TRICHLOROPROPANE	0	10		9.89	ug/L	98.9	6.9	
DPS01	Q1697981	A688380	1,2,4-TRIMETHYLBENZENE	0	10		8.96	ug/L	89.6	11	
DPS01	Q1697981	A688380	1,3,5-TRIMETHYLBENZENE	0	10		8.52	ug/L	85.2	12.5	
DPS01	Q1697981	A688380	VINYL ACETATE	0	10		10.6	ug/L	106.4	10.1	
DPS01	Q1697981	A688380	VINYL CHLORIDE	36	10	!	48.8	ug/L	128	27.6	
DPS01	Q1697981	A688380	XYLENES (O/M/P-XYLENE)	0	30		30.6	ug/L	102	7.3	
Q1693959		Value reported for analytes calibrated by linear (LIN) or									
Q1693959		quadratic (QDR) equations is r2 (Coef. of Determination).									
Q1697980		2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery									

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5

(cont.)

R482165 Analytical		Analyst: H WILLIAMS Reviewer: L SMITH		Run Date: 28-Jan-05 Review Date: 07-Feb-05		Instrument: GC/MS VOA		(cont.)		
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
CCVD	Q1697798		IODOMETHANE	1.0806			1.4154			31
CCVD	Q1697798		ISOPROPYLBENZENE (CUMENE)	2.8177			3.3486			18.8
CCVD	Q1697798		4-ISOPROPYLTOLUENE (P-	2.3189			2.6667			15
CCVD	Q1697798		DICHLOROMETHANE (METHYLENE	10.0		LIN	10.5			5
CCVD	Q1697798		METHYL ETHYL KETONE	0.0186			0.0222			19.4
CCVD	Q1697798		METHYL-T-BUTYL ETHER (MTBE)	0.3223			0.3540			9.8
CCVD	Q1697798		METHYL ISOBUTYL KETONE	0.0705			0.0715			1.4
CCVD	Q1697798		NAPHTHALENE	10.0		QDR	8.51			14.9
CCVD	Q1697798		N-PROPYLBENZENE	3.3978			4.1152			21.1
CCVD	Q1697798		STYRENE	0.6643			0.7942			19.6
CCVD	Q1697798		1,1,1,2-TETRACHLOROETHANE	0.4899			0.5572			13.7
CCVD	Q1697798		1,1,2,2-TETRACHLOROETHANE	0.4367			0.4897			12.1
CCVD	Q1697798		TETRACHLOROETHENE	0.9929			1.1979			20.6
CCVD	Q1697798		TOLUENE	0.4955			0.5834			17.7
CCVD	Q1697798		1,2,3-TRICHLOROBENZENE	1.0004			0.6704			33
CCVD	Q1697798		1,2,4-TRICHLOROBENZENE	1.3128			0.9847			25
CCVD	Q1697798		1,1,1-TRICHLOROETHANE	0.6043			0.6949			15
CCVD	Q1697798		1,1,2-TRICHLOROETHANE	0.1355			0.1473			8.7
CCVD	Q1697798		TRICHLOROETHENE	0.4427			0.5143			16.2
CCVD	Q1697798		TRICHLOROFLUOROMETHANE	0.5331			0.5777			8.4
CCVD	Q1697798		1,2,3-TRICHLOROPROPANE	0.1183			0.1232			4.1
CCVD	Q1697798		1,2,4-TRIMETHYLBENZENE	2.0555			2.3038			12.1
CCVD	Q1697798		1,3,5-TRIMETHYLBENZENE	2.1767			2.5464			17
CCVD	Q1697798		VINYL ACETATE	0.6252			0.6717			7.4
CCVD	Q1697798		VINYL CHLORIDE	0.2042			0.2155			5.5
CCVD	Q1697798		DICHLOROETHANE-D4	0.2153			0.2195			2
CCVD	Q1697798		TOLUENE-D8	0.8181			0.8713			6.5
CCVD	Q1697798		4-BROMOFLUOROBENZENE	1.4749			1.5540			5.4
CCVD	Q1697798		DIBROMOFLUOROMETHANE	0.5606			0.6114			9.1
BLA01	Q1697799		Analysis Date/Time: 28-Jan-05 05:36							
BLA01	Q1697799		ACETONE (2-PROPANONE)			BDL	10.	ug/L		
BLA01	Q1697799		ACROLEIN			BDL	25.	ug/L		
BLA01	Q1697799		ACRYLONITRILE			BDL	5.0	ug/L		
BLA01	Q1697799		BENZENE			BDL	1.0	ug/L		
BLA01	Q1697799		BROMOBENZENE			BDL	1.0	ug/L		
BLA01	Q1697799		BROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1697799		BROMODICHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1697799		BROMOFORM			BDL	1.0	ug/L		
BLA01	Q1697799		BROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q1697799		N-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1697799		SEC-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1697799		TERT-BUTYLBENZENE			BDL	1.0	ug/L		
BLA01	Q1697799		CARBON DISULFIDE			BDL	1.0	ug/L		
BLA01	Q1697799		CARBON TETRACHLORIDE			BDL	1.0	ug/L		
BLA01	Q1697799		CHLOROBENZENE			BDL	1.0	ug/L		
BLA01	Q1697799		DIBROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1697799		CHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q1697799		CHLOROFORM			BDL	1.0	ug/L		
BLA01	Q1697799		CHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q1697799		2-CHLOROTOLUENE (O-			BDL	1.0	ug/L		
BLA01	Q1697799		4-CHLOROTOLUENE (P-			BDL	1.0	ug/L		
BLA01	Q1697799		2-CHLOROETHYLVINYLETHER			BDL	1.0	ug/L		
BLA01	Q1697799		1,2-DIBROMO-3-CHLOROPROPANE			BDL	1.0	ug/L		

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

O510.5 (cont.)

R482165 Analytical		Analyst: H WILLIAMS Reviewer: L SMITH		Run Date: 28-Jan-05 Review Date: 07-Feb-05		Instrument: GC/MS VOA (cont.)				
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD
LCS01	Q1697800		ACROLEIN	100			129	ug/L	129	
LCS01	Q1697800		ACRYLONITRILE	100			138	ug/L	138	
LCS01	Q1697800		2-CHLOROETHYLVINYLETHER	10			9.5	ug/L	95	
LCS01	Q1697800		TETRACHLOROETHENE	10		1	24.6	ug/L	246	
SAMPLE	A688382		Analysis Date/Time: 28-Jan-05 14:51							
SAMPLE	A688382		See Certificate of Analysis, Rep: 0							
SPI01	Q1697801	A688378	Analysis Date/Time: 28-Jan-05 13:42							
SPI01	Q1697801	A688378	ACETONE (2-PROPANONE)	0	50		60.3	ug/L	120.6	
SPI01	Q1697801	A688378	ACROLEIN	0	100	!	213	ug/L	213	
SPI01	Q1697801	A688378	ACRYLONITRILE	0	100	!	216	ug/L	216	
SPI01	Q1697801	A688378	BENZENE	0	10		10.8	ug/L	108	
SPI01	Q1697801	A688378	BROMOBENZENE	0	10		11.2	ug/L	112	
SPI01	Q1697801	A688378	BROMOCHLOROMETHANE	0	10		11.7	ug/L	117	
SPI01	Q1697801	A688378	BROMODICHLOROMETHANE	0	10		11.5	ug/L	115	
SPI01	Q1697801	A688378	BROMOFORM	0	10		12.6	ug/L	126	
SPI01	Q1697801	A688378	BROMOMETHANE	0	10		11.9	ug/L	119	
SPI01	Q1697801	A688378	N-BUTYLBENZENE	0	10		9.43	ug/L	94.3	
SPI01	Q1697801	A688378	SEC-BUTYLBENZENE	0	10		9.59	ug/L	95.9	
SPI01	Q1697801	A688378	TERT-BUTYLBENZENE	0	10		10.4	ug/L	104	
SPI01	Q1697801	A688378	CARBON DISULFIDE	0	10		10.8	ug/L	108	
SPI01	Q1697801	A688378	CARBON TETRACHLORIDE	0	10		11.7	ug/L	117	
SPI01	Q1697801	A688378	CHLOROBENZENE	0	10		10.7	ug/L	107	
SPI01	Q1697801	A688378	DIBROMOCHLOROMETHANE	0	10		11.1	ug/L	111	
SPI01	Q1697801	A688378	CHLOROETHANE	0	10		11.6	ug/L	116	
SPI01	Q1697801	A688378	CHLOROFORM	0	10		11.1	ug/L	111	
SPI01	Q1697801	A688378	CHLOROMETHANE	0	10		9.55	ug/L	95.5	
SPI01	Q1697801	A688378	2-CHLOROTOLUENE (O-	0	10		10.3	ug/L	103	
SPI01	Q1697801	A688378	4-CHLOROTOLUENE (P-	0	10		10.4	ug/L	104	
SPI01	Q1697801	A688378	2-CHLOROETHYLVINYLETHER	0	10	!	0	ug/L		
SPI01	Q1697801	A688378	1,2-DIBROMO-3-CHLOROPROPANE	0	10		9.06	ug/L	90.6	
SPI01	Q1697801	A688378	1,2-DIBROMOETHANE (EDB)	0	10		10.8	ug/L	108	
SPI01	Q1697801	A688378	DIBROMOMETHANE	0	10		12.1	ug/L	121	
SPI01	Q1697801	A688378	1,2-DICHLOROBENZENE (O-	0	10		10.8	ug/L	108	
SPI01	Q1697801	A688378	1,3-DICHLOROBENZENE (M-	0	10		10.9	ug/L	109	
SPI01	Q1697801	A688378	1,4-DICHLOROBENZENE (P-	0	10		10.3	ug/L	103	
SPI01	Q1697801	A688378	DICHLORODIFLUOROMETHANE	0	10		10.2	ug/L	102	
SPI01	Q1697801	A688378	TRANS-1,4-DICHLORO-2-BUTENE	0	20		15.2	ug/L	76	
SPI01	Q1697801	A688378	1,1-DICHLOROETHANE	0	10		10.9	ug/L	109	
SPI01	Q1697801	A688378	1,2-DICHLOROETHANE	0	10		11.8	ug/L	118	
SPI01	Q1697801	A688378	1,1-DICHLOROETHENE	0	10		10.7	ug/L	107	
SPI01	Q1697801	A688378	CIS-1,2-DICHLOROETHENE	69	10		77.8	ug/L	88	
SPI01	Q1697801	A688378	TRANS-1,2-DICHLOROETHENE	0	10		10.5	ug/L	105	
SPI01	Q1697801	A688378	1,2-DICHLOROPROPANE	0	10		11	ug/L	110	
SPI01	Q1697801	A688378	1,3-DICHLOROPROPANE	0	10		9.72	ug/L	97.2	
SPI01	Q1697801	A688378	2,2-DICHLOROPROPANE	0	10		8.69	ug/L	86.9	
SPI01	Q1697801	A688378	1,1-DICHLOROPROPENE	0	10		11.1	ug/L	111	
SPI01	Q1697801	A688378	CIS-1,3-DICHLOROPROPENE	0	10		10.7	ug/L	107	
SPI01	Q1697801	A688378	TRANS-1,3-DICHLOROPROPENE	0	10		11	ug/L	110	
SPI01	Q1697801	A688378	ETHYL BENZENE	0	10		10.8	ug/L	108	
SPI01	Q1697801	A688378	XYLENES (O/M/P-XYLENE)	0	30		32	UG/L	106.7	
SPI01	Q1697801	A688378	2-HEXANONE	0	50		54.3	ug/L	108.6	
SPI01	Q1697801	A688378	HEXACHLOROBUTADIENE	0	10		11.1	ug/L	111	
SPI01	Q1697801	A688378	IODOMETHANE	0	10		13.1	ug/L	131	

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B

0510.5

(cont.)

R482165		Analyst: H WILLIAMS		Run Date: 28-Jan-05		Instrument: GC/MS VOA		(cont.)			
Analytical		Reviewer: L SMITH		Review Date: 07-Feb-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
DPS01	Q1697802	A688378	DICHLORODIFLUOROMETHANE	0	10		9.7	ug/L	97	5.1	
DPS01	Q1697802	A688378	TRANS-1,4-DICHLORO-2-BUTENE	0	20		15.2	ug/L	76	0.3	
DPS01	Q1697802	A688378	1,1-DICHLOROETHANE	0	10		10.4	ug/L	104.5	4.6	
DPS01	Q1697802	A688378	1,2-DICHLOROETHANE	0	10		11.7	ug/L	117.3	0.9	
DPS01	Q1697802	A688378	1,1-DICHLOROETHENE	0	10		10.3	ug/L	103.2	3.5	
DPS01	Q1697802	A688378	CIS-1,2-DICHLOROETHENE	69	10		79.1	ug/L	101	13.8	
DPS01	Q1697802	A688378	TRANS-1,2-DICHLOROETHENE	0	10		10.3	ug/L	103.2	1.9	
DPS01	Q1697802	A688378	1,2-DICHLOROPROPANE	0	10		10.4	ug/L	104.5	5.3	
DPS01	Q1697802	A688378	1,3-DICHLOROPROPANE	0	10		10	ug/L	100	2.8	
DPS01	Q1697802	A688378	2,2-DICHLOROPROPANE	0	10		8.47	ug/L	84.7	2.6	
DPS01	Q1697802	A688378	1,1-DICHLOROPROPENE	0	10		10.9	ug/L	108.7	1.9	
DPS01	Q1697802	A688378	CIS-1,3-DICHLOROPROPENE	0	10		10.4	ug/L	103.7	2.9	
DPS01	Q1697802	A688378	TRANS-1,3-DICHLOROPROPENE	0	10		11.2	ug/L	111.6	1.2	
DPS01	Q1697802	A688378	ETHYL BENZENE	0	10		10.7	ug/L	106.5	0.9	
DPS01	Q1697802	A688378	XYLENES (O/M/P-XYLENE)	0	30		30.8	UG/L	102.7	3.8	
DPS01	Q1697802	A688378	2-HEXANONE	0	50		52.9	ug/L	105.7	2.6	
DPS01	Q1697802	A688378	HEXACHLOROBUTADIENE	0	10		10.5	ug/L	105.1	5	
DPS01	Q1697802	A688378	IODOMETHANE	0	10		12.5	ug/L	124.5	4.8	
DPS01	Q1697802	A688378	ISOPROPYLBENZENE (CUMENE)	0	10		9.4	ug/L	94	4.5	
DPS01	Q1697802	A688378	4-ISOPROPYLTOLUENE (P-	0	10		9.7	ug/L	97	3.5	
DPS01	Q1697802	A688378	DICHLOROMETHANE (METHYLENE	0	10		9.87	ug/L	98.7	9.8	
DPS01	Q1697802	A688378	METHYL ETHYL KETONE	0	50		58.8	ug/L	117.6	2.8	
DPS01	Q1697802	A688378	METHYL-T-BUTYL ETHER (MTBE)	0	10		11.8	ug/L	117.7	0.2	
DPS01	Q1697802	A688378	METHYL ISOBUTYL KETONE	0	50		57.9	ug/L	115.7	1.6	
DPS01	Q1697802	A688378	NAPHTHALENE	0	10		10.3	ug/L	103	4.2	
DPS01	Q1697802	A688378	N-PROPYLBENZENE	0	10		9.47	ug/L	94.7	3.4	
DPS01	Q1697802	A688378	STYRENE	0	10		11.2	ug/L	111.9	3.2	
DPS01	Q1697802	A688378	1,1,1,2-TETRACHLOROETHANE	0	10		11.4	ug/L	114.4	3.4	
DPS01	Q1697802	A688378	1,1,2,2-TETRACHLOROETHANE	0	10		10.3	ug/L	102.7	5.3	
DPS01	Q1697802	A688378	TETRACHLOROETHENE	77	10	1	82.6	ug/L	56	73.2	
DPS01	Q1697802	A688378	TOLUENE	0	10		10.9	ug/L	109.5	4.6	
DPS01	Q1697802	A688378	1,2,3-TRICHLOROBENZENE	0	10		10.6	ug/L	106.1	1.2	
DPS01	Q1697802	A688378	1,2,4-TRICHLOROBENZENE	0	10		10.2	ug/L	102.4	0.3	
DPS01	Q1697802	A688378	1,1,1-TRICHLOROETHANE	0	10		10.9	ug/L	108.7	3.2	
DPS01	Q1697802	A688378	1,1,2-TRICHLOROETHANE	0	10		11.7	ug/L	117	0	
DPS01	Q1697802	A688378	TRICHLOROETHENE	6	10		16.3	ug/L	102.5	3.5	
DPS01	Q1697802	A688378	TRICHLOROFLUOROMETHANE	0	10		11	ug/L	110.4	3.8	
DPS01	Q1697802	A688378	1,2,3-TRICHLOROPROPANE	0	10		10.6	ug/L	105.6	0.4	
DPS01	Q1697802	A688378	1,2,4-TRIMETHYLBENZENE	0	10		9.65	ug/L	96.5	4.3	
DPS01	Q1697802	A688378	1,3,5-TRIMETHYLBENZENE	0	10		9.75	ug/L	97.5	5.8	
DPS01	Q1697802	A688378	VINYL ACETATE	0	10		10.4	ug/L	104	7.3	
DPS01	Q1697802	A688378	VINYL CHLORIDE	0	10		9.58	ug/L	95.8	2	
CAL01	Q1693959	Analysis Date/Time: 18-Jan-05 06:44									
CAL01	Q1693959	ACETONE (2-PROPANONE)		0.0174							14.8
CAL01	Q1693959	ACROLEIN		0.0081							13.2
CAL01	Q1693959	ACRYLONITRILE		0.0134							11.5
CAL01	Q1693959	BENZENE		0.7255							13.5
CAL01	Q1693959	BROMOBENZENE		1.0468							4.2
CAL01	Q1693959	BROMOCHLOROMETHANE		0.1740							10
CAL01	Q1693959	BROMODICHLOROMETHANE		0.5158							8.3
CAL01	Q1693959	BROMOFORM		0.3138							13.5
CAL01	Q1693959	BROMOMETHANE		10.0	QDR						0.997
CAL01	Q1693959	N-BUTYLBENZENE		2.3147							5.7

HERITAGE ENVIRONMENTAL SERVICES, LLC

VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B						O510.5			(cont.)		
R482165		Analyst: H WILLIAMS		Run Date: 28-Jan-05		Instrument: GC/MS VOA			(cont.)		
Analytical		Reviewer: L SMITH		Review Date: 07-Feb-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
CAL01	Q1693959		TRICHLOROETHENE	0.4427						10.4	
CAL01	Q1693959		TRICHLOROFLUOROMETHANE	0.5331						8.3	
CAL01	Q1693959		1,2,3-TRICHLOROPROPANE	0.1183						3.8	
CAL01	Q1693959		1,2,4-TRIMETHYLBENZENE	2.0555						8.2	
CAL01	Q1693959		1,3,5-TRIMETHYLBENZENE	2.1767						8.7	
CAL01	Q1693959		VINYL ACETATE	0.6252						6.8	
CAL01	Q1693959		VINYL CHLORIDE	0.2042						9.2	
CAL01	Q1693959		DICHLOROETHANE-D4	0.2153						16.8	
CAL01	Q1693959		TOLUENE-D8	0.8181						9.1	
CAL01	Q1693959		4-BROMOFLUOROBENZENE	1.4749						9.9	
CAL01	Q1693959		DIBROMOFLUOROMETHANE	0.5606						14.8	
Q1693959	Value reported for analytes calibrated by linear (LIN) or										
Q1693959	quadratic (QDR) equations is r2 (Coef. of Determination).										
Q1697800	! COMPOUND FAILS HIGH IN LCS IF DETECTED IN SAMPLES WILL RERUN.										
Q1697801	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery										
Q1697801	possible. Unacidified sample not available.										
Q1697802	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery										
Q1697802	possible. Unacidified sample not available.										
R482190		Analyst: H WILLIAMS		Run Date: 01-Feb-05		Instrument: GC/MS VOA					
Analytical		Reviewer: L SMITH		Review Date: 03-Feb-05							
QCType	Lab ID	Source	Parameter	True/Sampl	Spike Val	RQL	Observed	Units	% Rec	RPD	
CAL01	Q1694860		Analysis Date/Time: 19-Jan-05 13:46								
CAL01	Q1694860		CIS-1,2-DICHLOROETHENE	0.2390						4	
CAL01	Q1694860		TETRACHLOROETHENE	0.5773						3	
CAL01	Q1694860		TRICHLOROETHENE	0.2158						6.1	
CAL01	Q1694860		DICHLOROETHANE-D4	0.3527						0.7	
CAL01	Q1694860		TOLUENE-D8	1.2101						1.1	
CAL01	Q1694860		4-BROMOFLUOROBENZENE	1.0226						2.2	
CAL01	Q1694860		DIBROMOFLUOROMETHANE	0.2774						1.4	
CCVD	Q1698312		Analysis Date/Time: 01-Feb-05 06:19								
CCVD	Q1698312		CIS-1,2-DICHLOROETHENE	0.2390			0.2162			9.5	
CCVD	Q1698312		TETRACHLOROETHENE	0.5773			0.5447			5.6	
CCVD	Q1698312		TRICHLOROETHENE	0.2158			0.1933			10.4	
CCVD	Q1698312		DICHLOROETHANE-D4	0.3527			0.4042			14.6	
CCVD	Q1698312		TOLUENE-D8	1.2101			1.2022			0.7	
CCVD	Q1698312		4-BROMOFLUOROBENZENE	1.0226			1.0135			0.9	
CCVD	Q1698312		DIBROMOFLUOROMETHANE	0.2774			0.2915			5.1	
BLA01	Q1698329		Analysis Date/Time: 01-Feb-05 06:57								
BLA01	Q1698329		CIS-1,2-DICHLOROETHENE			BDL	1.0	ug/L			
BLA01	Q1698329		TETRACHLOROETHENE			BDL	1.0	ug/L			
BLA01	Q1698329		TRICHLOROETHENE			BDL	1.0	ug/L			
BLA01	Q1698329		DICHLOROETHANE-D4							107	
BLA01	Q1698329		TOLUENE-D8							95	
BLA01	Q1698329		4-BROMOFLUOROBENZENE							99	
BLA01	Q1698329		DIBROMOFLUOROMETHANE							102	
SAMPLE	A688380		Analysis Date/Time: 01-Feb-05 08:04								
SAMPLE	A688380		See Certificate of Analysis, Rep: 1								
SPI01	Q1698394	A688515	Analysis Date/Time: 01-Feb-05 17:06								

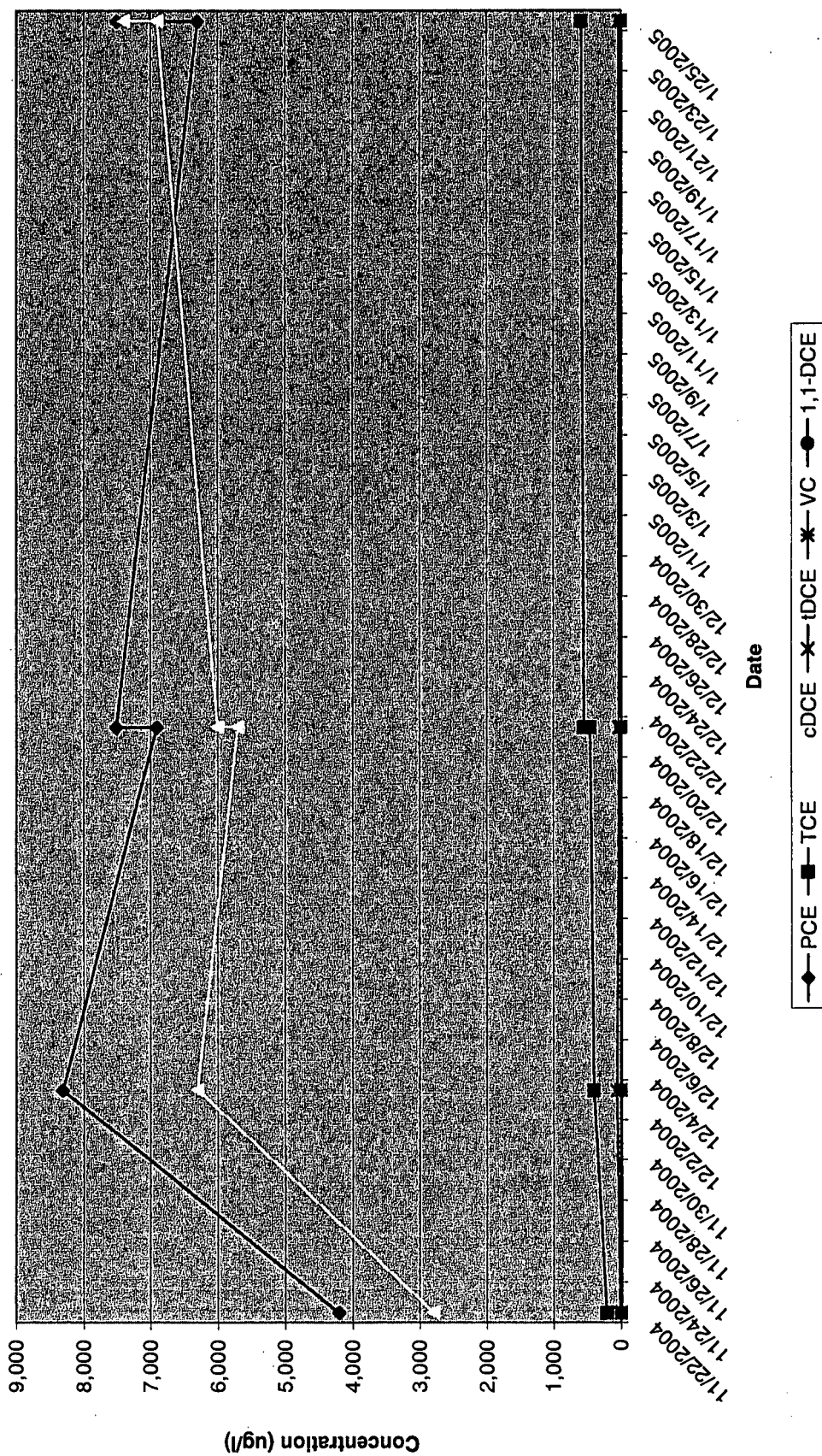
VOLATILE ORGANICS, CAPILLARY COLUMN TECHNIQUE SW846-8260B				O510.5	(cont.)
R482266	Analyst: H WILLIAMS	Run Date: 02-Feb-05	Instrument: GC/MS VOA	(cont.)	
Analytical	Reviewer: R SHAMP	Review Date: 04-Feb-05			
Q1698419	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery				
Q1698419	possible. Unacidified sample not available.				
Q1698420	2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery				
Q1698420	possible. Unacidified sample not available.				

Qualifiers

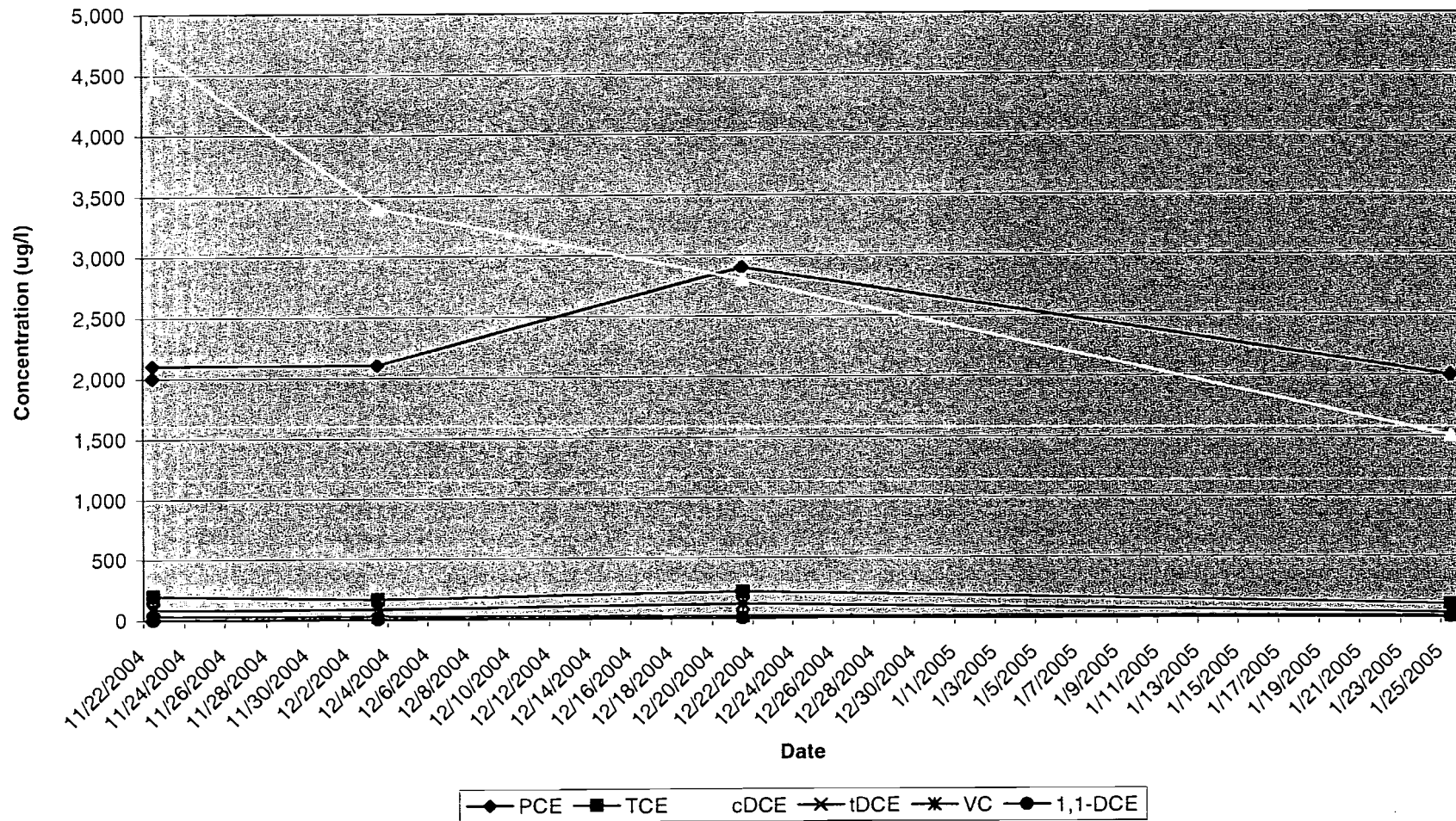
I Outside Lab Generated Control Limits
BDL Below Detection Limit
LIN Linear Regression Used
NQR No QC Result. High Sample Concentration.
QDR Quadratic Equation Used

P.K. Seidel QAO

VOC v Time in PT-1 Harman/Becker Source Area Pilot Test



VOC v Time in PT-2
Harman/Becker Source Area Pilot Test



VOC v Time in PT-3
Harman/Becker Source Area Pilot Test

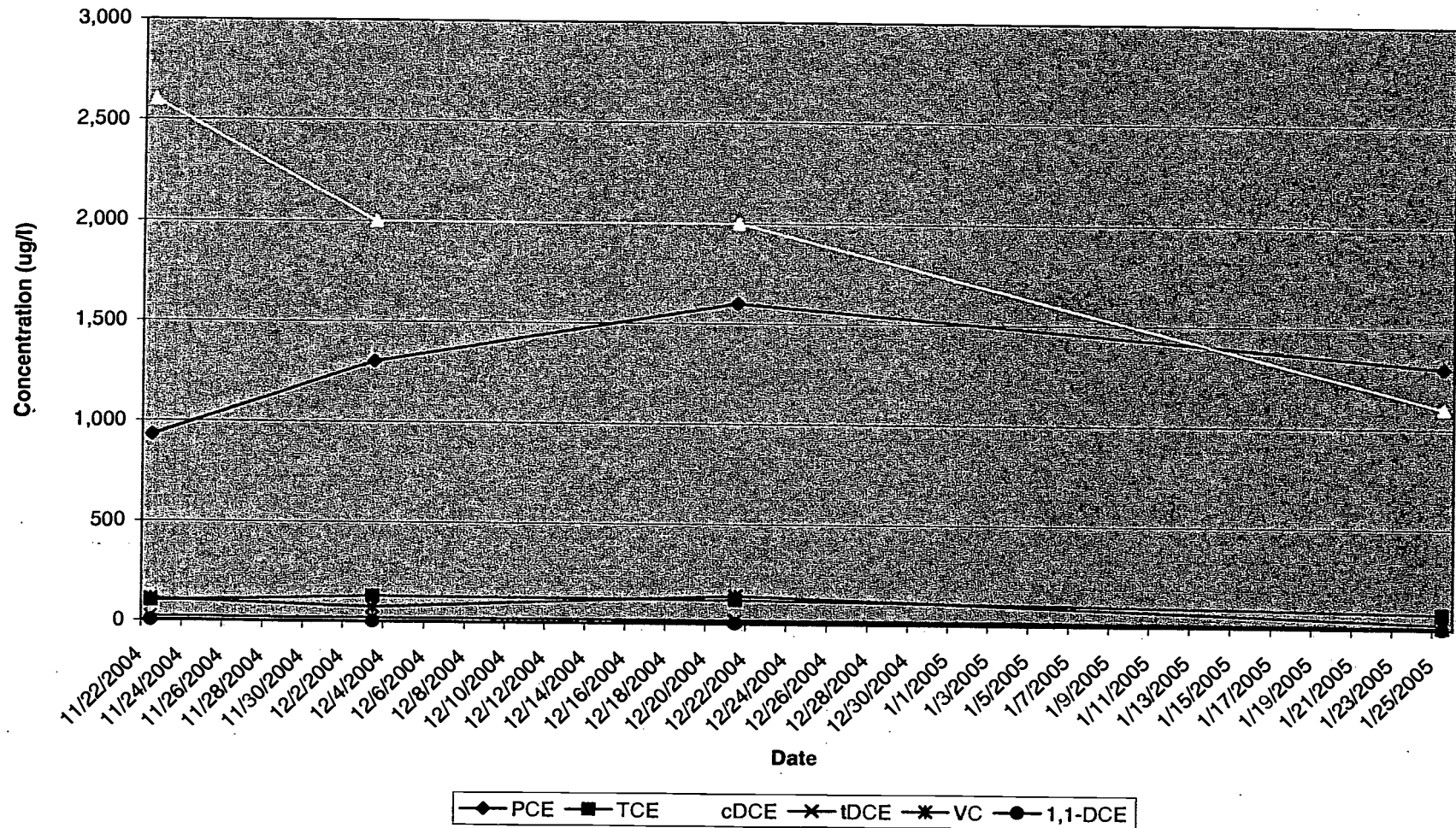
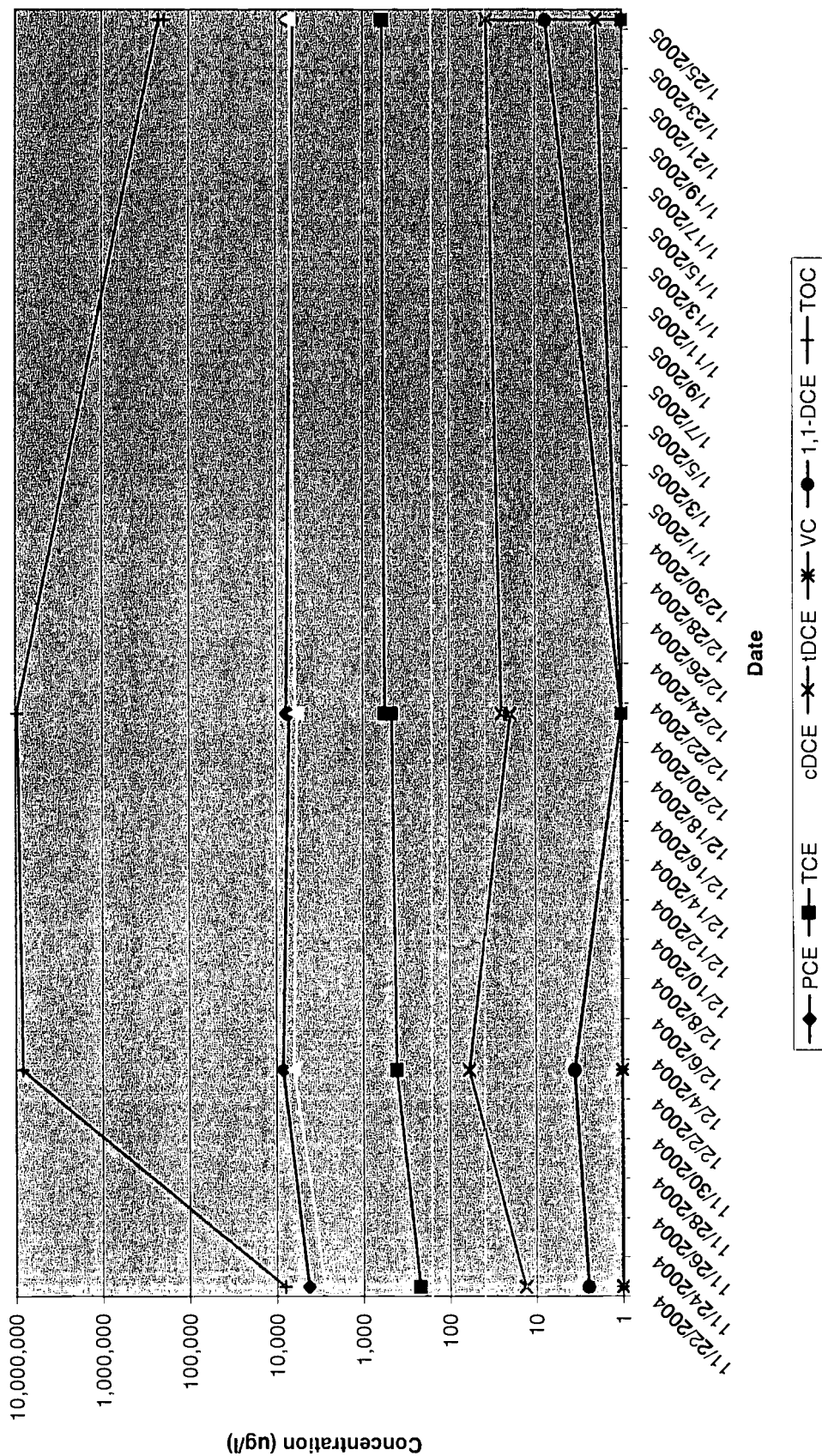
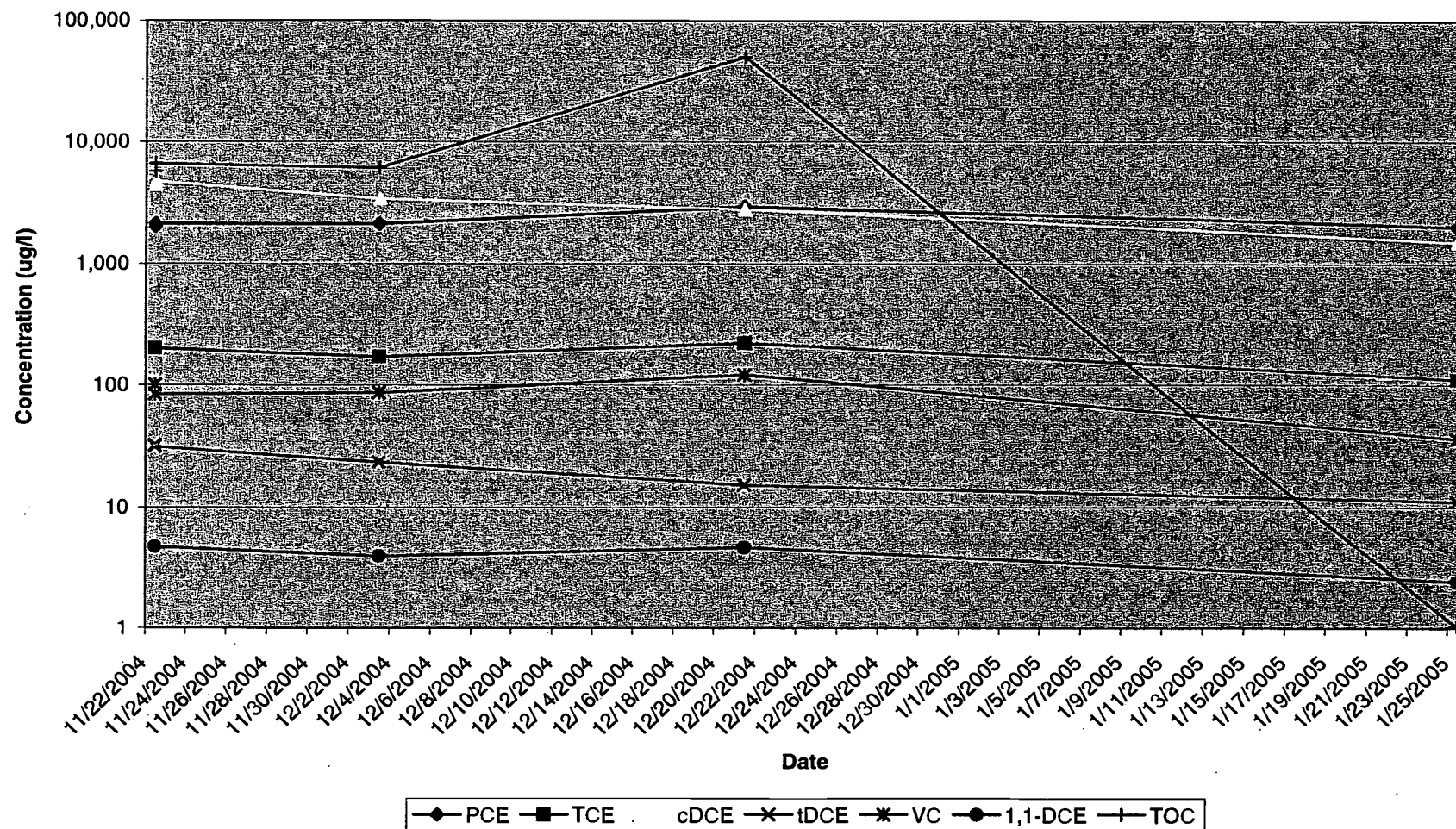


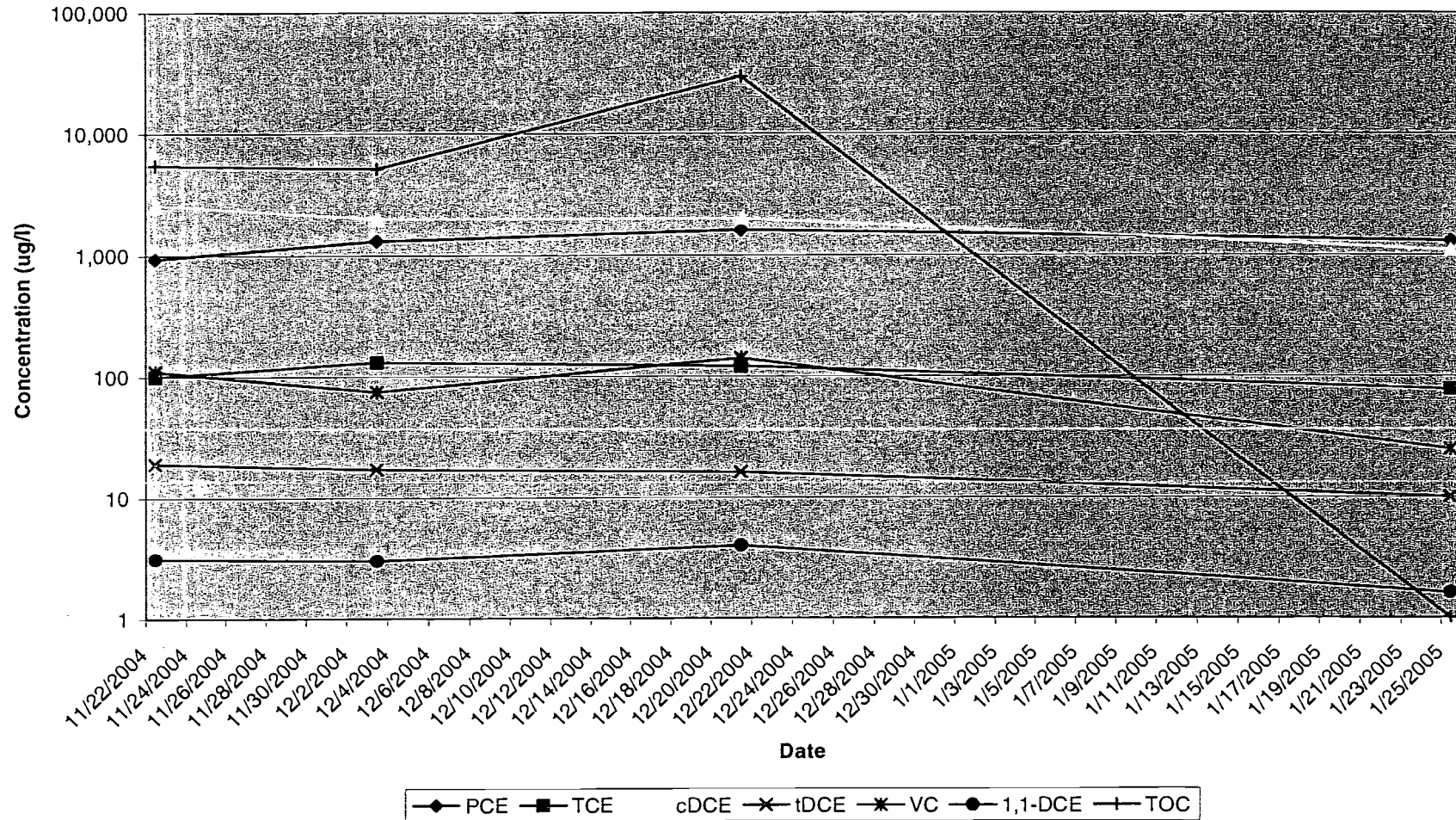
Figure 1 is a log-linear plot showing the concentration (ug/l) of various chemicals over time from 11/22/2004 to 1/25/2005. The chemicals tracked are PCE, TCE, VC, 1,1-DCE, and TOC. The y-axis is logarithmic, ranging from 1 to 10,000,000 ug/l. The x-axis shows dates from 11/22/2004 to 1/25/2005. PCE and TCE concentrations are generally high, starting around 10,000,000 ug/l and decreasing to around 10,000 ug/l by late 2004. VC and 1,1-DCE concentrations are lower, starting around 10,000 ug/l and decreasing to around 1 ug/l by late 2004. TOC concentration is the lowest, starting around 10 ug/l and decreasing to around 1 ug/l by late 2004.



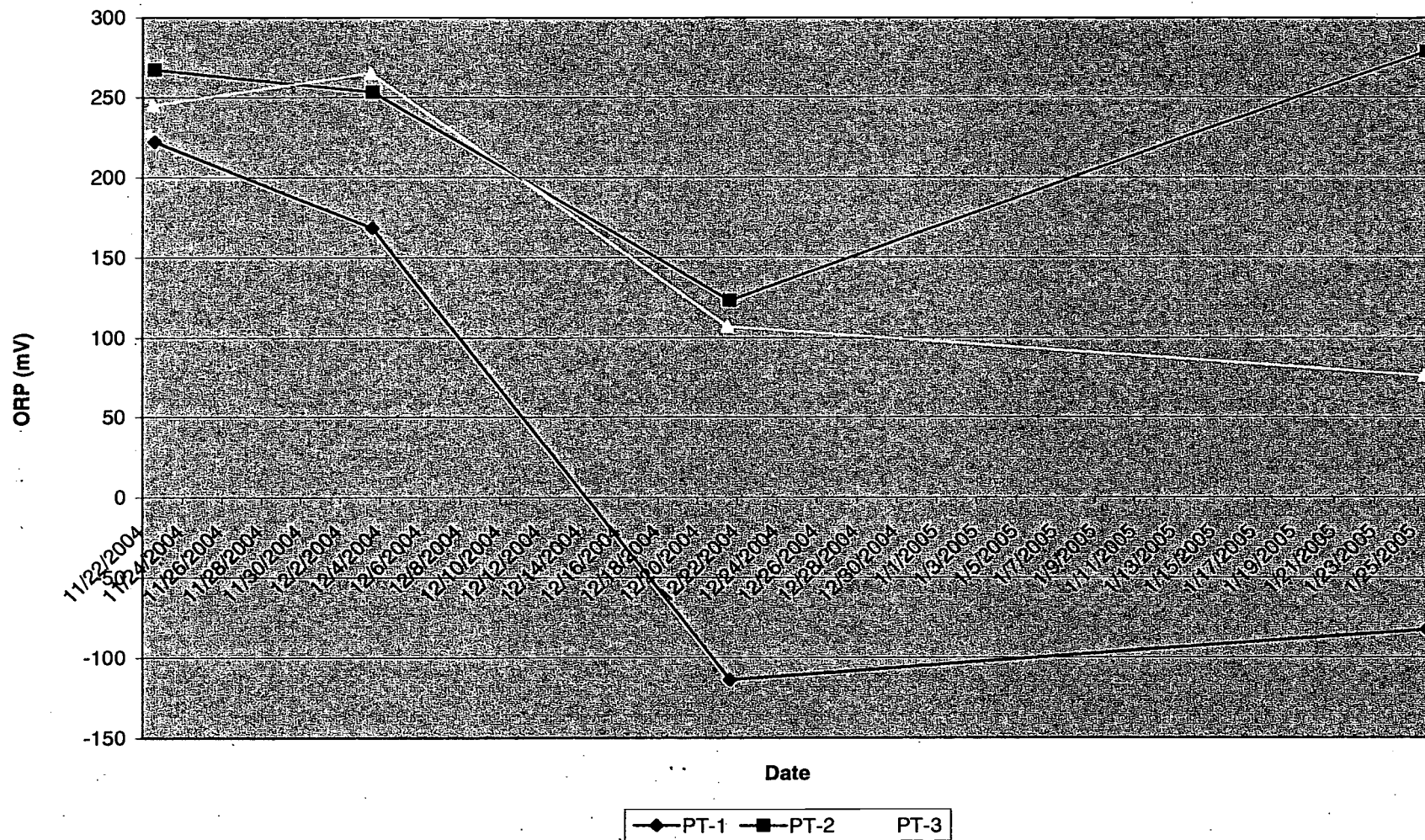
VOC/TOC v Time in PT-2 Harman/Becker Source Area Pilot Test



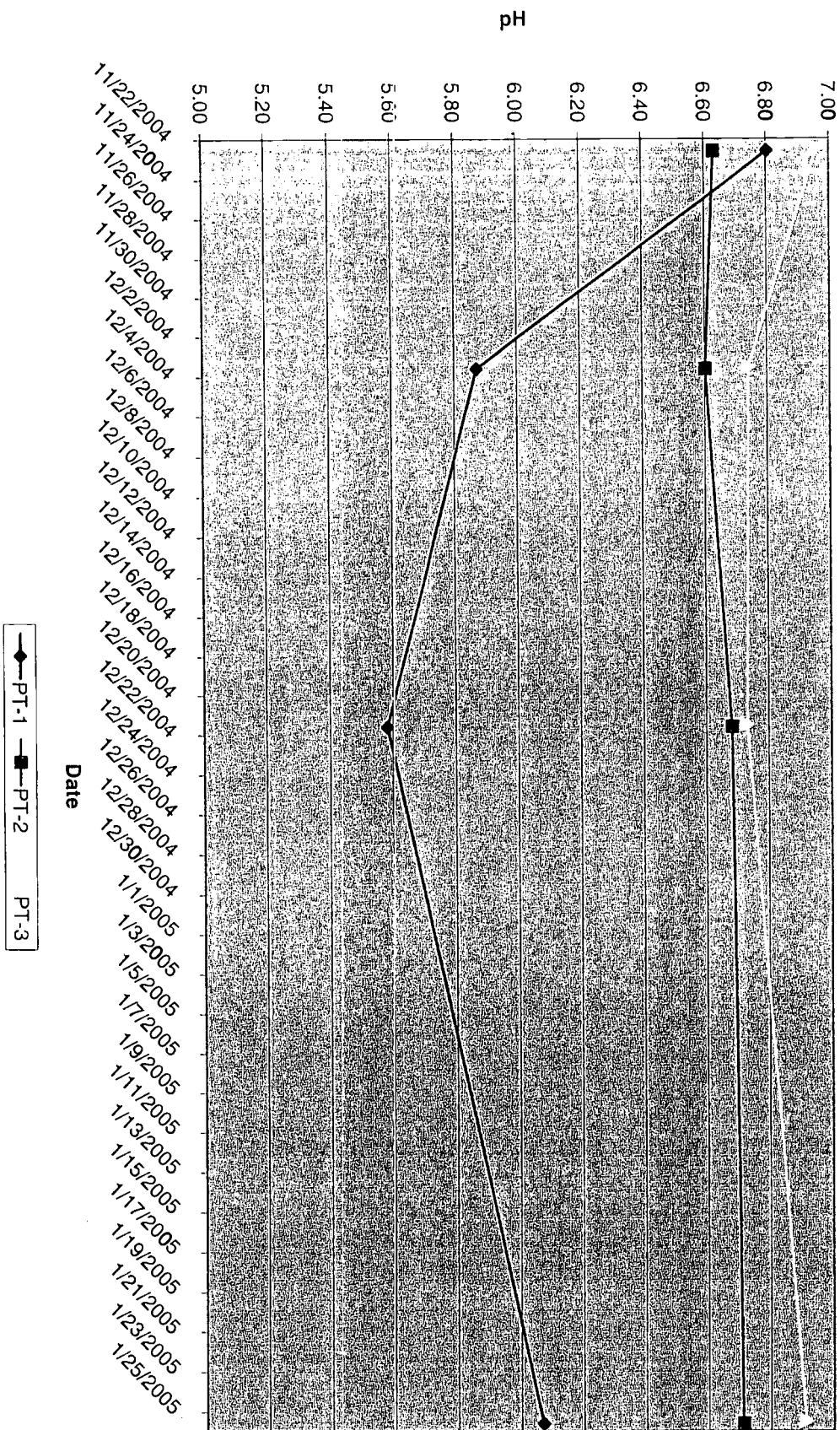
VOC/TOC v Time in PT-3 Harman/Becker Source Area Pilot Test



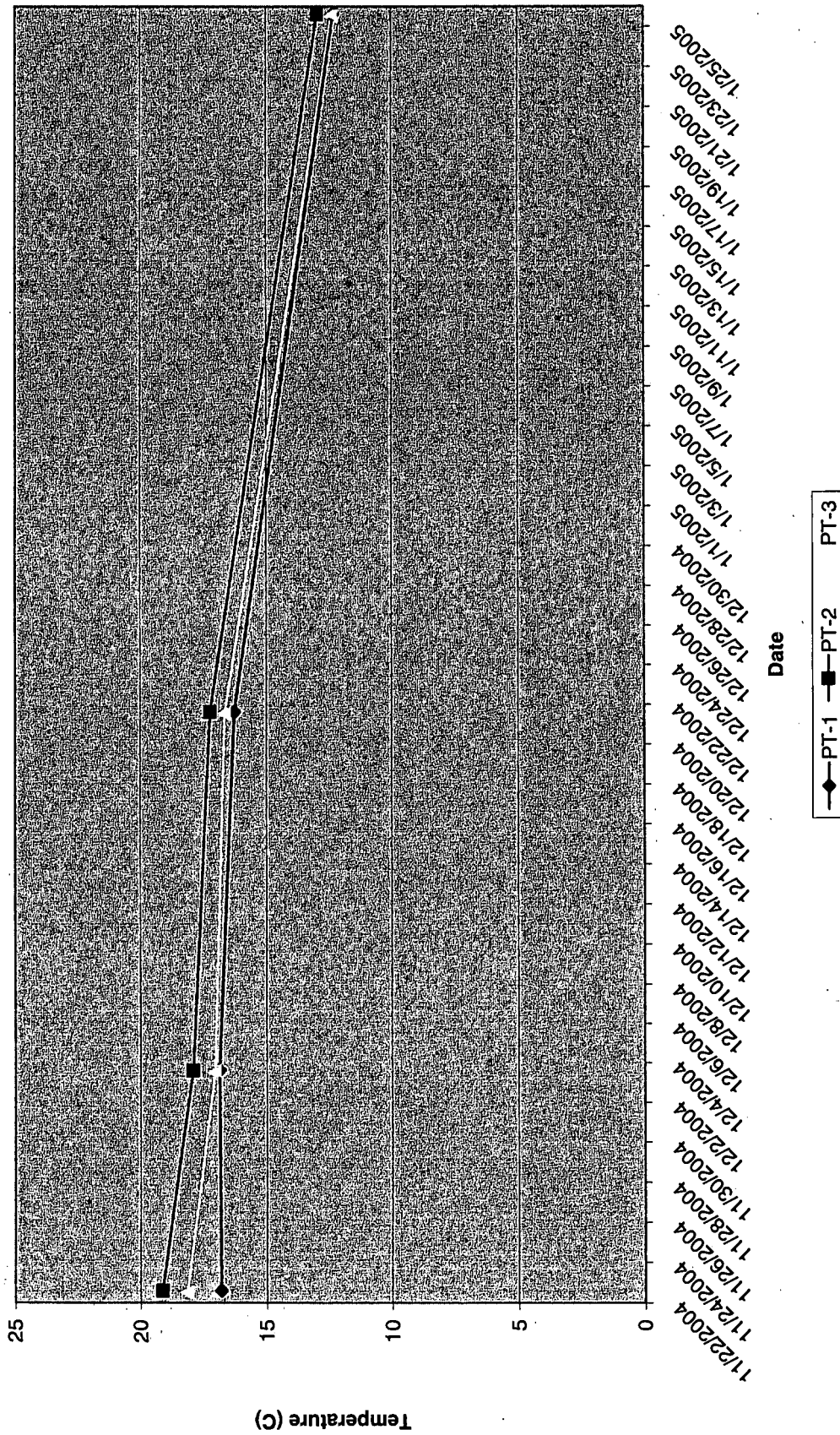
ORP v. Time

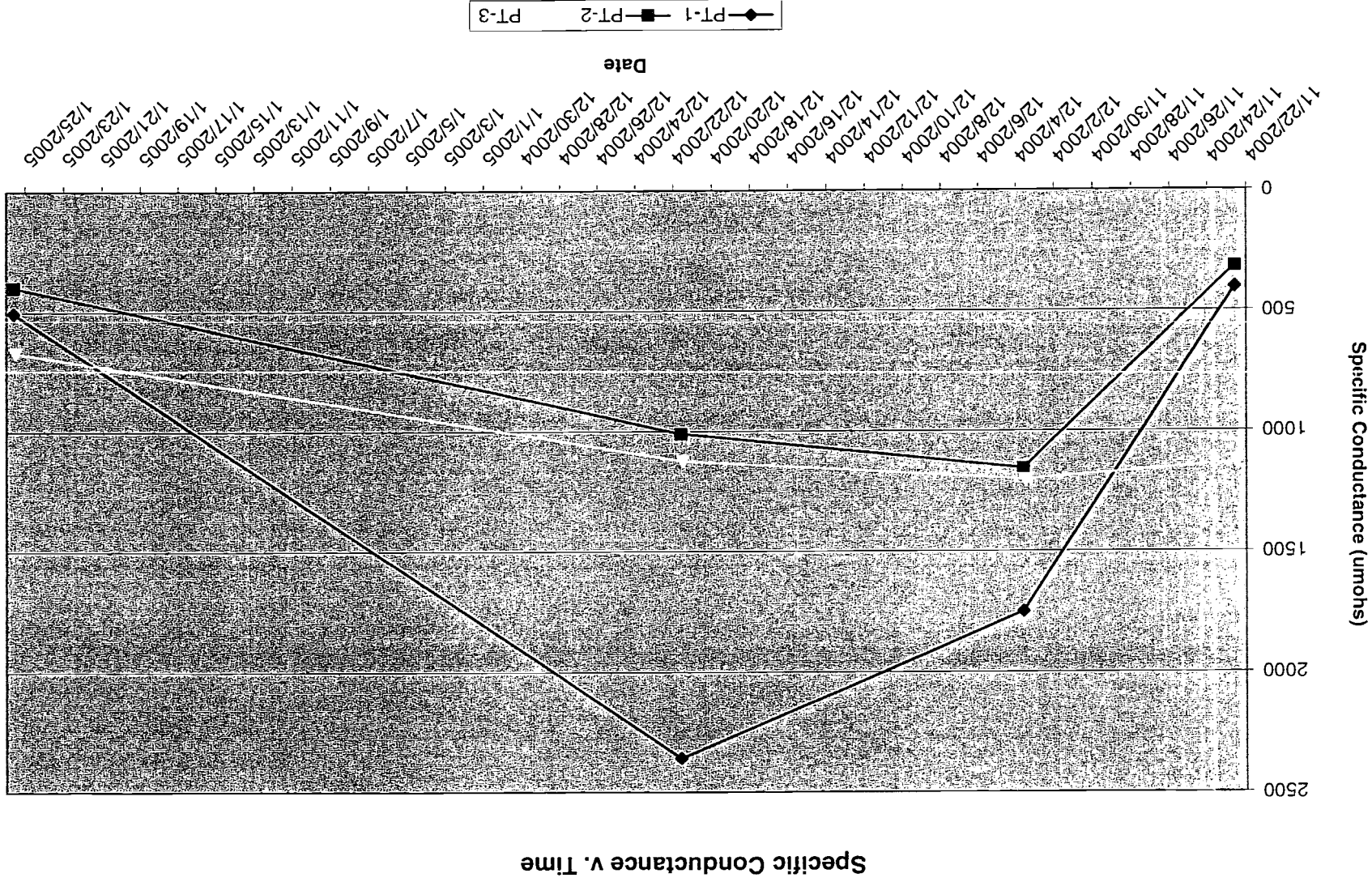


pH v. Time

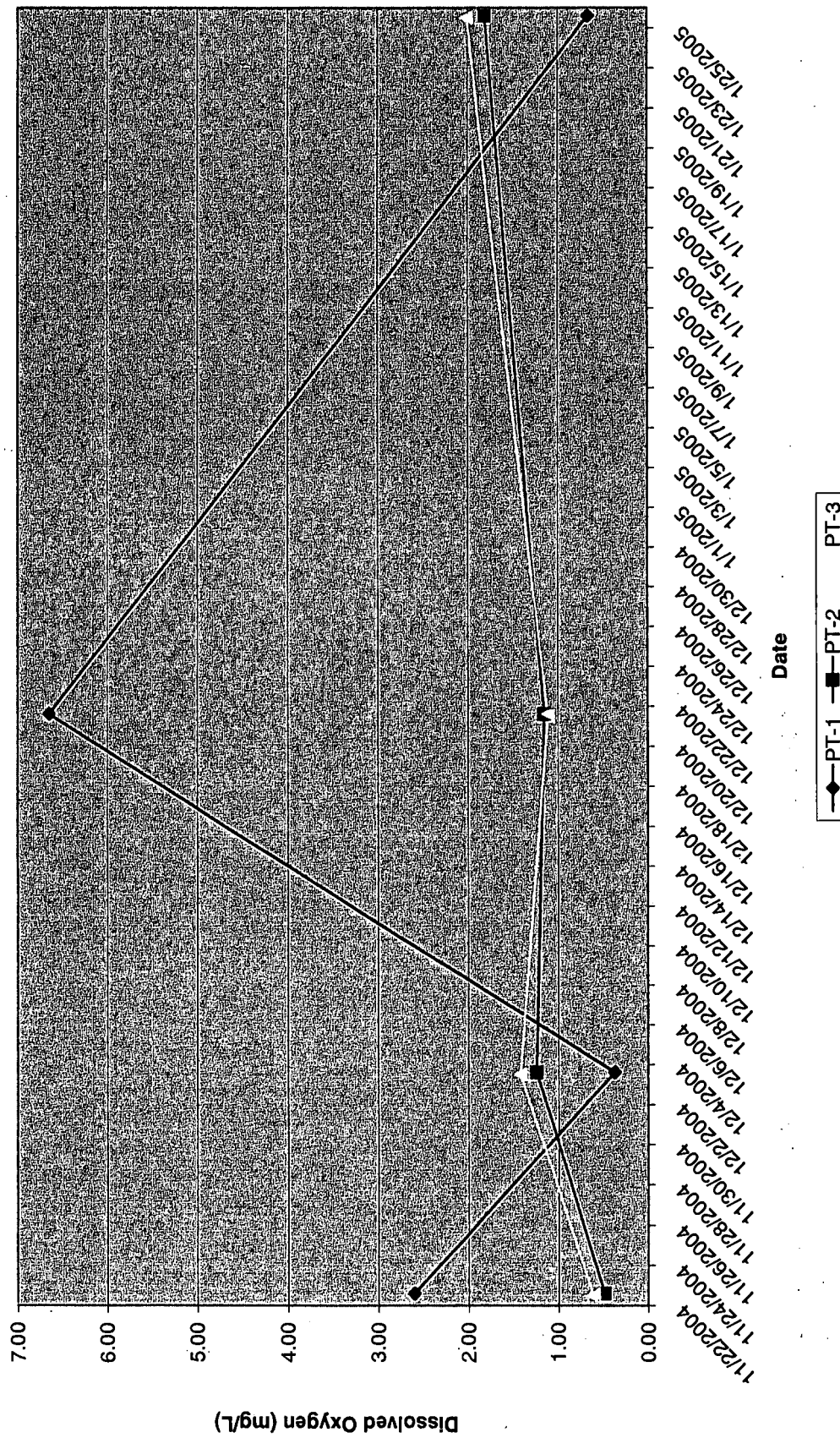


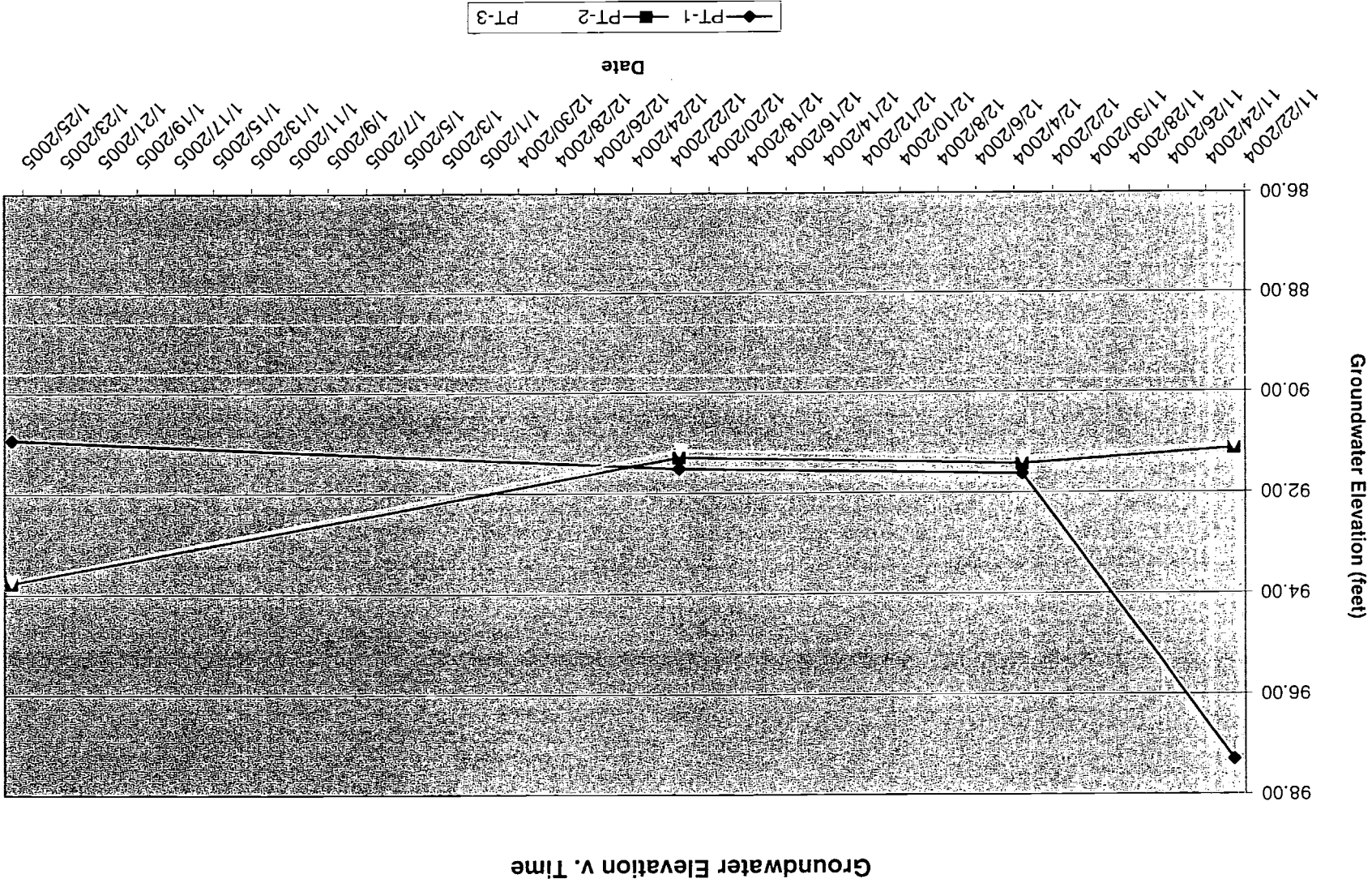
Temperature v. Time



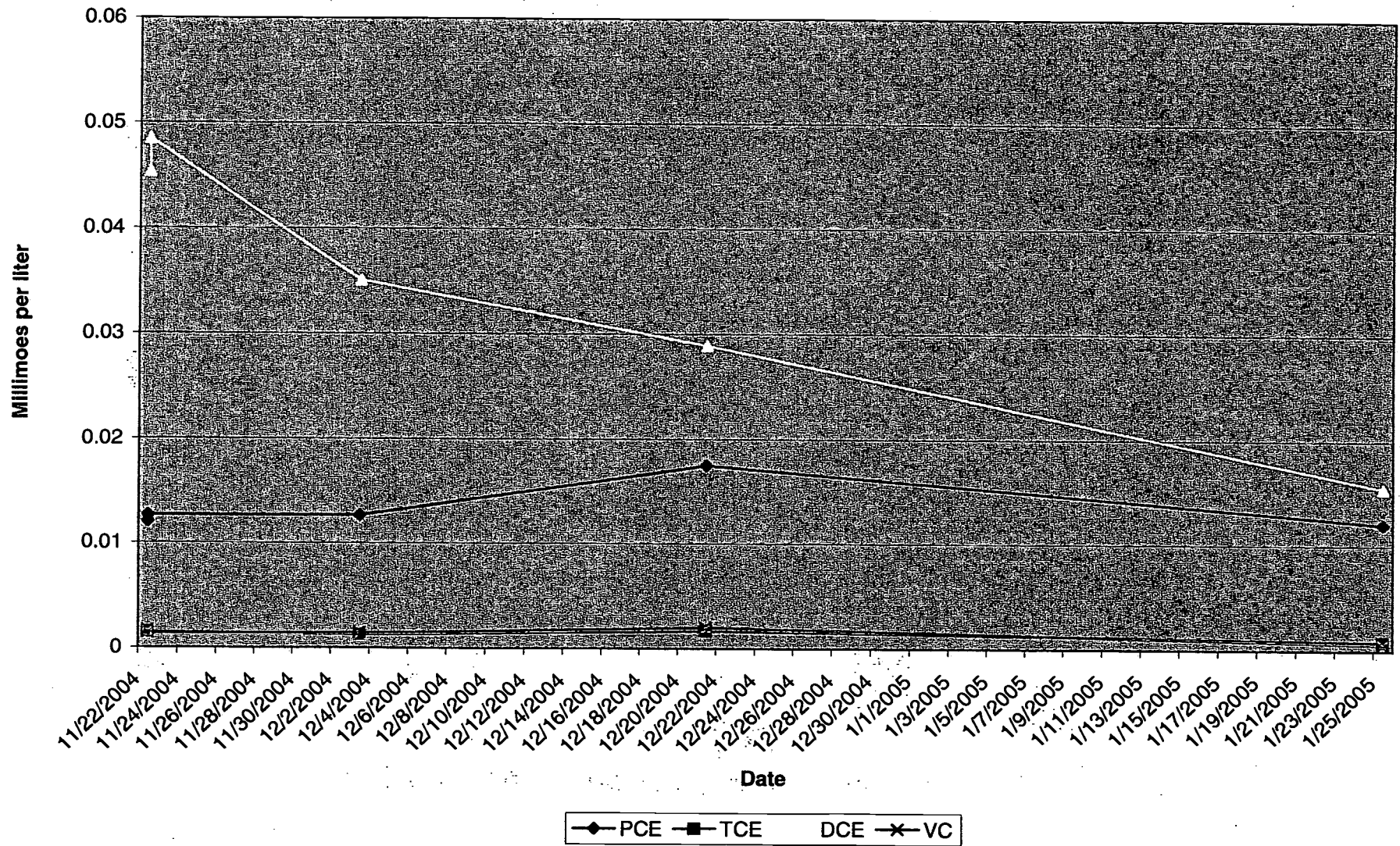


Dissolved Oxygen v. Time





Millimoles of PCE, TCE, cDCE, and VC versus Time in PT-2



Millimoles of PCE, TCE, cDCE, VC versus Time in PT-3

