



**Cleanup Action Plan
LeatherCare, Inc.
901/921 Elliott Avenue W.
Seattle, Washington**

November 15, 2010

Prepared For:

LeatherCare, Inc.

901 Elliott Ave. W.

Seattle, Washington 98119

Prepared By:

CDM

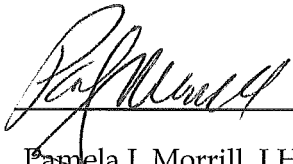
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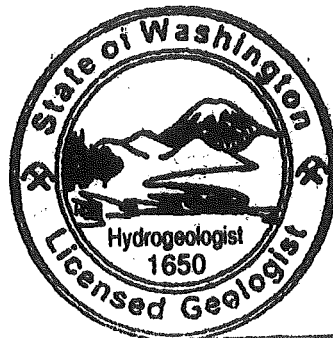
A Report Prepared For:
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CLEANUP ACTION PLAN
LEATHERCARE, INC.
901/921 ELLIOTT AVENUE WEST
SEATTLE, WASHINGTON

November 15, 2010



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Section 1

Introduction

This cleanup action plan (CAP) has been prepared to document plans for cleanup actions to address chlorinated solvent contamination in soil and groundwater at the LeatherCare, Inc. site located at 901 & 921 Elliott Avenue West in Seattle, Washington (**Figure 1**). Camp Dresser & McKee Inc. (CDM) prepared this CAP on behalf of LeatherCare, Inc. (LeatherCare). LeatherCare is completing site remedial activities under the Washington State Department of Ecology's (Ecology) Voluntary Cleanup Program (VCP). The VCP site number is NW1805.

A remedial investigation and focused feasibility study (RI/FS) were completed for the site on November 9, 2009 (CDM, 2009). The RI/FS provides a thorough description of the site, nature and extent of contamination, interim remedial actions completed, and remedial alternatives evaluated. Regular groundwater monitoring (i.e., generally quarterly) has been conducted prior to and subsequent to completion of the RI/FS, the results of which have been documented in groundwater monitoring reports. In addition, CDM presented the results of BIOCHLOR modeling in a letter dated May 19, 2010.

The following sections describe the site and surrounding area and summarize the site history, assessment of the nature and extent of contamination, and the proposed cleanup action, including:

- General description of proposed cleanup action.
- Summary of cleanup action alternatives evaluated.
- Summary of the rationale for selecting the proposed cleanup action.
- Cleanup standards.
- Schedule for implementation of the CAP.
- Determination of the proposed cleanup action's compliance with the Model Toxics Control Act (MTCA) cleanup regulations.

The proposed remedial action is monitored natural attenuation (MNA).

Section 2

Site Description and History

2.1 Location and Setting

LeatherCare is a large commercial dry cleaning facility located at the base of Seattle's Queen Anne Hill approximately 650 feet northeast of the shoreline of Elliott Bay (**Figure 1**). The site is separated from the bay by a series of railroad tracks, a granary and the Terminal 91 bike path. The facility is situated at the intersection of Elliott Ave. W and W Roy Street (**Figure 2**). Surrounding properties are developed for commercial use.

2.2 Site Description and Land Use

LeatherCare occupies King County Tax Parcel 3879902235 at 901 Elliott Ave. W (referred to herein as the LC parcel). This parcel, owned by Mr. Steven Ritt, is completely covered by a 16,800 square-foot (sf), concrete slab-on-grade masonry building.

The adjacent parcel to the northwest—King County Tax Parcel 7666201980 at 921 Elliott Ave. W—is occupied by Greg Thompson Productions, which designs and creates stage, screen, and studio sets for Hollywood, Broadway, and Las Vegas productions. This parcel (herein referred to as the GTP parcel) is also owned by Mr. Ritt. The GTP parcel is 27,770 sf (0.64 acre) in size and contains three wood-frame structures—10,800, 2,310, and 1,800 sf in size—that are used as office, storage, and warehouse facilities. Open areas between the buildings are asphalt and concrete-paved and contain small storage sheds.

Access and parking for LeatherCare are on W Roy Street, a dead-end road that bounds the southeast side of the LeatherCare parcel. LeatherCare has a use permit with the City of Seattle for part of W Roy Street for parking and storage.

Ecology refers to the "site" as the entire area where contaminants are located regardless of property lines. However, for context and clarity, this report defines the "site" as the LC and GTP parcels and W Roy Street. Site features are shown on **Figure 2**.

2.3 Surrounding Area Description and Land Use

Solid wooden and chain link fencing bound the site to the west, beyond which are several Burlington Northern Santa Fe Railroad (BNSF) lines (**Figure 2**). A large grain depot is located on the BNSF property between the railroad tracks and Elliott Bay.

To the southeast beyond W Roy Street is a property that was recently redeveloped by Elliott Holding. The newly constructed development consists of two four-story commercial buildings, a plaza, and an underground parking structure beneath the entire complex. The parking level foundation is as much as 20 feet below former grade. An impermeable shoring wall constructed using the Cutter Soil Mixing (CSM)

method enabled below grade construction. The CSM wall, shown on **Figure 2**, entirely encircles the Elliott Holding property and keys into the underlying glacial till at depths of 40 to 57 feet below ground surface (Malcolm Drilling, 2009).

Other surrounding businesses to the east across Elliott Avenue and to the north are commercial in nature, none of which have been found to be of concern with respect to the site.

2.4 Investigation Area

In order to define the contaminant plume boundaries, CDM completed investigations on the LC/GTP parcels and W Roy Street, the Elliott Holding property, and the BNSF property. Collectively, these areas are referred to as the "Investigation Area".

2.5 Investigation Area History

The Investigation Area was originally tidelands and Elliott Bay bordered Elliott Avenue W. Filling occurred from approximately 1910 to the early 1920s. Railroad lines constructed on trestles were in place prior to the filling. The following paragraphs provide historical information on the site and Elliott Holding property. This information is largely summarized from CDM's July 25, 2006 report entitled *"Contamination Assessment, LeatherCare, Inc., 901/921 Elliott Avenue, Seattle, Washington."*

2.5.1 LC and GTP Parcels

The LC parcel was developed about 1924 with an apple product (cider) manufacturing factory and a dwelling. Historical data imply that the dwelling was occupied by a seamstress. The factory contained apple processing (paring, grating) and cold storage facilities. Several above-ground tanks (ASTs) used in cider production were located on the parcel.

American Conserving occupied the LC parcel from approximately 1938 to 1985, when LeatherCare purchased the property. LeatherCare is a retail and wholesale dry cleaning facility. LeatherCare remodeled the facility, including filling many of the concrete troughs in the floor that had been used to convey apples and water throughout the factory. LeatherCare initially used tetrachloroethene (PCE) as a dry cleaning solvent. PCE use was discontinued in phases beginning in March 2000 and was completed in October 2005.

The buildings on the GTP parcel were constructed at varying times. The current office building on the property, constructed in about 1926, was originally occupied by the Mars Port Building Company. The two other existing buildings appear to have been constructed between 1977 and 1985, possibly for use by the occupants in the 1926-vintage office building.

Over the years, the GTP parcel was occupied by a variety of building contractors. Sometimes there were multiple tenants, including cabinet/furniture manufacturers

(1950-1970), NW Stone Products (1953-1958), a vinyl siding supplier (1965-1970), an elevator repair company (1973 - 1980), and then NW Auto Sound. Greg Thompson Productions has occupied the property since 1990. No environmental concerns related to these prior and current tenants have been identified.

2.5.2 Elliott Holding Property

The Elliott Holding property was previously owned and occupied by Darigold/West Farm Foods (Darigold). Elliott Holding purchased the property in July 2006. At that time, a large asphalt-paved parking area ("north parking lot") for Darigold employees was located immediately to the southeast of W Roy Street. The Darigold north parking lot was surrounded by chain link fencing and accessed by a gated entrance on W Roy Street. To the southeast of the north parking lot, beyond a concrete block wall, were the Darigold building and a "central parking lot." These historical features are shown on **Figure 2**.

The Darigold north parking lot historically had addresses of 669, 675, 711, and 717 Elliott Avenue W. The earliest known development was Pecks Wood & Coal Company (Pecks), which was addressed as 717 Elliott Avenue W. Pecks operated on the property between approximately 1921 and 1953.

The buildings associated with Pecks' operations were concentrated in the northern half of the Darigold north parking lot, including several buildings which were lined up along the edge of W Roy Street. According to a report by ENTRIX, Inc. (2001a), the Pecks facility included an 18-ton coal truck scale, two 6,500-gallon fuel ASTs and two 550-gallon underground storage tanks (USTs). The approximate UST locations (based on the ENTRIX's figures) are shown on **Figure 4**. They apparently extended under the sidewalk along the eastern property line. Darigold tore down the buildings and constructed the parking lot in 1957, but the USTs were closed in place.

Elliott Holding began redevelopment of the Darigold property in late 2007. At that time the entire Darigold facility was demolished, the CSM wall was installed to allow for construction of the subsurface parking garage and subsequently the overlying buildings. The CSM wall created an essentially impermeable subsurface barrier that would not require continuous dewatering in perpetuity.

2.6 Physical Subsurface Conditions

2.6.1 Soil

As indicated previously, the Investigation Area is located on fill that overlies filled tidelands. Fill materials may have been sluice-deposited or dump deposited, and may consist of non-engineered fill, garbage, or debris (Galster and Laprade, 1991; ENTRIX, Inc., 2001a). Fill underlying the Investigation Area appears to be, for the most part, sluice deposited; however, there are areas where dump deposited fill soils are indicated, including along the railroad lines.

The Investigation Area's subsurface continues to be modified by redevelopment activities, including recent redevelopment of the adjacent Elliott Holding property. At least 20 feet of soil has been excavated from the entire Elliott Holding property to enable construction of the subsurface parking garage.

Under the site, fill typically consists of approximately 2 to 4 feet of sandy gravel basecourse material, followed by fine to coarse-grained gray sand, which is interpreted to be sluice deposited fill. The material typically contains sea shells interspersed with wood debris, organics, and interlayers of coarser and finer materials.

Tideflat sediments have been encountered at some site exploration locations at a depth just above 14 feet below ground surface (ft bgs) – the maximum depth explored (CDM, 2006). Tideflat sediments consist of silty clay and clayey silt with occasional peat and sand lenses.

The structural and sluice fill varies between 8 and 15 ft thick, and possibly as much as 22 ft thick in some areas. The tideflat layer, a silt or sandy silt sediment, ranges between 2 and 5 ft thick when present. The tideflat layer is underlain by alluvial sediments consisting of sand with silt.

Alluvial sand sediments underlie the tideflat layer, below which are glaciolacustrine deposits and/or glacial till. Glaciolacustrine deposits (i.e., Lawton clay) consist of stiff dark gray clay. Glacial till consists of a very dense unsorted mixture of sand, silt and clay and contains interspersed gravel, rocks, and boulders.

The logs CDM reviewed indicate the top of Lawton clay layer occurs at depths between 19 and 30 ft bgs. Malcom Drilling Company reported that the top of the glacial till occurs at 40 to 57 ft bgs. According to the log of the deep boring drilled on the Elliott West CSO Control facility, the Lawton Clay appears to extend to approximately 50 ft bgs, where there is thin (7 ft) outwash sand unit followed by an approximately 37 ft glaciomarine drift deposit consisting of a clayey, silty, sandy gravel.

The glaciomarine drift is underlain by additional glaciolacustrine deposits to an unknown depth. The lower portion of glaciomarine drift deposit is apparently water bearing.

2.6.2 Groundwater

Groundwater underlying the site and adjacent railroad occurs in the fill at approximately 1 to 8 ft bgs, with elevations ranging between approximately 7.7 and 12.2 ft mean sea level. Because of the shallow depth to groundwater and the topographical difference of Elliott Avenue (which is higher in elevation), the water table underneath the LC building is essentially at the base of the concrete floor slab.

The maximum seasonal water level variation observed is approximately 1.5 ft. The groundwater does not appear to be tidally influenced. The overall direction of

groundwater flow in the Investigation Area is expected to be westerly with a generally flat gradient. However, this is not the typical observation when groundwater data are collected on the site only.

Prior to redevelopment of the former Elliott Holding property, a groundwater divide occurred under W Roy Street and the Darigold north parking lot. This divide was apparently caused by groundwater flow coming down from the hillside where W Mercer Street enters Elliott Avenue W. At W Roy Street, the groundwater potentiometric surface was essentially flat with a westerly component. In the area underlying the LC and GTP parcels, the groundwater flow direction was toward the north—sometimes with a northwesterly or northeasterly component. On the Darigold property the groundwater flow was southerly to southeasterly.

Obviously, since construction of the CSM wall under the Elliott Holding property, the shallow aquifer has been eliminated from that property. Any groundwater that used to pass into that area is now redirected. Over the past 18 months, subsequent to completion of the CSM wall, CDM has observed the groundwater mound recede and currently there is no apparent mounding. The flow direction across the site is now toward the north only. **Figure 3** shows the most recent potentiometric (September 1, 2010) surface map.

2.7 Contaminant Discovery

During investigations of petroleum hydrocarbon contamination on the Elliott Holding property, specifically the north parking lot where the Peck's fuel facility had been located, Darigold's consultant, ENTRIX, identified the presence of chlorinated volatile organic compounds (cVOCs) in groundwater. The cVOCs detected included the common dry cleaning solvent PCE, and its degradation products trichloroethene (TCE), *cis*-1,2-dichloroethene (*c*-1,2-DCE), and vinyl chloride (VC). ENTRIX suspected that a release of PCE had occurred from LeatherCare, resulting in an impact of cVOC contamination on the Darigold property. (ENTRIX, 201b, 2003, 2005)

CDM subsequently conducted an investigation to define the nature and extent of contamination on behalf of LeatherCare. The initial investigation, documented in a 2006 report entitled "*Contamination Assessment, LeatherCare, Inc., 901/921 Elliott Avenue, Seattle, Washington,*" confirmed the presence of PCE and its degradation products in soil and groundwater, likely as a result of the historical use of PCE. However, cVOC concentrations are relatively low throughout the site. The contaminant profile across the site is indicative of small, incidental releases that may have occurred at several locations. Vinyl chloride, the last toxic compound before it is degrades to nontoxic compounds, is the most pervasive of the cVOCs, but concentrations also were relatively low. The vinyl chloride plume was confirmed to have migrated into the north parking lot area of the Darigold property, where it met the 50 to 75 year old hydrocarbon plume that originated on that property.

Section 3

Interim Remedial Actions

3.1 LeatherCare Property

In 2007 LeatherCare conducted interim remedial actions to remove PCE source areas. This included cleaning residual sludge in all catch basins, sumps, and floor drain lines and trenches (CDM, 2007a). Following this work, the water in catch basins and sumps was sampled to check for residual leaching from the concrete. The water sampled from one catch basin located immediately outside of the building returned consistently high PCE concentrations and it was deemed necessary to conduct further actions at this location in order to eliminate further leaching of contaminants from the concrete catch basin.

In 2007 CDM removed and replaced the outside catch basin. At the time of the replacement, approximately 1 cubic yard of soil also was removed and appropriately disposed of. This was all of the soil that could be reasonably removed, due to access constraints (natural gas line and the building footing). Therefore, residual PCE in soils was treated in situ using potassium permanganate as a chemical oxidant prior to replacing the catch basin and backfilling (CDM, 2007b).

Table 1 summarizes soil data collected after the catch basin was removed and replaced as a part of interim remedial actions. A soil sample collected from the south sidewall contained 540 micrograms per kilogram ($\mu\text{g}/\text{kg}$) PCE, above the Method A cleanup level of 50 $\mu\text{g}/\text{kg}$. In the soil samples collected from the remaining three sidewalls PCE concentrations ranged from 1.4 to 30 $\mu\text{g}/\text{kg}$. After chemical oxidation treatment, the PCE concentration collected near the same location in the south sidewall well below the Method A cleanup level at 12 $\mu\text{g}/\text{kg}$. TCE concentrations, prior to chemical oxidation treatment, ranged from <1.1 to 25 $\mu\text{g}/\text{kg}$, and *c*-1,2-DCE concentrations from <1.1 to 38 $\mu\text{g}/\text{kg}$; *trans*-1,2-DCE, 1,1-DCE, and vinyl chloride were not detected. These concentrations are all well below their respective Method A/B cleanup levels.

These interim remedial actions, combined with LeatherCare's discontinued use of all PCE-containing dry cleaning solvents, effectively removed all known and potential future sources of PCE on the site

3.2 Elliott Holding Property

From 1990 to 2001, several interim remedial actions were conducted to address hydrocarbon contamination in the former Darigold north parking lot area adjacent to the LeatherCare site. These actions were largely unsuccessful and ultimately, removal of hydrocarbons in soil and groundwater within the Elliott Holding property boundaries was completed, or substantially completed, in conjunction with soil excavation and dewatering to allow for the construction of the subgrade parking lot. The CSM wall acts as a solid barrier to stop any further contaminant migration into the Elliott Holding property

In addition, soils that were excavated along the western half of W. Roy Street during construction of the CSM wall and installation of underground utilities were tested for cVOCs. Any soils that contained detectable concentrations of cVOCs were disposed of at a Subtitle D landfill under a contained-in-determination with Ecology.

Finally, in accordance with their CAP, ENTRIX installed a permeable reactive barrier (PRB) wall along the western edge of Roy Street, off the northwest corner of the Elliott Holding property (ENTRIX, 2007). ENTRIX reasoned that the impermeable CSM wall would cause contaminated groundwater that previously migrated into the north parking lot area to flow around and into the railroad property — a condition that does not appear to have occurred. The PRB, per ENTRIX's CAP, is approximately 25 feet long, 15 feet deep, 6 feet wide, and constructed with iron filings and sand or pea gravel.

Section 4

Nature and Extent of Contamination

CDM's RI/FS completed for the site in November 2009 provides a thorough description of the nature and extent of contamination in soil and groundwater and is summarized in the following sections, updated by groundwater monitoring completed in 2010.

4.1 Soil

Soil analytical data generated during the RI are summarized in **Table 1**. Borehole locations are shown on **Figures 2** through **4**. Low concentrations of one or more cVOCs were detected in seven of the eight samples analyzed from the boreholes. PCE concentrations in the seven samples in which it was detected, ranged from 2.2 µg/kg to 110 µg/kg. TCE concentrations in the five samples in which it was detected ranged from 1.5 µg/kg to 15 µg/kg. *c*-1,2-DCE was detected in five samples at concentrations ranging from 3.4 µg/kg to 190 µg/kg. *t*-1,2-DCE was detected in one sample at 9.4 µg/kg. Vinyl chloride was detected in two samples at 1.5 µg/kg and 2 µg/kg. PCE exceeded the MTCA Method A cleanup level (50 µg/kg) in borehole LC1, located immediately next to the sump inside the building.

In summary, the only cVOC that is known to exceed its Method A soil cleanup level is PCE and this occurs at only one known location (LC1), within the building adjacent to a sump. None of the cVOC concentrations exceeded their respective MTCA Method B cleanup levels, as listed in Ecology's online Cleanup Levels and Risk Calculations (CLARC) database.

It is noteworthy that the soil immediately underneath the building floor slab where LC1 was collected was saturated, and therefore the soil was collected from below the water table. As will be seen in the following section, the PCE concentration in groundwater at this location has declined over time, and as of September 2010, PCE has not exceeded its MTCA cleanup level of 5 micrograms per liter (µg/L) since March of 2009. Since the sample collected from this location was within the saturated interval, we assume that the declining concentrations in groundwater are also indicative of declining PCE concentrations in soil.

4.2 Groundwater

PCE and its degradation products have been identified in groundwater and all indications are that cVOCs are completely degrading. Field monitoring data and chemical and biological testing conducted on soil and groundwater indicate that conditions are conducive for complete biological degradation of PCE as is detailed in the RI/FS and in the groundwater monitoring reports. All of the biological degradation products of PCE, right on through to ethene and ethane, are observed in groundwater, which empirically shows that complete degradation of PCE is occurring.

Statistical evaluation (Mann-Kendall analysis) of groundwater data collected over time and presented in the quarterly groundwater monitoring reports further shows strong evidence that concentrations of PCE and all of its degradation products are declining. As of September 2010 PCE did not exceed its Method A cleanup level at any monitoring well location and, except for one insignificant exceedance (by 0.1 µg/L), has not exceeded the cleanup level for the past year. Similarly, TCE concentrations have not exceeded the Method A cleanup level at any monitoring well location over the past year and a half and both *c*- and *t*-1,2-dichloroethene have never exceeded their respective Method B cleanup levels.

VC, the last degradation product of PCE before it is degraded to non-toxic ethene, is the only degradation product that currently consistently exceeds the Method A cleanup level. The maximum VC concentration observed over the past year was 6.9 µg/L – an order of magnitude decline since 2006 when the greatest observed VC concentration (at the same well) was 35 µg/L.

Table 2 presents a summary of contaminant concentrations in groundwater over time. There is no one monitoring well location where all cVOC concentrations are greater than at all other locations. Rather, some of the cVOC concentrations tend to be higher at one well than at another. This is consistent with a cVOC plume degrading as it migrates downgradient. To put the cVOC concentrations in perspective as to how low they are overall, over the past year (September 2009 through September 2010), the average maximum concentrations in any individual monitoring well onsite are as follows:

PCE – 4.25 µg/L
TCE – 2.25 µg/L
c-1,2-DCE – 9.58 µg/L
t-1,2-DCE – 2.55 µg/L
1,1- DCE – <0.2 µg/L
VC- 4.53 µg/L

Average cVOC concentrations in other wells are below these concentrations.

Currently, the VC plume is bounded to the southeast by the impermeable shoring wall that was constructed for below grade parking on the adjacent Elliott Holding property. It extends northward under W Roy Street, the LC building and across the GTP parcel. On the east side the plume ends just before Elliott Avenue (LC6 contains <0.2 µg/L and LC1, 0.4 µ/L VC). The VC plume likely extends just under the BNSF Railroad lines to the west. However, sampling shows that the VC plume does not extend beyond the BNSF Railroad lines.

Until May 2010, the northerly boundary of the plume ended before the edge of the GTP parcel. In May 2010 a VC concentration of 0.5 µg/L was observed in GT1, which is near the northern edge of the GTP parcel. In September 2010, the VC concentration increased to 1 µg/L. The timing of the CSM wall installation on the Elliott property,

combined with the observed changing groundwater flow patterns suggests that contaminant migration has been influenced by the CSM wall. Still, the VC concentration at GT1 is low and is shown to be degrading based on the concurrently higher ethene and ethane concentrations. CDM expects re-equilibration of the plume will occur shortly, and likely has occurred at this time. **Figure 4** shows the current estimated limits of the VC plume (i.e., concentrations greater than 0.2 µg/L).

Section 5

Remedial Alternatives Evaluated

CDM screened various remedial technologies in the focused feasibility study and evaluated three remedial alternatives: 1) monitored natural attenuation (MNA), 2) enhanced anaerobic biodegradation (EAB), and 3) in situ chemical oxidation (ISCO). Each of these alternatives is described further in the following sections.

5.1 Alternative 1 – Monitored Natural Attenuation

This alternative involves MNA for remediation throughout the site. A groundwater monitoring program has been implemented throughout the site to track and evaluate progression of cVOC degradation over time. Should conditions change (i.e., decreasing concentrations cannot be documented), another, secondary alternative can be implemented.

MNA is anticipated to be a viable technology for this site based on CDM's evaluation of groundwater data. The aquifer is typically under reducing conditions, and reductive dechlorination is occurring as evidenced by the presence of TCE, *c*-1,2-DCE, and VC. There is no apparent "build up" of *c*-1,2-DCE and VC concentrations, as these two compounds are also shown to be degrading. Other evidence of active MNA includes the presence of ethene and the dechlorinating bacteria *Dehalococcoides spp.*, statistically significant decreasing cVOC concentration over time, and apparent seasonally oxic conditions at some locations, which can be suitable for cometabolic oxidation of VC.

At the time that the FS was completed there were already 4 years worth of groundwater data; the past 3 years of which had been conducted on a quarterly basis. CDM recommended annual monitoring for the next 5 years, followed by sampling wells with one or more exceedances of MTCA cleanup levels every 5 years until cleanup had been documented. In accordance with Ecology's request, LeatherCare maintained the quarterly monitoring through 2010, with the exception of one skipped quarter.

5.2 Alternative 2 – EAB

Alternative 2 involves injecting an emulsified vegetable oil (EVO) to provide an additional food source, stimulate microbial activity, and thereby induce faster biodegradation of cVOCs. A treatability study and pilot study would need to be conducted to help confirm whether this alternative is appropriate and to identify the appropriate injection rate.

For purposes of the feasibility study, we anticipated that the EVO would be direct-injected throughout the property using push probes. Follow-up groundwater monitoring would be required. We further estimated that groundwater monitoring would be conducted quarterly for 1 year, and then annually for 3 years.

EAB was not chosen as the preferred remediation technology because microbial activity at the site is currently robust.

5.3 Alternative 3 – ISCO

Alternative 3 involves injecting a chemical oxidant to induce reductive dehalogenation of cVOCs. A treatability study and pilot study would need to be conducted to determine the type of chemical oxidant and exact amount to be applied at each location. Several applications of chemical oxidant are typically required to achieve MTCA cleanup levels.

CDM assumed the chemical oxidant would be direct-injected throughout the property using push probes. Permanganate was considered the appropriate chemical oxidant for this site.

Groundwater monitoring following each injection event would have been conducted to check the effectiveness of the chemical oxidant and provides the appropriate timing for subsequent applications. CDM estimated two applications would be required, each application would be followed by groundwater sampling and at least four quarterly sampling rounds to check for rebound over the longer term.

ISCO was not chosen as the preferred remediation alternative because: 1) ISCO is not particularly effective at reducing trace concentrations of cVOCs), and 2) the application would stop the naturally occurring degradation processes at the site

5.4 Cleanup Levels and Remedial Action Goals

Remedial Action Goals are quantitative expressions of contaminant concentrations that are used to identify areas where remediation is needed, to provide an initial indication of the amount of reduction of contamination needed, and to guide the selection of remedial actions appropriate to meet the desired reduction.

The overall goals for this site are to:

- Protect human health and the environment.
- Comply with all applicable regulations.
- Obtain a “No Further Action” status for the site.

To meet these goals, the remedial action will be implemented with the intent to reduce cVOC concentrations below applicable cleanup levels. During the RI/FS, CDM determined that the site qualified for an exclusion from the terrestrial ecological evaluation process and that only human health-based cleanup levels need be considered. The human health-based MTCA Method A and B cleanup levels for the cVOCs present in soil and groundwater are listed in **Tables 1** and **2**. Method B cleanup levels were obtained from Ecology’s online CLARC database. The lowest Method B cleanup level (typically carcinogenic, if applicable) is listed.

Currently, there is only one soil sample collected on the site that exceeds the MTCA Method A cleanup level for PCE following interim remedial actions. There are no data to date that suggest the Method B (human health direct contact-based) soil cleanup levels are exceeded anywhere on the site.

According to MTCA, the Method A soil cleanup levels are based on groundwater protection. Therefore, once it has been demonstrated that Method A groundwater cleanup levels have been achieved, cVOC soil concentrations are inherently at levels protective of groundwater. For example, while the PCE concentration at LC1 exceeded the Method A cleanup level, PCE concentrations in groundwater have declined over time and have not exceeded the Method A cleanup level since March of 2009. Logically, PCE concentrations in soils have concurrently declined subsequent to the completion of interim remedial actions (i.e., cleaning sludge from trenches and sumps) and no longer present a threat to groundwater.

The point of compliance for groundwater is the point(s) where groundwater cleanup levels must be attained. MTCA specifies that groundwater cleanup levels shall be attained from the point of compliance to the outer boundary of the hazardous substance plume (WAC 173-340-720(6)). The point of compliance for groundwater will be throughout the site.

Currently, it has been demonstrated that TCE, *c*-1,2-DCE, *t*-1,2-DCE, and 1,1-DCE concentrations in groundwater have met applicable Method A/B cleanup levels throughout the site. PCE concentrations in groundwater are very close to being confirmed as compliant with the Method A cleanup level of 5 µg/L throughout the site — only minor exceedances have occurred sporadically at two isolated locations during the past two years. Vinyl chloride is the one remaining cVOC that still remains as a contaminant of concern throughout the site, partly because of the very low cleanup level of 0.2 µg/L.

5.5 Justification for Recommended Remedial Action

CDM recommended MNA based on the following:

- Interim remedial actions conducted at the site effectively removed the source areas of contamination.
- Natural attenuation processes, including biological degradation, are actively occurring at this site.
- Active remediation methods, such as ISCO, disrupt the natural processes that are degrading residual cVOCs.
- Concentrations of the contaminants of concern (COCs) are so low that MNA can reduce concentrations in groundwater to Method A cleanup levels within a reasonable time frame.

- There is no guarantee that the other alternatives, particularly ISCO, would result in a significantly reduced time frame to achieve Method A cleanup levels.
- The low concentrations of residual cVOCs *in situ* do not pose a threat to human health or the environment because there are no complete exposure pathways to receptors.
- The cost for the other alternatives is unjustified considering that they may reduce the timeframe for cVOC cleanup by only a few years, or not at all.

The RI/FS indicated that, should monitoring indicate a need to expedite reduction of cVOCs in the area where the greatest vinyl chloride concentrations historically have been detected (to the north of the LC building), ISCO or EAB could be considered on a limited scale. However, VC concentrations have declined by an order of magnitude and continue to show a strong downward trend. At this time we foresee no need to conduct such actions.

Section 6

Recommended Approach and Schedule

There are currently 5 years of groundwater data; the past 4 years have been conducted on a quarterly basis, with only one missed quarter. We believe this is sufficient data to support our recommendation to reduce the frequency of sampling.

CDM recommends annual monitoring for the next 5 years. Any monitoring well that has no cleanup level exceedances for two years in a row will be dropped from the monitoring program. MW6 is currently the only well that meets this criterion and will be dropped from annual monitoring. Analysis for methane/ethane/ethene will also be dropped from the monitoring program as it has been well established that these compounds are being generated. Otherwise, groundwater monitoring will be conducted by the same approach (i.e., using dedicated peristaltic pumps) as per prior groundwater monitoring events.

At the end of the 5 year period we will reevaluate the need and timing for additional monitoring and propose a revised schedule, as appropriate.

Section 7

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Tables

Table 1
Soil Analytical Summary
 LeatherCare, Inc.
 Seattle, Washington

	Method A Cleanup Levels ^a	Method B Cleanup Level ^b	Soil Boring Location, Sample Depths, and Date Sampled											Catch Basin, Sample Depths, and Date Sampled															
			GT1 6' 5/5/2006	GT2 2' 5/5/2006	LC1 2' 5/5/2006	LC1 8' 5/3/2006	LC2 4.5' 5/3/2006	LC3 2.5' 5/4/2006	LC4 6' 5/4/2006	LC5 2.5' 5/4/2006	LC5 8-11' 5/4/2006	LC6 2.5' 5/4/2006	LC6 8' 5/4/2006	North-2.2 26" 8/24/2007	East-2 24" 8/24/2007	South-32 32" 8/24/2007	2-CB-SW ^c 38" 9/20/2007												
Analyses and Test Methods	Levels ^a	Level ^b	5/5/2006	5/5/2006	5/5/2006	5/3/2006	5/3/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	8/24/2007	8/24/2007	8/24/2007	9/20/2007												
Detected Volatile Organic Compounds (EPA SW8260B) (µg/kg)			<1.1	2.4		--	<86/4.0 J	2.2	12	19	--	2.5	--	1.4	30		12												
Tetrachloroethene	50	1,900			110											25		<1.1											
Trichloroethene	30	11,000			15											6.5		25	<1.1										
cis-1,2-Dichloroethene	N/A	800,000			5.1											--		190/7.6 J	<1.1	3.4	6.2	--	<1.2	--	5.8	5.5	38	<1.1	
trans-1,2-Dichloroethene	N/A	1,600,000			<1.1											9.4		<1.1	--	<86/<1.2 J	<1.1	<1.3	<1.1	--	<1.0	<0.9	<1.1	<1.1	
1,1-Dichloroethene	N/A	800,000			<1.1											<1.0		<1.1	--	<86/<1.2 J	<1.1	<1.3	<1.1	--	<1.2	--	<1.0	<0.9	<1.1
Vinyl Chloride	N/A	667			<1.1											<1.0		<1.1	--	<86/<1.2 J	<1.1	2.0 M	1.5	--	<1.2	--	<1.0	<0.9	<1.1
Metals (BAFeIII) (mg/kg)																													
Bio-Available Ferric Iron			--	--	--	<5.0	--	--	--	--	1,350	--	<5.0	--	--	--	--												
Bio-Available Manganese			--	--	--	<5.0	--	--	--	--	<5.0	--	<5.0	--	--	--	--												
Oxidized Iron			--	--	--	238	--	--	--	--	<5.0	--	533	--	--	--	--												
Total Organic Carbon (Plumb, 1981) (Percent)			0.129	--	0.150	--	0.230	--	0.136	--	--	--	--	--	--	--	--												

Notes:

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

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

b) Method B cleanup level from Washington Dept. of Ecology's Cleanup Levels and Risk Calculations (CLARC) tables. Soil cleanup levels based on direct contact (ingestion); not to be used for protection of groundwater.

c) Sample 2-CB-SW is the followup sample for South-32 after chemical oxidation treatment.

Therefore, concentrations in shaded sample have been removed.

µg/kg - micrograms per kilogram.

mg/kg - milligrams per kilogram

J - value from sample out of holding time; estimated value

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

N/A - not available

-- not analyzed

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

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

			Monitoring Well I.D. ^b													
	Date	Method A														
Analyte	Sampled	Cleanup Levels ^a	GT1	GT2	GT3	LC1	LC2	LC3	LC4 ¹ /LC4R	LC5 ¹ /LC5R	LC6	LC7	LC8	LC9	Field Blank	Trip Blank
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	N/A	7.33	7.19	7.13	7.19	7.26	7.07	7.03	7.05	7.07	--	--	--	--	--
	02/07	N/A	6.77	6.64	6.57	6.46	6.42	6.62	6.06	6.43	6.70	--	--	--	--	--
	06/07	N/A	7.15	7.01	6.95	6.99	7.23	7.00	6.97	6.91	6.90	--	--	--	--	--
	09/07	N/A	7.11	7.00	6.88	7.00	7.16	6.92	6.83	6.88	6.91	--	--	--	--	--
	12/07	N/A	7.47	7.42	7.30	6.50	7.36	7.45	6.42	6.59	7.02	--	--	--	--	--
	03/08	N/A	7.75	7.77	7.51	7.67	8.04	8.36	--	8.42	8.19	--	--	--	--	--
	06/08	N/A	7.23	6.89	6.97	**	6.96	6.70	--	--	6.96	--	--	--	--	--
	09/08	N/A	**	6.59	6.55	6.62	6.72	6.58	--	--	6.66	--	--	--	--	--
	12/08	N/A	7.06	6.75	6.79	6.98	7.54	6.82	--	--	6.95	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	**	**	**	--	--
	03/09	N/A	7.26	6.96	6.92	7.07	7.13	6.99	6.96	6.97	7.07	--	--	--	--	--
	06/09	N/A	7.44	7.18	7.16	7.27	7.07	7.18	7.37	7.25	7.19	--	--	--	--	--
	09/09	N/A	7.37	7.11	7.03	7.06	7.19	7.05	7.12	7.08	7.07	--	--	--	--	--
	12/09	N/A	7.61	7.42	7.33	7.20	7.73	7.16	7.77	7.52	7.27	--	--	--	--	--
	05/10	N/A	7.41	7.16	7.07	7.04	7.42	7.06	7.71	7.37	7.16	--	--	--	--	--
	09/10	N/A	7.40	7.19	7.14	7.08	7.16	7.04	7.19	7.18	7.05	--	--	--	--	--
ORP ^d (mV)	05/06	N/A	-33	-27	-56	-72	-152	-33	-50	-82	-50	--	--	--	--	--
	09/06	N/A	-119	-97	-68	-113	-90	-71	-50	-107	-78	--	--	--	--	--
	02/07	N/A	-33	-2	17	-60	-32	56	80	-30	31	--	--	--	--	--
	06/07	N/A	-211	-171	-38	-61	-162	-183	-116	-214	-111	--	--	--	--	--
	09/07	N/A	-96	-95	-71	-125	-132	-83	-75	-126	-95	--	--	--	--	--
	12/07	N/A	**	**	**	**	**	**	**	**	**	--	--	--	--	--
	03/08	N/A	-54	-27	10	-28	-30	-59	--	-107	-43	--	--	--	--	--
	06/08	N/A	-57	-49	142	**	112	-17	--	--	-17	--	--	--	--	--
	09/08	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/08	N/A	-52	-16	43	-22	40	-44	--	--	0.7	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09	N/A	**	**	**	**	**	**	**	**	**	--	--	--	--	--
	06/09	N/A	-90	-78	13	-57	-78	-42	-92	-80	-50	--	--	--	--	--
	09/09	N/A	-148	-140	-73	-188	-115	-89	-130	-136	-103	--	--	--	--	--
	12/09	N/A	**	**	**	**	15	6	-96	-60	-2	--	--	--	--	--
	05/10	N/A	145	166	163	158	111	108	80	107	115	--	--	--	--	--
	09/10	N/A	-130	-64	19	-72	-101	-58	-63	-79	-74	--	--	--	--	--
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	N/A	20.0	21.3	20.8	23.1	22.6	22.6	22.2	22.5	20.6	--	--	--	--	--
	02/07	N/A	13.6	9.3	10.0	16.8	16.2	11.4	9.7	10.0	11.8	--	--	--	--	--
	06/07	N/A	17.8	20.2	18.7	20.7	20.0	19.3	18.6	18.0	17.6	--	--	--	--	--
	09/07	N/A	19.3	19.4	19.2	22.3	21.7	22.2	20.2	20.4	20.0	--	--	--	--	--
	12/07	N/A	11.9	8.8	9.3	17.3	15.5	11.6	12.3	11.4	12.6	--	--	--	--	--
	03/08	N/A	13.0	10.3	9.5	15.9	16.3	11.8	--	11.3	12.4	--	--	--	--	--
	06/08	N/A	16.1	17.0	17.2	18.3	19.8	16.4	--	--	16.3	--	--	--	--	--
	09/08	N/A	18.7	17.9	17.8	22.1	21.8	19.6	--	--	17.6	--	--	--	--	--
	12/08	N/A	11.2	7.6	6.9	14.6	15.0	9.8	--	--	11.5	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	13.0	11.0	9.7	--	--
	03/09	N/A	13.0	9.0	9.0	14.6	16.5	10.9	8.7	9.0	10.5	--	--	--	--	--
	06/09	N/A	17.9	21.5	19.2	20.8	20.5	19.9	16.7	17.3	17.3	--	--	--	--	--
	09/09	N/A	19.3	18.4	19.0	22.2	21.4	20.1	17.8	18.2	19.3	--	--	--	--	--
	12/09	N/A	13.5	7.9	9.0	15.5	16.3	10.8	9.5	9.3	11.3	--	--	--	--	--
	05/10	N/A	13.5	12.6	13.6	17.6	17.3	13.2	11.3	11.6	12.1	--	--	--	--	--
	09/10	N/A	20.1	20.4	19.4	21.3	21.1	20.2	19.2	19.5	18.4	--	--	--	--	--
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	N/A	811	866	864	866	736	870	853	856	856	--	--	--	--	--
	02/07	N/A	831	971	915	951	519	1,020	496	795	948	--	--	--	--	--
	06/07	N/A	786	813	833	836	676	820	808	804	842	--	--	--	--	--
	09/07	N/A	808	844	879	873	622	841	737	824	828	--	--	--	--	--
	12/07	N/A	732	706	829	1,017	181	778	553	543	920	--	--	--	--	--
	03/08	N/A	637	915	926	928	518	902	--	114 ^j	--	--	--	--	--	--
	06/08	N/A	998	1,701	1,471	1,561	1,490	1,493	--	--	1,363	--	--	--	--	--
	09/08	N/A	774	1,236	798	1,318	963	1,269	--	--	1,353	--	--	--	--	--
	12/08	N/A	**	**	**	**	671	**	--	--	**	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	836	1,090	1,828	--	--

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

Analyte	Date Sampled	Method A Cleanup Levels ^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		
Specific Conductivity (µS/cm) (cont.)	03/09	N/A	587	861	824	864	648	825	--	--	--	--	--	--	--	--
	06/09	N/A	748	1,006	991	993	875	995	856	914	1,007	--	--	--	--	--
	09/09	N/A	636	947	944	966	629	986	976	997	1,002	--	--	--	--	--
	12/09	N/A	584	872	857	1,011	299	939	487	664	854	--	--	--	--	--
	05/10	N/A	663	839	854	1,014	525	958	458	812	956	--	--	--	--	--
	09/10	N/A	788	915	884	873	786	904	872	931	916	--	--	--	--	--
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	N/A	0.15	0.17	0.14	0.20	0.35	0.23	0.19	0.09	0.09	--	--	--	--	--
	02/07	N/A	0.31 ^g	0.13 ^g	-- ^g	-- ^g	-- ^g	-- ^g	-- ^g	-- ^g	-- ^g	--	--	--	--	--
	06/07	N/A	0.19	0.22	0.24	0.34	0.91	0.35	0.47	0.39	1.13	--	--	--	--	--
	09/07	N/A	0.41	0.34	0.27	0.24	0.25	0.58	0.78	0.55	0.58	--	--	--	--	--
	12/07	N/A	0.33	0.47	0.17	0.72	3.05	1.44	1.00	0.29	0.28	--	--	--	--	--
	03/08	N/A	0.34	0.34	1.28	0.31	1.12	0.44	--	0.37	0.34	--	--	--	--	--
	06/08	N/A	0.20	1.09	0.71	0.29	0.35	0.71	--	--	0.28	--	--	--	--	--
	09/08	N/A	1.32	1.12	1.06	0.08	0.84	1.36	--	--	1.34	--	--	--	--	--
	12/08	N/A	0.90	2.11	2.17	0.61	2.47	1.60	--	--	0.87	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	4.74	4.73	8.05	--	--
	03/09	N/A	0.19	0.13	0.42	0.10	0.11	0.71	0.25	0.33	0.17	--	--	--	--	--
	06/09	N/A	0.23	0.13	0.28	0.15	0.14	0.27	0.52	0.33	0.21	--	--	--	--	--
	09/09	N/A	0.42	0.20	0.37	0.22	0.21	0.31	0.35	0.36	0.29	--	--	--	--	--
	12/09	N/A	0.17	0.74	0.53	0.22	2.33	0.89	0.43	0.48	0.35	--	--	--	--	--
	05/10	N/A	0.27	0.51	0.38	0.21	0.37	1.55	0.64	1.47	0.64	--	--	--	--	--
	09/10	N/A	0.22	0.29	0.97	0.83	0.45	0.39	0.93	1.40	0.37	--	--	--	--	--
Turbidity (NTU)	05/06	N/A	1.76	0.83	0.66	5.76	62 ^e	1.05	1.79	2.82	2.01	--	--	--	--	--
	09/06	N/A	*	0.47	0.70	0.7	*	5.5	2.4	1.8	*	--	--	--	--	--
	02/07	N/A	3.1 ^h	0.0 ^h	>999 ^h	0.0 ^h	0.0 ^h	22.4 ^h	0.0 ^h	16.3 ^h	26 ^h	--	--	--	--	--
	06/07	N/A	0.7	1.1	2.2	0.9	1.9	2.6	1.8	0.2	3.8	--	--	--	--	--
	09/07	N/A	0.9	0.9	1.6	*	0.5	2.3	6.5	0.14	3.8	--	--	--	--	--
	12/07	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/08	N/A	16.9	8.8	168 ^k	2.3	0.7	20.9	--	9.6	4.4	--	--	--	--	--
	06/08	N/A	0.7	1.8	34.5/227 ^k	0.5	0.0 ^m	1.1	--	--	-- ^m	--	--	--	--	--
	09/08	N/A	54.8 ^h	53.2 ^h	187 ^h	18.2 ^h	48.2 ^h	179 ^h	--	--	-- ^h	--	--	--	--	--
	12/08	N/A	2.90	39.6 ^k	10.29 ^k	0.0 ^m	0.0 ^m	-- ^m	--	--	--	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	7.40	5.69	7.90	--	--
	03/09	N/A	0.0	0.0	0.0	0.0	0.0	0.2	9.3	1.5	0.0	--	--	--	--	--
	06/09	N/A	2.6	1.5	1.4	0.1	1.7	3.1	1.9	23	0.95	--	--	--	--	--
	09/09	N/A	4.2	2.1	1.3	1.2	0.93	0.87	0.98	0.92	1.1	--	--	--	--	--
	12/09	N/A	6.2	5.8	0.8	0.0	1.48	2.90	3.64	4.64	6.2	--	--	--	--	--
	05/10	N/A	5.4	9.6	1.8	2.0	0.0	4.49	3.20	3.13	4.9	--	--	--	--	--
	09/10	N/A	0.1	4.3	0.4	0.0	0.0	9.93	0.00	0.24	0.0	--	--	--	--	--
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	N/A	0.3	0.2	0.6	--	0.1	0.6	0.4	1	1	--	--	--	--	--
	02/07	N/A	0.4	0.6	0.3	0.6	--	0.2	0.1	1	0.4	--	--	--	--	--
	06/07	N/A	0.3	0.4	0.2	0.5	0	0.2	0.6	0.1	0.3	--	--	--	--	--
	09/07	N/A	0.2	0.3	0.2	0.4	0.2	0.4	0.6	0.8	0.8	--	--	--	--	--
	12/07	N/A	0.1	0	0	0.6	0	0.2	0.1	0.8	0.3	--	--	--	--	--
	03/08	N/A	0.3	0.8	0.4	0.4	0.1	0.4	--	0.8	0.4	--	--	--	--	--
	06/08	N/A	0.2	1	0	0.6	0	1	--	--	0.6	--	--	--	--	--
	09/08	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/08	N/A	0.2	0.3	0.1	0.4	0	1	--	--	0.3	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09	N/A	--	0.4	--	--	--	0.2	--	--	--	--	--	--	--	--
	06/09	N/A	0.4	0.6	0	0.4	0.8	0.6	0.4	0.6	0.6	--	--	--	--	--
	09/09	N/A	0	0.4	0.2	0.6	0.8	0.6	1.0	0.6	0.6	--	--	--	--	--
	12/09	N/A	0.1	0.1	0	0.6	0	0.6	0.1	0.2	0.2	--	--	--	--	--
	05/10	N/A	0.2	0.1	0.1	0.4	0	0.6	0.1	0.2	0.3	--	--	--	--	--
	09/10	N/A	0.2	0.3	0	0.4	0.3	0.6	0.6	0.3	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	--	--	--	--	--

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		
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 CaCO3)	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--	--	--	--
Carbonate (SM 2320) (mg/L CaCO3)	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 CaCO3)	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--	--	--	--
Hydroxide (SM 2320) (mg/L CaCO3)	05/06	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	--	--	--	--	--
Dehalococcoides spp.(QCPR) [®]	05/06	N/A	-	+	+	+	-	+	-/-	+	+	--	--	--	--	--
Reductive Dechlorination End Products (µg/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	--	--	--	--	--
	12/09	N/A	260	170	53/64	230	110	110	5,400	1,300	530	--	--	--	--	--
	05/10	N/A	240	160	190	230	400	140	2,700	540	730	--	--	--	--	--
	09/10	N/A	420	310	110/130	210	660	140	630	140	710	--	--	--	--	--
Ethane	05/06	N/A	<12	<12	<12	<12	<12	<12		<12	<12	--	--	--	--	--
	09/06	N/A	0.49	0.34	0.05/0.045	0.24	0.22	0.04	0.11	0.21	0.097	--	--	--	--	--
	02/07	N/A	0.18	0.37	0.088/0.087	0.093	0.42	0.078	0.054	0.14	0.12	--	--	--	--	--
	06/07	N/A	0.24	0.30	0.054	0.034	0.32	0.033	0.10/0.11	0.21	0.088	--	--	--	--	--
	09/07	N/A	0.3	0.29	0.034	0.33	0.21	<0.025	0.052/0.052	0.22	<0.025	--	--	--	--	--
	12/07	N/A	0.22	0.15	0.059	0.091	<0.025	0.030	0.081/0.084	0.28	0.058	--	--	--	--	--
	03/08	N/A	0.098	0.23	0.052/0.045	0.040	0.038	0.026	--	0.16	0.065	--	--	--	--	--
	06/08	N/A	0.22	0.29	0.037	0.087	0.053	0.044	--	--	0.067	--	--	--	--	--
	09/08	N/A	0.18	0.27	0.068	0.11	0.073	0.064	--	--	0.11	--	--	--	--	--
	12/08	N/A	0.12	0.12	<0.025/0.028	0.13	<0.025	0.044	--	--	0.11	--	--	--	--	--
	02/09	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/09	N/A	0.096	0.17	0.032/0.034	0.14	0.037	0.048	0.240	0.14	0.092	--	--	--	--	--
	06/09	N/A	0.11	0.20	0.070/0.068	0.17	0.11	0.059	0.290	0.099	0.16	--	--	--	--	--
	09/09	N/A	0.22	0.15	0.12/0.15	0.17	0.15	0.089	0.250	0.14	0.20	--	--	--	--	--
	12/09	N/A	0.13	0.12	0.079/0.094	0.17	0.044	0.062	2.70	0.87	0.19	--	--	--	--	--
	05/10	N/A	0.54	0.085	0.180	0.16	0.049	0.037	1.10	0.31	0.19	--	--	--	--	--
	09/10	N/A	0.76	0.24	0.075/0.074	0.13	0.16	0.068	0.39	0.076	0.22	--	--	--	--	--
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	0.066/0.070	<0.025	0.035	<0.025	0.072	0.12	<0.025	--	--	--	--	--
	06/09	N/A	<0.025	0.71	0.12/0.13	<0.025	0.072	0.026	0.15	0.19	0.026	--	--	--	--	--
	09/09	N/A	0.026	0.68	0.25/0.28	0.37	0.150	0.035	0.16	0.24	0.048	--	--	--	--	--
	12/09	N/A	<0.025	0.26	0.096/0.110	<0.025	0.026	<0.025	0.90	0.43	<0.025	--	--	--	--	--
	05/10	N/A	0.030	0.13	0.073	<0.025	0.032	0.073	0.26	0.16	<0.025	--	--	--	--	--
	09/10	N/A	0.094	0.47	0.12/0.15	<0.025	0.083	0.029	0.14	0.11	0.034	--	--	--	--	--

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

LeatherCare, Inc.
 Seattle, Washington

			Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b												Field Blank	Trip Blank
Analyte	GT1	GT2			GT3	LC1	LC2	LC3	LC4 ¹ /LC4R	LC5 ¹ /LC5R	LC6	LC7	LC8	LC9				
Petroleum Hydrocarbons (NWTPH-Dx) (mg/L)																		
Diesel	05/06	0.50	<0.25	0.32	<0.25	<0.25	<0.25	<0.25	<0.25/<0.25	0.35	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	--	--		
Detected Volatile Organic Compounds (EPA SW8260B) (µg/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	--	--	--	--	--		
	12/09	5	<0.2	<0.2	<0.2/<0.2	1.8	1.0	3.8	0.4	<0.2	<0.2	--	--	--	--	--		
	05/10	5	0.2	<0.2	<0.2/<0.2	1.6	0.7	5.1	0.4	<0.2	<0.2	--	--	--	--	<0.2		
	09/10	5	<0.2	<0.2	<0.2/<0.2	0.8	0.7	4.8	<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	--	--	--	--	--		
	12/09	5	<0.2	0.3	0.5/0.5	2.5	0.3	1.1	1.7	1.5	0.3	--	--	--	--	--		
	05/10	5	0.3	0.5	0.6/0.5	2.1	0.5	0.7	1.1	0.7	0.3	--	--	--	--	<0.2		
	09/10	5	0.4	0.5	0.6/0.6	1.7	0.5	0.8	0.6	0.5	<0.2	--	--	--	--	--		
cis-1,2-Dichloroethene	05/06	80 ^f	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 ^f	3.7	24 D	13/13	15	15	4.3	10	2.5	2.6	--	--	--	--	--		
	02/07	80 ^f	4.9	10	35/34 D	6.3	8.4	2.4	7.7	4.9	2.5	--	--	--	--	<0.2		
	06/07	80 ^f	3.0	22 D	16	7.6	5.0	2.4	8.6/9.0	1.6	1.8	--	--	--	--	--		
	09/07	80 ^f	2.3	18 D	5.0	9.7	6.9	6.4	11/11	1.7	1.7	--	--	--	--	--		
	12/07	80 ^f	1.8	12	14	9.9	1.2	8.0	7.7/7.7	4.6	1.7	--	--	--	--	--		
	03/08	80 ^f	1.8	18 D	19/19	6.6	2.5	2.1	--	3.3	1.5	--	--	--	--	--		
	06/08	80 ^f	2.0	11	15	4.6	7.0	2.7	--	--	1.3	--	--	--	--	--		
	09/08	80 ^f	2.1	8.2	20	7.9	5.2	2.9	--	--	1.0	--	--	--	--	--		
	12/08	80 ^f	1.9	6.4	9.2/9.8	6.2	1.2	1.6	--	--	0.8	--	--	--	--	--		
	02/09	80 ^f	--	--	--	--	--	--	--	--	--	<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												Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ¹ /LC4R	LC5 ¹ /LC5R	LC6	LC7	LC8	LC9		
cis-1,2-Dichloroethene (cont.)	03/09	80 ^f	1.7	8.4	6.7/6.8	3.6	1.4	1.0	2.3	1.2	0.5	--	--	--	--	--
	06/09	80 ^f	1.7	12	8.8/9.0	4.1	2.9	1.4	2.6	1.5	0.6	--	--	--	--	--
	09/09	80 ^f	0.9	5.2	7.1/7.4	8.4	4.4	1.8	2.6	1.7	0.7	--	--	--	--	--
	12/09	80 ^f	0.8	2.5	6.4/6.4	4.0	1.3	1.2	2.2	2.2	0.8	--	--	--	--	--
	05/10	80 ^f	1.0	2.6	15/15	3.8	1.4	0.9	1.6	1.4	0.5	--	--	--	--	<0.2
	09/10	80 ^f	1.4	12	9.8/9.6	4.6	1.9	1.5	2.4	1.1	0.6	--	--	--	--	--
trans-1,2-Dichloroethene	05/06	160 ^f	<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 ^f	<0.2	6.9	5.4/5.4	0.4	1.3	<0.2	0.5	<0.2	<0.2	--	--	--	--	--
	02/07	160 ^f	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 ^f	<0.2	4.8	4.5	<0.2	0.6	<0.2	0.4/0.5	<0.2	<0.2	--	--	--	--	--
	09/07	160 ^f	<0.2	5.3	2.4	<0.2	0.5	<0.2	0.3/0.4	<0.2	<0.2	--	--	--	--	--
	12/07	160 ^f	<0.2	2.9	4.2	<0.2	<0.2	<0.2	0.2/0.2	0.3	<0.2	--	--	--	--	--
	03/08	160 ^f	<0.2	3.1	3.3/3.1	<0.2	<0.2	<0.2	--	<0.2	<0.2	--	--	--	--	--
	06/08	160 ^f	<0.2	3.9	4.6	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--
	09/08	160 ^f	<0.2	2.9	5.9/5.2	0.4	0.3	<0.2	--	--	<0.2	--	--	--	--	--
	12/08	160 ^f	<0.2	1.8	2.3/2.6	0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--
	02/09	160 ^f	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--
	03/09	160 ^f	<0.2	2.0	1.9/2.0	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	--	--	--	--	--
	06/09	160 ^f	<0.2	3.2	4.2/4.3	<0.2	0.2	<0.2	0.2	<0.2	<0.2	--	--	--	--	--
	09/09	160 ^f	<0.2	1.7	3.9/3.9	<0.2	0.3	<0.2	0.3	<0.2	<0.2	--	--	--	--	--
	12/09	80 ^f	<0.2	1.0	1.6/1.5	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	--	--	--	--	--
	05/10	80 ^f	<0.2	1.1	2.6/2.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	<0.2
	09/10	80 ^f	<0.2	2.1	2.1/2.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	--	--	--	--	--
1,1-Dichloroethene	05/06	0.073 ^f	<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 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--
	02/07	0.073 ^f	<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 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	--
	09/07	0.073 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	--
	12/07	0.073 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--	--	--	--
	03/08	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	<0.2	<0.2	--	--	--	--	--
	06/08	0.073 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--
	09/08	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--
	12/08	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--	--	--	--
	02/09	0.073 ^f	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--
	03/09	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--
	06/09	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--
	09/09	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--
	12/09	80 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--
	05/10	80 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	--	<0.2
	09/10	80 ^f	<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	0.6	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	1.6	1.4	<0.2	5.6	1.2/1.1	3.5	1.8	--	--	--	--	--
	03/08	0.2	<0.2	12	2.8/2.4	0.7	0.3	0.8	--	1.9	1.1	--	--	--	--	--
	06/08	0.2	<0.2	18	4.8	0.3	0.5	0.9	--	--	0.2	--	--	--	--	--
	09/08	0.2	<0.2	16	5.2/4.6	0.9	1.1	0.9	--	--	0.2	--	--	--	--	--
	12/08	0.2	<0.2	11	1.7/1.8	0.6	<0.2	0.8	--	--	<0.2	--	--	--	--	--
	02/09	0.2	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2	--	--
	03/09	0.2	<0.2	9.2	1.0/1.0	0.4	0.3	0.3	1.3	1.6	<0.2	--	--	--	--	--

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

LeatherCare, Inc.
 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^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		
Vinyl Chloride (cont.)	06/09	0.2	<0.2	17	3.8/4.7	0.8	1.0	0.3	1.5	2.2	<0.2	--	--	--	--	--
	09/09	0.2	<0.2	6.9	4.9/4.9	1.6	1.2	0.6	1.4	2.4	<0.2	--	--	--	--	--
	12/09	0.2	<0.2	3.7	2.5/2.6	0.4	0.2	0.3	1.2	1.4	<0.2	--	--	--	--	--
	05/10	0.2	0.5	1.7	1.7/1.6	0.4	0.4	0.2	0.9	1.1	<0.2	--	--	--	--	<0.2
	09/10	0.2	1.0	5.8	4.4/4.4	0.4	0.7	0.4	1.4	1.1	<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 ^f	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 ^f	<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 ^f	<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 ^f	3.4 M	5.3 M	<1.0	1.5	2.3	1.3	1.5/1.7	2.1	1.7	--	--	--	5.2	1.5
Methylene Chloride	05/06	5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3/<0.3	<0.3	<0.3	--	--	--	<0.3	0.4

Notes:

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

* 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 dehalococoides detected; - means dehalococoides not detected.

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

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

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

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

j) Value believed to be incorrect.

k) Turbidity influenced by biofloc.

l) Destroyed by construction.

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

°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.

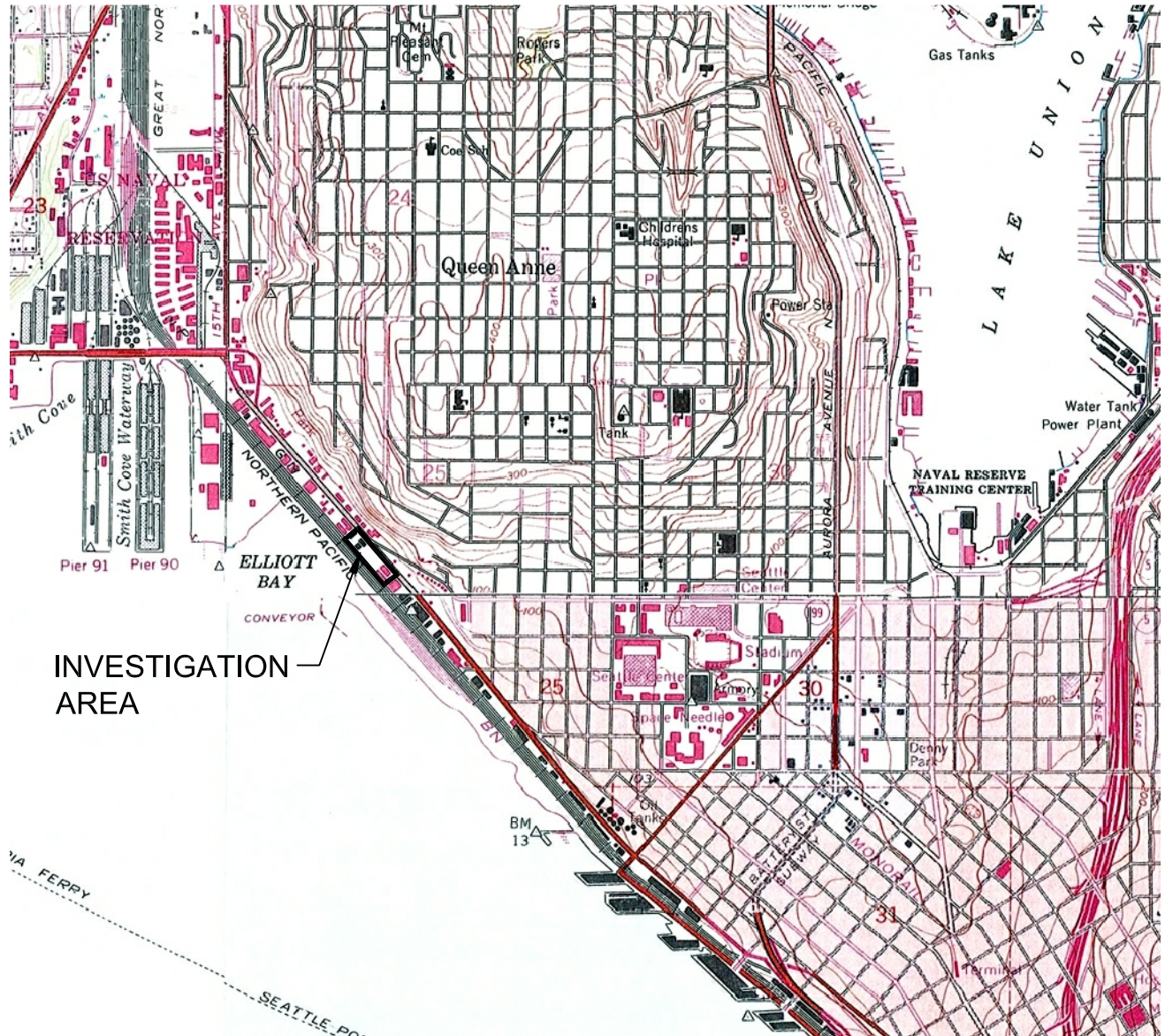
M - estimated amount of analyte found and confirmed by analyst but with low GC/MS spectral match.

-- not analyzed or not measured.

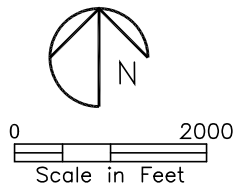
< - analyte not detected at or greater than the listed concentration.

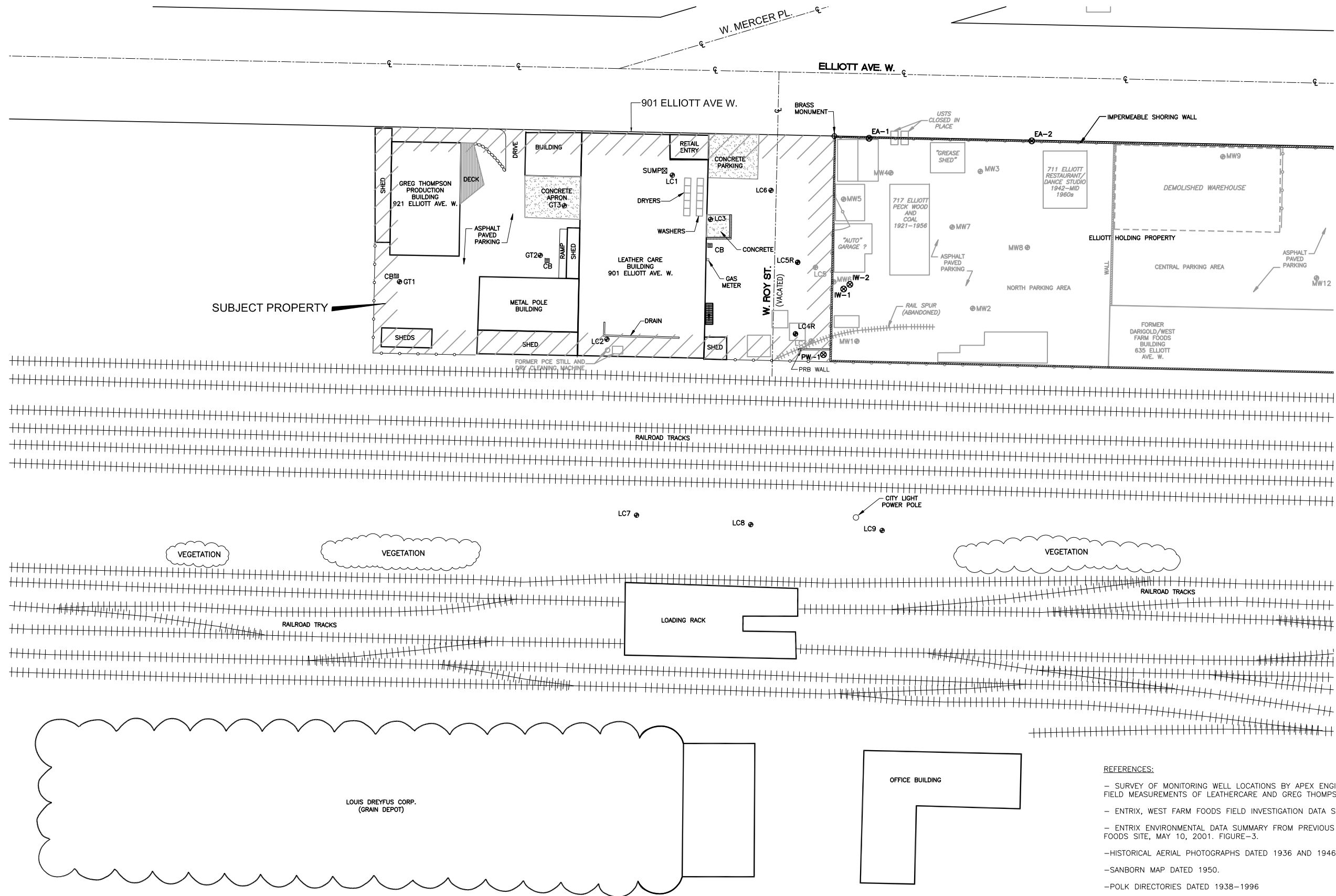
Figures

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

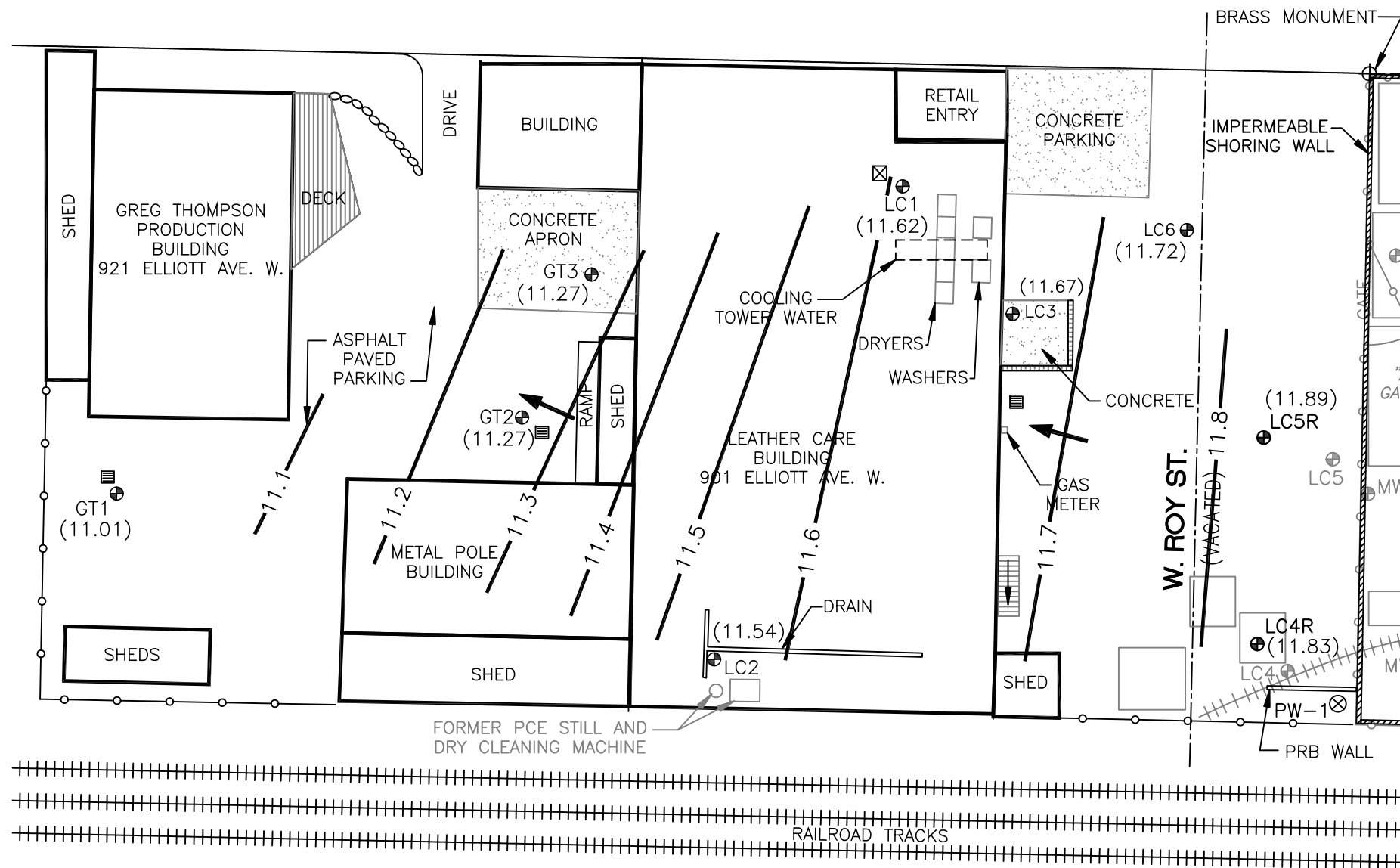




CDM

LEATHERCARE INC.
SEATTLE, WASHINGTON

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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 (11.72) 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 SNV-5144
BRASS MONUMENT SW CORNER OF ROY
AND ELLIOTT. ELEVATION 19.78'

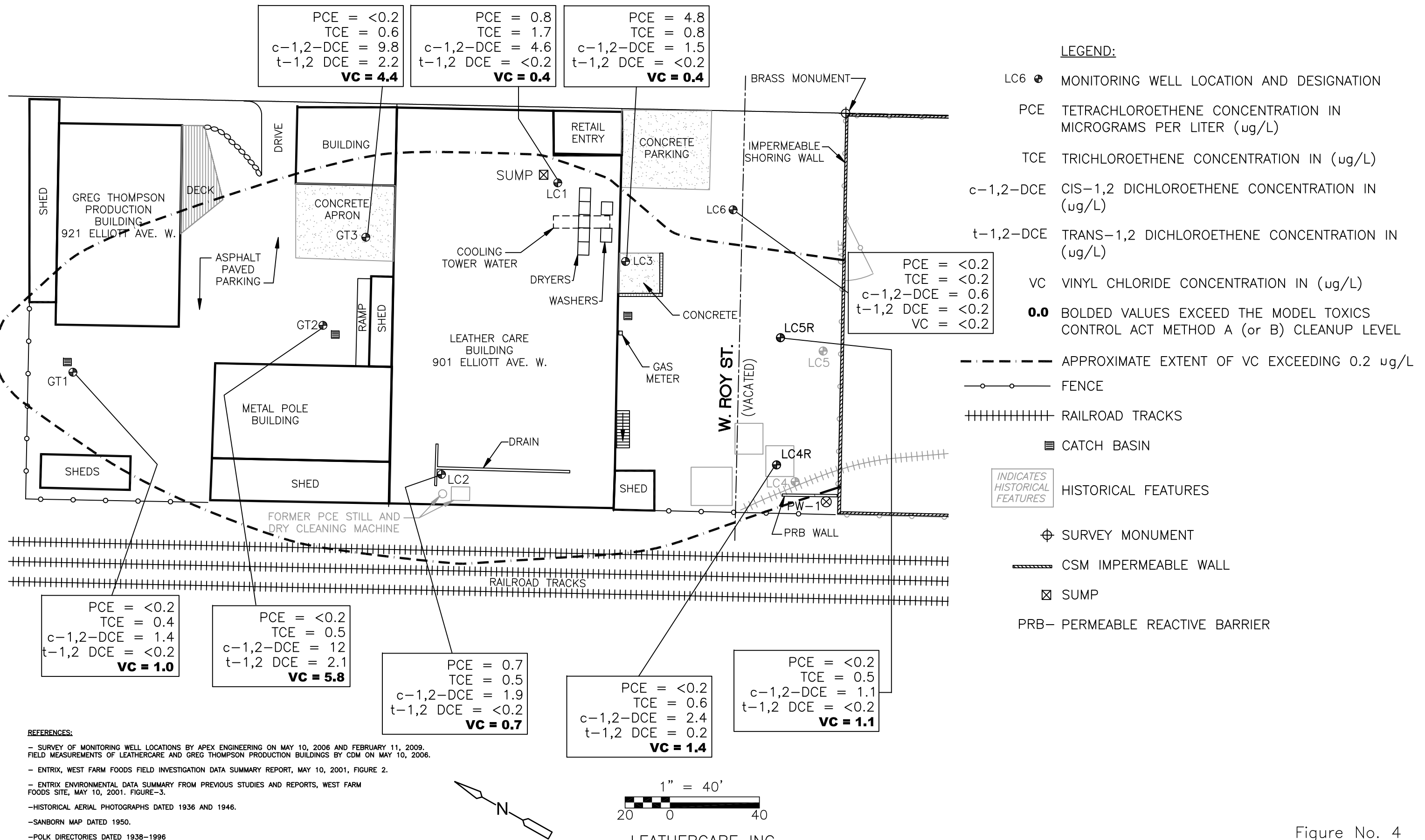
BASIS OF BEARING:

BASIS OF BEARING ASSUMED DUE WEST

LEATHERCARE INC.
SEATTLE, WASHINGTON

Figure No. 3
Potentiometric Surface Map
September 1, 2010

P:\56498\68247\ Fig-4 Sept 2010 11/03/10 07:35 riehlej XREFS: 11X17BDR, Fig-4 SEPT 2010 GW



LEATHERCARE INC.
SEATTLE, WASHINGTON

Figure No. 4
Summary of cVOCs in Groundwater
September 2010