

**May 2010 Groundwater Monitoring  
LeatherCare, Inc.  
901/921 Elliott Avenue West  
Seattle, Washington  
VCP # NW1805**

June 21, 2010


Prepared For:  
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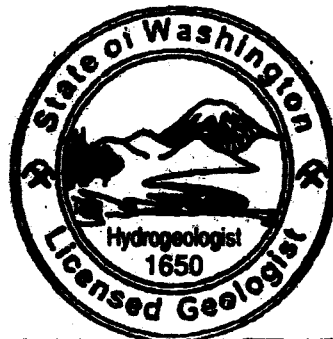
*A Report Prepared For:*  
LeatherCare, Inc.  
901 Elliott Avenue West  
Seattle, Washington 98119

**MAY 2010 GROUNDWATER MONITORING  
LEATHERCARE, INC  
901/921 ELLIOTT AVENUE W  
SEATTLE, WASHINGTON  
VCP #NW1805**

June 21, 2010



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CDM Project No. 56498-68247

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# Section 1

## Introduction

### 1.1 General

This report presents the results of the fifteenth round (May 2010) of ongoing groundwater monitoring for the LeatherCare, Inc. site located at 901 & 921 Elliott Avenue West in Seattle, Washington (**Figure 1**). Camp Dresser & McKee Inc. (CDM) is conducting this work on behalf of LeatherCare, Inc. (LeatherCare) in accordance with the Master Environmental Services Agreement dated March 18, 2007 between LeatherCare and CDM, and CDM's proposal dated April 5, 2010. Site work is being conducted under the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP). The VCP site number is NW1805.

### 1.2 Background

LeatherCare is a large, industrial dry cleaning facility that has occupied this location since 1985. LeatherCare initially used tetrachloroethene (PCE) as a dry cleaning solvent. PCE use was discontinued in phases beginning in March 2000. The replacement of PCE dry cleaning machines was completed in October 2005.

In July 2006, CDM completed an assessment of volatile organic compounds (VOCs) and petroleum hydrocarbons throughout the LeatherCare parcel (LC parcel), an adjacent parcel referred to as the GTP parcel to the northwest (also owned by Mr. Ritt), West Roy Street to the southwest, and the former Darigold property (also formerly referred to as WestFarm Foods) north and central parking lots. (CDM, 2006). In March 2009, CDM also completed an offsite investigation on the Burlington Northern Santa Fe (BNSF) railroad property to the west (CDM, 2009).

The Darigold property is currently owned by Elliott Holding Company, Inc. (Elliott Holding) and has been redeveloped. The two Ritt-owned parcels and W Roy Street are collectively referred to as the "Subject Property." **Figure 2** shows the layout of the Subject Property and the former layout of the former Darigold property (prior to redevelopment). These two areas and the adjacent BNSF railroad property are collectively referred to as the "Investigation Area".

The chlorinated volatile organic compounds (cVOCs) PCE and/or its degradation products were identified in groundwater in areas of the Subject Property at relatively low concentrations. PCE concentrations detected in soil and groundwater at the Subject Property are not indicative of the presence of free phase product.

Elliott Holding began redevelopment of the Darigold property in 2007. The development includes two 4-story commercial buildings, a plaza, and an underground parking structure beneath the entire complex. The parking level foundation is as much as 20 feet below former grade. The excavation support system that was utilized to enable below grade construction is the Cutter Soil Mixing (CSM) method. The CSM wall, shown on **Figure 2**, entirely encircles the Elliott Holding

property and keys into the underlying glacial till at depths of 40 to 57 feet below ground surface (Malcolm Drilling, 2009).

CDM's investigations show that biological degradation processes are actively occurring to reduce cVOC concentrations. Field monitoring and chemical data for soil and groundwater, along with historical groundwater chemical data collected throughout the Investigation Area, show that all degradation products of PCE are present and the chemistry necessary for biological degradation is present at the site. Biological testing has shown that the bacterium *Dehalococcoides ethenogenes*, which is known to reductively dechlorinate vinyl chloride to ethene, is present at the site.

### 1.3 Purpose and Scope of Work

The purpose of continued groundwater monitoring over time is to establish the natural variation in contaminant concentrations (i.e., seasonal), to confirm that the plume is continuing to collapse, to characterize degradation processes, and to empirically demonstrate the biological degradation of cVOCs.

During the first three groundwater monitoring rounds, CDM collected samples from monitoring wells in the Darigold north parking lot. After that, these wells were dropped from the monitoring schedule due to imminent construction activities and limitations on access. ENTRIX continued to sample these wells for a period of time, but it is presumed that groundwater monitoring ceased on the Darigold site by December 2007 when construction began.

The scope of work completed during the May 2010 event consisted of the following:

- Conducted one complete round of water level measurements for all existing monitoring wells throughout the Subject Property.
- Purged each groundwater monitoring well on the Subject Property and collected data on field measured parameters.
- Collected groundwater samples and submitted them for laboratory analysis of selected cVOCs and dissolved gasses (ethane, ethene, and methane).
- Evaluated the data and prepared this report documenting our findings and conclusions.

# Section 2

## Field Investigation Methods

### 2.1 Groundwater Sampling

Groundwater monitoring was conducted on May 4 and 5, 2010. Monitored wells included GT1 through GT3, LC1 through LC3, LC4R, LC5R, and LC6. This section describes the field and analytical methods employed.

#### 2.1.1 Water Levels

Water levels were measured in all monitoring wells throughout the Subject Property between 7:47 am and 8:09 am on May 4, 2010. Water levels were measured using a SINCO electronic sounder.

#### 2.1.2 Water Sampling

Each monitoring well/piezometer was purged prior to collecting groundwater samples using dedicated stainless steel bladder pumps with Teflon lined tubing. Each well was purged at a rate of approximately 100 to 200 milliliters per minute (ml/min). Physical parameters were monitored during purging using a YSI meter. In order to minimize contact with ambient air, the YSI meter was secured in a flow-through cell that was situated after the pump and before the purge water tubing discharge. Parameters measured during purging included: pH, temperature, specific conductance (SC), oxidation-reduction potential (ORP), turbidity, and dissolved oxygen (DO). The wells were purged until the physical parameter measurements stabilized.

The samples were collected by disconnecting the tubing from the flow-through cell and directly discharging the water into laboratory-supplied containers appropriate for the analyses to be conducted. Collected samples were stored in chilled coolers and delivered under chain-of-custody protocol to the analytical laboratories described in Section 2.1.3.

#### 2.1.3 Laboratory Analysis

CDM submitted the groundwater samples to Analytical Resources Inc. (ARI) in Tukwila, Washington and MicroSeeps in Pittsburg, Pennsylvania.

ARI conducted analyses for cVOCs by EPA Method 8260B (using a 10-milliliter purge volume for groundwater in order to reach detection limits of 0.2 micrograms per liter [ $\mu\text{g}/\text{L}$ ]). Specifically, the analytes included PCE, trichloroethene (TCE), *cis*-1,2-dichloroethene (*c*-1,2-DCE), *trans*-1,2-dichloroethene (*t*-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC).

MicroSeeps conducted analyses of the dissolved gasses methane, ethane, and ethene by method AM20GAX on all of the groundwater samples.

# Section 3

## Findings and Discussion

### 3.1 Water Levels

Depths to water and water table elevations are summarized on **Table 1**. Water levels ranged between 0.94 and 5.09 feet below the top of the well casings (the well casings start approximately 3 to 6 inches below ground surface). Water levels between the December 2009 and May 2010 sampling events declined slightly in GT1 and GT2 (0.05 ft - 0.06 ft) and GT2 and rose slightly in the remaining wells (0.03 ft - 0.11 ft).

**Figure 3** shows the potentiometric surface on May 4, which is consistent with that observed in December 2009. The overall gradient is toward the north. A small area of groundwater recharge from the east is observed, consistent with all historical data. Prior to the installation of the CSM wall on the Elliot Holding Property this area of recharge acted as a groundwater divide and in W Roy Street the groundwater flow direction took on a southerly direction. However, the CSM wall appears to be creating some mounding effect, which causes a small trough in W Roy Street, but an overall gradient toward the north.

### 3.2 Field Monitored Parameters

A discussion of field measured parameters is provided below and the data are summarized in **Table 2**.

**Temperature:** Temperatures in the groundwater generally increased between the December and May sampling events, consistent with the seasonal weather change between winter and spring. Between December and May, the groundwater temperatures increased by as much as 4.7 degrees Celsius (°C). The only location where an increase wasn't noted was GT1. Of all the outdoor monitoring wells, this one interestingly has the most consistent groundwater temperatures throughout the year. This is because typically in winter, groundwater temperatures are several degrees warmer than in the other outside monitoring wells.

**Dissolved Oxygen:** Dissolved oxygen (DO) concentrations ranged from approximately 0.21 to 1.55 milligrams per liter (mg/L). DO concentrations less than 0.5 mg/L are indicative of anoxic conditions, which are conducive for reductive dechlorination. DO concentrations were less than 0.5 mg/L at GT1, GT3, LC1, and LC2. LC2, which in December 2009 contained the highest DO concentration (2.33 mg/L), had one of the lowest DO concentrations (0.37 mg/L). Conversely, DO concentrations in LC3 and LC5R increased from 0.89 and 0.48 mg/L respectively to 1.55 and 1.47 mg/L, respectively. DO concentrations over 1 mg/L at this site appear to indicate a transitory condition of a fresh flush of water into the system.

The less oxidized chlorinated compounds (e.g., *c*-1,2-DCE and VC) can be used as a primary substrate in biologically mediated oxidation reduction reactions and aerobic



conditions appear to be optimal for VC degradation. Alternating oxic and anoxic conditions appear to have optimized the complete degradation of PCE.

**Oxidation-Reduction Potential:** ORP values ranged between 80 and 163 millivolts (mV). Accurate measurement of ORP is difficult and the values do not appear particularly correlative with DO measurements.

**Specific Conductance:** Specific Conductance values ranged between 458 and 1,014 microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ ). Overall, the data are consistent with historical site data.

**pH:** The pH values ranged between approximately 7.04 and 7.71 standard units for all wells, which are consistent with previous rounds.

**Ferrous Iron:** Ferrous iron concentrations were all low, ranging between 0 and 0.6 parts per million (ppm). No specific increasing or decreasing trends were evident. VC is biodegradable by iron-reducing bacteria and the presence of ferrous iron is a sign of the presence of iron reducing bacteria.

**Turbidity:** Turbidity values were less than 10 nephelometric turbidity units (NTU) for all of the wells at the time of sampling.

### 3.3 Groundwater Analytical Results

Copies of the analytical reports are included in **Appendix A**. Current and historical groundwater analytical data, as well as field measured and general groundwater chemistry data, are summarized in **Table 2**. Contaminant concentrations are compared against Model Toxics Control Act (MTCA) Method A groundwater cleanup levels. In the absence of Method A cleanup levels, contaminant concentrations are compared against Method B cleanup levels as obtained from Ecology's Cleanup Levels and Risk Calculations (CLARC) database.

#### 3.3.1 PCE

PCE was detected at five of the nine monitoring wells. PCE concentrations ranged between 0.2 and 5.1 micrograms per liter ( $\mu\text{g}/\text{L}$ ). PCE concentrations at all wells except LC3 have been below the Method A cleanup level for a year or longer. At LC3, of the past four sampling rounds, PCE concentrations have been below the cleanup level twice, and just slightly exceeding the cleanup level twice. The current concentration of 5.1  $\mu\text{g}/\text{L}$  exceeds the cleanup level by only 2 percent.

#### 3.3.2 TCE

TCE was detected at all monitoring wells, ranging between 0.3 and 2.1  $\mu\text{g}/\text{L}$ . All detected concentrations were below the MTCA Method A cleanup level of 5  $\mu\text{g}/\text{L}$  and have been throughout all of 2009 and now into 2010.

### 3.3.3 *c*-1,2-DCE, *t*-1,2-DCE, 1,1-DCE

Of these degradation products of PCE, *c*-1,2-DCE was detected at all nine monitoring wells, *t*-1,2-DCE at two wells, and 1,1-DCE was not detected in any sample. Concentrations ranged between 0.5 and 15 µg/L when detected. The concentrations of *c*-1,2-DCE and *t*-1,2-DCE did not and have never exceeded their Method B cleanup levels (80 and 160 µg/L, respectively) in any samples.

### 3.3.4 Vinyl Chloride

Vinyl chloride was detected at all nine monitoring wells. VC concentrations ranged between 0.2 and 1.7 µg/L. For the first time, the cleanup level for VC was not exceeded at LC3. VC was detected at GT1 (0.5 µg/L) at a concentration exceeding the cleanup level. However, VC concentrations at GT2 (the next upgradient well from GT1) show a remarkable decline. VC concentrations at GT2 have steadily declined over the past year. In addition, VC concentrations for the spring sampling rounds during the four prior years (2006 through 2009) ranged between 12 and 19 µg/L. The 1.7 µg/L VC for this spring sampling round in GT2 is an order of magnitude lower.

### 3.3.5 Dissolved Gasses

Methane was detected in every groundwater sample ranging between 140 and 2,700 µg/L. The presence of methane is indicative of methanogenesis, which is an indicator for reductive dechlorination. Ethene, an end product of the reductive dechlorination of PCE, was detected in seven of the monitoring wells. Ethene concentrations ranged between 0.030 and 0.26 µg/L. Ethane was detected in all nine of the monitoring wells at concentrations ranging between 0.037 and 1.10 µg/L.

Methane/ethane/ethene concentrations at LC4R have declined by about half since the last sampling round, but continue to be higher than usual. Methane/ethane/ethene concentrations at LC5R have returned concentrations typically observed at this well since the unusually high concentrations observed in December. While VC was observed at GT1, it is also noted that ethene production was also occurring, indicating that VC is degrading.

## 3.4 cVOC Trends

CDM applied the Mann-Kendall statistical test to the cVOCs on the Subject Property. The Mann-Kendall test indicates the presence or absence of a statistically significant increasing or decreasing trend in concentrations at a monitoring point. The results of the Mann-Kendall trend analysis are summarized on Table 3.

Decreasing trends are noted for VC concentrations at all of the wells. The probability values for a decreasing trend for VC at seven of the eight wells improved (GT1 is not calculated since VC is rarely detected), and at the eighth (LC3) it was essentially the same. The probability values are significant (i.e.,  $p \leq 0.1$ ) at six of the wells and very close to this at the other two wells (GT3  $p=0.1077$  and LC4  $p=0.1314$ ).

Decreasing trends for *c*-1,2-DCE and *t*-1,2-DCE, are also noted at all wells. The probability values for these decreasing trends are significant at all wells. A build-up of DCE concentrations is often observed at sites where conditions are not suitable for the natural degradation of this particular compound and this shows that this condition is not occurring.

The Mann-Kendall test loses statistical robustness for PCE and TCE due to the lack of detections and overall low concentrations (i.e., no statistical trend for PCE can be calculated at five of the nine monitoring wells due to the lack of detections). Significant decreasing trends are noted at LC2 and LC4; however, increasing trends are indicated for PCE at LC1 and LC3. As noted previously, PCE has not exceeded its cleanup level at LC1 for the last four consecutive sampling rounds. At LC3 we have seen normal variation in PCE concentrations, which sometimes exceed the cleanup level. An overall review of the data indicates there was an approximately one year period in the middle of the monitoring data set, between December 2007 and December 2008 where PCE concentrations in LC1 and LC3 showed a brief increase, but it is also evident that PCE concentrations at these wells have been declining since that time and that the statistical data will improve with time.

For TCE an increasing trend is indicated at LC5 and LC6, but these wells do not, and have never, exceed the Method A cleanup level. Considering that the maximum TCE concentration at LC5 has been 1.5 µg/L and in LC6 is 0.3 µg/L, and the low overall and declining PCE concentrations, there is negligible concern that these "increasing trends" on the Mann Kendal test are valid, or that the cleanup level will ever be exceeded.

## Section 4

# Conclusions and Recommendations

The data continue to show that PCE is being naturally attenuated via biological degradation and that monitored natural attenuation (MNA) is appropriate for this site. This conclusion is substantiated by the following:

- All of the degradation products of PCE from TCE through ethene are present at the site.
- The concentrations of PCE and its degradation products are relatively less than many PCE contaminated sites, and active remediation would not be more effective than MNA.
- Over the past four sampling rounds, PCE concentrations have only ever exceeded the Method A cleanup level at one monitoring location. The exceedances at this one location have only occurred 2 out of the last 4 sampling rounds and have only been on the order of 2 to 12% of the cleanup level.
- TCE concentrations have not exceeded the Method A cleanup level at any monitoring location since December 2008.
- The DCE compounds have never exceeded their respective Method B cleanup levels at any monitoring location.
- VC, the last degradation product of PCE before it is degraded to non-toxic ethene, is the only degradation product that currently consistently exceeds the Method A cleanup level. Even so, concentrations of this compound are only slightly greater than the cleanup level, and statistical evaluation shows that VC concentrations are declining.
- Continued monitoring empirically demonstrates that VC concentrations are declining throughout the site.

Given the low cVOC concentrations, and continuing indications that natural attenuation is occurring, cVOCs are expected to continue to degrade fully and the plume will continue to collapse. Based on these findings, CDM continues to recommend implementation of MNA for this site.

# Section 5

## References

CDM. 2006. Contamination Assessment, LeatherCare, Inc. 901/921 Elliott Avenue, Seattle, Washington. CDM Project No. 38057-47522. July 25.

CDM. 2009. Off-Site Investigation Report, LeatherCare, Inc. 901/921 Elliott Avenue West, Seattle, Washington. VCP #NW1805. CDM Project No. 56498-68247. March 31.

Malcolm Drilling. 2009. Soil Mixing Systems.  
[www.malcolmdrilling.com/images/printable\\_pdfs/soilmixing.pdf](http://www.malcolmdrilling.com/images/printable_pdfs/soilmixing.pdf)

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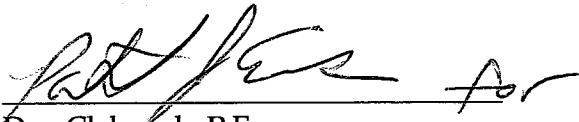
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Don Clabaugh, P.E.  
Principal Engineer

Tables

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Tables

**Table 1**  
**Groundwater Elevation Data**

LeatherCare, Inc.  
Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation <sup>a</sup> (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
GT1	05/10/06	0912	12.74	1.84	10.90
	09/05/06	0955		2.46	10.28
	02/12/07	0918		1.69	11.05
	06/20/07	0857		2.13	10.61
	09/19/07	0904		2.46	10.28
	12/19/07	0940		1.20	11.54
	03/19/08	0908		1.80	10.94
	06/18/08	0825		1.95	10.79
	09/24/08	1005		2.22	10.52
	12/29/08	0758		1.49	11.25
	02/11/09	--		--	--
	03/25/09	0837		1.58	11.16
	06/29/09	0757		1.97	10.77
	09/09/09	1012		2.39	10.35
	12/16/09	0828		1.59	11.15
	05/04/10	0809		1.54	11.20
GT2	05/10/06	0910	12.45	1.23	11.22
	09/05/06	1000		1.99	10.46
	02/12/07	0920		1.09	11.36
	06/20/07	0853		2.56	9.89 NU
	09/19/07	0911		1.94	10.51
	12/19/07	0936		0.67	11.78
	03/19/08	0904		1.18	11.27
	06/18/08	0822		1.35	11.10
	09/24/08	1015		1.63	10.82
	12/29/08	0802		0.84	11.61
	02/11/09	--		--	--
	03/25/09	0850		0.95	11.50
	06/29/09	0759		1.35	11.10
	09/09/09	1010		1.78	10.67
	12/16/09	0823		1.00	11.45
	05/04/10	0807		0.94	11.51
GT3	05/10/06	0909	13.36	2.18	11.18
	09/05/06	1004		2.91	10.45
	02/12/07	0922		1.95	11.41
	06/20/07	0851		2.49	10.87
	09/19/07	0907		2.94	10.42
	12/19/07	0916		1.64	11.72
	03/19/08	0914		2.12	11.24



**Table 1**  
**Groundwater Elevation Data**

LeatherCare, Inc.  
Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation <sup>a</sup> (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
GT3 (cont.)	06/18/08	0820		2.21	11.15
	09/24/08	1020		2.54	10.82
	12/29/08	0804		1.80	11.56
	02/11/09	--		--	--
	03/25/09	0820		1.87	11.49
	06/29/09	0803		2.24	11.12
	09/09/09	1006		2.79	10.57
	12/16/09	0819		1.89	11.47
	05/04/10	0.0805		1.93	11.43
	LC1	05/10/06	0916	13.17	1.57
09/05/06		1010		2.43	10.74
02/12/07		0941		1.40	11.77
06/20/07		0844		1.99	11.18
09/19/07		0904		2.46	10.71
12/19/07		0954		1.01	12.16
03/19/08		0857		1.54	11.63
06/18/08		0836		1.55	11.62
09/24/08		1034		1.89	11.28
12/29/08		0809		1.20	11.97
02/11/09		--		--	--
03/25/09		0811		1.28	11.89
06/29/09		0753		1.63	11.54
09/09/09		0956		2.10	11.07
12/16/09		0810		1.27	11.90
05/04/10		0800		1.30	11.87
LC2	05/10/06	0919	13.41	2.01	11.40
	09/05/06	1012		2.74	10.67
	02/12/07	0943		1.80	11.61
	06/20/07			2.35	11.06
	09/19/07	0901		2.75	10.66
	12/19/07	0948		1.23	12.18
	03/19/08	0859		1.90	11.51
	06/18/08	0832		2.05	11.36
	09/24/08	1030		2.30	11.11
	12/29/08	0812		1.59	11.82
	02/11/09	--		--	--
	03/25/09	0807		1.87	11.54
	06/29/09	0750		2.13	11.28
	09/09/09	1001		2.57	10.84
	12/16/09	0813		1.66	11.75
	05/04/10	0757		1.77	11.64

**Table 1**  
**Groundwater Elevation Data**

LeatherCare, Inc.  
Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation <sup>a</sup> (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
LC3	05/10/06	0925	14.16	2.56	11.60
	09/05/06	1014		3.41	10.75
	02/12/07			2.37	11.79
	06/20/07	0837		2.98	11.18
	09/19/07	0853		3.48	10.68
	12/19/07	0906		1.99	12.17
	03/19/08	0847		2.55	11.61
	06/18/08	0839		2.58	11.58
	09/24/08	1038		2.84	11.32
	12/29/08	0815		2.21	11.95
	02/11/09	--		--	--
	03/25/09	0802		2.28	11.88
	06/29/09	0742		2.67	11.49
	09/09/09	0950		3.14	11.02
	12/16/09	0804		2.30	11.86
	05/04/10	0752		2.37	11.79
LC4	05/10/06	0921	14.72	3.16	11.56
	09/05/06	1026		3.99	10.73
	02/12/07			2.93	11.79
	06/20/07	0832		3.59	11.13
	09/19/07	0845		4.09	10.63
	12/19/07	0856		2.48	12.24
	03/19/08 <sup>b</sup>	--		--	--
	12/29/08	--		--	--
LC4R	02/11/09	--	14.77	--	--
	03/25/09	0957		3.03	11.74
	06/29/09	0840		3.45	11.32
	09/09/09	1050		3.85	10.92
	12/16/09	0753		2.73	12.04
05/04/10	0747	2.83	11.94		
LC5	05/10/06	0922	14.13	2.57	11.56
	09/05/06	1030		3.46	10.67
	02/12/07			2.37	11.76
	06/20/07	0834		2.97	11.16
	09/19/07	0858		3.48	10.65
	12/19/07	0901		1.89	12.24
	03/19/08	1114		2.49	11.64
	06/18/08 <sup>b</sup>	--		--	--
	12/29/08	--		--	--

**Table 1**  
**Groundwater Elevation Data**  
 LeatherCare, Inc.  
 Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation <sup>a</sup> (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
LC5	02/11/09	--		--	--
LC5R	03/25/09	1125	14.34	2.46	11.88
	06/29/09	1000		2.93	11.41
	09/09/09	1230		3.39	10.95
	12/16/09	0758		2.31	12.03
	05/04/10	0750		2.38	11.96
LC6	05/10/06	0928	16.85	5.26	11.59
	09/05/06	1022		6.10	10.75
	02/12/07	0933		5.03	11.82
	06/20/07	0839		5.68	11.17
	09/19/07	0850		6.19	10.66
	12/19/07	0911		4.67	12.18
	03/19/08	0852		5.24	11.61
	06/18/08	0844		5.22	11.63
	09/24/08	1042		5.55	11.30
	12/29/08	0819		4.89	11.96
	02/11/09	--		--	--
	03/25/09	0759		4.93	11.92
	06/29/09	0742		5.33	11.52
	09/09/09	0952		5.78	11.07
	12/16/09	0801		4.99	11.86
	05/04/10	0754		5.09	11.76
LC7	02/11/09	0912	15.34	7.64	7.70
LC8	02/11/09	0910	15.50	7.10	8.40
LC9	02/11/09	0909	15.27	6.67	8.60

Notes:

- a) Top of casing elevations in feet relative to a brass monument located at the south corner of Elliot Avenue W. and W. Roy Street, marked as Elevation 19.78 feet. No verifiable City of Seattle datum could be found in the site area.
  - b) Well believed to have been destroyed by construction on adjacent property.
- ft bgs - feet below ground surface.  
 -- not measured.  
 NU - Data not used; measurement believed to have been misread.  
 TOC - top of casing.

**Table 2**

**Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties**

LeatherCare, Inc.  
Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels <sup>a</sup>	Monitoring Well I.D. <sup>b</sup>												Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 <sup>c</sup> /LC4R	LC5 <sup>c</sup> /LC5R	LC6	LC7	LC8	LC9		
<b>Field-Measured Parameters</b>																
pH	05/06	N/A	7.23	7.03	7.10	7.05	7.43	6.95	7.18	6.95	6.99	--	--	--	--	--
	09/06		7.33	7.19	7.13	7.19	7.26	7.07	7.03	7.05	7.07	--	--	--	--	--
	02/07		6.77	6.64	6.57	6.46	6.42	6.62	6.06	6.43	6.70	--	--	--	--	--
	06/07		7.15	7.01	6.95	6.99	7.23	7.00	6.97	6.91	6.90	--	--	--	--	--
	09/07		7.11	7.00	6.88	7.00	7.16	6.92	6.83	6.88	6.91	--	--	--	--	--
	12/07		7.47	7.42	7.30	6.50	7.36	7.45	6.42	6.59	7.02	--	--	--	--	--
	03/08		7.75	7.77	7.51	7.67	8.04	8.38	--	8.42	8.19	--	--	--	--	--
	06/08		7.23	6.89	6.97	**	6.96	6.70	--	--	6.96	--	--	--	--	--
	09/08		**	6.59	6.55	6.62	6.72	6.58	--	--	6.66	--	--	--	--	--
	12/08		7.06	6.75	6.79	6.98	7.54	6.82	--	--	6.95	--	--	--	--	--
	02/09		--	--	--	--	--	--	--	--	--	**	**	**	**	**
	03/09		7.26	6.96	6.92	7.07	7.13	6.99	6.96	6.97	7.07	--	--	--	--	--
	06/09		7.44	7.18	7.16	7.27	7.07	7.18	7.37	7.25	7.19	--	--	--	--	--
	09/09		7.37	7.11	7.03	7.06	7.19	7.05	7.12	7.08	7.07	--	--	--	--	--
	12/09		7.61	7.42	7.33	7.20	7.73	7.16	7.77	7.52	7.27	--	--	--	--	--
	5/10		7.41	7.16	7.07	7.04	7.42	7.06	7.71	7.37	7.16	--	--	--	--	--
ORP <sup>d</sup> (mv)	05/06	N/A	-33	-27	-56	-72	-152	-33	-50	-82	-50	--	--	--	--	--
	09/06		-119	-97	-68	-113	-90	-71	-50	-107	-78	--	--	--	--	--
	02/07		-33	-2	17	-60	-32	56	80	-30	31	--	--	--	--	--
	06/07		-211	-171	-38	-61	-162	-183	-116	-214	-111	--	--	--	--	--
	09/07		-96	-95	-71	-125	-132	-83	-75	-126	-95	--	--	--	--	--
	12/07		**	**	**	**	**	**	**	**	**	--	--	--	--	--
	03/08		-54	-27	10	-28	-30	-59	--	-107	-43	--	--	--	--	--
	06/08		-57	-49	142	**	112	-17	--	--	-17	--	--	--	--	--
	09/08		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/08		-52	-16	43	-22	40	-44	--	--	0.7	--	--	--	--	--
	02/09		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09		**	**	**	**	**	**	**	**	**	--	--	--	--	--
	06/09		-90	-78	13	-57	-78	-42	-92	-80	-50	--	--	--	--	--
	09/09		-148	-140	-73	-188	-115	-89	-130	-136	-103	--	--	--	--	--
	12/09		**	**	**	**	15	6	-96	-60	-2	--	--	--	--	--
	5/10		145	166	163	158	111	108	80	107	115	--	--	--	--	--
Temperature (°C)	05/06	N/A	16.0	16.2	15.1	18.3	18.2	15.9	14.1	13.8	14.2	--	--	--	--	--
	09/06		20.0	21.3	20.8	23.1	22.6	22.6	22.2	22.5	20.6	--	--	--	--	--
	02/07		13.6	9.3	10.0	16.8	16.2	11.4	9.7	10.0	11.8	--	--	--	--	--
	06/07		17.8	20.2	18.7	20.7	20.0	19.3	18.6	18.0	17.6	--	--	--	--	--
	09/07		19.3	19.4	19.2	22.3	21.7	22.2	20.2	20.4	20.0	--	--	--	--	--
	12/07		11.9	8.8	9.3	17.3	15.5	11.6	12.3	11.4	12.6	--	--	--	--	--
	03/08		13.0	10.3	9.5	15.9	16.3	11.8	--	11.3	12.4	--	--	--	--	--
	06/08		16.1	17.0	17.2	18.3	19.6	16.4	--	--	16.3	--	--	--	--	--
	09/08		18.7	17.9	17.8	22.1	21.8	19.6	--	--	17.6	--	--	--	--	--
	12/08		11.2	7.6	6.9	14.6	15.0	9.8	--	--	11.5	--	--	--	--	--
	02/09		--	--	--	--	--	--	--	--	--	13.0	11.0	9.7	--	--
	03/09		13.0	9.0	9.0	14.6	16.5	10.9	8.7	9.0	10.5	--	--	--	--	--
	06/09		17.9	21.5	19.2	20.8	20.5	19.9	16.7	17.3	17.3	--	--	--	--	--
	09/09		19.3	18.4	19.0	22.2	21.4	20.1	17.8	18.2	19.3	--	--	--	--	--
	12/09		13.5	7.9	9.0	15.5	16.3	10.8	9.5	9.3	11.3	--	--	--	--	--
	5/10		13.5	12.6	13.6	17.6	17.3	13.2	11.3	11.6	12.1	--	--	--	--	--
Specific Conductivity (µS/cm)	05/06	N/A	1,243	1,283	1,264	1,190	1,183	1,345	1,360	1,322	1,281	--	--	--	--	--
	09/06		811	856	864	866	736	870	853	856	856	--	--	--	--	--
	02/07		831	971	915	951	519	1,020	496	795	948	--	--	--	--	--
	06/07		786	813	833	836	676	820	808	804	842	--	--	--	--	--
	09/07		808	844	879	873	622	841	737	824	828	--	--	--	--	--
	12/07		732	706	829	1,017	181	778	553	543	920	--	--	--	--	--
	03/08		637	915	926	928	518	902	--	114	--	--	--	--	--	--
	06/08		998	1,701	1,471	1,561	1,490	1,493	--	--	1,363	--	--	--	--	--
	09/08		774	1,236	798	1,318	963	1,269	--	--	1,353	--	--	--	--	--
	12/08		**	**	**	**	671	**	--	--	**	--	--	--	--	--
	02/09		--	--	--	--	--	--	--	--	--	836	1,090	1,828	--	--

**Table 2**

**Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties**

LeatherCare, Inc.  
Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels <sup>a</sup>	Monitoring Well I.D. <sup>b</sup>													Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 <sup>1</sup> /LC4R	LC5 <sup>1</sup> /LC5R	LC6	LC7	LC8	LC9			
Specific Conductivity (µS/cm) (cont.)	03/09		587	861	824	864	648	825	**	**	**	--	--	--	--	--	
	06/09		748	1,006	991	993	875	995	856	914	1,007	--	--	--	--	--	
	09/09		636	947	944	966	629	986	976	997	1,002	--	--	--	--	--	
	12/09		584	872	857	1,011	299	939	487	664	854	--	--	--	--	--	
	5/10		663	839	854	1,014	525	958	458	812	956	--	--	--	--	--	
Dissolved Oxygen (mg/L)	05/06	N/A	0.70	0.34	0.70	0.24	0.40	0.42	0.43	0.33	0.39	--	--	--	--	--	
	09/06		0.15	0.17	0.14	0.20	0.35	0.23	0.19	0.09	0.09	--	--	--	--	--	
	02/07		0.31 <sup>g</sup>	0.13 <sup>g</sup>	-- <sup>g</sup>	-- <sup>g</sup>	-- <sup>g</sup>	-- <sup>g</sup>	-- <sup>g</sup>	-- <sup>g</sup>	-- <sup>g</sup>	--	--	--	--	--	
	06/07		0.19	0.22	0.24	0.34	0.91	0.35	0.47	0.39	1.13	--	--	--	--	--	
	09/07		0.41	0.34	0.27	0.24	0.25	0.58	0.78	0.55	0.58	--	--	--	--	--	
	12/07		0.33	0.47	0.17	0.72	3.05	1.44	1.00	0.29	0.28	--	--	--	--	--	
	03/08		0.34	0.34	1.28	0.31	1.12	0.44	--	0.37	0.34	--	--	--	--	--	
	06/08		0.20	1.09	0.71	0.29	0.35	0.71	--	--	0.28	--	--	--	--	--	
	09/08		1.32	1.12	1.06	0.08	0.84	1.36	--	--	1.34	--	--	--	--	--	
	12/08		0.90	2.11	2.17	0.61	2.47	1.60	--	--	0.87	--	--	--	--	--	
	02/09		--	--	--	--	--	--	--	--	--	4.74	4.73	8.05	--	--	
	03/09		0.19	0.13	0.42	0.10	0.11	0.71	0.25	0.33	0.17	--	--	--	--	--	
	06/09		0.23	0.13	0.28	0.15	0.14	0.27	0.52	0.33	0.21	--	--	--	--	--	
	09/09		0.42	0.20	0.37	0.22	0.21	0.31	0.35	0.36	0.29	--	--	--	--	--	
	12/09		0.17	0.74	0.53	0.22	2.33	0.89	0.43	0.48	0.35	--	--	--	--	--	
	5/10		0.27	0.51	0.38	0.21	0.37	1.55	0.64	1.47	0.64	--	--	--	--	--	
	Turbidity (NTU)	05/06	N/A	1.76 <sup>*</sup>	0.83	0.66	5.76	62 <sup>*</sup>	1.05	1.79	2.82	2.01	--	--	--	--	--
09/06			0.47	0.70	0.70	0.7	5.5	2.4	1.8	1.8	1.8	--	--	--	--	--	
02/07			3.1 <sup>h</sup>	0.0 <sup>h</sup>	>999 <sup>h</sup>	0.0 <sup>h</sup>	0.0 <sup>h</sup>	22.4 <sup>h</sup>	0.0 <sup>h</sup>	16.3 <sup>h</sup>	26 <sup>h</sup>	--	--	--	--	--	
06/07			0.7	1.1	2.2	0.9	1.9	2.6	1.8	0.2	3.8	--	--	--	--	--	
09/07		N/A	0.9	0.9	1.6	0.5	0.5	2.3	6.5	0.14	3.8	--	--	--	--	--	
12/07			--	--	--	--	--	--	--	--	--	--	--	--	--	--	
03/08			16.9	8.8	168 <sup>k</sup>	2.3	0.7	20.9	--	9.6	4.4	--	--	--	--	--	
06/08			0.7	1.8	34.5/227 <sup>k</sup>	0.5	0.0 <sup>m</sup>	1.1	--	-- <sup>m</sup>	--	--	--	--	--	--	
09/08			54.8 <sup>h</sup>	53.2 <sup>h</sup>	187 <sup>h</sup>	18.2 <sup>h</sup>	48.2 <sup>h</sup>	179 <sup>h</sup>	--	--	-- <sup>h</sup>	--	--	--	--	--	
12/08			2.90	39.6 <sup>k</sup>	10.29 <sup>k</sup>	0.0 <sup>m</sup>	0.0 <sup>m</sup>	--	--	--	--	--	--	--	--	--	
02/09			--	--	--	--	--	--	--	--	--	7.40	5.69	7.90	--	--	
03/09			0.0	0.0	0.0	0.0	0.0	0.2	9.3	1.5	0.0	--	--	--	--	--	
06/09			2.6	1.5	1.4	0.1	1.7	3.1	1.9	23	0.95	--	--	--	--	--	
09/09			4.2	2.1	1.3	1.2	0.93	0.87	0.98	0.92	1.1	--	--	--	--	--	
12/09			6.2	5.8	0.8	0.0	1.48	2.90	3.64	4.64	6.2	--	--	--	--	--	
5/10			5.4	9.6	1.8	2.0	0.0	4.49	3.20	3.13	4.9	--	--	--	--	--	
Ferrous Iron (ppm)		05/06	N/A	0.1	0.2	0.2	0.5	0.3	0.3	0.2	1	0.5	--	--	--	--	--
	09/06		0.3	0.2	0.6	--	0.1	0.6	0.4	1	1	--	--	--	--	--	
	02/07		0.4	0.6	0.3	0.6	--	0.2	0.1	1	0.4	--	--	--	--	--	
	06/07		0.3	0.4	0.2	0.5	0	0.2	0.6	0.1	0.3	--	--	--	--	--	
	09/07		0.2	0.3	0.2	0.4	0.2	0.4	0.6	0.8	0.8	--	--	--	--	--	
	12/07		0.1	0	0	0.6	0	0.2	0.1	0.8	0.3	--	--	--	--	--	
	03/08		0.3	0.8	0.4	0.4	0.1	0.4	--	0.8	0.4	--	--	--	--	--	
	06/08		0.2	1	0	0.6	0	1	--	--	0.6	--	--	--	--	--	
	09/08		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/08		0.2	0.3	0.1	0.4	0	1	--	--	0.3	--	--	--	--	--	
	02/09		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09		--	0.4	--	--	--	0.2	--	--	--	--	--	--	--	--	--
	06/09		0.4	0.6	0	0.4	0.8	0.6	0.4	0.6	0.6	--	--	--	--	--	
09/09		0	0.4	0.2	0.6	0.8	0.6	1.0	0.6	0.6	--	--	--	--	--		
12/09		0.1	0.1	0	0.6	0	0.6	0.1	0.2	0.2	--	--	--	--	--		
5/10		0.2	0.1	0.1	0.4	0	0.6	0.1	0.2	0.3	--	--	--	--	--		
Manganese (ppm)	06/07	N/A	0	0	0	0	0	0	0	0	--	--	--	--	--	--	
Sulfide (ppm)	06/07	N/A	0	0	0	0	0	0	0	0	--	--	--	--	--	--	

**Table 2**

**Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties**

LeatherCare, Inc.  
Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels <sup>a</sup>	Monitoring Well I.D. <sup>b</sup>												Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 <sup>1</sup> /LC4R	LC5 <sup>1</sup> /LC5R	LC6	LC7	LC8	LC9		
<b>General Groundwater Chemistry</b>																
Chloride (EPA Method 325.2) (mg/L)	05/06	N/A	7.4	7.9	16.5	20.5	8.8	16.1	6.8/6.7	14.0	17.5	--	--	--	--	--
Sulfate (EPA Method 375.2) (mg/L)	05/06	N/A	62.3	64.4	77.8	88.9	52.7	69.7	39.3/39.5	39.5	54.2	--	--	--	--	--
Chemical Oxygen Demand (EPA Method 410.4) (mg/L)	05/06	N/A	6.18	5.68	9.29	12.8	12.4	7.71	10.1/6.87	10.1	12.8	--	--	--	--	--
Alkalinity (SM 2320) (mg/L CaCO <sub>3</sub> )	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--	--	--	--
Carbonate (SM 2320) (mg/L CaCO <sub>3</sub> )	05/06	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	--	--	--	--	--
Bicarbonate (SM 2320) (mg/L CaCO <sub>3</sub> )	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--	--	--	--
Hydroxide (SM 2320) (mg/L CaCO <sub>3</sub> )	05/06	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	--	--	--	--	--
<i>Dehalococcoides</i> spp. (QCPR) <sup>a</sup>	05/06	N/A	-	+	+	+	-	+	-/	+	+	--	--	--	--	--
<b>Reductive Dechlorination End Products (ug/L)</b>																
<b>Methane</b>																
	05/06	N/A	98	140	100	110	590	33	98/67	220	77	--	--	--	--	--
	09/06	N/A	160	1,400	140/130	94	310	28	130	170	92	--	--	--	--	--
	02/07	N/A	150	510	51/50	45	710	96	88	140	150	--	--	--	--	--
	06/07	N/A	150	200	110	46	870	24	100/140	310	99	--	--	--	--	--
	09/07	N/A	130	2,100	120	86	520	100	130/130	500	28	--	--	--	--	--
	12/07	N/A	110	100	91	51	58	16	94/99	530	360	--	--	--	--	--
	03/08	N/A	170	120	76/56	33	73	23	--	160	120	--	--	--	--	--
	06/08	N/A	180	170	27	110	20	140	--	--	370	--	--	--	--	--
	09/08	N/A	150	260	73	150	260	120	--	--	370	--	--	--	--	--
	12/08	N/A	200	110	34/33	200	40	86	--	--	450	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09	N/A	150	140	34/36	240	200	86	390	330	300	--	--	--	--	--
	06/09	N/A	160	230	140/150	260	340	110	430	220	400	--	--	--	--	--
	09/09	N/A	210	170	270/270	220	480	120	390	340	610	--	--	--	--	--
	12/09	N/A	260	170	53/64	230	110	110	5,400	1,300	530	--	--	--	--	--
	5/10	N/A	240	160	190	230	400	140	2,700	540	730	--	--	--	--	--
<b>Ethane</b>																
	05/06	N/A	<12	<12	<12	<12	<12	<12	<12	<12	<12	--	--	--	--	--
	09/06	N/A	0.49	0.34	0.05/0.045	0.24	0.22	0.04	0.11	0.21	0.097	--	--	--	--	--
	02/07	N/A	0.18	0.37	0.088/0.087	0.093	0.42	0.078	0.054	0.14	0.12	--	--	--	--	--
	06/07	N/A	0.24	0.30	0.054	0.034	0.32	0.033	0.10/0.11	0.21	0.088	--	--	--	--	--
	09/07	N/A	0.3	0.29	0.034	0.33	0.21	<0.025	0.052/0.052	0.22	<0.025	--	--	--	--	--
	12/07	N/A	0.22	0.15	0.059	0.091	<0.025	0.030	0.081/0.084	0.28	0.058	--	--	--	--	--
	03/08	N/A	0.098	0.23	0.052/0.045	0.040	0.038	0.026	--	0.16	0.065	--	--	--	--	--
	06/08	N/A	0.22	0.29	0.037	0.087	0.053	0.044	--	--	0.067	--	--	--	--	--
	09/08	N/A	0.18	0.27	0.068	0.11	0.073	0.064	--	--	0.11	--	--	--	--	--
	12/08	N/A	0.12	0.12	<0.025/0.028	0.13	<0.025	0.044	--	--	0.11	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09	N/A	0.096	0.17	0.032/0.034	0.14	0.037	0.048	0.240	0.14	0.092	--	--	--	--	--
	06/09	N/A	0.11	0.20	0.070/0.068	0.17	0.11	0.059	0.290	0.099	0.16	--	--	--	--	--
	09/09	N/A	0.22	0.15	0.12/0.15	0.17	0.15	0.089	0.250	0.14	0.20	--	--	--	--	--
	12/09	N/A	0.13	0.12	0.079/0.094	0.17	0.044	0.062	2.70	0.87	0.19	--	--	--	--	--
	5/10	N/A	0.54	0.085	0.180	0.16	0.049	0.037	1.10	0.31	0.19	--	--	--	--	--
<b>Ethene</b>																
	05/06	N/A	<11	<11	<11	<11	<11	<11	<11/<11	<11	<11	--	--	--	--	--
	09/06	N/A	0.041	1.8	0.21/0.19	0.82	0.46	<0.025	0.05	0.31	<0.025	--	--	--	--	--
	02/07	N/A	0.031	1.2	0.079/0.072	0.034	0.92	0.035	0.046	0.21	0.046	--	--	--	--	--
	06/07	N/A	0.083	1.4	0.15	0.11	0.29	0.10	0.15/0.080	0.29	0.094	--	--	--	--	--
	09/07	N/A	<0.025	1.9	0.08	0.35	0.35	0.051	0.039/0.036	0.23	<0.025	--	--	--	--	--
	12/07	N/A	<0.025	0.81	0.51	0.027	<0.025	0.22	0.029/0.034	0.18	<0.025	--	--	--	--	--
	03/08	N/A	<0.025	0.9	0.16/0.13	0.028	<0.025	<0.025	--	0.12	<0.025	--	--	--	--	--
	06/08	N/A	<0.025	0.65	0.1	<0.025	0.079	<0.025	--	--	<0.025	--	--	--	--	--
	09/08	N/A	0.035	1.0	0.14	0.11	0.071	0.044	--	--	0.034	--	--	--	--	--
	12/08	N/A	<0.025	0.5	0.1/0.085	0.039	<0.025	<0.025	--	--	<0.025	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09	N/A	<0.025	0.51	0.066/0.070	<0.025	0.035	<0.025	0.072	0.12	<0.025	--	--	--	--	--
	06/09	N/A	<0.025	0.71	0.12/0.13	<0.025	0.072	0.026	0.15	0.19	0.026	--	--	--	--	--
	09/09	N/A	0.026	0.68	0.25/0.28	0.37	0.150	0.035	0.16	0.24	0.048	--	--	--	--	--
	12/09	N/A	<0.025	0.26	0.096/0.110	<0.025	0.026	<0.025	0.90	0.43	<0.025	--	--	--	--	--
	5/10	N/A	0.030	0.13	0.073	<0.025	0.032	0.073	0.26	0.16	<0.025	--	--	--	--	--

**Table 2**

**Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties**

LeatherCare, Inc.  
Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels <sup>a</sup>	Monitoring Well I.D. <sup>b</sup>												Field Blank	Trip Blank	
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 /LC4R	LC5 /LC5R	LC6	LC7	LC8	LC9			
Petroleum Hydrocarbons (NWTPH-Dx) (mg/L) Diesel	05/06	0.50	<0.25	0.32	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25/<0.25	0.35	0.35	--	--	--	--	--
	09/06	0.50	<0.25	<0.25	<0.25/<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	--	--	--	--	--
	02/07	0.50	--	--	--	--	--	0.28	<0.25	0.42/<0.25 <sup>i</sup>	0.76/<0.25 <sup>i</sup>	--	--	--	--	--	--
	02/09	0.50	--	--	--	--	--	--	--	--	--	--	<0.25	<0.25	<0.25	--	--
Motor Oil	05/06	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50/<0.50	<0.50	<0.50	--	--	--	--	--
	09/06	0.50	<0.50	<0.50	<0.50/0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	02/07	0.50	--	--	--	--	--	<0.50	<0.50	<0.50/<0.5 <sup>i</sup>	<0.50/<0.5 <sup>i</sup>	--	--	--	--	--	--
	02/09	0.50	--	--	--	--	--	--	--	--	--	--	<0.50	<0.50	<0.50	--	--
Detected Volatile Organic Compounds (EPA SW8260B) (ug/L)																	
Tetrachloroethene	05/06	5	<0.2	<0.2	0.4	2.0	9.4	2.9	14/14	0.4	<0.2	--	--	--	--	<0.2	<0.2
	09/06	5	<0.2	<0.2	<0.2/<0.2	4.4	9.3	2.8	8.6	<0.2	<0.2	--	--	--	--	--	--
	02/07	5	<0.2	<0.2	0.4/0.4	2.2	2.5	5.9	20	0.3	<0.2	--	--	--	--	--	<0.2
	06/07	5	<0.2	<0.2	<0.2	1.4	1.5	2.6	9.8/9.9	0.2	<0.2	--	--	--	--	--	--
	09/07	5	<0.2	<0.2	<0.2	5.2	1.9	3.0	7.9/7.4	<0.2	<0.2	--	--	--	--	--	--
	12/07	5	<0.2	<0.2	<0.2	4.5	2.7	6.8	25/23	1.0	<0.2	--	--	--	--	--	--
	03/08	5	<0.2	<0.2	<0.2/<0.2	3.6	2.6	3.0	--	<0.2	<0.2	--	--	--	--	--	--
	06/08	5	<0.2	<0.2	<0.2	6.2	3.3	6.8	--	--	<0.2	--	--	--	--	--	--
	09/08	5	<0.2	<0.2	<0.2/<0.2	5.8	3.2	5.1	--	--	<0.2	--	--	--	--	--	--
	12/08	5	<0.2	<0.2	<0.2/<0.2	8.2	1.3	4.2	--	--	<0.2	--	--	--	--	--	--
	02/09	5	--	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--
	03/09	5	<0.2	<0.2	<0.2/<0.2	6.0	1.0	5.6	0.4	<0.2	<0.2	--	--	--	--	--	--
	06/09	5	<0.2	<0.2	<0.2/<0.2	2.3	1.1	5.6	<0.2	<0.2	<0.2	--	--	--	--	--	--
	09/09	5	<0.2	<0.2	<0.2/<0.2	3.4	0.2	3.3	<0.2	<0.2	<0.2	--	--	--	--	--	--
	12/09	5	<0.2	<0.2	<0.2/<0.2	1.8	1.0	3.8	0.4	<0.2	<0.2	--	--	--	--	--	--
	5/10	5	0.2	<0.2	<0.2/<0.2	1.6	0.7	5.1	0.4	<0.2	<0.2	--	--	--	--	--	<0.2
	Trichloroethene	05/06	5	0.4	0.6	11	2.8	4	0.6	2.4/2.4	0.5	<0.2	--	--	--	--	<0.2
09/06		5	0.3	0.6	1.2/1.2	6.5	3	1.2	2.9	0.4	0.3	--	--	--	--	--	--
02/07		5	0.4	0.4	6.3/6.9	2.8	1.4	1.2	3.8	1.0	0.2	--	--	--	--	--	<0.2
06/07		5	0.2	0.5	2.8	3.2	2.5	1.0	4.8/5.0	0.4	0.3	--	--	--	--	--	--
09/07		5	<0.2	0.5	0.6	4.8	1.7	1.8	3.2/3.1	0.4	0.2	--	--	--	--	--	--
12/07		5	<0.2	0.5	1.4	6.1	0.5	2.2	1.8/1.8	1.2	<0.2	--	--	--	--	--	--
03/08		5	<0.2	0.6	2.6/2.6	4.6	1.3	0.8	--	0.8	<0.2	--	--	--	--	--	--
06/08		5	<0.2	0.6	1.5	4.8	4.1	1.6	--	--	0.3	--	--	--	--	--	--
09/08		5	<0.2	0.5	1.1/1.0	5.1	2.2	1.2	--	--	0.2	--	--	--	--	--	--
12/08		5	<0.2	0.3	0.6/0.6	5.6	0.4	1.2	--	--	0.3	--	--	--	--	--	--
02/09		5	--	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--
03/09		5	<0.2	0.3	0.8/0.9	3.9	0.7	1.0	0.7	0.4	0.2	--	--	--	--	--	--
06/09		5	<0.2	0.5	1.0/1.1	2.8	1.0	0.8	0.9	0.5	0.2	--	--	--	--	--	--
09/09		5	<0.2	0.4	0.8/0.8	2.7	0.9	0.7	0.6	0.5	<0.2	--	--	--	--	--	--
12/09		5	<0.2	0.3	0.5/0.5	2.5	0.3	1.1	1.7	1.5	0.3	--	--	--	--	--	--
5/10		5	0.3	0.5	0.6/0.5	2.1	0.5	0.7	1.1	0.7	0.3	--	--	--	--	--	<0.2
cis-1,2-Dichloroethene		05/06	80	4.2	16	49 D	5.9	14	2.4	7.6/7.9	3.4	2.4	--	--	--	--	<0.2
	09/06	80	3.7	24 D	13/13	15	15	4.3	10	2.5	2.6	--	--	--	--	--	--
	02/07	80	4.9	10	35/34 D	6.3	8.4	2.4	7.7	4.9	2.5	--	--	--	--	--	<0.2
	06/07	80	3.0	22 D	16	7.6	5.0	2.4	8.6/9.0	1.6	1.8	--	--	--	--	--	--
	09/07	80	2.3	18 D	5.0	9.7	6.9	6.4	11/11	1.7	1.7	--	--	--	--	--	--
	12/07	80	1.8	12	14	9.9	1.2	8.0	7.7/7.7	4.6	1.7	--	--	--	--	--	--
	03/08	80	1.8	18 D	19/19	6.6	2.5	2.1	--	3.3	1.5	--	--	--	--	--	--
	06/08	80	2.0	11	15	4.6	7.0	2.7	--	--	1.3	--	--	--	--	--	--
	09/08	80	2.1	8.2	20	7.9	5.2	2.9	--	--	1.0	--	--	--	--	--	--
	12/08	80	1.9	6.4	9.2/9.8	6.2	1.2	1.6	--	--	0.8	--	--	--	--	--	--
	02/09	80	--	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--

**Table 2**

**Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties**

LeatherCare, Inc.  
Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels <sup>a</sup>	Monitoring Well I.D. <sup>b</sup>													Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 1/LC4R	LC5 1/LC5R	LC6	LC7	LC8	LC9			
cis-1,2-Dichloroethene (cont.)	03/09	80	1.7	8.4	6.7/6.8	3.6	1.4	1.0	2.3	1.2	0.5	--	--	--	--	--	
	06/09	80	1.7	12	8.8/9.0	4.1	2.9	1.4	2.6	1.5	0.6	--	--	--	--	--	
	09/09	80	0.9	5.2	7.1/7.4	8.4	4.4	1.8	2.6	1.7	0.7	--	--	--	--	--	
	12/09	80	0.8	2.5	6.4/6.4	4.0	1.3	1.2	2.2	2.2	0.8	--	--	--	--	--	
	5/10	80	1.0	2.6	15/15	3.8	1.4	0.9	1.6	1.4	0.5	--	--	--	--	<0.2	
trans-1,2-Dichloroethene	05/06	160	<0.2	5	9.4	<0.2	0.9	<0.2	0.4/0.4	0.2	<0.2	--	--	--	<0.2	<0.2	
	09/06	160	<0.2	6.9	5.4/5.4	0.4	1.3	<0.2	0.5	<0.2	<0.2	--	--	--	--	--	
	02/07	160	0.2	3.3	5.1/5.2	<0.2	0.5	<0.20	0.3	0.3	<0.2	--	--	--	--	<0.2	
	06/07	160	<0.2	4.8	4.5	<0.2	0.6	<0.2	0.4/0.5	<0.2	<0.2	--	--	--	--	--	
	09/07	160	<0.2	5.3	2.4	<0.2	0.5	<0.2	0.3/0.4	<0.2	<0.2	--	--	--	--	--	
	12/07	160	<0.2	2.9	4.2	<0.2	<0.2	<0.2	0.2/0.2	0.3	<0.2	--	--	--	--	--	
	03/08	160	<0.2	3.1	3.3/3.1	<0.2	<0.2	<0.2	--	<0.2	<0.2	--	--	--	--	--	
	06/08	160	<0.2	3.9	4.6	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--	
	09/08	160	<0.2	2.9	5.9/5.2	0.4	0.3	<0.2	--	--	<0.2	--	--	--	--	--	
	12/08	160	<0.2	1.8	2.3/2.6	0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--	
	02/09	160	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	
	03/09	160	<0.2	2.0	1.9/2.0	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	--	--	--	--	--	
	06/09	160	<0.2	3.2	4.2/4.3	<0.2	0.2	<0.2	0.2	<0.2	<0.2	--	--	--	--	--	
	09/09	160	<0.2	1.7	3.9/3.9	<0.2	0.3	<0.2	0.3	<0.2	<0.2	--	--	--	--	--	
	12/09	80	<0.2	1.0	1.6/1.5	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	--	--	--	--	--	
	5/10	80	<0.2	1.1	2.6/2.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	<0.2	
	1,1-Dichloroethene	05/06	0.073	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	<0.2	<0.2
09/06		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
02/07		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	--	--	--	--	<0.2	
06/07		0.073	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	--	
09/07		0.073	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	--	
12/07		0.073	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	--	
03/08		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	<0.2	<0.2	--	--	--	--	--	
06/08		0.073	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--	
09/08		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--	
12/08		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--	
02/09		0.073	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	
03/09		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
06/09		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
09/09		0.073	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
12/09		80	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
5/10	80	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	<0.2		
Vinyl Chloride	05/06	0.2	<0.2	19	9.7	1.1	2.8	2	2.6/2.6	4.8	1.2	--	--	--	<0.2	<0.2	
	09/06	0.2	0.2	35	5.7/5.4	3.0	3.8	1.6	1.6	2.4	1.0	--	--	--	--	--	
	02/07	0.2	<0.2	14	1.9/1.6	0.7	3.1	1.8	1.2	3.3	1.9	--	--	--	--	<0.2	
	06/07	0.2	<0.2	12	2.3	0.9	1.8	0.6	1.2/1.2	1.5	0.7	--	--	--	--	--	
	09/07	0.2	<0.2	22	2.1	1.4	1.4	1.0	0.8/0.8	1.3	0.3	--	--	--	--	--	
	12/07	0.2	<0.2	13	1.6	1.4	<0.2	5.6	1.2/1.1	3.5	1.8	--	--	--	--	--	
	03/08	0.2	<0.2	12	2.8/2.4	0.7	0.3	0.8	--	1.9	1.1	--	--	--	--	--	
	06/08	0.2	<0.2	18	4.8	0.3	0.5	0.9	--	--	0.2	--	--	--	--	--	
	09/08	0.2	<0.2	16	5.2/4.6	0.9	1.1	0.9	--	--	0.2	--	--	--	--	--	
	12/08	0.2	<0.2	11	1.7/1.8	0.6	<0.2	0.8	--	--	0.2	--	--	--	--	--	
	02/09	0.2	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	
	03/09	0.2	<0.2	9.2	1.0/1.0	0.4	0.3	0.3	1.3	1.6	<0.2	--	--	--	--	--	



**Table 2**

**Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties**

LeatherCare, Inc.  
Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels <sup>a</sup>	Monitoring Well I.D. <sup>b</sup>												Field Blank	Trip Blank	
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 <sup>1</sup> /LC4R	LC5 <sup>1</sup> /LC5R	LC6	LC7	LC8	LC9			
Vinyl Chloride (cont.)	06/09	0.2	<0.2	17	3.8/4.7	0.8	1.0	0.3	1.5	2.2	<0.2	--	--	--	--	--	
	09/09	0.2	<0.2	6.9	4.9/4.9	1.6	1.2	0.6	1.4	2.4	<0.2	--	--	--	--	--	
	12/09	0.2	<0.2	3.7	2.6/2.6	0.4	0.2	0.3	1.2	1.4	<0.2	--	--	--	--	--	
	5/10	0.2	0.5	1.7	1.7/1.6	0.4	0.4	0.2	0.9	1.1	<0.2	--	--	--	--	<0.2	
1,1,1-Trichloroethane	05/06	200	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	<0.2	<0.2
1,1,2-Trichloroethane	05/06	0.77 <sup>f</sup>	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	<0.2	<0.2
1,1-Dichloroethane	05/06	800 <sup>f</sup>	<0.2	<0.2	<0.2	<0.2	0.9	<0.2	0.4/0.4	<0.2	<0.2	--	--	--	--	<0.2	<0.2
Benzene	05/06	5	<0.2	1.5	1.4	<0.2	0.4	<0.2	0.7/0.6	<0.2	<0.2	--	--	--	--	<0.2	<0.2
Toluene	05/06	1,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	0.4	<0.2
Dibromochloromethane	05/06	0.52 <sup>f</sup>	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	<0.2	<0.2
tert-Butylbenzene	05/06	N/A	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	<0.2	<0.2
Acetone	05/06	800 <sup>f</sup>	3.4 M	5.3 M	<1.0	1.5	2.3	1.3	1.5/1.7	2.1	1.7	--	--	--	--	5.2	1.5
Methylene Chloride	05/06	5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3/<0.3	<0.3	<0.3	--	--	--	--	<0.3	0.4

Notes:

Bold and boxed values exceed Method A/B cleanup level.

<sup>a</sup> Turbidity meter malfunctioned; judged to be <10 NTU prior to sampling based on clarity of water.

<sup>\*\*</sup> Data not usable due to meter malfunction.

a) Washington Administrative Code Chapter 173-340, Model Toxics Control Act Cleanup Regulation, promulgated August 15, 2001. Method A suggested groundwater cleanup level used when available.

b) Second set of concentrations are from blind duplicate samples.

c) Water in LC2 had a strong hydrogen sulfide odor and would not clear up fully; suspect turbidity is suspended organics.

d) Silver-silver chloride reference electrode.

e) + means dehalococoides detected; - means dehalococoides not detected.

f) Method B cleanup level from Washington Dept. of Ecology's Cleanup Levels and Risk Calculations (CLARC) tables.

g) Dissolved oxygen meter not working correctly. Measurements, when provided, were taken on 2/20/07 and were in situ down hole measurements.

h) Turbidity readings taken from flow-cell and high turbidity readings influenced by biofloc.

i) Resampled and reanalyzed for TPH on February 20, 2007. The TPH analyses were run with a silica gel cleanup to remove interference by potential naturally occurring organics.

j) Value believed to be incorrect.

k) Turbidity influenced by biofloc.

l) Destroyed by construction.

m) "10" standard was checked and confirmed the correct instrument reading.

<sup>°</sup>C - degrees Celsius.

mV - millivolts.

NTU - Nephelometric turbidity units.

ORP - oxidation reduction potential.

N/A - not applicable.

µS/cm - microsiemens per centimeter.

µg/L - micrograms per liter.

mg/L - milligrams per liter.

ppm - parts per million.

J - estimated value.

D - value from a diluted sample.

M - estimated amount of analyte found and confirmed by analyst but with low GC/MS spectral match.

-- not analyzed or not measured.

< - analyte not detected at or greater than the listed concentration.

**Table 3**  
**Mann-Kendall Statistical Summary**  
 LeatherCare, Inc.  
 Seattle, Washington

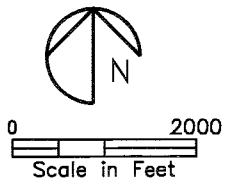
		GT1 Monitoring Well	GT2 Monitoring Well	GT3 Monitoring Well	LC1 Monitoring Well	LC2 Monitoring Well	LC3 Monitoring Well	LC4 Monitoring Well	LC5 Monitoring Well	LC6 Monitoring Well
1,1-Dichloroethene	Count (data)	15	15	15	15	15	15	11	12	15
	Count (nondetects)	15	15	14	15	15	15	11	12	15
	S Statistic	NC	NC	NC	NC	NC	NC	NC	NC	NC
	Var(S)	NC	NC	NC	NC	NC	NC	NC	NC	NC
	Trend	NC	NC	NC	NC	NC	NC	NC	NC	NC
	Probability (of no real trend)	NC	NC	NC	NC	NC	NC	NC	NC	NC
cis-1,2-Dichloroethene	Count (data)	15	15	15	15	15	15	11	12	15
	Count (nondetects)	0	0	0	0	0	0	0	0	0
	S Statistic	-81	-67	-40	-41	-51	-54	-31	-25	-86
	Var(S)	406	406	407	408	406	405	163	212	405
	Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
	Probability (of no real trend)	0.00%	0.05%	2.67%	2.39%	0.66%	0.42%	0.94%	4.95%	0.00%
Tetrachloroethene	Count (data)	15	15	15	15	15	15	11	12	15
	Count (nondetects)	14	15	13	0	0	0	2	8	15
	S Statistic	NC	NC	NC	1	-64	23	-27	NC	NC
	Var(S)	NC	NC	NC	408	407	404	160	NC	NC
	Trend	NC	NC	NC	Increasing	Decreasing	Increasing	Decreasing	NC	NC
	Probability (of no real trend)	NC	NC	NC	50.00%	0.09%	13.70%	2.00%	NC	NC
trans-1,2-Dichloroethene	Count (data)	15	15	15	15	15	15	11	12	15
	Count (nondetects)	14	0	0	12	7	15	1	9	15
	S Statistic	NC	-73	-61	NC	-53	NC	-31	NC	NC
	Var(S)	NC	406	406	NC	341	NC	144	NC	NC
	Trend	NC	Decreasing	Decreasing	NC	Decreasing	NC	Decreasing	NC	NC
	Probability (of no real trend)	NC	0.02%	0.15%	NC	0.24%	NC	0.62%	NC	NC
Trichloroethene	Count (data)	15	15	15	15	15	15	11	12	15
	Count (nondetects)	10	0	0	0	0	0	0	0	4
	S Statistic	NC	-48	-62	-35	-56	-26	-25	15	10
	Var(S)	NC	373	403	404	407	397	165	200	288
	Trend	NC	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Increasing	Increasing
	Probability (of no real trend)	NC	0.75%	0.12%	4.53%	0.32%	10.47%	3.09%	16.13%	29.79%
Vinyl Chloride	Count (data)	15	15	15	15	15	15	11	12	15
	Count (nondetects)	13	0	0	0	2	0	0	0	6
	S Statistic	NC	-64	-26	-37	-47	-69	-15	-27	-59
	Var(S)	NC	407	407	402	404	402	156	212	343
	Trend	NC	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
	Probability (of no real trend)	NC	0.09%	10.77%	3.62%	1.10%	0.03%	13.14%	3.70%	0.09%

FE

Figures



Source: USGS SEATTLE NORTH, 7.5 MIN. QUADRANGLE, 1973



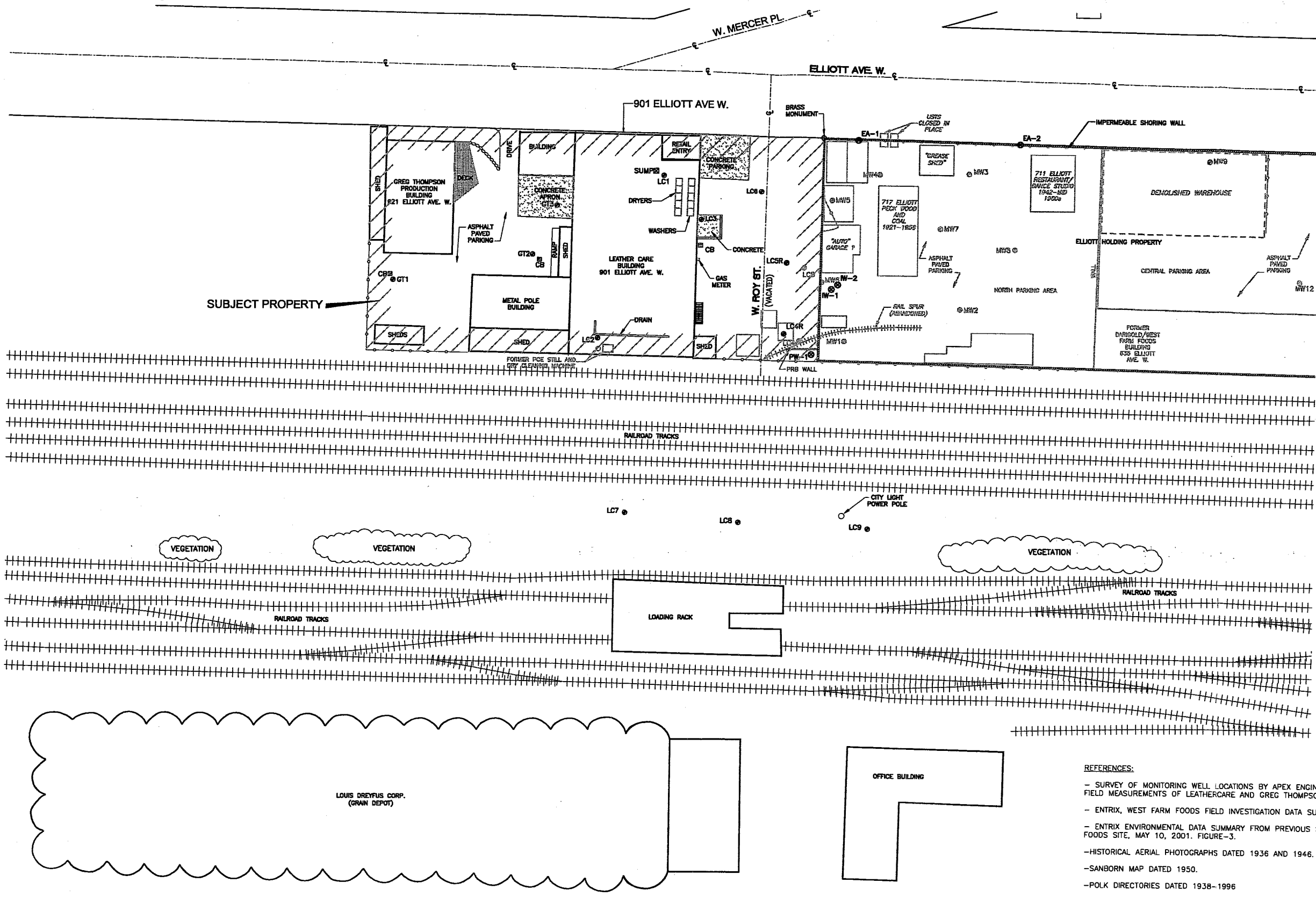
P:\56498\68247\ Fig-1 01/22/10 08:39 riehlepj

**CDM**

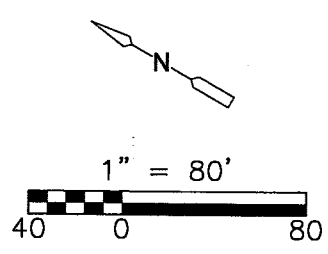
LEATHERCARE INC. RI/FS  
SEATTLE, WASHINGTON

Figure No. 1  
VICINITY MAP

P:\56498\68247\Fig-2-Dec 16 2009 01/22/10 08:34 richlepj XREFS: Dec 16 2009 site, Dec 16 2009 11X17BDR



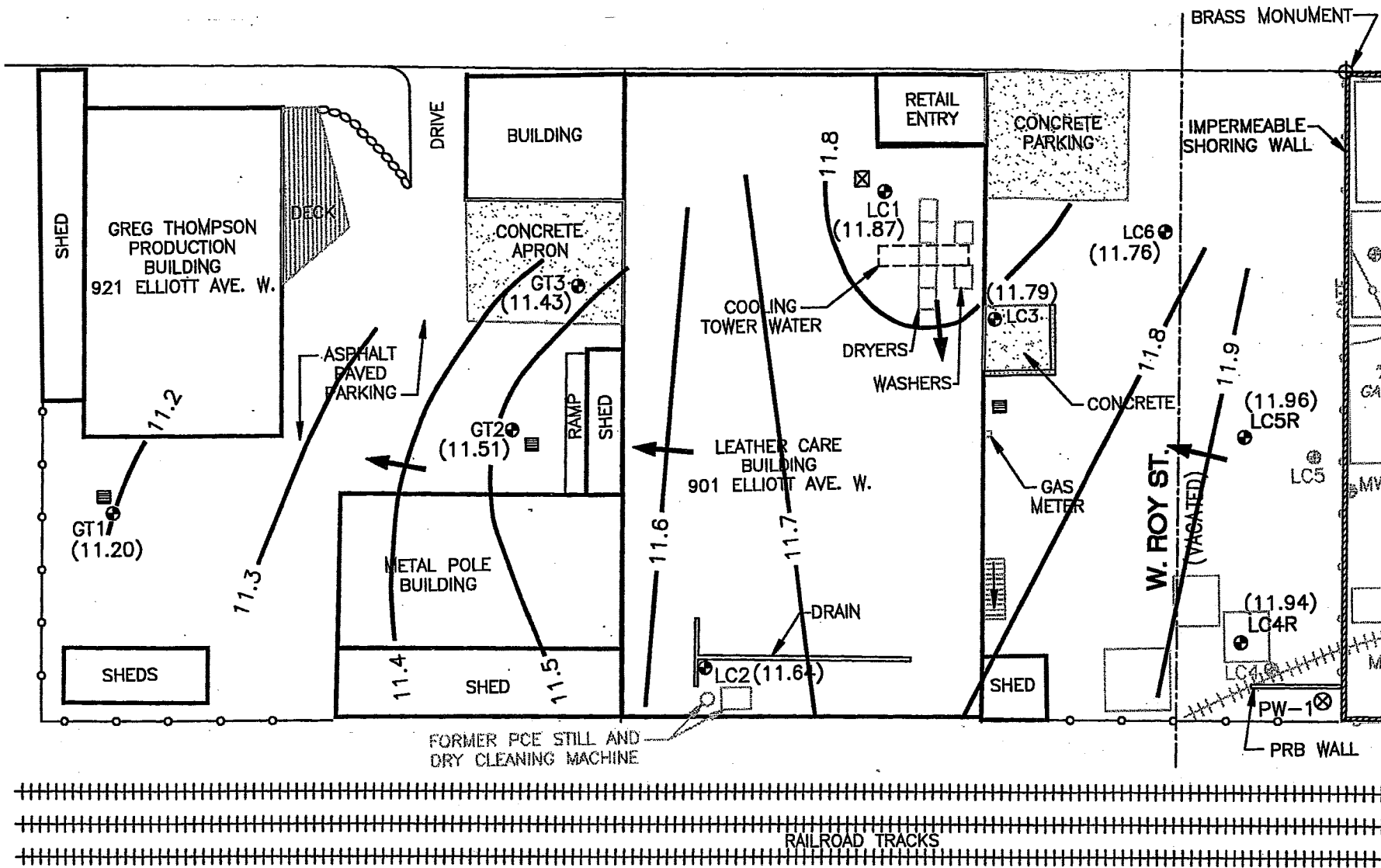
- LEGEND:**
- LC8 ● MONITORING WELL LOCATION AND DESIGNATION
  - MW1 ● MONITORING WELL DESTROYED FOR REDEVELOPMENT OF PROPERTY
  - EA-1 ● ELLIOTT HOLDING MONITORING WELL LOCATION AND DESIGNATION
  - FENCE
  - ROAD CENTERLINE
  - ++++ RAILROAD TRACKS
  - CB ■ CATCH BASIN
  - INDICATES HISTORICAL FEATURES
  - ◆ SURVEY MONUMENT
- VERTICAL DATUM:**  
 CITY OF SEATTLE (NAVD 88)  
 BENCHMARK SNV-5144  
 BRASS MONUMENT SW CORNER OF ROY AND ELLIOTT. ELEVATION 19.78'
- BASIS OF BEARING:**  
 BASIS OF BEARING ASSUMED DUE WEST



- REFERENCES:**
- SURVEY OF MONITORING WELL LOCATIONS BY APEX ENGINEERING ON MAY 10, 2006 AND FEBRUARY 11, 2009. FIELD MEASUREMENTS OF LEATHERCARE AND GREG THOMPSON PRODUCTION BUILDINGS BY CDM ON MAY 10, 2006.
  - ENTRIX, WEST FARM FOODS FIELD INVESTIGATION DATA SUMMARY REPORT, MAY 10, 2001, FIGURE 2.
  - ENTRIX ENVIRONMENTAL DATA SUMMARY FROM PREVIOUS STUDIES AND REPORTS, WEST FARM FOODS SITE, MAY 10, 2001, FIGURE-3.
  - HISTORICAL AERIAL PHOTOGRAPHS DATED 1936 AND 1946.
  - SANBORN MAP DATED 1950.
  - POLK DIRECTORIES DATED 1938-1996

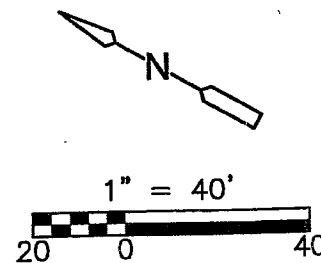
LEATHERCARE INC. RI/FS  
 SEATTLE, WASHINGTON

Figure No. 2  
 Site and Vicinity Map



**REFERENCES:**

- SURVEY OF MONITORING WELL LOCATIONS BY APEX ENGINEERING ON MAY 10, 2006 AND FEBRUARY 11, 2009. FIELD MEASUREMENTS OF LEATHERCARE AND GREG THOMPSON PRODUCTION BUILDINGS BY CDM ON MAY 10, 2006.
- ENTRIX, WEST FARM FOODS FIELD INVESTIGATION DATA SUMMARY REPORT, MAY 10, 2001, FIGURE 2.
- ENTRIX ENVIRONMENTAL DATA SUMMARY FROM PREVIOUS STUDIES AND REPORTS, WEST FARM FOODS SITE, MAY 10, 2001. FIGURE-3.
- HISTORICAL AERIAL PHOTOGRAPHS DATED 1936 AND 1946.
- SANBORN MAP DATED 1950.
- POLK DIRECTORIES DATED 1936-1996



LEATHERCARE INC. RI/FS  
SEATTLE, WASHINGTON

**LEGEND:**

- LC6** ● (11.76) MONITORING WELL LOCATION AND DESIGNATION WITH GROUNDWATER ELEVATION IN FEET
- 11.5** ————— POTENTIOMETRIC CONTOURS, CONTOUR INTERVAL IS 0.1 FT. (AVERAGE)
- ← DIRECTION OF GROUNDWATER FLOW
- — ○ FENCE
- ||||| RAILROAD TRACKS
- CATCH BASIN
- INDICATES HISTORICAL FEATURES
- ⊕ SURVEY MONUMENT
- CSM IMPERMEABLE WALL

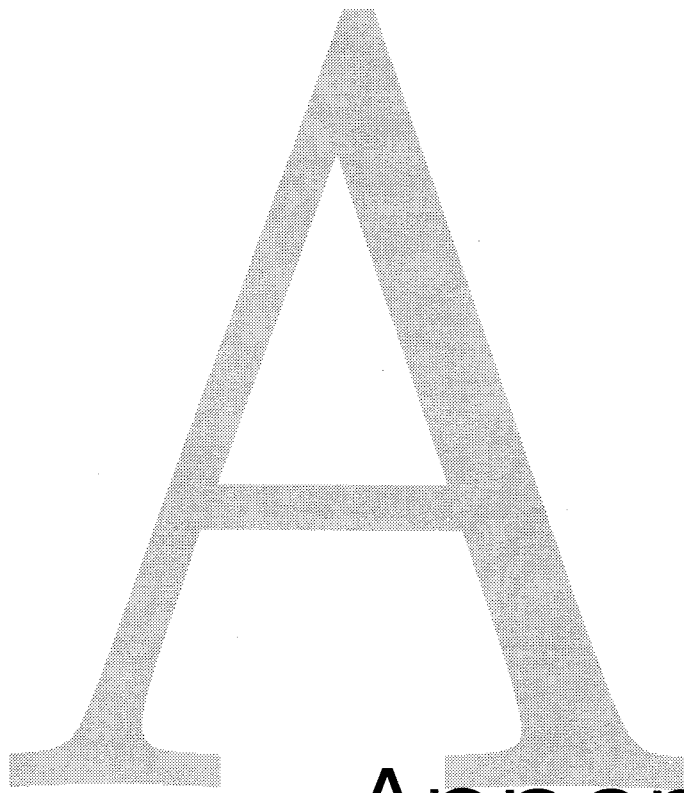
**VERTICAL DATUM:**

CITY OF SEATTLE (NAVD 88)  
BENCHMARK SNV-5144  
BRASS MONUMENT SW CORNER OF ROY  
AND ELLIOTT. ELEVATION 19.78'

**BASIS OF BEARING:**

BASIS OF BEARING ASSUMED DUE WEST

Figure No. 3  
Potentiometric Surface Map  
May 4, 2010



Appendix

A

# Appendix A

## Analytical Laboratory Reports





**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

May 12, 2010

Pam Morrill  
CDM  
14432 SE Eastgate Way, Suite 100  
Bellevue, WA 98007

**RE: Project ID: Leathercare, 56498-68247**  
**ARI Job No: QV21**

Dear Pam:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final results for samples from the project referenced above. Analytical Resources Inc. (ARI) accepted five water samples and a trip blank on May 4, 2010, under ARI job QV21. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for Volatile Organics by SW8260C, as requested.

There were no anomalies associated with the analysis of these samples.

An electronic copy of this report as well as all supporting data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

**ANALYTICAL RESOURCES, INC.**

A handwritten signature in black ink, appearing to read "Cheronne Oreiro", written over a circular stamp or mark.

Cheronne Oreiro  
Project Manager  
(206) 695-6214  
[cheronneo@arilabs.com](mailto:cheronneo@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

cc: eFile QV21

Enclosures

Page 1 of 15

# Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated  
 Analytical Chemists and Consultants  
 4611 South 134th Place, Suite 100  
 Tukwila, WA 98168  
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: <i>QV21</i>	Turn-around Requested: <i>std</i>	Page: <i>1</i> of <i>1</i>
ARI Client Company: <i>CDM</i>	Phone: <i>425-519-8300</i>	Date: <i>5/4/10</i>
Client Contact: <i>Pam Morrill</i>		Ice Present? <i>yes</i>
Client Project Name: <i>Levee</i>		No. of Coolers: <i>1</i>
Client Project #: <i>56498-58247</i>	Samplers:	Cooler Temps: <i>44</i>

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested							Notes/Comments	
					8200B*	1064							
LC4R - 05/10	5/4/10	0945	Water	3	✓								10 mL purge for
LC5R - 05/10	5/4/10	1055		3	✓								lower reporting
LC6 - 05/10	5/4/10	1138		3	✓								limits
LC3 - 05/10	5/4/10	1320		9	✓								
LC2 - 05/10	5/4/10	1500		3	✓								
Trip Blank	5/4/10	-		2		✓							

Comments/Special Instructions <i>Vinyl chloride, 1,1-DCE, 1,2-DCE, 1,2-DCE, 1,2-DCE, TCE, PCE Excess vials for LC3-05/10 for MS/MSD</i>	Relinquished by: (Signature) <i>Morrill</i>	Received by: (Signature) <i>[Signature]</i>	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: <i>Morrill Lou Fox</i>	Printed Name: <i>C. OREIRO</i>	Printed Name:	Printed Name:
	Company: <i>CDM</i>	Company: <i>ARI</i>	Company:	Company:
	Date & Time: <i>5/4/10 1608</i>	Date & Time: <i>5/4/10 1608</i>	Date & Time:	Date & Time:

0021:00002

**Limits of Liability:** ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



# Cooler Receipt Form

ARI Client: CDM

Project Name: Leathercare

COC No(s): \_\_\_\_\_ (NA)

Delivered by: Fed-Ex UPS Courier  Hand Delivered Other: \_\_\_\_\_

Assigned ARI Job No: QV21

Tracking No: \_\_\_\_\_ (NA)

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO

Were custody papers included with the cooler? ..... YES  NO

Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 4.4

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941609

Cooler Accepted by: JP Date: 5/4/10 Time: 1608

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler? ..... YES  NO

What kind of packing material was used? ... Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? ..... NA  YES  NO

Were all bottles sealed in individual plastic bags? ..... YES  NO

Did all bottles arrive in good condition (unbroken)? ..... YES  NO

Were all bottle labels complete and legible? ..... YES  NO

Did the number of containers listed on COC match with the number of containers received? ..... YES  NO

Did all bottle labels and tags agree with custody papers? ..... YES  NO

Were all bottles used correct for the requested analyses? ..... YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES  NO

Were all VOC vials free of air bubbles? ..... NA YES  NO

Was sufficient amount of sample sent in each bottle? ..... YES  NO

Date VOC Trip Blank was made at ARI..... NA 4/8/10

Was Sample Split by ARI :  YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JP Date: 5/4/10 Time: 1620

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm" <u>123</u> <u>LCV - 05/10</u>
			Peabubbles → "pb" <u>212</u> <u>Trip Blank</u>
			Large → "lg" _____
			Headspace → "hs" _____

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC4R-05/10  
SAMPLE

Lab Sample ID: QV21A  
LIMS ID: 10-10939  
Matrix: Water  
Data Release Authorized:  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 14:22

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.9	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	1.6	
79-01-6	Trichloroethene	0.2	1.1	
127-18-4	Tetrachloroethene	0.2	0.4	

Reported in µg/L (ppb)


**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	98.8%
Bromofluorobenzene	89.5%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC5R-05/10  
SAMPLE

Lab Sample ID: QV21B  
LIMS ID: 10-10940  
Matrix: Water  
Data Release Authorized:   
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 14:48

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.1	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	1.4	
79-01-6	Trichloroethene	0.2	0.7	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	103%
d8-Toluene	100%
Bromofluorobenzene	88.7%
d4-1,2-Dichlorobenzene	103%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC6-05/10  
SAMPLE

Lab Sample ID: QV21C  
LIMS ID: 10-10941  
Matrix: Water  
Data Release Authorized: *RB*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 15:13

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	0.5	
79-01-6	Trichloroethene	0.2	0.3	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	101%
Bromofluorobenzene	89.9%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC3-05/10  
SAMPLE

Lab Sample ID: QV21D  
LIMS ID: 10-10942  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 15:39

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.2	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	0.9	
79-01-6	Trichloroethene	0.2	0.7	
127-18-4	Tetrachloroethene	0.2	5.1	

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	103%
d8-Toluene	99.9%
Bromofluorobenzene	88.3%
d4-1,2-Dichlorobenzene	103%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC2-05/10  
SAMPLE

Lab Sample ID: QV21E  
LIMS ID: 10-10943  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 16:05

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.4	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	1.4	
79-01-6	Trichloroethene	0.2	0.5	
127-18-4	Tetrachloroethene	0.2	0.7	

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	104%
d8-Toluene	102%
Bromofluorobenzene	88.1%
d4-1,2-Dichlorobenzene	105%






ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: Trip Blank  
SAMPLE

Lab Sample ID: QV21F  
LIMS ID: 10-10944  
Matrix: Water  
Data Release Authorized:   
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 12:14

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.9%
d8-Toluene	100%
Bromofluorobenzene	89.0%
d4-1,2-Dichlorobenzene	104%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: QV21-CDM, Inc.  
 Project: Leathercare  
 56498-68247

ARI ID	Client ID	FV	DCE	TOL	BFB	DCB	TOT OUT
MB-050510	Method Blank	10	101%	99.7%	91.6%	102%	0
LCS-050510	Lab Control	10	95.1%	100%	93.4%	96.0%	0
LCSD-050510	Lab Control Dup	10	95.4%	99.4%	95.4%	99.2%	0
QV21A	LC4R-05/10	10	101%	98.8%	89.5%	102%	0
QV21B	LC5R-05/10	10	103%	100%	88.7%	103%	0
QV21C	LC6-05/10	10	100%	101%	89.9%	102%	0
QV21D	LC3-05/10	10	103%	99.9%	88.3%	103%	0
QV21DMS	LC3-05/10	10	96.6%	98.2%	93.5%	99.4%	0
QV21DMSD	LC3-05/10	10	93.7%	98.6%	94.5%	102%	0
QV21E	LC2-05/10	10	104%	102%	88.1%	105%	0
QV21F	Trip Blank	10	98.9%	100%	89.0%	104%	0

LCS/MB LIMITS

QC LIMITS

SW8260C

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

70-132  
 80-120  
 80-120  
 80-120

80-143  
 80-120  
 80-120  
 80-120

Prep Method: SW5030B  
 Log Number Range: 10-10939 to 10-10944

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC3-05/10  
MATRIX SPIKE

Lab Sample ID: QV21D  
LIMS ID: 10-10942  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst MS: NT5/PKC  
MSD: NT5/PKC  
Date Analyzed MS: 05/05/10 20:21  
MSD: 05/05/10 20:47

Sample Amount MS: 10.0 mL  
MSD: 10.0 mL  
Purge Volume MS: 10.0 mL  
MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Vinyl Chloride	0.2	9.9	10.0	97.0%	10.1	10.0	99.0%	2.0%
1,1-Dichloroethene	< 0.2 U	10.1	10.0	101%	10.3	10.0	103%	2.0%
trans-1,2-Dichloroethene	< 0.2 U	9.9	10.0	99.0%	10.0	10.0	100%	1.0%
cis-1,2-Dichloroethene	0.9	10.9	10.0	100%	10.7	10.0	98.0%	1.9%
Trichloroethene	0.7	11.0	10.0	103%	11.1	10.0	104%	0.9%
Tetrachloroethene	5.1	15.4	10.0	103%	16.2	10.0	111%	5.1%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC3-05/10  
MATRIX SPIKE

Lab Sample ID: QV21D  
LIMS ID: 10-10942  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 20:21

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	---	
75-35-4	1,1-Dichloroethene	0.2	---	
156-60-5	trans-1,2-Dichloroethene	0.2	---	
156-59-2	cis-1,2-Dichloroethene	0.2	---	
79-01-6	Trichloroethene	0.2	---	
127-18-4	Tetrachloroethene	0.2	---	

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	96.6%
d8-Toluene	98.2%
Bromofluorobenzene	93.5%
d4-1,2-Dichlorobenzene	99.4%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC3-05/10  
MATRIX SPIKE DUP

Lab Sample ID: QV21D  
LIMS ID: 10-10942  
Matrix: Water  
Data Release Authorized: *AS*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/04/10  
Date Received: 05/04/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 20:47

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	---	
75-35-4	1,1-Dichloroethene	0.2	---	
156-60-5	trans-1,2-Dichloroethene	0.2	---	
156-59-2	cis-1,2-Dichloroethene	0.2	---	
79-01-6	Trichloroethene	0.2	---	
127-18-4	Tetrachloroethene	0.2	---	

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	93.7%
d8-Toluene	98.6%
Bromofluorobenzene	94.5%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LCS-050510  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-050510  
LIMS ID: 10-10939  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst LCS: NT5/PKC  
LCSD: NT5/PKC  
Date Analyzed LCS: 05/05/10 10:40  
LCSD: 05/05/10 11:06

Sample Amount LCS: 10.0 mL  
LCSD: 10.0 mL  
Purge Volume LCS: 10.0 mL  
LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	9.8	10.0	98.0%	9.8	10.0	98.0%	0.0%
1,1-Dichloroethene	10.3	10.0	103%	10.3	10.0	103%	0.0%
trans-1,2-Dichloroethene	10.0	10.0	100%	10.2	10.0	102%	2.0%
cis-1,2-Dichloroethene	10.2	10.0	102%	10.2	10.0	102%	0.0%
Trichloroethene	10.7	10.0	107%	10.3	10.0	103%	3.8%
Tetrachloroethene	10.5	10.0	105%	10.3	10.0	103%	1.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	95.1%	95.4%
d8-Toluene	100%	99.4%
Bromofluorobenzene	93.4%	95.4%
d4-1,2-Dichlorobenzene	96.0%	99.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: MB-050510  
METHOD BLANK

Lab Sample ID: MB-050510  
LIMS ID: 10-10939  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 05/11/10

QC Report No: QV21-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/05/10 11:31

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	99.7%
Bromofluorobenzene	91.6%
d4-1,2-Dichlorobenzene	102%



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

May 12, 2010

Pam Morrill  
CDM  
14432 SE Eastgate Way, Suite 100  
Bellevue, WA 98007

**RE: Project ID: Leathercare, 56498-68247**  
**ARI Job No: QV45**

Dear Pam:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final results for samples from the project referenced above. Analytical Resources Inc. (ARI) accepted five water samples and a trip blank on May 5, 2010, under ARI job QV45. The trip blank was held upon receipt, as requested on the COC. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for Volatile Organics by SW8260C, as requested.

There were no anomalies associated with the analysis of these samples.

An electronic copy of this report as well as all supporting data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro  
Project Manager  
(206) 695-6214  
[cheronneo@arilabs.com](mailto:cheronneo@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

cc: eFile QV45

Enclosures



# Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated  
 Analytical Chemists and Consultants  
 4611 South 134th Place, Suite 100  
 Tukwila, WA 98168  
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: <b>QV45</b>	Turn-around Requested: <b>Std</b>	Page: <b>1</b> of <b>1</b>
ARI Client Company: <b>CDM</b>	Phone: <b>425-519-8300</b>	Date: <b>5/5/10</b> Ice Present? <b>yes</b>
Client Contact: <b>Pam Morrill</b>		No. of Coolers: <b>1</b> Cooler Temp: <b>5.8</b>

Client Project Name:					Analysis Requested							Notes/Comments		
Client Project #:		Samplers:			VOCs	EPA 8260B	Hald							
<b>56498-68247</b>														
Sample ID	Date	Time	Matrix	No. Containers										
LC1-05/10	5/5/10	0835	Water	3	✓									10 mL purge for lower reporting limits
GT3-05/10	5/5/10	1000	Water	3	✓									
GT2-05/10	5/5/10	1135	Water	3	✓									
GT1-05/10	5/5/10	1310	Water	3	✓									
GT20-05/10	5/5/10	1405	Water	3	✓									
Trip Blank	5/5/10	—		2			✓							

Comments/Special Instructions <b>Vinyl chloride, 1,1-DCE, benz-1,2-DCE, cis-1,2-DCE, TCE, PCE</b>	Relinquished by: (Signature) <b>Mary Lou Fox</b>	Received by: (Signature) <b>[Signature]</b>	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: <b>Mary Lou Fox</b>	Printed Name: <b>O. OREIRO</b>	Printed Name:	Printed Name:
	Company: <b>CDM</b>	Company: <b>ARI</b>	Company:	Company:
	Date & Time: <b>5/5/10 1610</b>	Date & Time: <b>5/5/10 1610</b>	Date & Time:	Date & Time:

20000:5000

**Limits of Liability:** ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



# Cooler Receipt Form

ARI Client: CDM  
 COC No(s): \_\_\_\_\_ (NA)  
 Assigned ARI Job No: QV45

Project Name: Leather care  
 Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: \_\_\_\_\_  
 Tracking No: \_\_\_\_\_ (NA)

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES (NO)  
 Were custody papers included with the cooler? YES NO  
 Were custody papers properly filled out (ink, signed, etc.) YES NO  
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 5.8  
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 909411019

Cooler Accepted by: AD Date: 5/5/10 Time: 1610  
**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler? YES (NO)  
 What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: \_\_\_\_\_  
 Was sufficient ice used (if appropriate)? NA YES NO  
 Were all bottles sealed in individual plastic bags? YES NO  
 Did all bottles arrive in good condition (unbroken)? YES NO  
 Were all bottle labels complete and legible? YES NO  
 Did the number of containers listed on COC match with the number of containers received? YES NO  
 Did all bottle labels and tags agree with custody papers? YES NO  
 Were all bottles used correct for the requested analyses? YES NO  
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES (NO)  
 Were all VOC vials free of air bubbles? NA YES (NO)  
 Was sufficient amount of sample sent in each bottle? YES NO  
 Date VOC Trip Blank was made at ARI..... 4/8/10  
 Was Sample Split by ARI: (NA) YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JP Date: 5/5/10 Time: 1625  
**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: JP Date: 5/5/10

			Small → "sm"
			Peabubbles → "pb" <u>2012 Trip Blank</u>
			Large → "lg"
			Headspace → "hs"

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: LC1-05/10  
SAMPLE

Lab Sample ID: QV45A  
LIMS ID: 10-11059  
Matrix: Water  
Data Release Authorized: *B*  
Reported: 05/11/10

QC Report No: QV45-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/05/10  
Date Received: 05/05/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/07/10 19:22

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.4	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	3.8	
79-01-6	Trichloroethene	0.2	2.1	
127-18-4	Tetrachloroethene	0.2	1.6	

Reported in µg/L (ppb)


**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	97.8%
Bromofluorobenzene	89.7%
d4-1,2-Dichlorobenzene	104%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: GT3-05/10  
SAMPLE

Lab Sample ID: QV45B  
LIMS ID: 10-11060  
Matrix: Water  
Data Release Authorized:   
Reported: 05/11/10

QC Report No: QV45-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/05/10  
Date Received: 05/05/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/07/10 19:48

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.7	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	2.6	
156-59-2	cis-1,2-Dichloroethene	0.2	15	
79-01-6	Trichloroethene	0.2	0.6	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	106%
d8-Toluene	98.0%
Bromofluorobenzene	87.9%
d4-1,2-Dichlorobenzene	106%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: GT2-05/10  
SAMPLE

Lab Sample ID: QV45C  
LIMS ID: 10-11061  
Matrix: Water  
Data Release Authorized: *AS*  
Reported: 05/11/10

QC Report No: QV45-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/05/10  
Date Received: 05/05/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/07/10 20:14

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.7	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	1.1	
156-59-2	cis-1,2-Dichloroethene	0.2	2.6	
79-01-6	Trichloroethene	0.2	0.5	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	101%
Bromofluorobenzene	92.2%
d4-1,2-Dichlorobenzene	106%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: GT1-05/10  
SAMPLE

Lab Sample ID: QV45D  
LIMS ID: 10-11062  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 05/11/10

QC Report No: QV45-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: 05/05/10  
Date Received: 05/05/10

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/07/10 20:39

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.5	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	1.0	
79-01-6	Trichloroethene	0.2	0.3	
127-18-4	Tetrachloroethene	0.2	0.2	

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	100%
Bromofluorobenzene	88.5%
d4-1,2-Dichlorobenzene	106%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: GT20-05/10  
SAMPLE

Lab Sample ID: QV45E

QC Report No: QV45-CDM, Inc.

LIMS ID: 10-11063

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: *RB*

Date Sampled: 05/05/10

Reported: 05/11/10

Date Received: 05/05/10

Instrument/Analyst: NT5/PKC

Sample Amount: 10.0 mL

Date Analyzed: 05/07/10 21:05

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.6	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	2.6	
156-59-2	cis-1,2-Dichloroethene	0.2	15	
79-01-6	Trichloroethene	0.2	0.5	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	106%
d8-Toluene	101%
Bromofluorobenzene	87.9%
d4-1,2-Dichlorobenzene	104%

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: QV45-CDM, Inc.  
Project: Leathercare  
56498-68247

ARI ID	Client ID	FV	DCE	TOL	BFB	DCB	TOT OUT
MB-050710	Method Blank	10	100%	101%	91.9%	106%	0
LCS-050710	Lab Control	10	98.2%	103%	95.9%	102%	0
LCSD-050710	Lab Control Dup	10	96.1%	101%	95.1%	98.9%	0
QV45A	LC1-05/10	10	108%	97.8%	89.7%	104%	0
QV45B	GT3-05/10	10	106%	98.0%	87.9%	106%	0
QV45C	GT2-05/10	10	108%	101%	92.2%	106%	0
QV45D	GT1-05/10	10	108%	100%	88.5%	106%	0
QV45E	GT20-05/10	10	106%	101%	87.9%	104%	0

**LCS/MB LIMITS**

**QC LIMITS**

**SW8260C**

(DCE) = d4-1,2-Dichloroethane  
(TOL) = d8-Toluene  
(BFB) = Bromofluorobenzene  
(DCB) = d4-1,2-Dichlorobenzene

70-132  
80-120  
80-120  
80-120

80-143  
80-120  
80-120  
80-120

Prep Method: SW5030B  
Log Number Range: 10-11059 to 10-11063



**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-050710

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-050710

QC Report No: QV45-CDM, Inc.

LIMS ID: 10-11059

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: *[Signature]*

Date Sampled: NA

Reported: 05/11/10

Date Received: NA

Instrument/Analyst LCS: NT5/PKC

Sample Amount LCS: 10.0 mL

LCSD: NT5/PKC

LCSD: 10.0 mL

Date Analyzed LCS: 05/07/10 10:37

Purge Volume LCS: 10.0 mL

LCSD: 05/07/10 11:03

LCSD: 10.0 mL

Analyte	LCS	Spike	LCS	LCSD	Spike	LCSD	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
Vinyl Chloride	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
1,1-Dichloroethene	10.4	10.0	104%	10.4	10.0	104%	0.0%
trans-1,2-Dichloroethene	9.9	10.0	99.0%	10.2	10.0	102%	3.0%
cis-1,2-Dichloroethene	9.9	10.0	99.0%	10.2	10.0	102%	3.0%
Trichloroethene	10.7	10.0	107%	10.6	10.0	106%	0.9%
Tetrachloroethene	9.8	10.0	98.0%	10.4	10.0	104%	5.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	98.2%	96.1%
d8-Toluene	103%	101%
Bromofluorobenzene	95.9%	95.1%
d4-1,2-Dichlorobenzene	102%	98.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260C  
Page 1 of 1

Sample ID: MB-050710  
METHOD BLANK

Lab Sample ID: MB-050710  
LIMS ID: 10-11059  
Matrix: Water  
Data Release Authorized: *AD*  
Reported: 05/11/10

QC Report No: QV45-CDM, Inc.  
Project: Leathercare  
56498-68247  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT5/PKC  
Date Analyzed: 05/07/10 11:29

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	101%
Bromofluorobenzene	91.9%
d4-1,2-Dichlorobenzene	106%



Client Name: Camp Dresser & McKee  
Contact: Pam Morrill  
Address: 11811 Northeast First Street  
Suite 201  
Bellevue, WA 98005

Page: Page 1 of 11  
Lab Proj #: P1005059  
Report Date: 05/18/10  
Client Proj Name: Leathercare  
Client Proj #: 56498-68247

### Laboratory Results

Total pages in data package: 12

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P1005059-01	LC4R-05/10
P1005059-02	LC5R-05/10
P1005059-03	LC6-05/10
P1005059-04	LC3-05/10
P1005059-05	LC2-05/10
P1005059-06	LC1-05/10
P1005059-07	GT3-05/10
P1005059-08	GT2-05/10
P1005059-09	GT1-05/10
P1005059-10	GT20-05/10

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: \_\_\_\_\_

*Debbie Hallo*

Date: \_\_\_\_\_

*5-18-10*

Project Manager: \_\_\_\_\_

Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*

Case Narrative:

Client Name: Camp Dresser & McKee  
 Contact: Pam Morrill  
 Address: 11811 Northeast First Street  
 Suite 201  
 Bellevue, WA 98005

Page: Page 2 of 11  
 Lab Proj #: P1005059  
 Report Date: 05/18/10  
 Client Proj Name: Leathercare  
 Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC4R-05/10	Water	P1005059-01	04 May. 10 9:45	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	1.100	0.025	ug/L	AM20GAX	5/14/10	rw
N Ethene	0.260	0.025	ug/L	AM20GAX	5/14/10	rw
N Methane	2700.000	0.100	ug/L	AM20GAX	5/14/10	rw



Client Name: Camp Dresser & McKee  
Contact: Pam Morrill  
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Bellevue, WA 98005

Page: Page 3 of 11  
Lab Proj #: P1005059  
Report Date: 05/18/10  
Client Proj Name: Leathercare  
Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC5R-05/10	Water	P1005059-02	04 May. 10 10:55	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.310	0.025	ug/L	AM20GAX	5/14/10	rw
N Ethene	0.160	0.025	ug/L	AM20GAX	5/14/10	rw
N Methane	540.000	0.100	ug/L	AM20GAX	5/14/10	rw



Client Name: Camp Dresser & McKee  
Contact: Pam Morrill  
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Bellevue, WA 98005

Page: Page 4 of 11  
Lab Proj #: P1005059  
Report Date: 05/18/10  
Client Proj Name: Leathercare  
Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC6-05/10	Water	P1005059-03	04 May. 10 12:10	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.190	0.025	ug/L	AM20GAX	5/15/10	rw
N Ethene	<0.025	0.025	ug/L	AM20GAX	5/15/10	rw
N Methane	730.000	0.100	ug/L	AM20GAX	5/15/10	rw



Client Name: Camp Dresser & McKee  
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Page: Page 5 of 11  
Lab Proj #: P1005059  
Report Date: 05/18/10  
Client Proj Name: Leathercare  
Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC3-05/10	Water	P1005059-04	04 May. 10 13:20	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.037	0.025	ug/L	AM20GAX	5/15/10	rw
N Ethene	<0.025	0.025	ug/L	AM20GAX	5/15/10	rw
N Methane	140.000	0.100	ug/L	AM20GAX	5/15/10	rw



Client Name: Camp Dresser & McKee  
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Page: Page 6 of 11  
Lab Proj #: P1005059  
Report Date: 05/18/10  
Client Proj Name: Leathercare  
Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC2-05/10	Water	P1005059-05	04 May. 10 15:00	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.049	0.025	ug/L	AM20GAX	5/17/10	rw
N Ethene	0.032	0.025	ug/L	AM20GAX	5/17/10	rw
N Methane	400.000	0.100	ug/L	AM20GAX	5/17/10	rw





Client Name: Camp Dresser & McKee  
Contact: Pam Morrill  
Address: 11811 Northeast First Street  
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Page: Page 7 of 11  
Lab Proj #: P1005059  
Report Date: 05/18/10  
Client Proj Name: Leathercare  
Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC1-05/10	Water	P1005059-06	05 May. 10 8:35	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.160	0.025	ug/L	AM20GAX	5/17/10	rw
N Ethene	<0.025	0.025	ug/L	AM20GAX	5/17/10	rw
N Methane	230.000	0.100	ug/L	AM20GAX	5/17/10	rw



Client Name: Camp Dresser & McKee  
 Contact: Pam Morrill  
 Address: 11811 Northeast First Street  
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 Bellevue, WA 98005

Page: Page 8 of 11  
 Lab Proj #: P1005059  
 Report Date: 05/18/10  
 Client Proj Name: Leathercare  
 Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
GT3-05/10	Water	P1005059-07	05 May. 10 10:00	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.180	0.025	ug/L	AM20GAX	5/17/10	nw
N Ethene	0.073	0.025	ug/L	AM20GAX	5/17/10	nw
N Methane	190.000	0.100	ug/L	AM20GAX	5/17/10	nw



Client Name: Camp Dresser & McKee  
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 Bellevue, WA 98005

Page: Page 9 of 11  
 Lab Proj #: P1005059  
 Report Date: 05/18/10  
 Client Proj Name: Leathercare  
 Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
GT2-05/10	Water	P1005059-08	05 May. 10 11:35	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.085	0.025	ug/L	AM20GAX	5/17/10	rw
N Ethene	0.130	0.025	ug/L	AM20GAX	5/17/10	rw
N Methane	160.000	0.100	ug/L	AM20GAX	5/17/10	rw



Client Name: Camp Dresser & McKee  
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 Address: 11811 Northeast First Street  
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 Bellevue, WA 98005

Page: Page 10 of 11  
 Lab Proj #: P1005059  
 Report Date: 05/18/10  
 Client Proj Name: Leathercare  
 Client Proj #: 56498-68247

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
GT1-05/10	Water	P1005059-09	05 May. 10 13:10	06 May. 10 11:58		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.540	0.025	ug/L	AM20GAX	5/17/10	nw
N Ethene	0.030	0.025	ug/L	AM20GAX	5/17/10	nw
N Methane	240.000	0.100	ug/L	AM20GAX	5/17/10	nw





Microseeps  
Lab. Proj. #

P1005059

# CHAIN - OF - CUSTODY RECORD

Microseeps  
COC cont. #

Phone: (412) 826-5245

Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238

Fax No.: (412) 826-3433

Company :

CDM

Co. Address :

14432 SE Edgemoor Way, Bellevue, WA 98007

Phone # :

425-519-8300

Fax # :

Proj. Manager :

Pam Morrill

Proj. Name/Number :

Leatherie / 56498-68247

Sampler's signature :

Manlyon Foy

Cooler Temp:

Parameters Requested

Results to : Pam Morrill

Invoice to : SMC

Methane, Ethane, Ethene

Sample ID	Sample Description	Sample Type			Date	Time	Vol	✓	Remarks
		Water	Vapor	Solid					
1	LC4R-05/10				5/4/10	0945	2	✓	Shipped priority shipment via FedEx
2	LC5R-05/10				5/4/10	1055	2	✓	
3	LC6-05/10				5/4/10	1210	2	✓	
4	LC3-05/10				5/4/10	1320	2	✓	
5	LC2-05/10				5/4/10	1500	2	✓	
6	LC1-05/10				5/5/10	0835	2	✓	
7	GT3-05/10				5/5/10	1000	2	✓	
8	GT2-05/10				5/5/10	1135	2	✓	
9	GT1-05/10				5/5/10	1310	2	✓	
10	GT20-05/10				5/5/10	1405	2	✓	

Relinquished by : Manlyon Foy	Company : CDM	Date : 5/5/10	Time : 1420	Received by : [Signature]	Company : [Signature]	Date : 5/6/10	Time : 1000
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples

YELLOW COPY : Laboratory File

PINK COPY : Submitter

**CDM**<sup>®</sup>

consulting • engineering • construction • operations

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