

**June/September 2009 Groundwater
Monitoring
LeatherCare, Inc.
901/921 Elliott Avenue West
Seattle, Washington
VCP # NW1805**

October 27, 2009

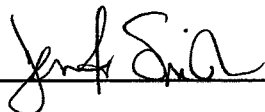
Prepared For:
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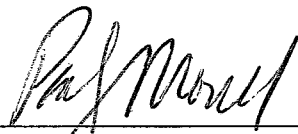
A Report Prepared For:
LeatherCare, Inc.
901 Elliott Avenue West
Seattle, Washington 98119

JUNE/SEPTEMBER 2009 GROUNDWATER MONITORING
LEATHERCARE, INC
901/921 ELLIOTT AVENUE W
SEATTLE, WASHINGTON
VCP #NW1805

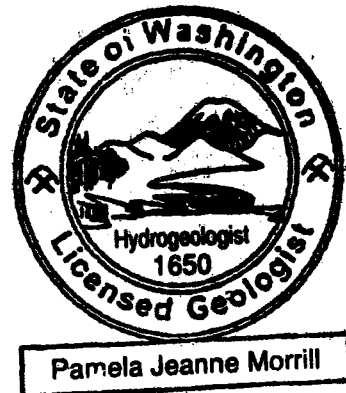
October 27, 2009



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Section 1

Introduction

1.1 General

This report presents the results of the twelfth and thirteenth rounds (June and September 2009) 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 September 12, 2008. Site work is being conducted under the Washington State Department of Ecology's (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, an adjacent 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) The Darigold property is currently owned by Elliott Holding Company, Inc. (Elliott Holding) and is undergoing redevelopment. 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 current ongoing redevelopment activities). These two areas and the adjacent Burlington Northern Santa Fe (BNSF) railroad are collectively referred to as the "Investigation Area".

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. According to a Cleanup Action Plan completed by ENTRIX, Inc., the planned development includes two 4-story commercial buildings, a plaza, and an underground parking structure beneath the entire complex. The parking level foundation will be as much as 20 feet below existing grade. The excavation support system that was utilized to enable below grade construction is the Cutter Soil Mixing (CSM) method. The CSM wall, now fully installed, encircles the entire Elliott Holding property and keys into the underlying glacial till at depths of 40 to 57 feet below ground surface. At the time of

CDM's June and September 2009 groundwater monitoring rounds, construction continued to occur on Elliott Holding's property.

CDM's investigations indicate 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, indicate that 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 confirm natural attenuation 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 these sampling events consisted of the following:

- Conducted two complete rounds 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 in June and September 2009.
- Collected groundwater samples and submitted them for laboratory analysis of selected cVOCs and dissolved gasses (ethane, ethene, and methane) in June and September 2009.
- 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 June 29 and 30, and September 23 and 24, 2009. 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 0742 am and 1000 am on June 29, 2009 and between 0950 am and 1230 am on September 23, 2009. 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 Pittsburgh, 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 [µg/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**. During the June monitoring, water levels ranged between 1.35 and 5.33 feet below the top of the well casings (the well casings start approximately 3 to 6 inches below ground surface). During the September monitoring, water levels ranged between 1.78 and 5.78 feet below the top of the well casings. Water levels rose in all wells between the March 2009 and June 2009 sampling events, differing by between 0.26 and 0.42 feet. Water levels dropped between 0.43 and 0.45 feet between the June and September sampling events. These changes are all consistent with fluctuations due to the amount of seasonal precipitation.

Figure 3 shows the potentiometric surface on June 29, 2009 and **Figure 4** shows the potentiometric surface on September 23, 2009. There continues to be a northerly gradient under LC and GTP parcels consistent with prior sampling events. Now that LC4 and LC5 have been reinstalled, the slight westerly gradient in W Roy Street is again observed, although, consistent with prior data, this gradient is very flat.

3.2 Field Monitored Parameters

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

Temperature: As expected, temperatures in the groundwater increased between the March sampling event and the June and September sampling events. Between the March and June sampling events, the temperatures increased 4.0 Celsius (°C) to as much as 12.5 °C in the individual wells. Between the June and September sampling events, the temperatures increased in all but two wells by 0.2 °C to 2.0 °C. In GT2 and GT3, temperatures declined by 3.1 °C and 0.2 °C, respectively. These temperatures are consistent with the warmer summer temperatures.

Dissolved Oxygen: Dissolved oxygen (DO) concentrations ranged from approximately 0.13 to 0.52 milligrams per liter (mg/L). DO concentrations less than 0.5 mg/L are indicative of anoxic conditions, which are conducive for reductive dechlorination. Except for LC4R, which had a DO concentration 0.52 mg/L in June (0.35 mg/L in September), DO concentrations were all below 0.5 mg/L.

Oxidation-Reduction Potential: The oxidation-reduction potential (ORP) values were negative at all well locations except GT3, which showed a low positive ORP value of 13 millivolts (mV) during the June sampling event. The negative ORP values at the other wells ranged from -42 mV to -188 mV. ORP values declined in all wells between the March and June sampling events and then further declined between the June and September sampling events, which is consistent with the low DO values and

warm temperatures discussed above. Low ORP values are similarly conducive for reductive dechlorination.

Specific Conductance: SC values ranged between 636 and 1,007 microsiemens per centimeter ($\mu\text{S}/\text{cm}$). Overall, the data are consistent with historical site data.

pH: The pH values ranged between approximately 7.03 and 7.44 standard units for all wells, which are consistent with previous rounds.

Ferrous Iron: Ferrous iron concentrations were all low, ranging between 0 and 0.8 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, except LC5R during the June sampling event, which showed a turbidity value of 23 NTU. Water purged from LCR5 during June showed a high level of turbidity initially and fine silty particulates obstructed the pump screen, which required repeated cleaning. It is believed that this well was damaged by construction activities.

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 in three of the seven groundwater samples during both the June and September sampling events and ranged from 0.2 to 5.6 $\mu\text{g}/\text{L}$ when detected. The detection of 5.6 $\mu\text{g}/\text{L}$ in the LC3 sample during the June sampling event slightly exceeds the Method A cleanup level of 5 $\mu\text{g}/\text{L}$. However, in September the PCE concentration at LC3 declined to 3.3 $\mu\text{g}/\text{L}$. During the September sampling event the concentration of PCE did not exceed its Method A cleanup level at any well location.

3.3.2 TCE

TCE was detected in all groundwater samples except GT1 (June and September) and in LC6 (September). Concentrations ranged between 0.2 and 2.8 $\mu\text{g}/\text{L}$. All detected concentrations were below the MTCA Method A cleanup level of 5 $\mu\text{g}/\text{L}$ and have been throughout 2009.

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 in all nine wells during both sampling events, *t*-1,2-DCE in four wells, and 1,1-DCE was not detected in any sample. Concentrations ranged between 0.2 and 12 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 in seven of the nine monitoring wells. During the June sampling event VC concentrations ranged between 0.3 and 17 µg/L when detected and during the September sampling event VC concentrations ranged between 0.6 and 6.9 µg/L. The VC concentration at GT2 in September (6.9 µg/L) is the lowest ever observed at this well. VC continues to be below detection limits in the most downgradient well on the GTP parcel (GT1), even with the site's highest VC concentration being observed at the next upgradient well (GT2), only 110 feet away. The VC concentrations in the newly installed wells, LC4R and LC5R, at 1.4 and 2.4 µg/L, respectively, are consistent with earlier concentrations in LC4 and LC5.

3.3.5 Dissolved Gasses

Methane was detected in every groundwater sample ranging between 110 µg/L and 610 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 groundwater samples during the June sampling event and in all wells during the September sampling event. Concentrations ranged between 0.026 µg/L and 0.71 µg/L. Ethane was detected in all nine of the monitoring wells at concentrations ranging between 0.059 µg/L and 0.290 µg/L.

Ethene concentrations remained the highest at GT2 where the VC concentrations are also the highest, which indicates that complete natural breakdown of PCE to nontoxic compounds and elements is occurring. Ethene concentrations at other wells where VC concentrations exceed 1 µg/L are also an order of magnitude higher than at wells where VC concentrations are less than 1 µg/L.

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 four of the eight wells — GT2, LC2, LC3, and LC6 (GT1 is not counted since VC is not detected) — are significant (i.e., $p \leq 0.1$). As additional data are collected and sample size is increased, this test becomes more robust.

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 for all except *c*-1,2-DCE at LC1 and LC4. 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 loses statistical robustness for PCE and TCE due to the lack of detections. Decreasing trends are generally noted; however, increasing trends are indicated for PCE at LC1 and LC3. For TCE an increasing trend is indicated at LC5. PCE concentrations at LC1 and LC3 and TCE concentrations at LC1 have fluctuated around their respective Method A cleanup levels during the quarterly monitoring period from May 2006 to present. Since 2008, however, the trend has been decreasing in both LC1 and LC3 and current data show no exceedances of the Method A cleanup level. As for TCE in LC5, the probability that no real trend exists is nearly 50 percent. TCE has never exceeded the Method A cleanup level at LC5.

Section 4

Conclusions and Recommendations

VC concentrations continue to show decreasing trends. Of the nine wells on the Subject Property, PCE concentrations in two wells continue to fluctuate around the MTCA Method A cleanup level — the most recent sampling event shows no exceedances of the Method A cleanup level. TCE concentrations in all wells have been below the respective cleanup level over the past three quarters. The PCE concentration in LC4R continues to be significantly lower than the PCE concentration in LC4 prior to that well's demolition, and was below the laboratory's reporting limit in both the June and September 2009 sampling events. Given the low cVOC concentrations and continuing groundwater data that favor natural attenuation, PCE will continue to degrade and the VC plume will continue to collapse.

Based on these findings, CDM continues to recommend implementation of a program of regular groundwater sampling to ensure that monitored natural attenuation continues at this site.

Section 5

References

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

ENTRIX, Inc. 2007. Cleanup Action Plan, Darigold Facility - VCP NW 1267, 635 Elliott Avenue West, Seattle, WA. Prepared for Elliott Holding Company, L.L.C. Seattle, WA. July 2007.

Distribution

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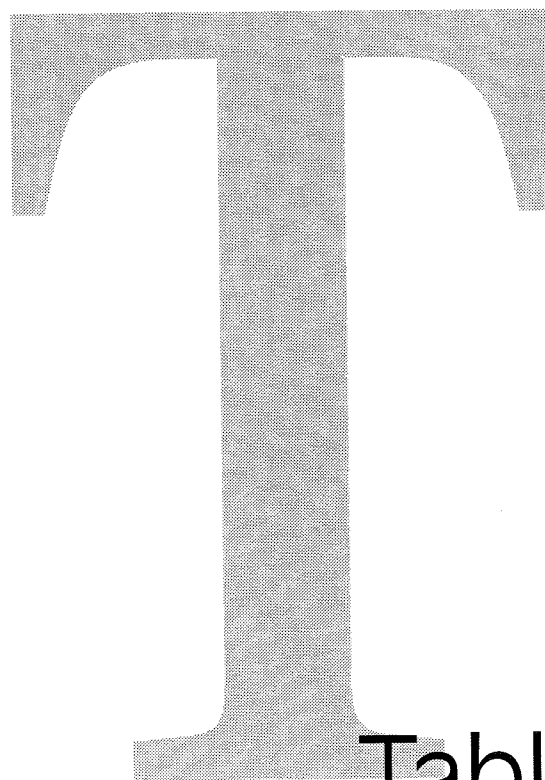
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A handwritten signature in black ink, appearing to read "Don Clabaugh", is written over a horizontal line.

Don Clabaugh, P.E.
Principal Engineer



Tables

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

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation ^a (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
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
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
	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
LC1	05/10/06	0916	13.17	1.57	11.60
	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

Table 1
Groundwater Elevation Data

LeatherCare, Inc.
Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation ^a (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
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
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
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	^b --		--	--
	12/29/08	--		--	--
	02/11/09	--		--	--
	03/25/09	0957	14.77	3.03	11.74
LC4R	06/29/09	0840		3.45	11.32
	09/09/09	1050		3.85	10.92
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	^b --		--	--
	12/29/08	--		--	--
	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

Table 1
Groundwater Elevation Data

LeatherCare, Inc.
Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation ^a (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
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
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 ^a	Monitoring Well I.D. ^b													Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ¹ /LC4R	LC5 ¹ /LC5R	LC6	LC7	LC8	LC9			
Field-Measured Parameters																	
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	8.83	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	8.36	--	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	8.98	7.54	6.82	--	--	6.95	--	--	--	--	--	
	02/09		--	--	--	--	--	--	--	--	--	**	**	**	--	--	
	03/09		7.26	6.96	6.92	7.07	7.13	6.99	8.96	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	--	--	--	--	--	
ORP ^a (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	--	--	--	--	--	
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	19.8	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	18.5	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	--	--	--	--	--	
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	970	--	--	--	--	--	
	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	--	--	
	03/09		587	861	824	864	648	825	**	**	**	--	--	--	--	--	
	06/09		748	1,008	991	993	875	995	856	914	1,007	--	--	--	--	--	
	09/09		636	947	944	966	629	986	976	997	1,002	--	--	--	--	--	

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 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b												Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ¹ /LC4R	LC5 ¹ /LC5R	LC6	LC7	LC8	LC9		
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 ^g	0.13 ^g	-- ^g	-- ^g	-- ^g	1.18 ^g	1.14 ^g	0.14 ^g	0.28 ^g	--	--	--	--	--
	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	--	--	--	--	--
Turbidity (NTU)	05/06	N/A	1.76	0.83	0.68	5.76	62 ^e	1.05	1.79	2.82	2.01	--	--	--	--	--
	09/06		*	0.47	0.70	0.7	*	5.5	2.4	1.8	*	--	--	--	--	--
	02/07		3.1 ^h	0.0 ^h	>999 ^h	0.0 ^h	0.0 ^h	22.4 ^h	0.0 ^h	18.3 ^h	26 ^h	--	--	--	--	--
	06/07		0.7	1.1	2.2	0.9	1.9	2.8	1.8	0.2	3.8	--	--	--	--	--
	09/07	N/A	0.9	0.9	1.6	*	0.5	2.3	6.5	0.14	3.8	--	--	--	--	--
	12/07		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/08		16.9	8.8	168 ^k	2.3	0.7	20.9	--	9.6	4.4	--	--	--	--	--
	06/08		0.7	1.8	34.5/227 ^k	0.5	0.0 ^m	1.1	--	--	0.0 ^m	--	--	--	--	--
	09/08		54.8 ^h	53.2 ^h	187 ^h	18.2 ^h	48.2 ^h	179 ^h	--	--	0.0 ^h	--	--	--	--	--
	12/08		2.90	39.8 ^k	10.29 ^k	0.0 ^m	0.0 ^m	-- ^m	--	--	--	--	--	--	--	--
	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	--	--	--	--	--
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	--	--	--	--	--
Manganese (ppm)	06/07	N/A	0	0	0	0	0	0	0	0	0	--	--	--	--	--
Sulfide (ppm)	06/07	N/A	0	0	0	0	0	0	0	0	0	--	--	--	--	--
General Groundwater Chemistry																
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 ₃)	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--	--	--	--
Carbonate (SM 2320) (mg/L CaCO ₃)	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 ₃)	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--	--	--	--
Hydroxide (SM 2320) (mg/L CaCO ₃)	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) ^o	05/06	N/A	-	+	+	+	-	+	-/+	+	+	--	--	--	--	--

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 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b													Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ¹ /LC4R	LC5 ¹ /LC5R	LC6	LC7	LC8	LC9			
Reductive Dechlorination End Products (ug/L)																	
Methane	05/06	N/A	98	140	100	110	590	33	98/87	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	--	--	--	--	--	
Ethane	05/06	N/A	<12	<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	--	--	--	--	--	
Ethene	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	0.068/0.070	<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	--	--	--	--	--	
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	0.35	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	--	--	--	--	--	
	02/07	0.50	--	--	--	--	--	0.28	<0.25	0.42/<0.25 ⁱ	0.76/<0.25 ⁱ	--	--	--	--	--	
	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	--	--	--	--	--	
	09/06	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 ⁱ	<0.50/<0.5 ⁱ	--	--	--	--	--	
	02/09	0.50	--	--	--	--	--	--	--	--	--	<0.50	<0.50	<0.50	--	--	

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 ^a	Monitoring Well I.D. ^b													Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 /LC4R	LC5 /LC5R	LC6	LC7	LC8	LC9			
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 D	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 D	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	--	--	--	--	--	
Trichloroethene	05/06	5	0.4	0.6	11	2.8	4	0.6	2.4/2.4	0.5	<0.2	--	--	--	<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	--	--	--	--	--	
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	<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	60	3.0	22 D	16	7.6	5.0	2.4	8.8/9.0	1.8	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	--	--	
	03/09	80	1.7	8.4	6.7/6.8	3.8	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	--	--	--	--	--	
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	--	--	--	--	--	

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 ^a	Monitoring Well I.D. ^b													
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 /LC4R	LC5 /LC5R	LC6	LC7	LC8	LC9	Field Blank	Trip Blank
trans-1,2-Dichloroethene (cont.)	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	--	--	--	--	--
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	--	--	--	--	--
Vinyl Chloride	05/06	0.2	<0.2	19 D	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 D	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	0.8	1.2/1.2	1.5	0.7	--	--	--	--	--
	09/07	0.2	<0.2	22 D	2.1	1.4	1.4	1.0	0.8/0.8	1.3	0.3	--	--	--	--	--
	12/07	0.2	<0.2	13	16	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	--	--	--	--	--
	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	--	--	--	--	--
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	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	<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	<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	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

Table 2
Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties
LeatherCare, Inc.
Seattle, Washington

Notes:

- Bold and boxed values exceed Method A/B cleanup level.
- * Turbidity meter malfunctioned; judged to be <10 NTU prior to sampling based on clarity of water.
 - ** 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 dehalococcoides detected; - means dehalococcoides 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.

- °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.

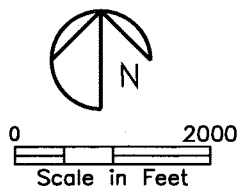
Table 3
Mann-Kendall Statistical Summary
LeatherCare, Inc./RI and FS
Seattle, Washington

		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)	13	13	13	13	13	13	9	10	13
	Count (nondetects)	13	13	12	13	13	13	9	10	13
	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)	13	13	13	13	13	13	9	10	13
	Count (nondetects)	0	0	0	0	0	0	0	0	0
	S Statistic	-58	-42	-32	-18	-35	-29	-12	-16	-67
	Var(S)	267	267	269	269	268	265	90	124	268
	Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
	Probability (of no real trend)	0.02%	0.60%	2.93%	14.98%	1.88%	4.27%	12.31%	8.90%	0.00%
Tetrachloroethene	Count (data)	13	13	13	13	13	13	9	10	13
	Count (nondetects)	13	13	11	0	0	0	2	6	13
	S Statistic	NC	NC	NC	24	-42	21	-19	NC	NC
	Var(S)	NC	NC	NC	269	269	266	91	NC	NC
	Trend	NC	NC	NC	Increasing	Decreasing	Increasing	Decreasing	NC	NC
	Probability (of no real trend)	NC	NC	NC	8.03%	0.62%	10.99%	2.96%	NC	NC
trans-1,2-Dichloroethene	Count (data)	13	13	13	13	13	13	9	10	13
	Count (nondetects)	12	0	0	10	5	13	0	7	13
	S Statistic	NC	-48	-35	NC	-39	NC	-19	NC	NC
	Var(S)	NC	267	268	NC	238	NC	84	NC	NC
	Trend	NC	Decreasing	Decreasing	NC	Decreasing	NC	Decreasing	NC	NC
	Probability (of no real trend)	NC	0.20%	1.88%	NC	0.69%	NC	2.45%	NC	NC
Trichloroethene	Count (data)	13	13	13	13	13	13	9	10	13
	Count (nondetects)	9	0	0	0	0	0	0	0	4
	S Statistic	NC	-26	-39	-8	-34	-14	-18	2	-8
	Var(S)	NC	241	266	264	269	258	92	113	168
	Trend	NC	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Increasing	Decreasing
	Probability (of no real trend)	NC	5.38%	0.99%	33.33%	2.20%	20.92%	3.82%	46.25%	29.46%
Vinyl Chloride	Count (data)	13	13	13	13	13	13	9	10	13
	Count (nondetects)	12	0	0	0	2	0	0	0	4
	S Statistic	NC	-37	-12	-17	-32	-44	-3	-8	-45
	Var(S)	NC	268	269	266	267	265	88	124	240
	Trend	NC	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
	Probability (of no real trend)	NC	1.39%	25.11%	16.31%	2.88%	0.41%	41.57%	26.48%	0.23%

F

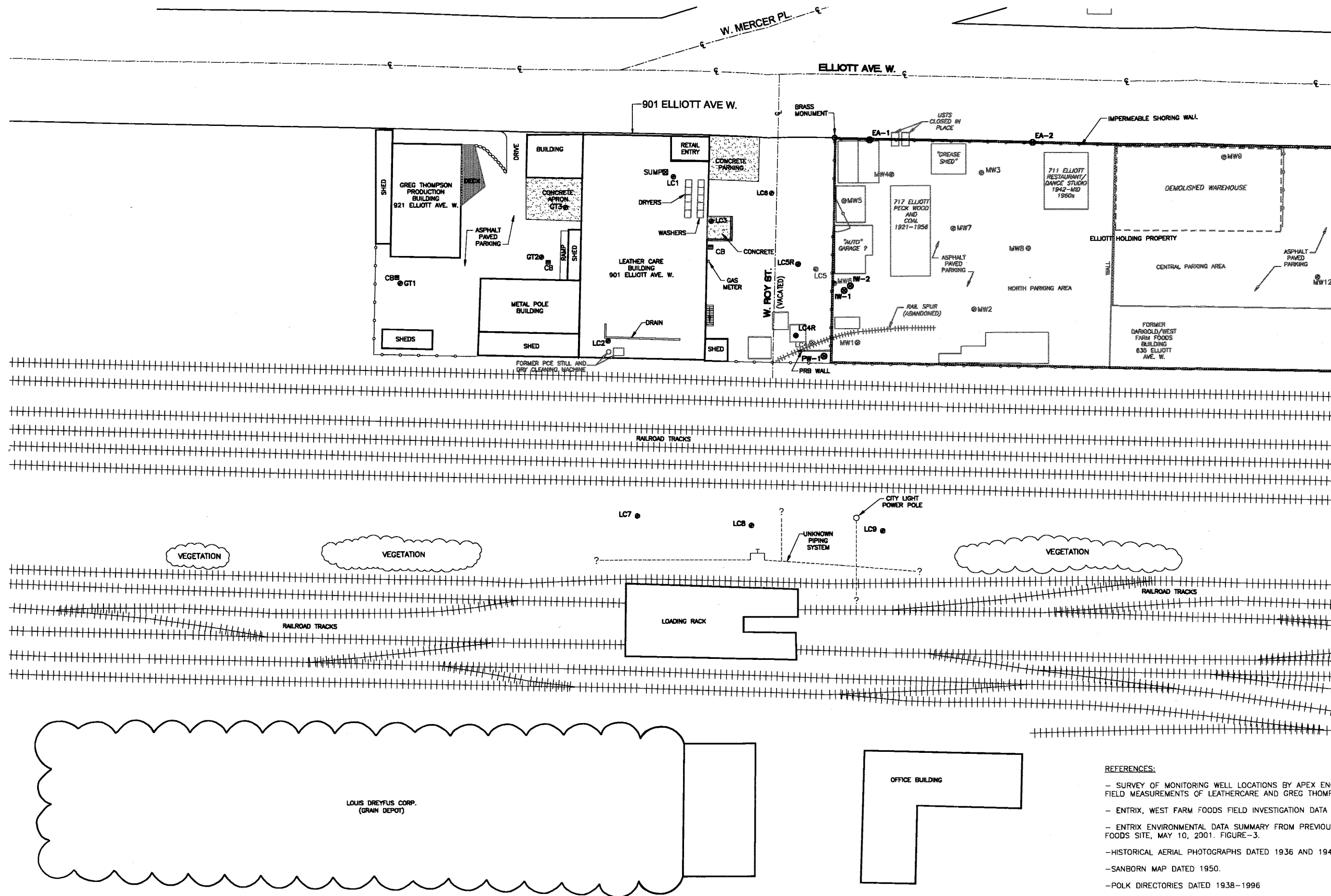
Figures

P:\56498\68247\TK4-GW\ Fig-1 10/27/09 10:38 riehepj



LEATHERCARE INC.
SEATTLE, WASHINGTON

Figure No. 1
Location Map



LEGEND:

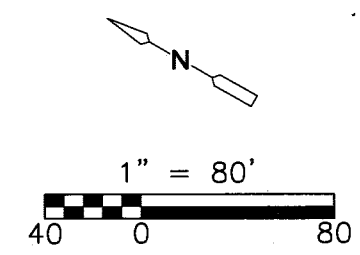
- LC8 ● MONITORING WELL LOCATION AND DESIGNATION
- MW1 ● MONITORING WELL DESTROYED FOR REDEVELOPMENT OF PROPERTY
- EA-1 ● ELLIOTT HOLDING MONITORING WELL LOCATION AND DESIGNATION
- FENCE
- ||||| RAILROAD TRACKS
- CB ■ CATCH BASIN
- INDICATES HISTORICAL FEATURES
- ◆ SURVEY MONUMENT

VERTICAL DATUM:

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

BASIS OF BEARING:

BASIS OF BEARING ASSUMED DUE WEST

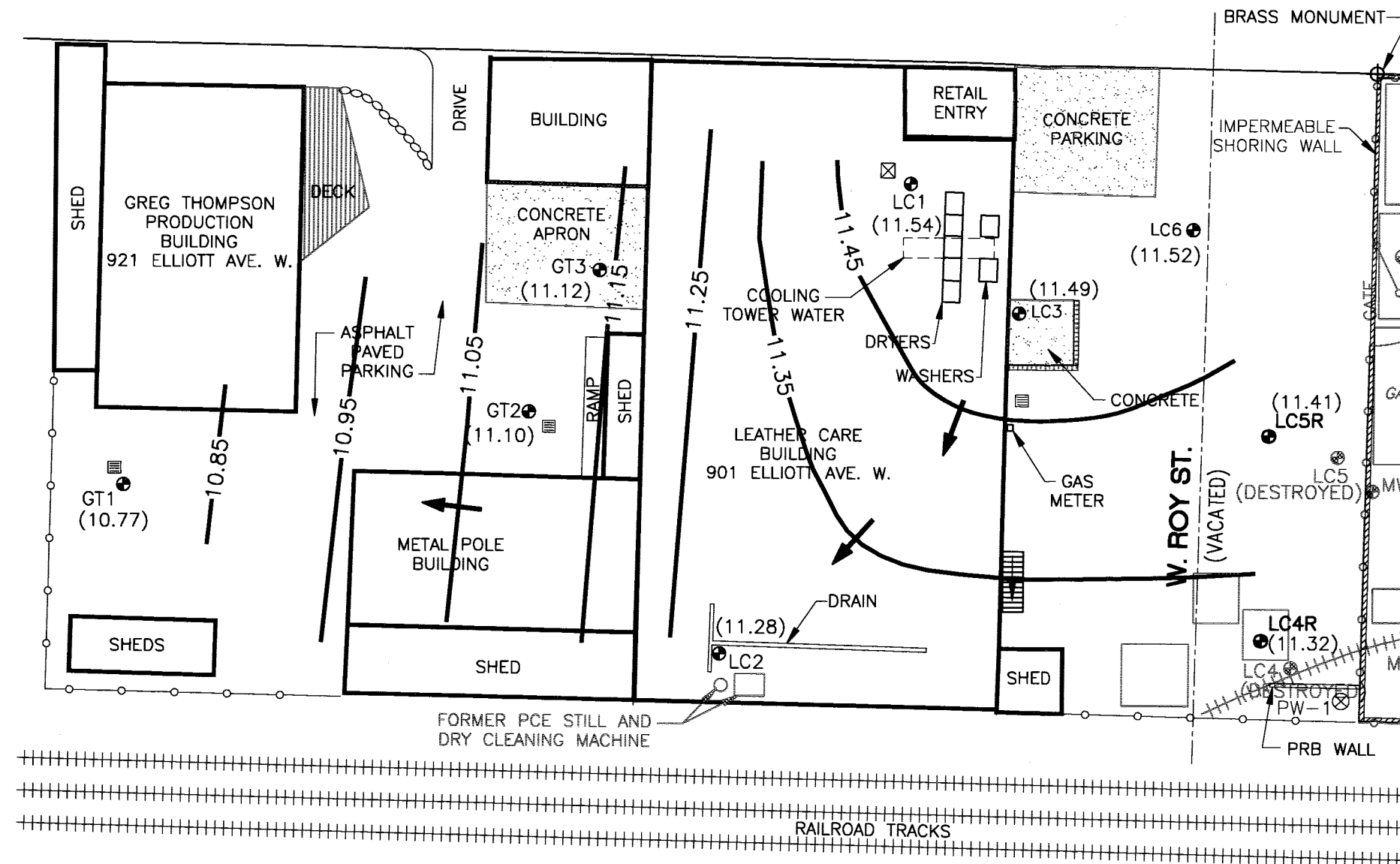


REFERENCES:

- 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

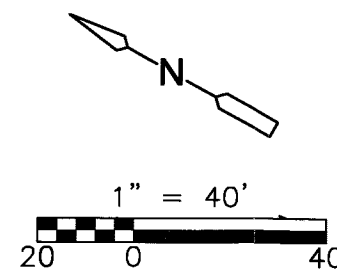
LEATHERCARE INC. RI/FS
SEATTLE, WASHINGTON

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 1938-1996



LEGEND:

- LC6
(11.52)
- MONITORING WELL LOCATION AND DESIGNATION WITH GROUNDWATER ELEVATION IN FEET
- 11.05 POTENTIOMETRIC CONTOURS,
CONTOUR INTERVAL IS 0.1 FT. (AVERAGE)
OR 0.05 FT.
- DIRECTION OF GROUNDWATER FLOW
- FENCE
- RAILROAD TRACKS
- CATCH BASIN
- INDICATES
HISTORICAL
FEATURES
- HISTORICAL FEATURES
- SURVEY MONUMENT
- CSM IMPERMEABLE WALL

VERTICAL DATUM:

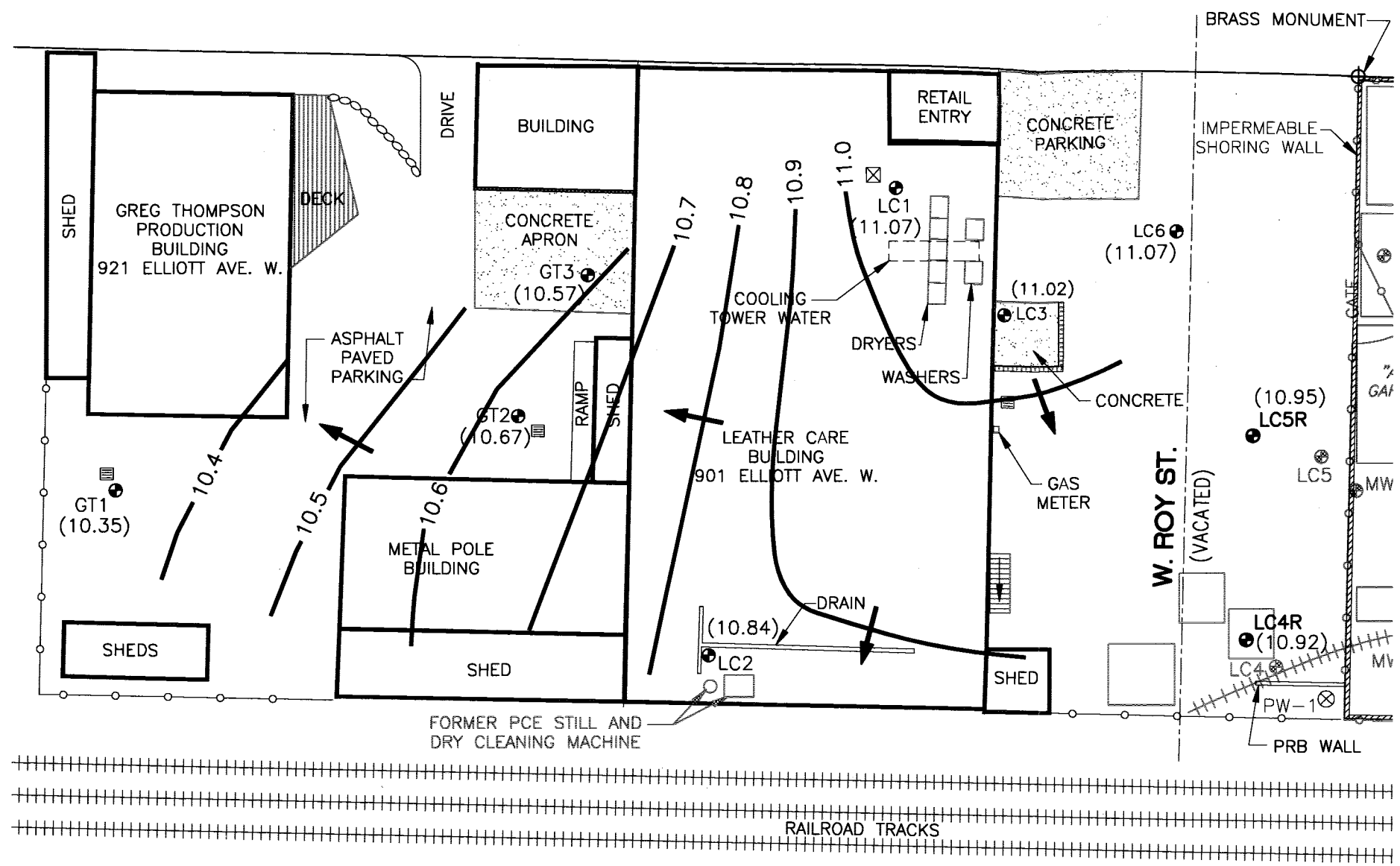
CITY OF SEATTLE (NAVD 88)
BENCHMARK SUV-5144
BRASS MONUMENT SW CORNER OF ROY
AND ELLIOTT. ELEVATION 19.78'

BASIS OF BEARING:

BASIS OF BEARING ASSUMED: DUE WEST

Figure No. 3
Potentiometric Surface Map
June 29, 2009

P:\56498\68247\TK4-GW\ Fig-4 10/27/09 11:49 riehllepj XREFS: TK4-11X17BDR, TK4-SEPT 23 09-site



- 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

- LEGEND:**
- LC6 (11.07) ● MONITORING WELL LOCATION AND DESIGNATION WITH GROUNDWATER ELEVATION IN FEET
 - 11.5 ————— POTENTIOMETRIC CONTOURS, CONTOUR INTERVAL IS 0.1 FT. (AVERAGE) OR 0.05 FT.
 - ➔ DIRECTION OF GROUNDWATER FLOW
 - FENCE
 - ++++ RAILROAD TRACKS
 - ▤ CATCH BASIN
 - INDICATES HISTORICAL FEATURES
 - ⊕ SURVEY MONUMENT
 - ===== CSM IMPERMEABLE WALL

VERTICAL DATUM:

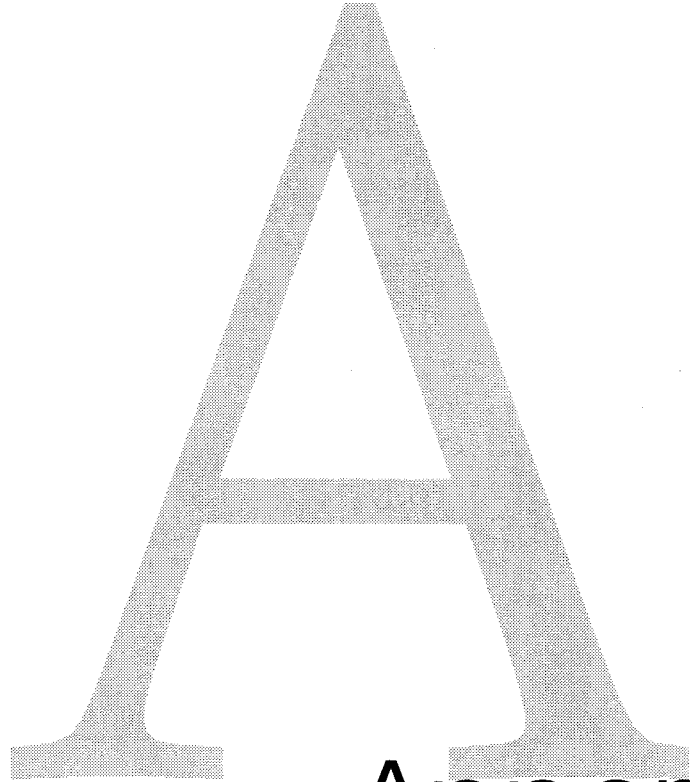
CITY OF SEATTLE (NAVD 88)
BENCHMARK SUV-5144
BRASS MONUMENT SW CORNER OF ROY AND ELLIOTT. ELEVATION 19.78'

BASIS OF BEARING:

BASIS OF BEARING ASSUMED DUE WEST

LEATHERCARE INC. RI/FS
SEATTLE, WASHINGTON

Figure No. 4
Potentiometric Surface Map
September 23, 2009



Appendix A

Appendix A

Analytical Laboratory Reports



SEP 30 2009

September 29, 2009

Pam Morrill
CDM
11811 NE 1st, Suite 201
Bellevue, WA 98005

RE: Project ID: Leathercare, 56498-68247
ARI Job No: PP91

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 September 24, 2009, under ARI job PP91. The trip blank help 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
www.arilabs.com

cc: eFile PP91

Enclosures

Date

9/24/09

Page

1

of

1

PROJECT INFORMATION					ANALYSIS REQUEST																														
Project Manager: <u>Pam Morrill</u>					Laboratory Number:																														
Project Name: <u>Leathercare</u>																																			
Project Number: <u>56498-68249</u>																																			
Site Location: <u>Elliot Ave W & Mercer Pl</u> Sampled By: <u>MLF</u>																																			
DISPOSAL INFORMATION																																			
☒ Lab Disposal (return if not indicated)																																			
Disposal Method: _____																																			
Disposed by: _____ Disposal Date: _____																																			
QC INFORMATION (check one)																																			
☐ SW-846 ☐ CLP ☐ Screening ☒ CDM Std. ☐ Special																																			
SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TPH-HCID	TPH-G	TPH-D	TPH-418.1	8015M Fuel Hydrocarbon	TPH Special Instructions	8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GC/MS Volatiles	8270 GC/MS Semivolatiles	8310 PAHs	8040 Phenols	DWS - Volatiles and Semivolatiles	8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	M/SP - Metals (Ma)	TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER	NUMBER OF CONTAINERS
LC1-09/09	9/24/09	0800	Water																																3
GT3-09/09	9/24/09	0930	Water																																3
GT2-09/09	9/24/09	1040	Water																																3
GT1-09/09	9/24/09	1215	Water																																3
GT20-09/09	9/24/09	1315	Water																																3
Trip Blank	9/24/09	—	Water																																2

LAB INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
Lab Name: <u>ARI</u>	Total Number of Containers: _____	Signature: <u>Mary Lou Fox</u>	Time: <u>1450</u>	Signature: _____	Time: _____	Signature: _____	Time: _____	Signature: _____	Time: _____
Lab Address: <u>4611 S 134th Place</u>	Chain-of-Custody Seals: Y/N/NA	Printed Name: <u>Mary Lou Fox</u>	Date: <u>9/24/09</u>	Printed Name: _____	Date: _____	Printed Name: _____	Date: _____	Printed Name: _____	Date: _____
Via: <u>Hand-delivery</u>	Intact?: Y/N/NA	Company: <u>CDM</u>		Company: _____		Company: _____		Company: _____	
Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.	Received in Good Condition/Cold: _____	RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: 3.			
Signature: <u>J. Peterson</u>		Signature: _____		Signature: _____		Signature: _____			
Printed Name: <u>J. Peterson</u>		Printed Name: _____		Printed Name: _____		Printed Name: _____			
Date: <u>9/24/09</u>		Date: _____		Date: _____		Date: _____			
Company: <u>ARI</u>		Company: _____		Company: _____		Company: _____			

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions: Vinyl chloride, 1,1-DCE, trans 1,2-DCE, cis-1,2-DCE, TCE, PCE

10mL purge



Analytical Resources,
Incorporated
Analytical Chemists and
Consultants

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: PP91

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) 48

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 101886

Cooler Accepted by: JP Date: 9/24/09 Time: 1450

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

Samples Logged by: AV Date: 9/24/09 Time: 1610

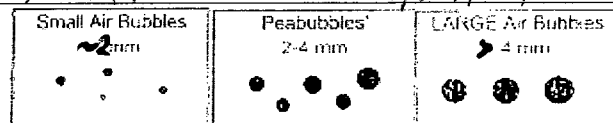
**** Notify Project Manager of discrepancies or concerns ****

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

Additional Notes, Discrepancies, & Resolutions:

Trip Blank = 1 LG

By: AV Date: 9/24/09



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC1-09/09
SAMPLE

Lab Sample ID: PP91A

LIMS ID: 09-22213

Matrix: Water

Data Release Authorized: 

Reported: 09/29/09

QC Report No: PP91-CDM, Inc.

Project: Leather Care

56498-68247

Date Sampled: 09/24/09

Date Received: 09/24/09

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/25/09 14:42

Sample Amount: 10.0 mL

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	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	8.4	
79-01-6	Trichloroethene	0.2	2.7	
127-18-4	Tetrachloroethene	0.2	3.4	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	101%
Bromofluorobenzene	98.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT3-09/09
SAMPLE

Lab Sample ID: PP91B

LIMS ID: 09-22214

Matrix: Water

Data Release Authorized: 

Reported: 09/29/09

QC Report No: PP91-CDM, Inc.

Project: Leather Care

56498-68247

Date Sampled: 09/24/09

Date Received: 09/24/09

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/25/09 15:08

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	4.9	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	3.9	
156-59-2	cis-1,2-Dichloroethene	0.2	7.1	
79-01-6	Trichloroethene	0.2	0.8	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.9%
d8-Toluene	100%
Bromofluorobenzene	99.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT2-09/09
SAMPLE

Lab Sample ID: PP91C

LIMS ID: 09-22215

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 09/29/09

QC Report No: PP91-CDM, Inc.

Project: Leather Care

56498-68247

Date Sampled: 09/24/09

Date Received: 09/24/09

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/25/09 15:33

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	6.9	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	1.7	
156-59-2	cis-1,2-Dichloroethene	0.2	5.2	
79-01-6	Trichloroethene	0.2	0.4	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	101%
d8-Toluene	100%
Bromofluorobenzene	98.3%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT1-09/09
SAMPLE

Lab Sample ID: PP91D

QC Report No: PP91-CDM, Inc.

LIMS ID: 09-22216

Project: Leather Care

Matrix: Water

56498-68247

Data Release Authorized: 

Date Sampled: 09/24/09

Reported: 09/29/09

Date Received: 09/24/09

Instrument/Analyst: NT5/PKC

Sample Amount: 10.0 mL

Date Analyzed: 09/25/09 15:59

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	0.9	
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT20-09/09
SAMPLE

Lab Sample ID: PP91E

LIMS ID: 09-22217

Matrix: Water

Data Release Authorized: 

Reported: 09/29/09

QC Report No: PP91-CDM, Inc.

Project: Leather Care

56498-68247

Date Sampled: 09/24/09

Date Received: 09/24/09

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/25/09 16:25

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	4.9	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	3.9	
156-59-2	cis-1,2-Dichloroethene	0.2	7.4	
79-01-6	Trichloroethene	0.2	0.8	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	101%
Bromofluorobenzene	98.4%

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: PP91-CDM, Inc.
Project: Leather Care
56498-68247

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-092509	Method Blank	10	101%	102%	98.7%	NA	0
LCS-092509	Lab Control	10	101%	101%	102%	NA	0
LCSD-092509	Lab Control Dup	10	97.7%	101%	103%	NA	0
PP91A	LC1-09/09	10	103%	101%	98.8%	NA	0
PP91B	GT3-09/09	10	99.9%	100%	99.8%	NA	0
PP91C	GT2-09/09	10	101%	100%	98.3%	NA	0
PP91D	GT1-09/09	10	102%	101%	101%	NA	0
PP91E	GT20-09/09	10	102%	101%	98.4%	NA	0

LCS/MB LIMITS

QC LIMITS

SW8260C

(DCE) = d4-1,2-Dichloroethane
(TOL) = d8-Toluene
(BFB) = Bromofluorobenzene
(DCB) = d4-1,2-Dichlorobenzene70-132
80-120
80-120
80-12080-143
80-120
80-120
80-120Prep Method: SW5030B
Log Number Range: 09-22213 to 09-22217

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-092509

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-092509

QC Report No: PP91-CDM, Inc.

LIMS ID: 09-22213

Project: Leather Care

Matrix: Water

56498-68247

Data Release Authorized: 

Date Sampled: NA

Reported: 09/29/09

Date Received: NA

Instrument/Analyst LCS: NT5/PKC

Sample Amount LCS: 10.0 mL

LCSD: NT5/PKC

LCSD: 10.0 mL

Date Analyzed LCS: 09/25/09 09:48

Purge Volume LCS: 10.0 mL

LCSD: 09/25/09 10:13

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	9.4	10.0	94.0%	9.5	10.0	95.0%	1.1%
1,1-Dichloroethene	9.6	10.0	96.0%	9.4	10.0	94.0%	2.1%
trans-1,2-Dichloroethene	9.7	10.0	97.0%	9.6	10.0	96.0%	1.0%
cis-1,2-Dichloroethene	9.5	10.0	95.0%	9.5	10.0	95.0%	0.0%
Trichloroethene	9.3	10.0	93.0%	9.5	10.0	95.0%	2.1%
Tetrachloroethene	10.1	10.0	101%	10.0	10.0	100%	1.0%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	101%	97.7%
d8-Toluene	101%	101%
Bromofluorobenzene	102%	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: MB-092509
METHOD BLANK

Lab Sample ID: MB-092509

LIMS ID: 09-22213

Matrix: Water

Data Release Authorized: 

Reported: 09/29/09

QC Report No: PP91-CDM, Inc.

Project: Leather Care

56498-68247

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/25/09 10:39

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	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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	101%
d8-Toluene	102%
Bromofluorobenzene	98.7%

**Remedial Investigation and
Focused Feasibility Study
LeatherCare, Inc.
901/921 Elliott Avenue W.
Seattle, Washington**

October 2009

Prepared For:

LeatherCare, Inc.

901 Elliott Ave. W.

Seattle, Washington 98119

Prepared By:

CDM

11811 NE 1st Street, Suite 201

Bellevue, Washington 98005

A Report Prepared For:
LeatherCare, Inc.
901 Elliott Ave. W.
Seattle, Washington 98119

**REMEDIAL INVESTIGATION AND
FOCUSED FEASIBILITY STUDY
LEATHERCARE, INC
901/921 ELLIOTT AVENUE W
SEATTLE, WASHINGTON**

October 2009

Pamela J. Morrill, LHG
Senior Project Manager

CDM

11811 N.E. 1st Street, Suite 201
Bellevue, Washington 98005
425/453-8383

CDM Project No. 56498.68247

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Appendix A Preliminary Screening Analysis of Soil Gas and Ambient Air Equilibrium Concentrations

Appendix B Conceptual Level Cost Estimates



SEP 29 2009

September 28, 2009

Pam Morrill
CDM
11811 NE 1st, Suite 201
Bellevue, WA 98005

RE: Project ID: Leathercare, 56498-68247
ARI Job No: PP66

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 September 23, 2009, under ARI job PP66. The trip blank help upon receipt, as requested on the COC. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

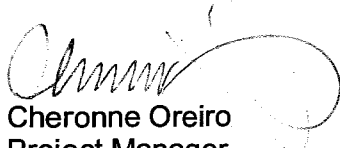
The samples were analyzed for Volatile Organics by SW8260C, as requested.

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
www.arilabs.com

cc: eFile PP66

Enclosures



Analytical Resources,
Incorporated
Analytical Chemists and
Consultants

Cooler Receipt Form

ARI Client: CDM

COC No(s): PP66 NA

Assigned ARI Job No: PP66

Project Name: Leathercare

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: NA

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) 30

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 101886

Cooler Accepted by: JP Date: 9/23/09 Time: 1745

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: NA

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

Samples Logged by: JLW Date: 9/24/09 Time: 0740

**** 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:

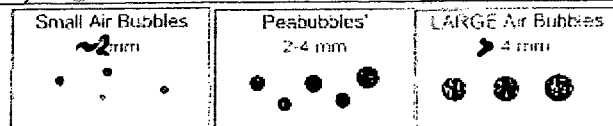
LC4R-09/09 Pb 1 of 3 Trip Blank pb 1 of 2

LC2-09/09 sm 1 of 3

LC3-09/09 Pb 2 of 9

By: JLW

Date: 9/24/09



Small → "sm"

Peabubbles → "pb"

Large → "lg"

Headspace → "hs"

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC4R-09/09
SAMPLE

Lab Sample ID: PP66A

LIMS ID: 09-22077

Matrix: Water

Data Release Authorized: *AB*

Reported: 09/25/09

QC Report No: PP66-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 09/23/09

Date Received: 09/23/09

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/24/09 15:26

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.4	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	0.3	
156-59-2	cis-1,2-Dichloroethene	0.2	2.6	
79-01-6	Trichloroethene	0.2	0.6	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.1%
d8-Toluene	101%
Bromofluorobenzene	99.9%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC5R-09/09
SAMPLE

Lab Sample ID: PP66B

LIMS ID: 09-22078

Matrix: Water

Data Release Authorized: *AB*

Reported: 09/25/09

QC Report No: PP66-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 09/23/09

Date Received: 09/23/09

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/24/09 15:52

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	2.4	
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	1.7	
79-01-6	Trichloroethene	0.2	0.5	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LC6-09/09

Page 1 of 1

SAMPLE

Lab Sample ID: PP66C

QC Report No: PP66-CDM, Inc.

LIMS ID: 09-22079

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: 

Date Sampled: 09/23/09

Reported: 09/25/09

Date Received: 09/23/09

Instrument/Analyst: NT5/PKC

Sample Amount: 10.0 mL

Date Analyzed: 09/24/09 16:17

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	0.7	
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	102%
Bromofluorobenzene	99.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LC2-09/09

Page 1 of 1

SAMPLE

Lab Sample ID: PP66D

QC Report No: PP66-CDM, Inc.

LIMS ID: 09-22080

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: *AB*

Date Sampled: 09/23/09

Reported: 09/25/09

Date Received: 09/23/09

Instrument/Analyst: NT5/PKC

Sample Amount: 10.0 mL

Date Analyzed: 09/24/09 16:43

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.2	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	0.3	
156-59-2	cis-1,2-Dichloroethene	0.2	4.4	
79-01-6	Trichloroethene	0.2	0.9	
127-18-4	Tetrachloroethene	0.2	0.2	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	102%
Bromofluorobenzene	99.2%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC3-09/09
SAMPLELab Sample ID: PP66E
LIMS ID: 09-22081
Matrix: Water
Data Release Authorized: 
Reported: 09/25/09QC Report No: PP66-CDM, Inc.
Project: Leathercare
56498-68247
Date Sampled: 09/23/09
Date Received: 09/23/09Instrument/Analyst: NT5/PKC
Date Analyzed: 09/24/09 17:09Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.6	
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	1.8	
79-01-6	Trichloroethene	0.2	0.7	
127-18-4	Tetrachloroethene	0.2	3.3	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	101%
d8-Toluene	101%
Bromofluorobenzene	98.0%

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: PP66-CDM, Inc.
Project: Leathercare
56498-68247

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-092409	Method Blank	10	102%	102%	99.3%	NA	0
LCS-092409	Lab Control	10	98.3%	101%	100%	NA	0
LCSD-092409	Lab Control Dup	10	100%	101%	103%	NA	0
PP66A	LC4R-09/09	10	99.1%	101%	99.9%	NA	0
PP66B	LC5R-09/09	10	102%	101%	102%	NA	0
PP66C	LC6-09/09	10	103%	102%	99.0%	NA	0
PP66D	LC2-09/09	10	103%	102%	99.2%	NA	0
PP66E	LC3-09/09	10	101%	101%	98.0%	NA	0
PP66EMS	LC3-09/09	10	100%	101%	103%	NA	0
PP66EMSD	LC3-09/09	10	101%	102%	101%	NA	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: 09-22077 to 09-22081

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC3-09/09
MATRIX SPIKE

Lab Sample ID: PP66E

LIMS ID: 09-22081

Matrix: Water

Data Release Authorized: 

Reported: 09/25/09

QC Report No: PP66-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 09/23/09

Date Received: 09/23/09

Instrument/Analyst MS: NT5/PKC

MSD: NT5/PKC

Date Analyzed MS: 09/24/09 17:34

MSD: 09/24/09 18:00

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	0.6	10.0	10.0	94.0%	9.9	10.0	93.0%	1.0%
1,1-Dichloroethene	< 0.2 U	9.2	10.0	92.0%	9.7	10.0	97.0%	5.3%
trans-1,2-Dichloroethene	< 0.2 U	9.4	10.0	94.0%	9.7	10.0	97.0%	3.1%
cis-1,2-Dichloroethene	1.8	11.3	10.0	95.0%	11.4	10.0	96.0%	0.9%
Trichloroethene	0.7	10.0	10.0	93.0%	10.3	10.0	96.0%	3.0%
Tetrachloroethene	3.3	12.8	10.0	95.0%	13.1	10.0	98.0%	2.3%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LC3-09/09

Page 1 of 1

MATRIX SPIKE

Lab Sample ID: PP66E

QC Report No: PP66-CDM, Inc.

LIMS ID: 09-22081

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: 

Date Sampled: 09/23/09

Reported: 09/25/09

Date Received: 09/23/09

Instrument/Analyst: NT5/PKC

Sample Amount: 10.0 mL

Date Analyzed: 09/24/09 17:34

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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	100%
d8-Toluene	101%
Bromofluorobenzene	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC3-09/09
MATRIX SPIKE DUP

Lab Sample ID: PP66E

LIMS ID: 09-22081

Matrix: Water

Data Release Authorized: *B*

Reported: 09/25/09

QC Report No: PP66-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 09/23/09

Date Received: 09/23/09

Instrument/Analyst: NT5/PKC

Date Analyzed: 09/24/09 18:00

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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LCS-092409
LAB CONTROL SAMPLELab Sample ID: LCS-092409
LIMS ID: 09-22077
Matrix: Water
Data Release Authorized: 
Reported: 09/25/09QC Report No: PP66-CDM, Inc.
Project: Leathercare
56498-68247
Date Sampled: NA
Date Received: NAInstrument/Analyst LCS: NT5/PKC
LCSD: NT5/PKC
Date Analyzed LCS: 09/24/09 10:10
LCSD: 09/24/09 10:36Sample 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	9.3	10.0	93.0%	9.5	10.0	95.0%	2.1%
1,1-Dichloroethene	9.3	10.0	93.0%	9.3	10.0	93.0%	0.0%
trans-1,2-Dichloroethene	9.4	10.0	94.0%	9.4	10.0	94.0%	0.0%
cis-1,2-Dichloroethene	9.3	10.0	93.0%	9.4	10.0	94.0%	1.1%
Trichloroethene	9.4	10.0	94.0%	9.4	10.0	94.0%	0.0%
Tetrachloroethene	9.7	10.0	97.0%	9.6	10.0	96.0%	1.0%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	98.3%	100%
d8-Toluene	101%	101%
Bromofluorobenzene	100%	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-092409

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-092409

QC Report No: PP66-CDM, Inc.

LIMS ID: 09-22077

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: 

Date Sampled: NA

Reported: 09/25/09

Date Received: NA

Instrument/Analyst: NT5/PKC

Sample Amount: 10.0 mL

Date Analyzed: 09/24/09 11:02

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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	102%
Bromofluorobenzene	99.3%



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

Page: Page 1 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
Client Proj Name: Leathercare
Client Proj #: 56498-68247

Laboratory Results

Total pages in data package: 13

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P0909298-01	LC4R-09/09
P0909298-02	LC5R-09/09
P0909298-03	LC6-09/09
P0909298-04	LC2-09/09
P0909298-05	LC3-09/09
P0909298-06	LC1-09/09
P0909298-07	GT3-09/09
P0909298-08	GT2-09/09
P0909298-09	GT1-09/09
P0909298-10	GT20-09/09

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: _____

10-7-09

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 and McKee
Contact: Pam Morrill
Address: 11811 Northeast First Street
Suite 201
Bellevue, WA 98005

Page: Page 2 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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-09/09	Water	P0909298-01	23 Sep. 09 10:50	25 Sep. 09 11:29		
<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	0.250	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.160	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	390.000	0.100	ug/L	AM20GAX	9/30/09	rw



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

Page: Page 3 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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-09/09	Water	P0909298-02	23 Sep. 09 13:30	25 Sep. 09 11:29		
<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	0.140	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.240	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	340.000	0.100	ug/L	AM20GAX	9/30/09	rw



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

Page: Page 4 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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>		
LC6-09/09	Water	P0909298-03	23 Sep. 09 14:40	25 Sep. 09 11:29		
<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	0.200	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.048	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	610.000	0.100	ug/L	AM20GAX	9/30/09	rw



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

Page: Page 5 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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>		
LC2-09/09	Water	P0909298-04	23 Sep. 09 15:30	25 Sep. 09 11:29		
<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	0.150	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.150	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	480.000	0.100	ug/L	AM20GAX	9/30/09	rw



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

Page: Page 6 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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>		
LC3-0909	Water	P0909298-05	23 Sep. 09 16:40	25 Sep. 09 11:29		
<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	0.089	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.035	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	120.000	0.100	ug/L	AM20GAX	9/30/09	rw



Client Name: Camp Dresser and McKee
Contact: Pam Morrill
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Suite 201
Bellevue, WA 98005

Page: Page 7 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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>		
LC1-09/09	Water	P0909298-06	24 Sep. 09 8:00	25 Sep. 09 11:29		
<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	0.170	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.370	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	220.000	0.100	ug/L	AM20GAX	9/30/09	rw



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

Page: Page 8 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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>		
GT3-09/09	Water	P0909298-07	24 Sep. 09 9:30	25 Sep. 09 11:29		
<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	0.120	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.250	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	270.000	0.100	ug/L	AM20GAX	9/30/09	rw



N - NELAC certified analysis

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

Page: Page 9 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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>		
GT2-09/09	Water	P0909298-08	24 Sep. 09 10:40	25 Sep. 09 11:29		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.150	0.025	ug/L	AM20GAX	9/30/09	rw
N Ethene	0.680	0.025	ug/L	AM20GAX	9/30/09	rw
N Methane	170.000	0.100	ug/L	AM20GAX	9/30/09	rw



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

Page: Page 10 of 11
Lab Proj #: P0909298
Report Date: 10/07/09
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>
GT1-09/09	Water	P0909298-09	24 Sep. 09 12:15	25 Sep. 09 11:29

<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	0.220	0.025	ug/L	AM20GAX	10/6/09	rw
N Ethene	0.026	0.025	ug/L	AM20GAX	10/6/09	rw
N Methane	210.000	0.100	ug/L	AM20GAX	10/6/09	rw



Client Name: Camp Dresser and McKee

Contact: Pam Morrill

Address: 11811 Northeast First Street

Suite 201

Bellevue, WA 98005

Page: Page 11 of 11

Lab Proj #: P0909298

Report Date: 10/07/09

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>		
GT20-09/09	Water	P0909298-10	24 Sep. 09 13:15	25 Sep. 09 11:29		
<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	0.150	0.025	ug/L	AM20GAX	10/6/09	rw
N Ethene	0.280	0.025	ug/L	AM20GAX	10/6/09	rw
N Methane	270.000	0.100	ug/L	AM20GAX	10/6/09	rw



N - NELAC certified analysis



CHAIN-OF-CUSTODY

Date

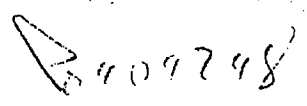
9/24/09

Page

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PROJECT INFORMATION						ANALYSIS REQUEST																	
Project Manager: <u>Ben Merrill</u>						Laboratory Number:																	
Project Name: <u>Leathercare</u>						ANALYSIS REQUEST																	
Project Number: <u>56498-68247</u>						PETROLEUM HYDROCARBONS																	
Site Location: <u>Elliot Ave W2 Mercer Pl</u> Sampled By: <u>MLF</u>						ORGANIC COMPOUNDS																	
DISPOSAL INFORMATION						PESTS/PCBs																	
☒ Lab Disposal (return if not indicated)						METALS																	
Disposal Method: _____						LEACHING TESTS																	
Disposed by: _____ Disposal Date: _____						OTHER																	
QC INFORMATION (check one)						NUMBER OF CONTAINERS																	
☐ SW-846 ☐ CLP ☐ Screening ☒ CDM Std. ☐ Special																							
SAMPLE ID		DATE	TIME	MATRIX	LAB ID																		
1	LC4R-09/09	9/23/09	1050	Water																			
2	LC5R-09/09	9/23/09	1330																				
3	LC6-09/09	9/23/09	1440																				
4	LC2-09/09	9/23/09	1530																				
5	LC3-09/09	9/23/09	1640																				
6	LC1-09/09	9/24/09	0800																				
7	GT3-09/09	9/24/09	0930																				
8	GT2-09/09	9/24/09	1040																				

LAB INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
Lab Name: <u>MicroSeeps</u>	Total Number of Containers:	Chain-of-Custody Seals: Y/N/NA	Intact?: Y/N/NA	Signature: <u>Mark Lee Fox</u>	Time: <u>1430</u>	Signature:	Time:	Signature:	Time:
Lab Address: <u>220 William Penn Way</u>	Received in Good Condition/Cold:			Printed Name: <u>Mark Lee Fox</u>	Date: <u>9/24/09</u>	Printed Name:	Date:	Printed Name:	Date:
<u>Pittsburgh PA</u>				Company: <u>CDM</u>		Company:		Company:	
Via: <u>Fed Ex priority overnight</u>	Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.			RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.			
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA				Signature:	Time:	Signature:	Time:	Signature:	Time:
Special Instructions: <u>Attn: Debbie Hella</u>				Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
				Company:		Company:		Company:	



Date 9/24/09 Page 2 of 2

FD



JUL 08 2009

July 6, 2009

Ms. Pam Morrill
CDM
11811 NE 1st, Suite 201
Bellevue, WA 98009

RE: Project ID: Leathercare, 56498-68247
ARI Job No: PF04

Dear Pam:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final results for the samples from the project referenced above. Analytical Resources Inc. (ARI) accepted five water samples and a trip blank on June 29, 2009, under ARI job PF04. The trip blank was put on hold 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 SW8260B, as requested on the COC.

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
www.arilabs.com

cc: eFile PF04

Enclosures

[illegible]

LAB INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
Lab Name: <i>Analytical Resources</i>		Total Number of Containers:		Signature: <i>Mary Lou Fox</i>	Time: <i>1640</i>	Signature:	Time:	Signature:	Time:
Lab Address: <i>4211 S 134th Pl</i>		Chain-of-Custody Seals: Y/N/NA		Printed Name: <i>Mary Lou Fox</i>	Date: <i>4/29/09</i>	Printed Name:	Date:	Printed Name:	Date:
<i>Teknisk WA</i>		Intact?: Y/N/NA		Company: <i>CDM</i>		Company:		Company:	
Via: <i>Hand delivery</i>		Received in Good Condition/Cold:							
Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.				RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: 3.	
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA				Signature: <i>Jamie Hayes</i>		Signature:		Signature:	
Special Instructions: <i>vinyl chloride, 1,1-DCE, trans-1,2-DCE, cis-1,2-DCE, TCE, PCE</i> <i>Additional vials for LC3-06/09</i>				Time: <i>1645</i>		Time:		Time:	
				Printed Name: <i>J Hayes</i>		Printed Name:		Printed Name:	
<i>7.8°C</i>				Date: <i>4/29/09</i>		Date:		Date:	
				Company: <i>ARI</i>		Company:		Company:	



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: CDM

Project Name: Leather Care

COC No(s): NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: PFO4

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) 7.8
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 101886

Cooler Accepted by: JH Date: 6/29/09 Time: 1645

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

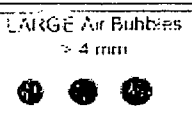
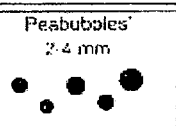
Samples Logged by: JH Date: 6/29/09 Time: 1655

**** 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"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"



Cooler Temperature Compliance Form

Cooler#:	1	Temperature(°C):	7.8
Sample ID	Bottle Count	Bottle Type	
LC4R-06/09	3	40ml HCl vial	
LC5R-06/09	3		
LC6-06/09	3		
LC3-06/09	9		
LC2-06/09	3	40ml HCl vial	
Trip Blank	2		

Cooler#:		Temperature(°C):	
Sample ID	Bottle Count	Bottle Type	

Cooler#:		Temperature(°C):	
Sample ID	Bottle Count	Bottle Type	

Cooler#:		Temperature(°C):	
Sample ID	Bottle Count	Bottle Type	

Completed by: JH Date: 6/29/09 Time: 1650

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC4R-06/09
SAMPLE

Lab Sample ID: PF04A

LIMS ID: 09-15413

Matrix: Water

Data Release Authorized: 

Reported: 07/06/09

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/29/09

Date Received: 06/29/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 06/30/09 16:45

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.5	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	0.2	
156-59-2	cis-1,2-Dichloroethene	0.2	2.6	
79-01-6	Trichloroethene	0.2	0.9	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	91.6%
d8-Toluene	99.0%
Bromofluorobenzene	94.2%
d4-1,2-Dichlorobenzene	104%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC5R-06/09
SAMPLE

Lab Sample ID: PF04B

LIMS ID: 09-15414

Matrix: Water

Data Release Authorized: 

Reported: 07/06/09

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/29/09

Date Received: 06/29/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 06/30/09 17:11

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	2.2	
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	1.5	
79-01-6	Trichloroethene	0.2	0.5	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	94.8%
d8-Toluene	100%
Bromofluorobenzene	96.1%
d4-1,2-Dichlorobenzene	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC6-06/09
SAMPLE

Lab Sample ID: PF04C

QC Report No: PF04-CDM, Inc.

LIMS ID: 09-15415

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: 

Date Sampled: 06/29/09

Reported: 07/06/09

Date Received: 06/29/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 06/30/09 17:37

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	0.6	
79-01-6	Trichloroethene	0.2	0.2	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.9%
d8-Toluene	100%
Bromofluorobenzene	92.0%
d4-1,2-Dichlorobenzene	106%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC2-06/09
SAMPLE

Lab Sample ID: PF04E

LIMS ID: 09-15417

Matrix: Water

Data Release Authorized: 

Reported: 07/06/09

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/29/09

Date Received: 06/29/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 06/30/09 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	1.0	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	0.2	
156-59-2	cis-1,2-Dichloroethene	0.2	2.9	
79-01-6	Trichloroethene	0.2	1.0	
127-18-4	Tetrachloroethene	0.2	1.1	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.0%
d8-Toluene	98.0%
Bromofluorobenzene	93.4%
d4-1,2-Dichlorobenzene	105%

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
PF04A	LC4R-06/09	10	91.6%	99.0%	94.2%	104%	0
PF04B	LC5R-06/09	10	94.8%	100%	96.1%	103%	0
PF04C	LC6-06/09	10	95.9%	100%	92.0%	106%	0
MB-063009	Method Blank	10	92.7%	99.2%	95.4%	103%	0
LCS-063009	Lab Control	10	89.3%	96.6%	100%	97.3%	0
LCSD-063009	Lab Control Dup	10	93.7%	97.5%	98.4%	100%	0
PF04D	LC3-06/09	10	95.0%	98.7%	92.1%	104%	0
PF04DMS	LC3-06/09	10	90.2%	95.4%	99.5%	99.2%	0
PF04DMSD	LC3-06/09	10	89.0%	95.7%	100%	99.0%	0
PF04E	LC2-06/09	10	96.0%	98.0%	93.4%	105%	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: 09-15413 to 09-15417

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC3-06/09
MATRIX SPIKE

Lab Sample ID: PF04D

QC Report No: PF04-CDM, Inc.

LIMS ID: 09-15416

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: *AB*

Date Sampled: 06/29/09

Reported: 07/06/09

Date Received: 06/29/09

Instrument/Analyst MS: NT5/JZ

Sample Amount MS: 10.0 mL

MSD: NT5/JZ

MSD: 10.0 mL

Date Analyzed MS: 06/30/09 18:30

Purge Volume MS: 10.0 mL

MSD: 06/30/09 18:56

MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Vinyl Chloride	0.3	9.8	10.0	95.0%	9.3	10.0	90.0%	5.2%
1,1-Dichloroethene	< 0.2 U	10.1	10.0	101%	9.1	10.0	91.0%	10.4%
trans-1,2-Dichloroethene	< 0.2 U	9.2	10.0	92.0%	8.4	10.0	84.0%	9.1%
cis-1,2-Dichloroethene	1.4	10.5	10.0	91.0%	9.6	10.0	82.0%	9.0%
Trichloroethene	0.8	10.5	10.0	97.0%	9.7	10.0	89.0%	7.9%
Tetrachloroethene	5.6	15.1	10.0	95.0%	14.6	10.0	90.0%	3.4%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: LC3-06/09
MATRIX SPIKE

Lab Sample ID: PF04D

LIMS ID: 09-15416

Matrix: Water

Data Release Authorized: *B*

Reported: 07/06/09

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/29/09

Date Received: 06/29/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 06/30/09 18:30

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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	90.2%
d8-Toluene	95.4%
Bromofluorobenzene	99.5%
d4-1,2-Dichlorobenzene	99.2%

ORGANICS ANALYSIS DATA SHEET

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

Sample ID: LC3-06/09

MATRIX SPIKE DUP

Lab Sample ID: PF04D

LIMS ID: 09-15416

Matrix: Water

Data Release Authorized: *M*

Reported: 07/06/09

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/29/09

Date Received: 06/29/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 06/30/09 18:56

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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	89.0%
d8-Toluene	95.7%
Bromofluorobenzene	100%
d4-1,2-Dichlorobenzene	99.0%

ORGANICS ANALYSIS DATA SHEET

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

Sample ID: LCS-063009

LAB CONTROL SAMPLE

Lab Sample ID: LCS-063009

LIMS ID: 09-15416

Matrix: Water

Data Release Authorized: 

Reported: 07/06/09

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT5/JZ

LCSD: NT5/JZ

Date Analyzed LCS: 06/30/09 11:55

LCSD: 06/30/09 12:21

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	8.8	10.0	88.0%	9.3	10.0	93.0%	5.5%
1,1-Dichloroethene	9.3	10.0	93.0%	9.8	10.0	98.0%	5.2%
trans-1,2-Dichloroethene	8.8	10.0	88.0%	9.3	10.0	93.0%	5.5%
cis-1,2-Dichloroethene	8.6	10.0	86.0%	9.3	10.0	93.0%	7.8%
Trichloroethene	9.6	10.0	96.0%	9.5	10.0	95.0%	1.0%
Tetrachloroethene	10.0	10.0	100%	10.2	10.0	102%	2.0%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	89.3%	93.7%
d8-Toluene	96.6%	97.5%
Bromofluorobenzene	100%	98.4%
d4-1,2-Dichlorobenzene	97.3%	100%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: MB-063009
METHOD BLANK

Lab Sample ID: MB-063009

LIMS ID: 09-15416

Matrix: Water

Data Release Authorized: 

Reported: 07/06/09

QC Report No: PF04-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT5/JZ

Date Analyzed: 06/30/09 12:48

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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	92.7%
d8-Toluene	99.2%
Bromofluorobenzene	95.4%
d4-1,2-Dichlorobenzene	103%



Analytical Resources, Incorporated
Analytical Chemists and Consultants

July 6, 2009

Ms. Pam Morrill
CDM
11811 NE 1st, Suite 201
Bellevue, WA 98009

RE: Project ID: Leathercare, 56498-68247
ARI Job No: PF23

Dear Pam:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final results for the samples from the project referenced above. Analytical Resources Inc. (ARI) accepted five water samples and a trip blank on June 29, 2009, under ARI job PF04. The trip blank was put on hold 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 SW8260B, as requested on the COC.

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
www.arilabs.com

cc: eFile PF23

Enclosures



CHAIN-OF-CUSTODY

Date

6/30/0

Page

1

of

1

PROJECT INFORMATION					ANALYSIS REQUEST																												
Project Manager: <u>Pam Merrill</u>					PETROLEUM HYDROCARBONS																												
Project Name: <u>Leathercare</u>					ORGANIC COMPOUNDS																												
Project Number: <u>56498-68247</u>					PESTS/PCBs																												
Site Location: <u>Elliot Ave W Mercer Pl</u> Sampled By: <u>mur</u>					METALS																												
DISPOSAL INFORMATION					LEACHING TESTS																												
					OTHER																												
☒ Lab Disposal (return if not indicated)					NUMBER OF CONTAINERS																												
Disposal Method: _____					Held																												
Disposed by: _____ Disposal Date: _____																																	
QC INFORMATION (check one)																																	
☐ SW-846 ☐ CLP ☐ Screening ☒ CDM Std. ☐ Special																																	
SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TPH-HCID	TPH-G	TPH-D	TPH-418.1	8015M Fuel Hydrocarbon	TPH Special Instructions	8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GC/MS Volatiles	8270 GC/MS Semivolatiles	8310 PAHs	8040 Phenols	DWS - Volatiles and Semivolatiles	8080 OC Pest/PCBs	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFS - Metals (Wa)	TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	
LC1-06/09	6/30/09	0820	Water																														3
GT3-06/09	6/30/09	0945																															3
GT2-06/09	6/30/09	1105																															3
GT1-06/09	6/30/09	1210																															3
GT20-06/09	6/30/09	1300																															3
Trip Blank	6/30/09																																2

LAB INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
Lab Name: <u>Analytical Resources</u>	Total Number of Containers: _____	Signature: <u>Mary Lou Fox</u>	Time: _____	Signature: _____	Time: _____	Signature: _____	Time: _____	Signature: _____	Time: _____
Lab Address: <u>4611 S 134th Pl</u>	Chain-of-Custody Seals: Y/N/NA	Printed Name: <u>Mary Lou Fox</u>	Date: <u>6/30/09</u>	Printed Name: _____	Date: _____	Printed Name: _____	Date: _____	Printed Name: _____	Date: _____
<u>Tukwila, WA 98168</u>	Intact?: Y/N/NA	Company: <u>CDM</u>	_____	Company: _____	_____	Company: _____	_____	Company: _____	_____
Via: <u>Hand-delivered</u>	Received in Good Condition/Cold: _____	RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: 3.			
Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.		Signature: <u>[Signature]</u>	Time: <u>1420</u>	Signature: _____	Time: _____	Signature: _____	Time: _____	Signature: _____	Time: _____
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA		Printed Name: <u>A. Volgardsm</u>	Date: <u>6/30</u>	Printed Name: _____	Date: _____	Printed Name: _____	Date: _____	Printed Name: _____	Date: _____
Special Instructions: <u>vinyl chloride, 1,1-DCE, trans 1,2-DCE, cis-1,2-DCE, TCE, PCE</u>		Company: <u>ARI</u>	_____	Company: _____	_____	Company: _____	_____	Company: _____	_____



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: CDM

COC No(s): _____ (NA)

Assigned ARI Job No: PF23

Project Name: Leathercare

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)..... 56

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 487405

Cooler Accepted by: Av Date: 6/30/09 Time: 1426

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

Samples Logged by: JH Date: 6/30/09 Time: 1450

**** 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:

A "Sm" bubble in 1 of 3 vial vials - ID: GT20 06/09

By: JH

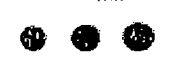
Date: 6/30/09



Peabubbles
2-4 mm



LARGE Air Bubbles
> 4 mm



Small → "sm"

Peabubbles → "pb"

Large → "lg"

Headspace → "hs"

ORGANICS ANALYSIS DATA SHEET

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

Sample ID: LC1-06/09
SAMPLE

Lab Sample ID: PF23A

LIMS ID: 09-15561

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 07/06/09

QC Report No: PF23-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/30/09

Date Received: 06/30/09

Instrument/Analyst: NT10/JZ

Date Analyzed: 06/30/09 16:47

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.8	
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	4.1	
79-01-6	Trichloroethene	0.2	2.8	
127-18-4	Tetrachloroethene	0.2	2.3	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.1%
d8-Toluene	100%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	105%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT3-06/09
SAMPLE

Lab Sample ID: PF23B

LIMS ID: 09-15562

Matrix: Water

Data Release Authorized: 

Reported: 07/06/09

QC Report No: PF23-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/30/09

Date Received: 06/30/09

Instrument/Analyst: NT10/JZ

Date Analyzed: 06/30/09 17:12

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	3.8	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	4.2	
156-59-2	cis-1,2-Dichloroethene	0.2	8.8	
79-01-6	Trichloroethene	0.2	1.0	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.0%
d8-Toluene	98.8%
Bromofluorobenzene	93.9%
d4-1,2-Dichlorobenzene	104%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT2-06/09
SAMPLE

Lab Sample ID: PF23C

LIMS ID: 09-15563

Matrix: Water

Data Release Authorized: 

Reported: 07/06/09

QC Report No: PF23-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/30/09

Date Received: 06/30/09

Instrument/Analyst: NT10/JZ

Date Analyzed: 06/30/09 17:37

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	17	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	3.2	
156-59-2	cis-1,2-Dichloroethene	0.2	12	
79-01-6	Trichloroethene	0.2	0.5	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.4%
d8-Toluene	99.5%
Bromofluorobenzene	97.5%
d4-1,2-Dichlorobenzene	106%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT1-06/09
SAMPLE

Lab Sample ID: PF23D

LIMS ID: 09-15564

Matrix: Water

Data Release Authorized: *B*

Reported: 07/06/09

QC Report No: PF23-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/30/09

Date Received: 06/30/09

Instrument/Analyst: NT10/JZ

Date Analyzed: 06/30/09 18:01

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	1.7	
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.0%
d8-Toluene	99.7%
Bromofluorobenzene	97.9%
d4-1,2-Dichlorobenzene	105%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1Sample ID: GT20-06/09
SAMPLE

Lab Sample ID: PF23E

LIMS ID: 09-15565

Matrix: Water

Data Release Authorized: *B*

Reported: 07/06/09

QC Report No: PF23-CDM, Inc.

Project: Leathercare

56498-68247

Date Sampled: 06/30/09

Date Received: 06/30/09

Instrument/Analyst: NT10/JZ

Date Analyzed: 06/30/09 18:26

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	4.7	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	4.3	
156-59-2	cis-1,2-Dichloroethene	0.2	9.0	
79-01-6	Trichloroethene	0.2	1.1	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	100%
d8-Toluene	97.8%
Bromofluorobenzene	98.1%
d4-1,2-Dichlorobenzene	105%

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: PF23-CDM, Inc.
Project: Leathercare
56498-68247

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-063009	Method Blank	10	96.3%	99.3%	95.9%	105%	0
LCS-063009	Lab Control	10	97.3%	98.5%	98.1%	98.8%	0
LCSD-063009	Lab Control Dup	10	98.7%	99.9%	97.6%	98.0%	0
PF23A	LC1-06/09	10	98.1%	100%	101%	105%	0
PF23B	GT3-06/09	10	96.0%	98.8%	93.9%	104%	0
PF23C	GT2-06/09	10	98.4%	99.5%	97.5%	106%	0
PF23D	GT1-06/09	10	99.0%	99.7%	97.9%	105%	0
PF23E	GT20-06/09	10	100%	97.8%	98.1%	105%	0

LCS/MB LIMITS

QC LIMITS

SW8260C

(DCE) = d4-1,2-Dichloroethane
(TOL) = d8-Toluene
(BFB) = Bromofluorobenzene
(DCB) = d4-1,2-Dichlorobenzene70-132
80-120
80-120
80-12080-143
80-120
80-120
80-120Prep Method: SW5030B
Log Number Range: 09-15561 to 09-15565

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-063009

Page 1 of 1

LAB CONTROL SAMPLE

Lab Sample ID: LCS-063009

QC Report No: PF23-CDM, Inc.

LIMS ID: 09-15561

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: *JB*

Date Sampled: NA

Reported: 07/06/09

Date Received: NA

Instrument/Analyst LCS: NT10/JZ

Sample Amount LCS: 10.0 mL

LCSD: NT10/JZ

LCSD: 10.0 mL

Date Analyzed LCS: 06/30/09 14:50

Purge Volume LCS: 10.0 mL

LCSD: 06/30/09 15:20

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	9.7	10.0	97.0%	10.5	10.0	105%	7.9%
1,1-Dichloroethene	10.2	10.0	102%	10.6	10.0	106%	3.8%
trans-1,2-Dichloroethene	9.5	10.0	95.0%	10.3	10.0	103%	8.1%
cis-1,2-Dichloroethene	9.6	10.0	96.0%	10.4	10.0	104%	8.0%
Trichloroethene	9.9	10.0	99.0%	10.6	10.0	106%	6.8%
Tetrachloroethene	9.0	10.0	90.0%	9.6	10.0	96.0%	6.5%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	97.3%	98.7%
d8-Toluene	98.5%	99.9%
Bromofluorobenzene	98.1%	97.6%
d4-1,2-Dichlorobenzene	98.8%	98.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-063009

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-063009

QC Report No: PF23-CDM, Inc.

LIMS ID: 09-15561

Project: Leathercare

Matrix: Water

56498-68247

Data Release Authorized: 

Date Sampled: NA

Reported: 07/06/09

Date Received: NA

Instrument/Analyst: NT10/JZ

Sample Amount: 10.0 mL

Date Analyzed: 06/30/09 16:11

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 $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.3%
d8-Toluene	99.3%
Bromofluorobenzene	95.9%
d4-1,2-Dichlorobenzene	105%



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

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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>
P0907015-01	LC4R-06/09
P0907015-02	LC5R-06/09
P0907015-03	LC6-06/09
P0907015-04	LC3-06/09
P0907015-05	LC2-06/09
P0907015-06	LC1-06/09
P0907015-07	GT3-06/09
P0907015-08	GT2-06/09
P0907015-09	GT1-06/09
P0907015-10	GT20-06/09

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:

7-13-09

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 and McKee
Contact: Pam Morrill
Address: 11811 Northeast First Street
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Bellevue, WA 98005

Page: Page 2 of 11
Lab Proj #: P0907015
Report Date: 07/13/09
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-06/09	Water	P0907015-01	29 Jun. 09 9:30	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.290	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.150	0.025	ug/L	AM20GAX	7/10/09	rw
N Methane	430.000	0.100	ug/L	AM20GAX	7/10/09	rw



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Report Date: 07/13/09
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-06/09	Water	P0907015-02	29 Jun. 09 11:15	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.099	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.190	0.025	ug/L	AM20GAX	7/10/09	rw
N Methane	220.000	0.100	ug/L	AM20GAX	7/10/09	rw



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Report Date: 07/13/09
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>		
LC6-06/09	Water	P0907015-03	29 Jun. 09 12:50	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
✓ Ethane	0.160	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.026	0.025	ug/L	AM20GAX	7/10/09	rw
✓ Methane	400.000	0.100	ug/L	AM20GAX	7/10/09	rw



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Report Date: 07/13/09
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>		
LC3-06/09	Water	P0907015-04	29 Jun. 09 14:00	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.059	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.026	0.025	ug/L	AM20GAX	7/10/09	rw
N Methane	110.000	0.100	ug/L	AM20GAX	7/10/09	rw



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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>		
LC2-06/09	Water	P0907015-05	29 Jun. 09 15:15	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.110	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.072	0.025	ug/L	AM20GAX	7/10/09	rw
N Methane	340.000	0.100	ug/L	AM20GAX	7/10/09	rw



N - NELAC certified analysis

Client Name: Camp Dresser and McKee
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Lab Proj #: P0907015
Report Date: 07/13/09
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>		
LC1-06/09	Water	P0907015-06	30 Jun. 09 8:20	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
√ Ethane	0.170	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	<0.025	0.025	ug/L	AM20GAX	7/10/09	rw
√ Methane	260.000	0.100	ug/L	AM20GAX	7/10/09	rw



N - NELAC certified analysis

Client Name: Camp Dresser and McKee
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Lab Proj #: P0907015
Report Date: 07/13/09
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>		
GT3-06/09	Water	P0907015-07	30 Jun. 09 9:45	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
✓ Ethane	0.070	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.120	0.025	ug/L	AM20GAX	7/10/09	rw
✓ Methane	140.000	0.100	ug/L	AM20GAX	7/10/09	rw



Client Name: Camp Dresser and McKee
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Report Date: 07/13/09
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>		
GT2-06/09	Water	P0907015-08	30 Jun. 09 11:05	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.200	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.710	0.025	ug/L	AM20GAX	7/10/09	rw
N Methane	230.000	0.100	ug/L	AM20GAX	7/10/09	rw



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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>		
GT1-06/09	Water	P0907015-09	30 Jun. 09 12:10	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.110	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	<0.025	0.025	ug/L	AM20GAX	7/10/09	rw
N Methane	160.000	0.100	ug/L	AM20GAX	7/10/09	rw



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Report Date: 07/13/09
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>		
GT20-06/09	Water	P0907015-10	30 Jun. 09 13:00	01 Jul. 09 12:30		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
✓ Ethane	0.068	0.025	ug/L	AM20GAX	7/10/09	rw
N Ethene	0.130	0.025	ug/L	AM20GAX	7/10/09	rw
✓ Methane	150.000	0.100	ug/L	AM20GAX	7/10/09	rw





Microseeps
Lab. Proj. #

CHAIN - OF - CUSTODY RECORD

Microseeps
COC cont. #

672

Phone: (412) 826-5245

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

Fax No.: (412) 826-3433

Company :

COM

Co. Address :

13114L 1st St, Belling WA 98005

Phone # :

206-418-8353

Fax # :

Proj. Manager :

Don Morrell

Proj. Name/Number :

Lithium / 50498-68247

Sampler's signature :

Mary Lou Fox

Cooler Temp.

Parameters Requested

Results to :

Don Morrell

Invoice to :

Same

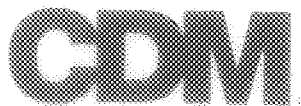
Sample ID	Sample Description	Sample Type			Date	Time	# bottles											Remarks :
		Water	Vapor	Solid														
6016-06/09		✓			6/29/09	0920	2	✓										Shipped priority
6042-06/09		✓				1115	2	✓										overnight via
6066-06/09		✓				1250	2	✓										FEDEX
6063-06/09		✓				1400	2	✓										
6062-06/09		✓				1515	2	✓										Also Dublin-Heller
6061-06/09		✓			6/30/09	0820	2	✓										
6063-06/09		✓				0945	2	✓										
6062-06/09		✓				1105	2	✓										
6061-06/09		✓				1210	2	✓										
6020-06/09		✓				1300	2	✓										

Relinquished by : Mary Lou Fox	Company : COM	Date : 6/29/09	Time : 1120	Received by : [Signature]	Company : [Signature]	Date : 6/29/09	Time : [Signature]
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



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