Remedial Investigation and Focused Feasibility Study
Snohomish County Shop Upper Terrace
1200 Block of Avenue D
Snohomish, Washington

Snohomish County Department of Public Works
3000 Rockefeller Ave., M/S 607
Everett, WA 98201

April 30, 2013

CDM Smith

A Report Prepared For:

Snohomish County Public Works Department
3000 Rockefeller Ave., M/S 607
Everett, Washington 98201

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Executive Summary

This report presents the results of a remedial investigation (RI) and focused feasibility study (FS) for the upper terrace area of the former Snohomish County road maintenance and shop facility (Snohomish Shop) located in the 1200 block of Avenue D in the City of Snohomish, Snohomish County, Washington (Property). CDM Smith Inc. (CDM Smith) completed this work on behalf of Snohomish County Public Works Department (the County). The objective of this work is obtain a property-specific letter of "No Further Action" (NFA) from the Washington State Department of Ecology (Ecology) through the Voluntary Cleanup Program (VCP) , which relies on implementation of institutional controls on the Property to address the offsite contaminant source. This executive summary should be used in context with the entire report.

The former Snohomish Shop consists of two geographic areas: the upper terrace (eastern half) and lower terrace (western half). The property consists of a number of existing legal parcels which the County intends to reorient to separate these two geographic areas once the future land use is better defined. The County has enrolled both the upper terrace parcel and the lower terrace parcel in the VCP separately because the contaminant sources are unrelated, the plumes do not overlap, and the appropriate remedial actions for each site differ. This report focuses solely environmental issues identified for the upper terrace area.

The Snohomish Shop property was acquired by the County in the 1930s and its use as a road maintenance and shop facility likely began about that time. In the northern half of the upper terrace of the former Snohomish Shop facility was primarily utilized for the storage of miscellaneous parts, equipment (pipes, timber, backhoe buckets, plow shovels, dump trucks), and gravel, and included a vehicle wash facility. In the southern half were three buildings that housed a sheriff's office, a carpentry shop, the traffic group and the sign shop.

In 1991, CDM Smith conducted a Stage I ESA of the Snohomish Shop property. The Stage I ESA was similar to what currently is referred to as a combination of a Phase 1 and Phase 2 ESA and in 1992 CDM Smith completed a focused RI/FS for the Snohomish Shop. Based on the research of historical site activities and limited number of explorations completed within the upper terrace the RI determined that no substantial environmental concern existed on the upper terrace requiring immediate attention. It did, however, identify the following areas/sources of suspected contamination in the upper terrace as a result of historical Snohomish Shop activities:

- Unconfirmed placement of fill consisting of ditch dredge spoils in the northern portion of the upper terrace.
- Treatment of timbers with creosote along the western edge and central portion of the upper terrace during the 1970s and 1980s.
- Small scale sign painting on the north side of the traffic operations building, the area most recently used for sign storage.

In the fall of 2008, the County relocated the Snohomish Shop to its Cathcart Facility in unincorporated Snohomish County south of the City of Snohomish. The County then demolished

and removed the buildings at the Snohomish Shop in the spring of 2009. Subsequently, CDM Smith was requested to conduct supplemental due diligence environmental investigations.

In 2009 CDM Smith initiated a Phase 2 environmental site assessment (ESA) on the Property. This study identified the chlorinated solvent tetrachloroethene (PCE) in a groundwater sample collected from a test pit. This was an unexpected finding as PCE was not a chemical known or likely to have been used within the upper terrace area and PCE is typically associated with dry cleaners. This finding prompted a series of additional investigations and research to delineate and determine the source of PCE in soil and groundwater ultimately culminating in the RI and focused FS documented here.

Research of Ecology's database of known and suspected contaminated sites identified two adjacent gas stations and a former dry cleaner (Snohomish Square Cleaners) upgradient of the Property as potential offsite contamination source for the upper terrace. Subsequently, CDM Smith obtained information that showed a PCE plume originating from Snohomish Square Cleaners and extending southward toward the Property. Part of CDM Smith's RI work involved investigation that ultimately linked the PCE plume from the former Snohomish Square Cleaners to the PCE plume on the Property.

The results of the RI for the Snohomish Shop upper terrace determined the following:

- There have been no releases from the Snohomish Shop's historical operations on the upper terrace area that have resulted in the requirement to conduct remedial actions under the Model Toxics Control Act (MTCA).
- There have been no impacts to the upper terrace as a result of migration of contamination originating at adjacent gas station properties.
- Perched groundwater on the upper terrace has been impacted by a source of PCE originating from the former Snohomish Square Cleaners located approximately 620 feet upgradient (north) of the Site. Delineation of this plume has determined:
    - PCE concentrations on the Property exceed the MTCA Method A cleanup level over an area that extends from the north corner southward to the edge of the terrace, a distance of approximately 300 feet.
    - Because of the relatively great elevation difference between the Snohomish Shop upper and lower terrace areas (approximately 30 feet) and discontinuous nature of perched groundwater, the perched groundwater systems on the two terraces are separate. The perched water system studied during this RI is not in hydrologic connection with any groundwater source in the lower terrace. Rather, the upper zone of perched groundwater on the upper terrace ultimately discharges to surface water in a drainage swale on the lower terrace.
    - Results of surface water testing indicate the surface water swale at the upgradient (north) edge of the Site attenuates prior to reaching the lower terrace drainage swale as surface water samples did not contain PCE or other chlorinated volatile organic compounds (cVOCs) at concentrations greater than method reporting limits.

MTCA Method A cleanup levels for cVOCs, specifically PCE, are appropriate cleanup levels for the Property because of the limited number of contaminants of concern and that there is a Method A cleanup level for PCE. The Property qualifies for an exclusion from ecological-based cleanup levels due to the small area of contiguous undeveloped property located within 500 feet.

Results of the focused FS determined that the appropriate remedial alternative for this Property is implementation of institutional controls that would address restrictions on groundwater withdrawal, controls necessary to protect human health and the environment for future excavation (i.e., construction) activities, and vapor mitigation in future buildings (if required). These actions provide the controls necessary to protect human health and the environment from PCE contamination on the Property and are in compliance with MTCA. Further, they do not preclude or encumber any final cleanup remedy for the Snohomish Square Cleaners that may be selected.

Section 1
Introduction

This report presents the results of a remedial investigation (RI) and focused feasibility study (FS) completed for the upper terrace area (Property or upper terrace) of the former Snohomish County road maintenance and shop facility (Snohomish Shop) located in the 1200 block of Avenue D in the City of Snohomish, Snohomish County, Washington (**Figure 1**). CDM Smith Inc. (CDM Smith) completed this work on behalf of Snohomish County Public Works Department (the County).

The Snohomish Shop consists of two geographic areas: the upper terrace (eastern half) and lower terrace (western half). The upper terrace was used primarily for materials storage and offices associated with road maintenance operations. The lower terrace was used primarily for the maintenance, storage and fueling of vehicles, and for an engineering laboratory.

The property consists of a number of existing legal parcels which the County intends to reorient to separate these two geographic areas into two separate properties in the near future. **Figure 2** shows the approximate boundaries of these two proposed areas. The County has enrolled both the upper terrace and the lower terrace in the Washington State Department of Ecology's (Ecology) Voluntary Cleanup Program (VCP) separately because the contaminant sources are unrelated, do not overlap, and the appropriate remedial actions for each differ. The objective is to obtain a letter of "No Further Action" (NFA) for both the upper and lower terraces. This report is limited to environmental issues impacting the Snohomish Shop upper terrace area, also referred to throughout this report as the "Property." Limited information for the Snohomish Shop lower terrace area is provided only to the extent necessary for purposes of establishing the physical setting and background.

1.1 Background

In 1991 Applied Geotechnology Inc. (AGI, now CDM Smith) completed a Stage I environmental site assessment (ESA) (similar to a Phase 1 and 2 ESA) for the entire Snohomish Shop, followed by a focused RI/FS in 1992 (AGI, 1991; AGI, 1992). The scope of those investigations, specific to the upper terrace, is detailed in Section 3. At the time, no environmental contaminant issues were identified within the upper terrace of the Snohomish Shop, whereas a significant source of chlorinated volatile organic compounds (cVOCs) were identified in soils and perched groundwater within the lower terrace area as a result of historical activities conducted at facilities situated on the lower terrace of the Snohomish Shop. Subsequently, interim remedial actions were implemented on the lower terrace area of the Snohomish Shop property.

In the fall of 2008, the County relocated all its activities from the Snohomish Shop to the Cathcart Facility on Cathcart Way south of the City of Snohomish in unincorporated Snohomish County. The County then demolished and removed the all buildings at the Snohomish Shop in the spring of 2009, with the exception of a portable office building located at the southwest corner of the upper terrace. The former Snohomish Shop property is one of few undeveloped commercial

properties within the city limits located on a major thoroughfare and is an excellent prospect for commercial redevelopment to help meet the City's growth needs and to provide revenue for the County Road Fund.

In the spring of 2009, CDM Smith was requested to augment the 1990s investigations on the upper terrace in order to complete a comprehensive investigation and characterization, if any, of potential contamination. Borings and test pits excavated on the Property in the early 1990s indicated perched groundwater was greater than 50 feet deep, so the 2009 investigation was initially limited to excavation of test pits and collection and analysis of soil samples. However, perched groundwater was encountered in test pits excavated throughout the northern half of the Property and grab groundwater samples collected from the test pits identified tetrachloroethene (PCE), which resulted in the need to conduct further assessment. Subsequent investigations confirmed the presence of PCE in perched groundwater and linked it to a known PCE plume originating from the former dry cleaner (Snohomish Square Cleaners) located approximately 620 feet upgradient of the Property.

The series of investigations completed for the Site ultimately culminated in this RI and focused FS and report.

1.2 Purpose and Scope of Services

The purpose of this work was to investigate the potential presence of hazardous substances at the Property and complete an RI and FS in substantial compliance with the Model Toxics Control Act (MTCA) Chapter 70.105D of the Revised Code of Washington (RCW), as promulgated under Washington Administrative Code (WAC) 173-340. The "Site," as defined under MTCA, includes all areas where releases of hazardous substances have come to be located. For purposes of this report, the "Property" is defined as the upper terrace.

This report includes a summary of multiple investigations that were performed during the period of June 2009 through October 2011. The investigations were conducted in a step-wise approach as the data from each investigation phase broadened our understanding of the nature and extent of contamination and suggested the need for additional studies. The dates, scope, and general purpose of each phase of field work are summarized chronologically below in order to illustrate how the various phases of the investigation evolved.

- Spring 2009; conducted a pre-demolition site survey to locate key historical facilities prior to demolition.
- Spring 2009; conducted a limited review of Ecology's online leaking underground storage tanks (LUST) list and confirmed and suspected contaminated sites list (CSCSL), as well as reviewing Ecology's files on the two listed adjacent gas station facilities.
- June 2009; excavated 23 test pits across the Property to explore subsurface conditions and collect soil samples for laboratory analysis. Grab groundwater samples were also collected from test pits when previously unanticipated perched groundwater was encountered.
- September 2009; installed six monitoring wells and collected groundwater samples to further evaluate the presence and extent of PCE in perched groundwater, which had been discovered in groundwater samples collected from the June 2009 test pits.

- December 2009; excavated and collected grab groundwater samples from three test pits to further define the extent of PCE in groundwater and improve our understanding of the near-surface geology and hydrogeology.
- January 2010; excavated and collected groundwater samples from nine test pits to continue to improve our understanding of the extent of PCE in groundwater, particularly in the up-gradient area of the Site.
- Spring 2010; reviewed other consultants' reports regarding the presence of PCE in groundwater originating from the Snohomish Square Cleaners, as provided by the owner of that property and which are also on file with Ecology.
- June-July 2010; installed and sampled five additional monitoring wells, including three on-site wells and two off-site wells, to evaluate groundwater conditions at the northern (upgradient) property boundary and upgradient of the Property. Resampled four of the existing monitoring wells on the Property.
- September and October 2011; excavated a series of test pits and trenches in an effort to relocate and excavate a small area of petroleum hydrocarbon-contaminated soil identified during the June 2009 test pit exploration.

1.3 Report Organization

The following describes the remaining structure of this report.

- Section 2 – Site Description; this section describes former and current features and land use, and the natural environment, including topography, and hydrogeologic conditions.
- Section 3 – Summary of Prior Investigation Findings; this section presents a summary of the historical investigations completed specific to the Snohomish Shop upper terrace area.
- Section 4 – File Review of Potential Offsite Contamination Sources; this section summarizes the information gained through our review of Ecology's files on the adjacent properties and evaluation of potential for impact based on the information contained in these files.
- Section 5 - Field Investigation Methods; this section describes all field investigation activities, methods and analytical methods utilized during various phases of the investigation.
- Section 6 – Findings; this section presents a summary of our observations, analytical data, and discussion of the data with respect to Washington State cleanup levels and points of compliance. The section concludes with the conceptual site model which ties together our interpretation of the nature and extent of contamination, sources, and fate and transport.
- Section 7 – Contaminants of Concern and Cleanup Levels; this section provides the evaluation and justification regarding the determination of site contaminants of concern in soil and groundwater and associated applicable cleanup levels.
- Section 8 – Focused Feasibility Study; this section outlines and evaluates potential remedial alternatives for the Property and presents a recommended remedial alternative.
- Section 9 – Conclusions and Recommendations; this section presents our conclusions and recommendations resulting from this work.

- Section 10 – References; this section lists referenced information sources used to substantiate the information in this report.

Section 2
Site Description

2.1 Site Location and Setting

The former Snohomish Shop is located north of downtown Snohomish between Avenue D and 97th Avenue SE (aka Bonneville Avenue) (**Figure 1**). The former Snohomish Shop totals approximately 9 acres and lies across two geologically-formed terraces. The upper terrace is on the east and the lower terrace is on the west. The upper terrace area is located within the 1200 block of Avenue D. The lower terrace is located at 7615 Bonneville Avenue.

The subject of this report is the Avenue D property on the upper terrace. The upper terrace area comprises approximately 4.5 acres of the total 9 acre property. **Figure 2** shows the layout and approximate division of the two Shop terrace properties. Most of the upper terrace is relatively level and lies at an elevation of approximately 145 feet above mean sea level (ft MSL). However, the upper terrace cuts into a hill slope at its northern and eastern property boundary, and at the northeast corner where the property meets Avenue D, the approximate elevation is 165 ft MSL. The lower terrace bounds the Property to the west and is at grade level with Bonneville Avenue, at an approximate elevation of 114 ft MSL. **Figure 2** also shows the approximate topographic contours across the two Snohomish Shop terraces.

The Snohomish Shop property is zoned commercial and the development in the area is mixed commercial-residential. To the north are a mobile home park, apartments, and a dentist's office. A gasoline station, a fast food restaurant, and two strip malls anchored by grocery stores (the most northerly one is called Snohomish Square) and a drug store are located east of Avenue D. A gasoline station borders the southeast corner. To the south are condominiums. The area to the west of Bonneville Avenue is a steep blackberry-covered slope, followed by a flat-lying pasture/wetland at approximately elevation 75 ft MSL. This area is zoned industrial and a large power substation occupies land to the south of the wetland. Pertinent vicinity features are illustrated on **Figure 2**.

2.2 Snohomish Shop Features

Nearly all of the structures on the Snohomish Shop Site were demolished in 2009. Only one portable office building remains on the upper terrace as of the writing of this report. Otherwise, all of the concrete slabs and footings have been removed. The asphalt pavement remains in areas not disturbed by the investigations described in this report. Former facility structure locations and their use are shown on **Figure 2**. This section provides a description of former structures and land use on the upper terrace area of the Snohomish Shop. Photographs taken prior to demolition of the Snohomish Shop facilities are included in **Appendix A**.

The northern portion of the Property was primarily a storage yard for miscellaneous parts and equipment and for stockpiling sand and gravel for road maintenance use (**Appendix A**, **Photo A1**). The types of equipment stored on the Property included, but were not limited to, pipes, timber, backhoe buckets, plow shovels and dump trucks. Asphalt pavement forms a loop

around the northern end. The pavement served a dual purpose in being used as a practice area for painting road stripes (**Appendix A, Photo A6**).

Centrally located near the northern end of the Property was a vehicle wash facility that consisted of a shed with a pressure washer and a large sump (**Appendix A**, **Photo A5**). The sump was essentially a large containment vault with baffles to settle out the solids and temporarily store a large volume of water, which was then recycled through the pressure washer. When the sump was full the County emptied it by vactor truck and disposed of the water and sludge at its Cathcart facility. The wash rack was installed around 1991, but was not was not put into use until 1992 or thereafter when water was plumbed to the area. Initially it was designed to discharge to the storm drain network through an oil/water separator. The sump was apparently installed at a later date.

The southern portion of the upper terrace included the Sheriff's special operations building and three buildings occupied by the traffic operation unit/carpentry shop, fleet management office, and M&O division office, as well as the sign shop (**Appendix A**, **Photos A2** and **A3**). Areas around the buildings were mostly asphalt-paved for parking and ingress and egress.

2.3 Geologic Setting

The Property is located within the Puget Sound Lowland, a north-south trending structural and topographic depression bordered on the west by the Olympic Mountains and on the east by the Cascade Mountains. The Puget Sound Lowland is underlain primarily by sediments deposited during and between repeated glacial advances and retreats in the Pleistocene Epoch. Glacial deposits in the project area consist primarily of recessional outwash, till, and advance outwash. Lithologic characteristics of these deposits, which occur in the following stratigraphic order, are as follows:

- Vashon recessional outwash deposits (Qvr) – Sand and gravel that was deposited by glacial meltwater streams during the recession of the glacier to the north. At a few places, where water was ponded due to irregularities of topography or by blocking of the drainage by ice, sand and silt were deposited. The degree of sorting is variable, stratification is only fair and great lateral variation is common.
- Vashon glacial till (Qvt) - An unstratified, mixture of silt, sand, gravel and boulders that was deposited directly by the ice and then overridden. Typically silt predominates and the placement of pebbles and cobbles is irregular. Unweathered, it is gray to light bluish-gray in color and very compact, often referred to as "hardpan."
- Vashon advance outwash deposits (Qva) - Fine to medium grained sand, grading to sand and gravel, with some lenses of silt. This material was deposited as the glacier moved southward and large quantities of sand and gravel were deposited by meltwater at the front and sides of the ice mass. Typically these deposits are poorly sorted to moderately well sorted. We know that the Qva begins stratigraphically below Qvt, at an elevation of approximately 30 ft above MSL.

According to a geologic map for the area, the upper terrace is mantled by recessional outwash deposits (Thomas, et. al., 1997). However, as will be described further in Section 6, the near

surface stratigraphy across the Property and vicinity is variable. While the upper unit appears to be primarily that of recessional outwash, it appears to contain many irregularities. The area appears to have been located at the edge of a glacier which underwent alternating advancing and receding periods over a relatively short period of time, resulting in what might be described as interbraided or interlayered recessional outwash, glacio-fluvial, and ice-contact deposits.

2.4 Groundwater

Groundwater occurs throughout the region under varying conditions such as perched, unconfined, and confined. Perched groundwater frequently occurs in the more permeable layers of the recessional outwash and other coarse-grained glacial deposits. Groundwater is typically perched on top of glacial till, which is considered relatively impermeable. Perched groundwater also frequently occurs within the upper weathered till layer and in discontinuous more permeable zones of the unweathered till.

The advance outwash unit contains the most extensive regional aquifer in the area and is commonly used for groundwater production (Thomas, et al, 1997). Groundwater within advance outwash was encountered under unconfined conditions during investigations conducted on the lower terrace (AGI, 1992; CDM, 2008). The aquifer underlying the Snohomish Shop property is considered to be continuous across both terraces and occurs at approximately 25 ft MSL, or approximately 120 feet below the ground surface of the upper terrace.

During the early 1990s investigations, perched groundwater was not identified in the recessional outwash and other coarse-grained sediments overlying the till. Conditions have apparently changed since the early 1990s and during recent investigations perched groundwater was consistently present throughout the northern half of the Property beginning at depths between approximately 2 and 5 feet below ground surface (ft bgs). This same zone of perched groundwater was not observed in the south end of the Property.

In 1992, one groundwater monitoring well, screened through a depth interval of 55 to 70 ft bgs (approximate elevation 75 to 90 ft MSL) was installed in the upper terrace. Groundwater sampled from this zone, which is 40 feet below the first zone of perched groundwater, is interpreted to represent groundwater present in a discontinuous permeable zone within the glacial till. The elevation in this lower perched zone is a little higher, but consistent with the perched groundwater system in the Snohomish Shop's lower terrace, which typically occurs at elevations varying between approximately 40 and 80 ft MSL.

Because of the relatively great elevation difference between the upper and lower terrace areas (30 feet), discontinuous nature of the perched water systems, and lack of shallow perched groundwater in the upper zone (i.e., recessional outwash and other course-grained deposits overlying the till) on the lower terrace, the zone of perched groundwater that overlies the till in the upper terrace is not hydraulically connected to the lower terrace. This groundwater ultimately discharges to the surface water in a swale on the eastern edge of the lower terrace, which is described below.

2.5 Surface Water

Along the northern edge of the Property is a drainage swale that discharges at the northwest corner. The flow in this swale appears to be seasonal. It also appears that the roof drains for building(s) on the adjacent property to the north are hard-lined such that the outfall discharges to this drainage swale.

There are two storm drain systems on the Property (**Figure 2**). The first is located on the northern portion and discharges at the top of the slope in the central west portion. The water discharged from this storm drain system and the surface water drainage that discharges at the northwest corner both flow to a drainage swale that extends along the base of the slope that is near the boundary between the upper and lower terrace parcels. The drainage swale enters the storm drain system near the northeast corner of the lower terrace parcel. This storm drain system flows northward about 200 feet to the north drainage ditch. It is then piped under Bonneville Avenue where it ultimately discharges to Cemetery Creek.

The second storm drain system collects water on the southern portion of the upper terrace, flows into the storm drain system at the southwest corner of the lower terrace, and then discharges from a culvert located on the opposite side of Bonneville Avenue. **Figure 3-3** from the original RI, which depicts the overall surface water and storm water flow regime, is included in **Appendix B.**

Section 3
Summary of Prior Environmental Investigation Findings

The Snohomish Shop was acquired by the County in the 1930s and was used as a County road maintenance and shop facility until 2008 when they vacated the property. The Snohomish Shop has been the subject of multiple environmental investigations and an ongoing interim remedial action spanning back to 1991. In 1991, CDM Smith conducted a Stage I ESA of the Snohomish Shop property. The Stage I ESA was similar to what currently is referred to as a combination of a Phase 1 and Phase 2 ESA. In 1992 CDM Smith completed a focused RI/FS for the Snohomish Shop. Upon discovery of volatile organic compounds (VOCs) in soil and perched groundwater within the lower terrace RI/FS and interim remedial actions were focused on the delineation and remediation of those VOCs around the source area. Limited explorations within the upper terrace were completed as part of the Stage I ESA and RI/FS. The specific findings regarding the upper terrace are summarized in the following paragraphs. Pertinent summary tables and figures from these reports are contained in **Appendix B**.

The Stage I ESA identified the following areas/sources of suspected contamination in the upper terrace as a result of historical Snohomish Shop activities:

- Unconfirmed placement of fill consisting of ditch dredge spoils in the northern portion of the upper terrace.
- Treatment of timbers with creosote along the western edge and central portion of the upper terrace during the 1970s and 1980s.
- Small scale sign painting on the north side of the traffic operations building, the area most recently used for sign storage.

Figure 3 shows the locations of these suspected contaminant source areas. Between the Stage I ESA and the focused RI/FS, two test pits (TP10 and TP11), one boring (B1), a monitoring well (MW8), and a vapor probe (VP2) were installed on the upper terrace in an effort to identify the presence of soil contamination resulting from two of the three potential sources listed above. Exploration locations are shown on **Figure 3**. The monitoring well borehole was situated in the suspected dredge fill. The two test pits and B1 were situated in the creosote application areas. MW8 was screened in the till at depths between 55 and 70 ft bgs and was intended to evaluate background groundwater conditions. VP2, which was screened between 17 and 27 ft bgs, never accumulated sufficient water for sampling and was therefore used for collection of soil vapor samples rather than groundwater samples.

A soil sample collected from MW8 was tested for pesticides, herbicides, total petroleum hydrocarbons (TPH), and the metals arsenic, cadmium, lead, and mercury. Two soil samples collected from B1 were analyzed for semivolatile organic compounds (SVOCs) and TPH. SVOCs

were analyzed in a soil sample collected from TP10. Sensidyne detector tubes were used to check for the presence of the chlorinated VOCs 1,1,1-trichloroethane (1,1,1-TCA) and trichloroethene (TCE) in soil vapors at VP2. A groundwater sample collected from MW8 was analyzed for VOCs. Other than metals, none of the analytes were detected in any of the soil, vapor, or water samples. Metals concentrations were comparable to natural background concentrations (San Juan, 1994). Also, no visual or olfactory signs of contamination were apparent at any of the exploration locations.

Results of the 1991/1992 investigations on the Property suggested no presence of widespread residual creosote contamination from prior wood treating onsite, of issues associated with the possible presence of dredge fill, or of the onsite migration of contamination from offsite source(s). The investigations completed were appropriate for a Phase 2 ESA, but the County felt it prudent to conduct additional investigation to: 1) provide more current site data, 2) develop more extensive site coverage, and 3) re-evaluate possible offsite contamination sources.

Section 4

File Review of Potential Offsite Contamination Sources

As part of an evaluation of potential offsite contamination sources, CDM Smith reviewed Ecology's files on two gas station properties adjacent to the Property and a dry cleaner historically located within the adjacent Snohomish Square shopping center. These two stations are listed in Ecology's database system as follows:

- Shell Station, Ecology Facility ID 33913433 – Addressed as 1221 Avenue D, this facility is located east of the Property, immediately across Avenue D. The facility was placed on the LUST listing in 1990 due to petroleum hydrocarbon contamination in soil and groundwater. The CSCSL indicates an application for entry into the VCP was made in December 2008 and that Ecology issued an opinion in April 2011.
- Snohomish Chevron & Car Wash, Ecology Facility ID 93321931– Formerly Kirstein Oil, addressed as 1120 North Avenue D, is located at the southeast corner of the Property. The facility became a LUST listed site in the 1990s due petroleum hydrocarbon contamination in soil. Snohomish Chevron & Car Wash was delisted from the LUST list and CSCSL in October 2004.
- Former Snohomish Square Laundry and Cleaners (Snohomish Square Cleaners), Ecology Facility ID 127755192– This site, addressed as 1419 Avenue D, is located approximately 620 feet to the north of the Property. The site was placed in the CSCSL database in August 2004 due to confirmed halogenated solvent contamination in soil and groundwater.

The following sections summarize information on these sites, as contained within Ecology's files.

4.1 Shell Station, Facility ID 33913433

This facility is a branded Shell station located across Avenue D at the southeast corner of 13th Street (**Figure 2**). Environmental investigations at this facility date back to approximately 1990. Soil and groundwater is contaminated with petroleum hydrocarbons.

Numerous site assessment and groundwater monitoring reports have been submitted to Ecology for the site over the years. The most recent reports include a Remedial Investigation Report and Compliance Monitoring Plan (CMP) by Conestoga-Rovers & Associates (CRA) dated January 13, 2011 and a 2011 Annual Groundwater Monitoring report by CRA dated January 18, 2012. During 2011, depth to water at that facility was between approximately 14 and 34 ft bgs. The groundwater flow direction varied from being toward the south, southwest, and southeast. The south-southwest directions are generally toward the Snohomish Shop upper terrace.

Hydrocarbon concentrations in groundwater seem highly variable. For example, the monitoring well located on the property line adjacent to Avenue D (MW-20) had a concentration of 1,800 micrograms per liter (µg/L) total gasoline-range petroleum hydrocarbons (TPH-G) in November 2008 and 140 µg/L TPH-G in February 2009. Five subsequent monitoring rounds at MW-20 in 2009 and 2010 indicate hydrocarbon concentrations as being <100 µg/L. No active treatment occurred during this time period which would have caused such a significant decrease in concentrations.

In MW-27, installed offsite in the sidewalk near MW-20, hydrocarbon concentrations were below detection limits during all sampling events in 2009 through 2011. However, the TPH-D concentration reported in a sample collected in November 2009 from MW-27 was 1,700 µg/L, but was <100 µg/L when reanalyzed using a silica gel cleanup. The possible cause for such variation or reason that it was considered necessary to run a silica gel cleanup was not explained.

Ecology issued an opinion letter for the Shell station site on April 25, 2011. In it, Ecology presented the opinion that further remedial action is necessary to clean up contamination at the site. Ecology's opinion was that the cleanup action selected (monitored natural attenuation [MNA]) does not meet the substantive requirements of MTCA because the required analysis to determine if conditions are appropriate for chemicals of concern to naturally attenuate had not been demonstrated in accordance with Ecology's Guidance on Remediation of Petroleum – Contaminated Ground Water by Natural Attenuation (Ecology, 2005).

At the time that the upper terrace was being investigated, groundwater data were only available through February 2009 and Ecology's opinion letter had not been issued. Given the historically relatively high petroleum hydrocarbon concentrations in groundwater just on the opposite side of Avenue D, impact to the Property was considered possible and further investigation of onsite impact to the upper terrace as a result of hydrocarbon releases from the Shell site was recommended.

4.2 Snohomish Chevron & Car Wash, Facility ID 93321931

The Snohomish Chevron & Car Wash (aka Kirstein Oil) is located adjacent to the southeast corner of the Site at 1120 North Avenue D (**Figure 2**). Environmental investigations for this facility also date back to the early 1990s, but unlike the Shell station, perched groundwater was never identified within a depth of 40 ft bgs. Investigations indicate that soil contamination is limited to the upper 20 ft and so groundwater contamination has been ruled out.

Several remedial actions were conducted over the years, most recent of which was the excavation of 1,664 tons of petroleum contaminated soil in 2003. This excavation occurred on the eastern side of the station property. The former underground storage tanks (USTs) and current USTs are/were located on the western side of the property, adjacent to the Snohomish Shop upper terrace. The current USTs sit right at the northwest corner of the Chevron property and the former USTs were to the south of this (**Figure 2**).

The reports indicate there is residual soil contamination in the UST excavations. One soil sample, collected at a depth of 10 ft bgs next to the property line with the upper terrace (the Chevron station is about 10 ft higher than the Site) contained benzene at 3.5 milligrams per kilogram (mg/kg), which greater than the MTCA Method A cleanup level of 0.03 mg/kg (Golder Associates

Inc., 2003a). Two soil samples collected at depths of 6 ft and 17.5 ft bgs from the former fuel UST area approximately 30 ft from the same property line contained TPH-G concentrations on the order of 500 mg/kg to 650 mg/kg, respectively, which are greater than the Method A cleanup level of 30 mg/kg.

In April 2004 Ecology granted a status of no further action with the provision of a restrictive covenant. Online records available at Ecology's web site show that the site was delisted on October 21, 2004, indicating that Ecology has received a notarized copy of the required restrictive covenant.

There is residual hydrocarbon contamination in soils at the Chevron property near the common boundary with the Property. There does not appear to be a significant transport mechanism (i.e., groundwater) to mobilize the contaminants. However, due to the immediate proximity of the contamination and that the station is 30 years old; the potential that contaminants from the gas station may have migrated onto the Property was considered relative high and a recommendation for further investigation was made.

4.3 Skotdal Enterprises, Facility ID 127755192

The Skotdal Enterprises site is the former Snohomish Square Laundry and Cleaners, situated within the Snohomish Square shopping center and addressed as 1419 Avenue D. The business was located approximately 620 feet to the north of the Property (see **Figure 4**). The property is owned by Skotdal Real Estate.

Avenue D Laundry currently operates in this space and apparently does not perform on-site dry cleaning services. However, PCE use by Snohomish Square Cleaners was acknowledged in 2003 and 2004 (Golder, 2003b; Golder, 2004a). The dry cleaner closed operations sometime between 2004 and 2006 (ERM, 2006). The period of PCE use was not determined, but the information provided in Golder Associates Inc.'s (Golder) reports indicates possible PCE use by the Snohomish Square Cleaners as early as the 1970s.

In December 2003, Golder performed a Preliminary Subsurface Investigation (Golder, 2003b) to investigate for potential soil and groundwater contamination resulting from the dry cleaner's use of PCE. The investigation identified PCE and its degradation products in soil and groundwater beneath the facility. A follow up Preliminary Groundwater Investigation (Golder, 2004a) confirmed PCE in groundwater with concentrations as much as 530 micrograms per liter (µg/L). The MTCA Method A cleanup level for PCE is 5 µg/L. Neither of these investigations identified a significant source of PCE in soil.

Based on the results of the preliminary investigations, Golder filed a Release Report (Golder, 2004b) to Ecology, dated July 14, 2004, to report the release of PCE as a result of dry cleaning operations at the facility.

A proposal for a "Contained-In Determination" (CID) was submitted by ERM EnviroClean, Inc. (ERM) in August 2006. In this document ERM speculated that PCE source soils were located in a planter box located to the north of the facility as a result of PCE–containing water that was suspected of having been disposed of in that area. This was based on a series of borings drilled, most of which were situated along a storm drain line that extended from Ferguson Park Road on

the north down along the front side of the building occupied by the dry cleaner. The greatest concentration of PCE in soil was 2.4 mg/kg in a 2.5 ft sample collected at the edge of Ferguson Park Road – the boring was apparently in or adjacent to the planter box.

An independent interim remedial action was performed on behalf of the property owner by ERM, which consisted of excavation and disposal of up to 415 tons of PCE contaminated soil in August 2006 (ERM, 2007). Figures showing the location of the planter box and of the interim remedial action are provided in **Appendix C**. The PCE concentration in one soil sample collected from the remedial excavation was reported as 39 mg/kg, which exceeds the Method A cleanup level of 0.03 mg/kg by three orders of magnitude (ERM, 2007). A groundwater sample collected from a temporary test hole located adjacent to the source area about a year prior to source removal actions contained 26,000 µg/L PCE, far exceeding the Method A cleanup level of 5 µg/L. PCE concentrations in three of the permanent monitoring wells exceeded 1,000 µg/L in November 2006, although substantial reductions were observed in these three wells in May 2007 where PCE concentrations in the same three wells ranged from 15.3 to 380 µg/L.

ERM concluded that source soil removal alone would not be sufficient to reduce concentrations of PCE in groundwater to below Method A cleanup levels. ERM conducted a study to test the applicability of enhanced anaerobic biological degradation of the cVOC plume, using a mixture of sodium lactate, emulsified soybean oil, and potassium bicarbonate. The results of this study are presented in a "Source Area Removal and Remedial Action Pilot Study" dated November 2007. They concluded this methodology would be effective and recommended implementation on a full scale basis.

In April 2010 a family representative of Snohomish Square Cleaners submitted an application into Ecology's VCP. On June 17, 2010 Ecology verbally communicated with the applicant that attempting to justify that the groundwater does not qualify as a potable source in an effort to procure a No Further Action (NFA) determination would not likely be successful. On July 13, 2010, the applicant requested termination from the VCP, to which Ecology complied in a letter dated November 10, 2010.

Appendix C contains excerpts from ERM's source area removal and remedial action pilot study and request for a CID from Ecology, including relevant figures and summary tables. A potentiometric surface map of groundwater elevation contours produced by ERM for November 4, 2004 and January 2007 showed the groundwater flow direction as being towards to south-southwest – toward the Site. The most downgradient well is MW-7, located approximately 280 feet north of the Site. PCE concentrations in this well ranged between 68 and 200 µg/L between November 2004 and August 2005 (ERM, 2007). ERM prepared an isoconcentration map of the PCE plume, which shows the 100 µg/L isoconcentration contour as being just north of MW-7. Further south, beyond MW-7, no additional isoconcentration contours are estimated and the edge of the plume is not delineated.

Given the confirmed presence of PCE in perched groundwater and the fact that the PCE plume limits at the Snohomish Square Cleaners had not been delineated, CDM Smith recommended conducting further investigation to further evaluate the possible impact to the Property. As will be described in the following sections, a connection between the PCE identified in groundwater

and the Snohomish Square Dry Cleaner's plume was confirmed and further delineation of the plume occurred in order to comply with applicable MTCA requirements to complete an RI.

Section 5
Field Investigation Methods

5.1 Approach

CDM Smith's field investigation involved six phases of work as chronologically listed in Section 1.2. The investigation consisted of four episodes of test pit/trench excavations, two episodes of monitoring well installations and sampling, and one round of surface water sampling. Field investigations occurred over the period of June 2009 through October 2011. The rational for the test pit and monitoring well placement and sampling are summarized below. Photographs taken during the field work are included in **Appendix A**.

5.1.1 Test Pit Excavations

The initial test pit study was conducted to investigate soil conditions throughout the Property. During this initial investigation, a total of 23 test pits were excavated on June 18 and June 19, 2009. The test pits were identified as TP12 through TP34 (earlier test pits excavated at the Snohomish Shop were sequentially numbered TP1 through TP11, including TP10 and TP11 on the upper terrace). Test pit locations are shown on **Figure 5**.

The test pits were located in areas considered to have the highest potential for contamination, based on historical data identified during the Stage I ESA and Focused RI/FS, most recent land use conditions, and review of Ecology's files of upgradient LUST sites with potential to impact the Site. The former Snohomish Square Cleaners facility had not been identified as a potential contamination source at the time of the initial test pit investigation.

Areas specifically targeted for investigation included:

- The sign shop
- Vehicle wash facility
- Catch basins
- Identified fill areas
- Areas where suspected creosote application occurred
- Areas downgradient of the gas stations
- General laydown areas

Perched groundwater was not anticipated during the planning stages of this investigation as it had not been identified during prior investigations. Upon discovering perched water in several of the test pits, groundwater samples were also collected from selected test pits to test for possible contaminants. PCE was detected in groundwater sampled from two of the test pits at concentrations exceeding the MTCA Method A cleanup level of 5 µg/L. Groundwater samples collected from test pits are meant for screening purposes and are not intended to substitute for

samples collected from properly constructed monitoring wells. In this case, they proved useful in evaluating the need for and placement of monitoring wells.

Following the initial test pit investigation and first episode of monitoring well installations (section 5.1.2), a second test pit investigation was conducted to further define the extent of PCE identified in groundwater upgradient and downgradient of the vehicle wash facility, as well as to better define the shallow subsurface geology and hydrogeology. Three test pits, identified as EP1, EP2 and EP3 were excavated on December 8, 2009. The test pits locations are shown on **Figure 5**.

Based on the groundwater analytical data obtained during the second test pit investigation, a third test pit investigation was conducted on January 14, 2010 to continue to define the plume limits of PCE and plan appropriate future monitoring well locations. Nine additional test pits identified as EP4 through EP12 were excavated. The locations of the test pits are shown on **Figure 5.**

In 2011 CDM Smith conducted further exploration to re-locate and excavate petroleum hydrocarbon- contaminated soil that had been identified in TP28. Test pits EX1 through EX10 were excavated on September 28, 2011. This investigation was unsuccessful in re-locating petroleum-contaminated soil. A second investigation was conducted on October 25, 2011 by excavating two intersecting trenches, which proved similarly unsuccessful. At the time of these investigations, the global positioning system (GPS) data point for TP28 was unavailable, but later comparison of the excavation locations showed the trenches came to within 5 to 8 feet of TP28 and EX3 was right next to TP28. The test pits/trench locations from this investigation are shown on **Figure 6.**

5.1.2 Monitoring Well Installations

On September 10 and September 11, 2009, six on-site monitoring wells were installed. Monitoring well locations are shown on **Figure 5**. These monitoring wells were installed following the first test pit investigation, but prior to the second test pit investigation.

Two monitoring wells, identified as GW-1 and GW-2, were installed downgradient of the Shell gas station to evaluate the potential presence of hydrocarbon contamination from that site. Four monitoring wells, identified as GW-3 though GW-6, were installed adjacent to and downgradient of the pressure wash facility to verify the presence of the PCE that was identified in groundwater samples collected from two of the test pits in that area. Initially the vehicle wash facility was thought to be the source of PCE, however, as further information was develop during the file review discussed in Section 4.3 and subsequent investigations; this initial theory was proved incorrect.

On June 17 and June 18, 2010, five additional monitoring wells were installed to further delineate the lateral extent of PCE contamination in groundwater and evaluate groundwater conditions to the north (upgradient) of the Property. Monitoring well locations are shown on **Figures 5**. Monitoring wells GW-7 through GW-9 were installed along the northern and northeastern boundary to evaluate groundwater conditions upgradient of the vehicle wash facility. At GW-9 refusal was encountered at 5 ft bgs so the monitoring well location was moved slightly and a second boring was drilled. Monitoring well GW-10 is located in the City of Snohomish Right-of-

Way (ROW) on the east side of Avenue D and GW-11 is located in the ROW on the west side of Avenue D, within the dental office parking lot.

5.2 Work Preparation

Prior to performing invasive field work, CDM Smith notified the Utilities Underground Location Center (UULC), notifying them of the subsurface investigation activities. CDM Smith also prepared a site-specific health and safety plan (HASP).

Prior to the initial test pit investigation, CDM Smith located key historical features on May 21 and June 5, 2009 using a GPS to ensure their proper location with respect to project figures. Features surveyed included corners of buildings and the sump at the vehicle wash facility. The Shell and Chevron gas station facilities located east of Avenue D were also partly located with the GPS.

5.3 Field Investigation Methods

5.3.1 Test Pit Excavations and Sampling

Kelly's Excavation of Pacific, Washington was subcontracted to conduct the first test pit investigation. Snohomish County performed the excavation services during the second, third, and fourth test pit investigations. During each of the test pit investigations a CDM Smith geologist directed the excavations, logged each test pit, and collected soil and/or groundwater samples. A backhoe was used to excavate the test pits during the first episode and an excavator was used during subsequent episodes. The test pits were excavated to depths between 2.5 and 10.5 ft bgs.

Soils were visually examined for evidence of contamination (staining and noticeable odor) and field screened during excavation activities. Soil types were classified according to the Unified Soil Classification System (USCS) as shown on **Figure D1** in **Appendix D**. A log of each test pit is provided in **Appendix D**, **Figures D3** through **D37**. Each test pit was subsequently backfilled with the originally excavated material and compacted with the backhoe/excavator bucket as the material was placed.

***Field Screening*:** Samples of excavated soils were field screened for VOCs. Field screening was conducted by placing a representative portion of each sample into a re-sealable plastic bag and disaggregating it. After several minutes, VOC concentrations were measured in the headspace of the bag using an organic vapor meter equipped with a photoionization detector (OVM-PID). This is not a compound-specific analysis and is affected by, among other influences, climate (e.g., temperature and humidity), soil type and conditions, instrument calibration and operation, and type of compounds present. OVM-PID readings at each screening interval are noted on the test pit logs.

***Soil Sampling*:** During the first round of test pits, soil samples were collected where field screening indicated the possibility of contamination, or otherwise where contamination would most likely occur (i.e., near ground surface or just above the groundwater interface). One soil sample was collected from each test pit for laboratory analysis, except at TP28 where two samples were collected. Two samples were collected at this location because the OVM-PID reading was slightly elevated and there were visual observations (black staining) and olfactory indicators (hydrocarbon-like odors) that signified that hydrocarbons were present. A second sample was collected approximately one half-foot below the first sample to determine the vertical

limit of contamination. There was no evidence of contamination at any other test pit location. Soil samples were not collected during the second and third test pit investigations as the focus of the additional investigations was on groundwater, rather than soil contamination, although contamination was not apparent in these test pits. Five soil samples were collected for analysis during the fourth test pit investigation, which focused on the area around TP28 (see **Figure 6**).

Soil samples to be analyzed for metals and SVOCs, including hydrocarbon screening and analyses of diesel and lube oil range petroleum hydrocarbons, were collected into 4-ounce laboratory-grade glass jars.

Soil samples to be analyzed for VOCs, including gasoline range petroleum hydrocarbons, were collected in accordance with EPA Method 5035. These soil samples were collected from the backhoe bucket using core samplers to extract an approximately 5 gram sample, which was immediately dispensed into pre-weighed 40 milliliter (ml) VOA vials. Three VOA vials were collected for each sample—two containing a stir bar and one containing methanol as a preservative. Soils collected in the 4-ounce laboratory-grade glass jar were used for dry weight determination.

All sampling equipment was disposable and was used to collect only one sample. The samples were labeled, secured with a chain-of-custody seal, placed in a chilled cooler and transported to ALS Laboratory Group (ALS) located in Everett, Washington.

Groundwater Sampling: During the first field investigation, perched groundwater was encountered in some of the test pits. Groundwater samples were collected from four of these test pits. These samples were collected to provide a screening level assessment of groundwater quality. Groundwater samples were collected from the following locations:

- TP16 - adjacent to the vehicle wash facility and sump
- TP17 - within the historical creosote application area
- TP19 - in close proximity to the pressure wash shed
- TP26 - approximately downgradient of the Shell gas station

During the second and third round of test pits, groundwater samples were collected from each of the test pits EP1 through EP12.

Groundwater samples were collected from the test pits using disposable bailers that were discarded following each use. Groundwater samples to be analyzed for VOCs were collected in three 40-mL VOA vials containing hydrochloric acid preservative. Groundwater samples to be screened for petroleum hydrocarbons were collected in 500-ml amber glass jars with hydrochloric acid preservative. Samples were labeled, placed in a chilled cooler and transported to the laboratory under chain-of-custody protocol.

5.3.2 Monitoring Well Installations and Sampling

Cascade Drilling, Inc. (Cascade) of Woodinville, Washington was subcontracted to install the monitoring wells. A hollow-stem auger drill rig equipped with 8-inch diameter hollow-stem augers was used to advance the boreholes. Monitoring well completion depths ranged between 9

and 25 ft bgs. The shallow (≤15 ft deep) wells were installed on the Property. The two deeper wells (25 ft) were the offsite wells. A CDM Smith geologist directed the drilling, logged each soil sample, and collected soil samples for laboratory analysis.

Soil samples were collected using a split-spoon sampler. Samples were logged and field-screened for evidence of contamination using the methods described above. Selected soil samples from each borehole were retained for laboratory analysis.

Each monitoring well was constructed using 2-inch diameter flush-threaded 0.01-inch PVC screen and riser pipe casing. The annular space around the screened interval was filled with sand pack to a level of at least one foot above the screen, followed by a bentonite seal of at least 2 feet and then concrete to the ground surface. The wells ranged from 9 to 14.5 feet deep. The first well, GW-1 was constructed with 10 feet of well screen and extended to 14.5 ft bgs. However, groundwater was generally present within the depth interval of 4 to 8 ft bgs, so except for GW-5 and GW-6, the remaining wells were constructed with 5 feet of screen and only 9 feet deep. GW-5 and GW-6 did not have the same obvious saturated interval, perhaps because they were closer to the edge of the terrace, and so these wells were installed to 14.5 ft bgs and utilized a 10 ft screen. Offsite wells GW-10 and GW-11 were constructed with 10 feet of screen and extended 25 ft deep as topographically, the ground surface elevation at these wells were approximately 18 to 22 feet higher than on the upper terrace property. Thus, the screened interval elevations of wells on the upper terrace property are comparable to upgradient offsite wells GW-10 and GW-11.

A flush-mounted well monument was placed over each monitoring well. General well construction details are shown on **Figure D2** in **Appendix D** and well construction details are shown on each boring log in **Figures D38** through **D49** in **Appendix D.**

***Soil Sampling*:** A soil sample was collected from each monitoring well borehole near what was expected to be the groundwater interface. Soil samples collected at depths of 3.5 ft bgs from GW-2, GW-3 and GW-4 were submitted for laboratory analysis. Soil samples were collected for laboratory analysis from GW-7, GW-8, GW-9, GW-10 and GW-11 at depths of 2.5 ft bgs, 2 ft bgs, 2 ft bgs, 15.5 ft bgs and 16 ft bgs, respectively. Soil samples to be submitted for analysis of VOCs were collected in accordance with EPA Method 5035 as described above, labeled, stored in a chilled cooler, and transported to the analytical laboratory under chain-of-custody.

Well Development: Shortly after installation of the wells and prior to groundwater sampling, the wells were developed by a combination of surging, bailing and pumping. A stainless-steel bailer was used to surge the well and a whale pump or the bailer was used to remove turbid water following surging. Wells that bailed dry were allowed to recover and the process was repeated several times. The stainless steel bailer was decontaminated in between wells using an Alconox® wash followed by a rinse with de-ionized water.

Groundwater Sampling: Groundwater samples were collected from the monitoring wells GW-1 through GW-6 on September 19, 2009. Groundwater samples were again collected from the monitoring wells GW-3 through GW-6 and from GW-10 and GW-11 on July 1/2, 2010. Prior to collecting groundwater samples, depth to groundwater was measured using a decontaminated water level indicator (**Table 1**). Each monitoring well was purged with a peristaltic pump using low flow purging and sampling techniques. Physical parameters (conductivity, pH, turbidity, and

temperature) were measured during purging. The wells were purged until the variation of physical parameters was less than 10 percent for three successive measurements. Field measured groundwater parameters are summarized in **Table 2**. Groundwater samples were collected directly from the pump discharge tubing into 40-mL VOA vials with hydrochloric acid preservative for VOC analysis. The samples were labeled, placed in a chilled cooler, and transported to the laboratory under chain-of-custody.

5.3.3 Surface Water Sampling

On September 20, 2010, CDM Smith collected surface water samples from the following three locations:

1) The base of the slope on the eastern side of the lower terrace, just below the downgradient edge of the PCE plume (as will be described later).
2) The northern side of the Property, at the head of the surface water swale where water first accumulates.
3) The base of the slope near the northeastern corner of the lower terrace, at the "Y" where the surface water runoff from the ditch along the northern edge of the Property and the ditch at the base of the slope come together.

Sample locations, identified as Ditch 1 through Ditch 3, are shown on **Figure 5**. Surface water samples were collected into 40-mL VOA vials with hydrochloric acid preservative for VOC analysis. The samples were labeled, placed in a chilled cooler, and transported to the laboratory under chain-of-custody.

5.4 Survey

Test pit and surface water sample locations were surveyed using GPS, with the exception of EX1 through EX10. In March and July 2010, Snohomish County Public Works surveyors surveyed the locations and elevations of GW-1 through GW-11 to the State Plane coordinate system NAD 83/2007. ERM's 2007 report included elevation data for monitoring wells MW-1 through MW-9 on the Snohomish Square property. The report did not include elevation data for MW-10 and MW-11.

The original survey map for Snohomish Square monitoring wells MW-1 through MW-4 dated March 17, 2004 was obtained by CDM Smith. That original survey benchmark was used by Snohomish County surveyors. The benchmark is described as follows:

> "Brass plug in concrete monument on the west side of Bickford Rd. at SE corner of Building, Snohomish County Point ID #248, Designation, SS01, NAD 1982/91, Elev. 136.31"

CDM Smith did not obtain the horizontal survey data for MW-1 through MW-11. In this report, the well locations were estimated using the figures in ERM's reports and aerial photographs. Copies of pertinent figures for the Snohomish Square dry cleaner site are included in **Appendix C**.

5.5 Analytical Methods

All soil, groundwater and surface water samples were submitted under chain-of-custody protocol to ALS in Everett, Washington or ARI in Tukwila, Washington for analysis. The analytical reports are included in **Appendix E**.

Selected soil samples collected from test pits TP12 through TP34, EX10, and from TP28 Trenches 1 and 2 were analyzed for one or more of the following:

- Screening analysis for petroleum hydrocarbons by Northwest Method NWTPH-HCID.
- TPH-G by Northwest Method NWTPH-Gx.
- Total diesel and oil range petroleum hydrocarbons (TPH-D and TPH-O, respectively) by Northwest Method NWTPH-Dx.
- Total metals (arsenic, cadmium, chromium, lead, and mercury), or total lead only, by EPA Methods 6010/7420.
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270.
- SVOCs, or bis(2-ethylhexyl)phthalate only, by EPA Method 8270.
- VOCs by EPA Method 8260.

Soil samples from the borings GW-2 through GW-4 and GW-7 through GW-11 were analyzed for one or more of the following:

- Screening analysis for petroleum hydrocarbons by Northwest Method NWTPH-HCID.
- VOCs by EPA Method 8260.
- Chlorinated VOCs (cVOCs) (PCE and its degradation products) by EPA Method 8260.

Groundwater samples from test pits TP16, TP17, TP19, TP26, and EP-1 through EP-12 and monitoring wells GW-1 through GW-11 were analyzed for one or more of the following:

- Screening analysis for petroleum hydrocarbons by Northwest Method NWTPH-HCID.
- VOCs by EPA Method 8260.
- cVOCs (PCE and its degradation products) by EPA Method 8260.

Surface water samples were analyzed for halogenated VOCs by EPA Method 8260.

Table 3 and **Table 4** summarize the soil and groundwater data, respectively, and indicate the specific analyses performed for each sample collected. The specific analyses conducted on individual samples varied as the investigation progressed and potential contaminants of concern were narrowed down. During the initial test pit investigation one soil collected from each test pit was screened for petroleum hydrocarbons (the exception being TP28 where two samples were collected), for a total of 24 samples. Eight samples each were analyzed for total metals (arsenic, cadmium, chromium, lead, and mercury) and semivolatile organic compounds (SVOC), including PAH by selective ion monitoring (SIM). VOC analyses were conducted on four samples. Follow-up

quantification analyses for TPH-D and TPH-O analyses were conducted on all four samples in which hydrocarbons were detected.

During investigation of the TP28 to relocate and remove petroleum hydrocarbon contaminated soil, five samples were analyzed for TPH-D and TPH-O, and four samples for total lead and bis(2-ethylhexyl)phthalate.

One sample collected from each of six boreholes drilled during well installations was analyzed for cVOCs. For a seventh boring, installed roughly downgradient of the Shell station, a soil sample was screened for petroleum hydrocarbons and analyzed for the full suite of priority pollutant VOCs.

Section 6
Findings

This section presents a discussion of field observations, including our interpretation of the relevant geology and hydrogeology, and analytical data. Contaminant concentrations are compared against MTCA Method A soil and groundwater cleanup levels. When Method A cleanup levels were not available, Method B cleanup levels were downloaded from Ecology's online Cleanup Levels and Risk Calculations (CLARC) database, the most stringent of which, whether carcinogenic or chronic, were used for comparison. Section 6.5 presents the conceptual model, which ties together our interpretation of the nature and extent of the contamination, sources, and fate and transport as influenced by hydrogeologic conditions.

6.1 Hydrogeology

6.1.1 Geology

As indicated in Section 2.3, the Property and vicinity geology is quite complex. During this investigation, onsite explorations reached a maximum depth of 14.5 ft bgs. Deposits within this depth were generally found to be coarse-grained, consisting of silty sand, gravelly silty sand, gravelly sand, and gravel. A fine-grained soil (silty clay) was found only at one location, GW-5 near the western edge of the Property west of the sump.

The first 2 to 5 feet of the Property may be a combination of fill and reworked recessional outwash deposits. Below this were generally silty sand, gravelly sand, silty gravel and gravelly silty sand which we interpret as recessional outwash and glacial fluvial deposits. Differentiation between the fill and outwash is not always obvious. Gray till-like very dense silty sand and gravelly silty sand occurred at depths beginning between 5 and 9 ft bgs.

In the offsite wells GW-10 and GW-11 there appeared to be 5 to 7 feet of fill, as inferred from an apparent tree stump or other wood debris that was encountered from about 5 to 7 ft bgs. Below this, to a depth of 16 to 17 ft bgs were silty sand, gravelly silty sand, and sandy silt deposits which are interpreted to be recessional outwash containing fine-grained irregularities as described earlier in Section 2.3. Below this, to a depth of approximately 25 ft bgs (approximately 140 ft MSL), was a very dense olive-gray gravelly silty sand which was till-like in nature. This in turn was underlain by saturated brown very dense gravelly silty sand.

Appendix F contains two cross sections that have been developed for the Property and vicinity. **Figure F1** shows the areas across which the two cross sections were developed. Cross section A-A' extends in an east-west direction across the Snohomish Shops upper and lower terrace areas. Cross section B-B' extends in a north-south direction beginning at the Snohomish Square Cleaners and extending southward across the northern portion of the Snohomish Shops upper terrace, ending at the edge of the western slope. **Figures F2** and **F4** show the specific test pits and borings that were used in developing the cross sections. The cross section for the lower terrace (**Figure F3**) was developed during investigations of the lower terrace, as is detailed in the RI/FS and remedial action report that was submitted to Ecology under a separate VCP application. The

cross section for the upper terrace and the Snohomish Square shopping center (**Figure F5**) was developed from CDM Smith's current investigation of the upper terrace and boring logs for the Snohomish Square Cleaners that were available in reports provided to us for review. There were only a limited number of boring logs available in these documents, and these are included in **Appendix C**.

Figure F5 shows the advance outwash that occurs at an elevation of approximately 30 ft MSL and that it is overlain by a thick glacial till unit. The upper 20 to 40 feet of deposits across the Site are generally interpreted to be a heterogeneous and discontinuous combination of recessional outwash, glacio-fluvial, glacial lacustrine, and ice contact deposits.

6.1.2 Groundwater

Perched groundwater was encountered throughout most of the northern portion of the Property at depths ranging between 1 and 5.5 ft bgs. There were a few test pits in the northern portion where groundwater was not apparent within the maximum test pit depths of 5 to 6 ft bgs. Groundwater was not encountered in test pits dug in the southern portion of the Property (maximum 10 ft depth). This is consistent with the reports reviewed for the Snohomish Chevron Station and Car Wash adjacent to the southeast corner, which did not find groundwater within a depth of 40 ft (the station is approximately 10 ft higher than the Property).

In the offsite wells GW-10 and GW-11, wet soils were encountered beginning at approximately 15 ft bgs. Soils became saturated at approximately 25 ft bgs. During the well installation it was thought that the water table would stabilize at the higher elevation due to the wetness observed. This would be consistent with the water table elevations in wells installed at the Snohomish Square Cleaners. However, this did not occur, instead, the water table in GW-10 and GW-11 stabilized at approximately 23 and 20 ft bgs, respectively.

On July 1, 2010 groundwater elevations ranged between 140.17 and 143.88 ft MSL on the Property. Groundwater elevations for offsite wells GW-10 and GW-11 were 144.66 and 145.98 ft MSL, respectively. Groundwater elevations for wells on the Snohomish Square property ranged between 152.03 and 155.04, ft MSL, respectively. Depths to groundwater and groundwater elevations are summarized on **Table 1**.

Figure 7 shows the potentiometric surfaces of the groundwater across the Snohomish Square property and the Site on July 1, 2010. The gradient is clearly southerly, from the Snohomish Square Cleaners toward the Property. Of interest is the approximate 7 foot drop in the groundwater elevation between MW-7 and GW-10. The groundwater elevations in monitoring wells installed on the Snohomish Square property ranged from approximately 153 to 155 ft MSL, while the groundwater elevations at GW-10 and GW-11 range from approximately 144.5 to 146 ft MSL. The groundwater elevations at offsite wells GW-10 and GW-11 are comparable with those of the onsite wells, which range from approximately 140 to 144 ft MSL.

As was indicated in Section 6.1.1, the stratigraphy in the upper 20 to 40 feet across the area is a complex mix of coarser and finer grained materials of varying densities. It is likely that there are a number of perched water-bearing units. The first water-bearing unit in the vicinity of Snohomish Square Cleaners appears to be perching on a very dense material at approximately 15 ft bgs. This first water-bearing unit in turn appears to fade out toward the south. A second and

more prolific bearing unit appears to occur at approximately 25 ft bgs on the Snohomish Square property. How these two water-bearing units interrelate is not understood. However, given the wetness observed throughout the 15 to 25 ft interval in GW-10 and GW-11, the two units do not appear to be divided by a competent aquitard.

6.2 Soil Field Observation and Analytical Results

6.2.1 Irregularities and Contaminant Screening

In the test pits, black or dark brown discoloration were noted at 1.5 ft bgs in TP14, 1 ft bgs in TP23, 4 ft bgs in TP29, and 2 ft bgs in TP34. Blue or gray-green discoloration was observed at 3 ft bgs in TP12 and 2 ft in TP28. A small amount of buried debris was noted in TP34 at 1 ft bgs. In TP32, wood debris was encountered at 2 ft bgs and what appeared to be a buried topsoil layer at 4 ft bgs. In TP12 asphalt debris was noted at 4 ft bgs. In TP17 wood debris was observed at 2 ft bgs. An abandoned water line was encountered in TP31 at 2 ft bgs and at EX9 an abandoned steel culvert was encountered at about 2.5 ft bgs.

TP28 was the only location where hydrocarbon-like odor was noted. Apparent contamination was confined to a thin layer (i.e., 6 inches), beginning at a depth of approximately 2 ft bgs. A steel plate was also noted at this location. While a substantial effort was made to relocate this area of petroleum-impacted soil in 2011, these efforts were largely unsuccessful. Ten test pits and two long trenches excavated in the immediate vicinity of the TP28 identified only soils with pockets of organics, a steel culvert (EX9), and discoloration from oxidized iron (red) and manganese (black).

In monitoring well GW-10, an apparent buried tree stump was noted at approximately 5 to 7 ft bgs. No other irregularities were noted in the monitoring well boreholes.

The OVM-PID readings are presented on the test pit and monitoring well logs in **Appendix D**. OVM-PID readings were generally negligible or very low (i.e., less than 10 parts per million [ppm]) throughout. Only two test pit locations, TP14 and TP28 had measurable readings, 1.5 and 8.3 ppm, at depths of 1.5 ft bgs and 2 ft bgs, respectively. As noted above, soil at 2 ft bgs at TP28 had a hydrocarbon odor. In monitoring well GW-10 slight OVM-PID readings occurred at the 15 and 16 foot depths (2.7 and 5.4 ppm, respectively). Soil samples were collected at these depths and submitted for analysis.

6.2.2 Soil Analytical Results

A total of 37 soil samples were submitted for analysis by one or more of the analytical test methods listed in Section 5.5. Soil analytical results are summarized in **Table 3** and discussed below in order of the phase of work.

6.2.2.1 First Round of Test Pits TP12 through TP34

Petroleum Hydrocarbons: Hydrocarbon screening and/or quantification analyses were conducted on 24 soil samples. Hydrocarbons were detected in four of the samples. Of these, one sample collected from TP28 exceeded the MTCA Method A soil cleanup level of 2,000 mg/kg for TPH-O, with a concentration of 9,300 mg/kg. This sample was collected at 2 ft bgs from the visually stained soils in TP28 described above. A second sample was collected from below the staining in TP28 at 2.5 ft bgs. Petroleum hydrocarbons were not detected in this sample. TP28 was located in the general vicinity of where creosote application reportedly occurred. Lube oil-

range petroleum hydrocarbons detected in samples TP22-0.5, TP23-0.5, and TP34-1.5 at concentrations of 940 mg/kg, 110 mg/kg, and 230 mg/kg, respectively were all below the Method A cleanup level of 2,000 mg/kg.

Metals: Metals were analyzed in six soil samples. Arsenic, chromium, lead, and mercury were detected in one or more samples. With the exception of TP28, metals concentrations were comparable to Puget Sound area background (San Juan 1994) and/or were much less than their respective MTCA Method A cleanup level. In TP28, lead was detected at a concentration of 190 mg/kg at 2 ft bgs. While elevated, the lead concentration still does not exceed the MTCA Method A cleanup level of 250 mg/kg. As noted previously, this sample also contained a high concentration of TPH-O.

Polycyclic Aromatic Hydrocarbons: PAHs were analyzed in seven soil samples. PAHs were below detection limits in four of the seven samples analyzed. Low concentrations of PAHs were detected in samples TP15-4', TP25-1.5', and TP28-2'. TP25 and TP28 were within the suspected creosote application area.

In **Table 3**, the concentrations of carcinogenic PAH (cPAH) were multiplied by their corresponding toxicity equivalency factor (TEF) and the sum of cPAH as adjusted by the TEF were compared against the Method A cleanup level of 0.1 mg/kg for benzo(a)pyrene, based on the toxic equivalency (TEQ) method. The cPAH TEQ concentrations for the three samples where PAH were detected ranged from 0.0053 to 0.0481 mg/kg, all substantially below the Method A cleanup level. Noncarcinogenic PAHs detected were well below their respective Method B cleanup levels.

SVOCs: The full list of SVOCs was analyzed in 3 soil samples. Bis(2-ethylhexyl)phthalate was detected in the soil sample TP28-2' at a concentration of 0.490 mg/kg, below the Method B cleanup level of 71 mg/kg.

VOCs: VOCs were analyzed in 7 samples. In the soil sample TP15-4', cis-1,2-dichloroethene (cis-1,2-DCE) was detected at an estimated concentration of 6 micrograms per kilogram (µg/kg). No VOCs were detected in any other sample. Cis-1,2-DCE is typically a degradation project of the chlorinated solvents PCE and/or trichloroethene (TCE). The concentration of cis-1,2-DCE was below its Method B cleanup level.

6.2.2.2 Groundwater Monitoring Wells GW-1 through GW-6

Petroleum Hydrocarbons: Hydrocarbon screening was conducted on one soil sample collected from GW-2-3.5'. Petroleum hydrocarbons were not detected at concentrations greater than the method reporting limits.

VOCs: VOCs were analyzed in one sample each collected from near the groundwater interface at GW-2, GW-3, and GW-4 (3.5 ft bgs each). VOCs were not detected in any of these samples.

6.2.2.3 Groundwater Monitoring Wells GW-7 through GW-11

***cVOCs*:** cVOCs were analyzed in one soil sample collected from near the groundwater interface at each borehole. PCE was detected in GW-8-2' and GW-10-15.5' at concentrations of 4.4 µg/kg and 1.6 µg/kg, respectively, below the Method A cleanup level of 50 µg/kg.

6.2.2.4 TP28 Area Exploration

Petroleum Hydrocarbons: Five soil samples were analyzed for diesel and oil range petroleum hydrocarbons. TPH-O was detected in two samples: The west end of TP28 Trench 1 at a depth of 2 ft bgs (TP28 trench-W-2) (54 mg/kg) and the south end of TP28 Trench 2 at a depth of 2 ft bgs (TP28 trench-S-2) (1,900 mg/kg), below the Method A cleanup level.

Bis(2-ethylhexyl)phthalate: Four soil samples were analyzed for bis(2-ethylhexyl)phthalate. This compound was not detected in any of the samples.

Total Lead: Four samples were analyzed for total lead. Lead was detected in each sample at concentrations ranging between 4.8 mg/kg and 210 mg/kg, below the Method A cleanup level.

6.3 Groundwater Analytical Results

6.3.1 Groundwater Analytical Results

A total of 33 groundwater samples were collected from the test pits and monitoring wells during the course of this investigation, including one duplicate sample. Groundwater analytical results are summarized in **Table 4** and the discussion below is organized below by the phase of work.

6.3.1.1 Phase 1 - Test Pits TP12 through TP34

VOCs were analyzed in groundwater samples collected from three test pits and hydrocarbon screening analysis was conducted on a groundwater sample collected from one test pit.

Hydrocarbons were analyzed in the sample collected from TP26, located on the eastern (upgradient) side of the Property and downgradient of the Shell station. The sample was analyzed primarily to determine whether there was an impact originating from the Shell gas station. Hydrocarbons were not detected at a concentration exceeding the method reporting limit in the groundwater sample collected from TP26.

VOCs were analyzed in groundwater samples collected from TP16, TP17 and TP19. PCE was detected at concentrations of 11 µg/L and 15 µg/L in TP16 and TP19, respectively. These concentrations exceed the MTCA Method A cleanup level of 5 µg/L.

6.3.1.2 Phase 2 - Monitoring Wells GW-1 through GW-6

Groundwater samples collected from GW-1 and GW-2, located on the eastern (upgradient) side of the Property, downgradient of the Shell station were analyzed for volatile-range petroleum hydrocarbons by NWTPH-Gx, benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021, and for VOCs by EPA Method 8260. The only compound detected was chloroform at a concentration of 15 µg/L in GW-1. There is no Method A cleanup level for chloroform. The chloroform concentration does not exceed the chronic-based Method B cleanup level of 80 µg/L (there is no carcinogenic-based Method B cleanup level). Chloroform is a common disinfection by-product produced during the chlorination of drinking water and wastewater and the EPA's maximum contaminant level (MCL) for chloroform is 70 µg/L. Whether from infiltration of treated drinking water from leaking pipes, or some other source, it is not uncommon to occasionally find it at low levels during environmental investigations.

GW-3 through GW-6 are situated next to and downgradient of the vehicle wash facility. Groundwater samples collected from each of these monitoring wells were analyzed for VOCs by EPA Method 8260. PCE was detected in all four groundwater samples at concentrations ranging between 2.8 µg/L and 28 µg/L. The MTCA Method A cleanup level of 5 µg/L was exceeded in the groundwater samples collected from GW-4, GW-5, and GW-6.

6.3.1.3 Phase 3 - Test Pits EP1 through EP3

VOCs were analyzed in the groundwater samples collected from EP1, EP2 and EP3. PCE was detected in all three groundwater samples at concentrations of 22 µg/L, 2.6 µg/L and 11 µg/L, respectively. The concentrations of PCE exceed the MTCA Method A cleanup level of 5 µg/L in the groundwater samples collected from EP1 and EP3. No other VOCs were detected in the groundwater samples.

6.3.1.4 Phase 4 - Test Pits EP4 through EP12

VOCs were analyzed in the groundwater samples collected from EP4 through EP12. PCE was detected in eight of the ten groundwater samples at concentrations ranging from 2.2 µg/L in EP7 to 36 µg/L in EP10. The concentrations of PCE exceed the MTCA Method A cleanup level of 5 µg/L in the groundwater samples collected from EP4, EP9, and EP10. The highest concentrations of PCE were detected in the groundwater samples EP9 and EP10 (35 and 36 µg/L, respectively), located near the northern property boundary. TCE was detected in EP12 at a concentration of 2.5 µg/L, below the Method A cleanup level of 5 µg/L. No other VOCs were detected in these samples.

6.3.1.5 Phase 5 - Monitoring Wells GW-3 through GW-11

Monitoring wells GW-3 through GW-6 were sampled a second time. GW-7 through GW-11 were sampled for the first time following their installation. PCE was detected in all nine samples. The degradation products of PCE, TCE and/or cis-1,2-DCE were detected in seven of the samples. Onsite, PCE concentrations ranged from 0.4 to 50 µg/L. In offsite wells PCE concentrations were 39 µg/L (duplicate sample 37 µg/L) and 40 µg/L in GW-10 and GW-11, respectively. TCE concentrations ranged from 0.6 µg/L to 2.2 µg/L, all below the Method A cleanup level of 5 µg/L. Cis-1,2-DCE concentrations ranged from 0.3 µg/L to 2.3 µg/L, all below the Method B cleanup level of 80 µg/L.

6.4 Surface Water

No VOCs were detected in any of the surface water samples.

6.5 Conceptual Site Model

This section presents CDM Smith's interpretation of the field observations and analytical data as it relates to: 1) potential off-site hydrocarbon contamination from the adjacent gas stations, 2) soil contamination identified at the site, and 3) the groundwater contamination identified. The discussion ties together our interpretation of the nature and extent of the contamination, sources, and fate and transport as influenced by hydrogeologic conditions, as applicable.

6.5.1 Potential Off-Site Hydrocarbon Contaminant Sources

This RI did not identify hydrocarbon-impacted soils in test pits excavated adjacent to the Chevron station located off the southeast corner of the Property. Petroleum hydrocarbon compounds

were not detected in soil and groundwater samples collected from two monitoring wells or in two test pits installed approximately downgradient of the Shell station located across Avenue D from the Site. It is therefore concluded that residual hydrocarbon contamination associated with these two gas stations is not impacting the Property. Considering the number of years that have passed since the releases occurred at these two sites, the remedial actions completed over the years at each site, the fairly low residual contaminant levels present at each site, the potential for future impact to the Property by residual petroleum hydrocarbon contamination at either of these two gas stations by historical releases is also considered low.

6.5.2 Potential Soil Contamination from Onsite Sources

The sample collected from TP28 at 2 ft bgs contained lube oil range hydrocarbons at a concentration (9,300 mg/kg) exceeding the MTCA Method A cleanup level off 2,000 mg/kg. The sample also contained PAHs, bis(2-ethylhexyl)phthalate, and an elevated concentration of lead, but at concentrations less that their respective MTCA Method A/B cleanup levels.

The area of TPH-28 was extensively explored with test pits and trenches in an effort to relocate and remove hydrocarbon contaminated soil. There was no visual evidence of contamination in any of the follow-up test pits/trenches, as was observed in TP28. This was also confirmed by analysis of five samples collected from these test pits and trenches. TPH-O was detected in two samples and an elevated concentration of lead (i.e., above background) was detected in one sample, indicating that the exploration was targeting the correct area. However, no cleanup levels were exceeded.

Considering that the apparent layer of contaminated soil observed at TP28 was thin – only about 6 inches thick, and the extensive follow-up investigation of the area, CDM Smith concludes that the pocket of impacted soil discovered was essentially the equivalent of a small surface oil (or creosote) stain that had later been covered over by a gravel layer and is representative of a *de minimis* condition that does not present a material risk of harm to public health or the environment.

6.5.3 Groundwater

Perched groundwater extends throughout most of the northern half of the Property, but is not present on the southern half. This is likely due to a combination of geologic topographic conditions. The permeable sand and gravel outwash layer that was fairly prevalent in the northern portion of the Property does not appear to be present in the southern portion. Therefore, the perched groundwater layer appears to be dewatering as it follows the topography at the western edge.

Consistent with what has been observed during investigations throughout the Snohomish Shop, there appear to be multiple, discontinuous levels of perched water-bearing units throughout the area, some of which are separated by incompetent aquitards. The Snohomish Square Dry Cleaner is approximately 16 feet higher in elevation than the Property and the first perched water-bearing unit under that site occurs at approximately 15 ft bgs, or approximately the same elevation as the ground surface at the Snohomish Shop upper terrace. There is a large drop in the water table elevation that occurs on the Snohomish Square property over a short horizontal distance (7 ft over approximately 150 ft). There are any number of possibilities for this, one of

which is that there are two perched water-bearing units separated by an aquitard that disappears, causing the upper one to drain into the lower one and the two units merge into a single perched water-bearing unit.

A PCE plume extends from the north corner of the Property, southward to the western edge of the upper terrace. **Figure 8** shows the PCE concentrations in groundwater across the Property and delineates the extent of the PCE plume that exceeds the Method A cleanup level of 5 µg/L. The highest PCE concentrations occur in the northern, upgradient edge.

Figure 9 is an isoconcentration map that was created by combining ERM's isoconcentration map of total cVOC concentrations from their 2007 Source Area Removal and Remedial Action Pilot Study report with CDM Smith's July 2010 total cVOC concentrations for the GW monitoring wells. While some variation can be expected because of the different years and two different perched zones these data are taken from, the cVOC plume is consistent with the southward groundwater flow direction shown on **Figure 7** and clearly shows a plume that originates at the former Snohomish Square Cleaners, migrates through the Snohomish Square property and extends into and across the Property.

The very low concentrations of TCE and cis-1,2-DCE, along with the complete lack of vinyl chloride, indicate that natural biodegradation processes are not significant for this plume. Permeable soils and lack of conditions suitable for biodegradation are the likely contributors of this plume having migrated the distance that it has.

There is no evidence of an on Property release of PCE, considering that the highest PCE concentrations in groundwater occur at the upgradient edge and lack of PCE in Property soils. Twelve soil samples were analyzed for VOCs (2 from offsite borings and 10 from onsite explorations). Very low concentrations of PCE were detected in soil at GW-8 and GW-10, and cis-1,2-DCE in TP15. The concentrations detected are indicative of the re-adsorption of PCE from the groundwater plume onto soils, as opposed to being a source in soils. This is supported by the fact that GW-10 is an offsite upgradient boring that was drilled next to the Snohomish Square property.

As indicated in Section 2.4, because of the relatively great elevation difference between the upper and lower terrace areas (30 feet), discontinuous nature of the perched water systems, and lack of shallow perched groundwater in the upper zone (i.e., recessional outwash and other course-grained deposits overlying the till) on the lower terrace, the zone of perched groundwater that overlies the till in the upper terrace is not hydraulically connected to the lower terrace. This groundwater ultimately discharges to the surface water in a swale on the eastern edge of the lower terrace. Based on surface water testing, there is no indication that surface water has been impacted by PCE in the groundwater. Therefore, the PCE plume attenuates at or just beyond the edge of the terrace at the western side of the Property before reaching surface water.

Section 7

Contaminants of Concern and Cleanup Levels

7.1 Contaminants of Potential Concern (COPCs)

Between the various site investigations, site soil and groundwater have been analyzed for petroleum hydrocarbon compounds, VOCs, SVOCs, including PAH, metals, and pesticides. Only VOCs have been detected in groundwater, specifically PCE, TCE, cis-1,2-DCE, and chloroform. In soils, detected compounds include TPH-O, PCE, cis-1,2-DCE, arsenic, chromium, lead, mercury, various PAH, and bis(2-ethylhexyl)phthalate.

7.2 Cleanup Levels

7.2.1 Human Health-Based

MTCA provides three approaches for determining human health-based cleanup levels: Methods A, B, and C.

- Method A provides a simplified approach for routine cleanup actions using tabulated cleanup levels. Method A cleanup levels are at least as stringent as applicable State and Federal laws – typically these values are the same. Method A soil cleanup levels are available for both unrestricted land use and industrial sites (restricted land use).
- Method B allows for development of cleanup levels for specific compounds based on evaluation of applicable State and Federal laws, groundwater and surface-water protection, and risk-based concentrations calculated using the risk equations specified in the regulations (WAC 173-340-750). The Method B cleanup levels discussed throughout this report and provided in the summary tables were obtained from Ecology's CLARC tables downloaded from its website, current with the date of this report.
- Method C cleanup levels represent concentrations that are protective of human health and the environment for specific-site uses (i.e., industrial sites).

The site use historically has been industrial in nature; however, the future land use is not likely to be industrial (the land is zoned commercial). The County does not wish to encumber the site with institutional controls and deed restrictions that would be required for a Method C or industrial land use Method A cleanup. Unrestricted land use-based Method A cleanup levels and/or Method B are considered applicable for protection of human health.

Throughout this report, all of the compounds detected at the Property have been compared against MTCA Method A and/or B cleanup levels. For a few of the noncarcinogenic PAH compounds there are no available Method A or B cleanup levels. However, in these instances, the concentrations have been very low and they do not occur singly, they occur with other COPC (typically several) for which there are corresponding Method A and/or B cleanup levels.

In **Tables 3** and **4** Method A cleanup levels are presented, and when no Method A cleanup level was available, the Method B cleanup level available in the CLARC tables is listed. Only two compounds had exceedances of cleanup levels: TPH-O and PCE.

7.2.2 Terrestrial Ecological-Based

The 2001 revisions to MTCA require that existing or potential threats to terrestrial plants or animals exposed to hazardous substances also be evaluated. The assessment should determine whether the Property is: 1) exempt from the terrestrial ecological evaluation (TEE), 2) qualified for a simplified TEE, or 3) must undergo a site-specific TEE.

The Property qualifies for one of the primary exclusions from the TEE, in that there is less than 1.5 contiguous acres of land within 500 feet that is undeveloped. The lower terrace area, is not considered "undeveloped" because it is commercial property that will undergo redevelopment and a large portion of it is still paved with asphalt. The blackberry covered slope between the upper and lower terraces is not of sufficient size to disallow the exclusion.

7.2.3 Contaminants of Concern and Proposed Cleanup Levels

Based on the following evaluation, PCE is the only proposed contaminant of concern and its Method A cleanup levels is proposed as being applicable.

Groundwater

- PCE is consistently detected in groundwater at concentrations that exceed at MTCA Method A cleanup level for PCE.
- TCE and cis-1,2-DCE, are sometimes present as degradation products of PCE. The concentrations of these compounds have always been below their respective Method A/B cleanup levels by 50% or more. There is no compelling reason for this to change.
- Chloroform was the only other VOC detected in groundwater. It was detected only once and at a concentration about 5 times less than its Method B cleanup level and drinking water MCL. At the low concentration observed, it is likely a secondary degradation product from some other chemical.

Soil

None of the RI soil samples contained TPH-G, TPH-D, metals, SVOCs, PAHs, or VOCs at concentrations exceeding their respective MTCA Method A cleanup levels. One soil sample, contained a concentration of TPH-O that exceeded the Method A cleanup level of 2,000 mg/kg out of a total of 30 soil samples analyzed for petroleum hydrocarbons. An extensive array of test pits and trenches were excavated in an effort to relocate and remove this small pocket of surficial contamination, but in the end, it was not relocated. The expectation is that this was a small surface oil stain that was later covered by fill and gravel and the area regraded as a part of normal site maintenance. Surface oil stains are typically considered *de minimis* and not subject to cleanup under MTCA. Therefore, we conclude there are no contaminants of concern in soil requiring further cleanup under MTCA.

7.3 Points of Compliance

For groundwater, the point of compliance is the point or points where the groundwater cleanup levels have been established. The standard point of compliance is throughout the Site, both vertically and horizontally throughout the aquifer. A conditional point of compliance in accordance with WAC 173-340-720 (8)(c) is proposed with the assumption that the PCE plume attenuates at the western side of the Property before reaching surface water.

Section 8

Focused Feasibility Study

8.1 Remedial Action Objectives (RAO)

The overall objectives for the remedy at this Property are to:

- Protect human health and the environment.
- Comply with all applicable regulations.
- Obtain a "No Further Action" status for the Property from Ecology.

8.2 Remedial Alternatives and Evaluation

MTCA guidelines for selection of cleanup actions (WAC 173-340-360) requires that all cleanup actions protect human health and the environment, comply with cleanup standards, comply with applicable state and federal laws, and provide for compliance monitoring. In addition, MTCA directs that strong preference be given to permanent solutions, and that the selected cleanup action should provide a reasonable restoration timeframe. Although MTCA does not allow cleanup action selection to be based solely on minimum cost, it does provide that the cleanup action shall not be considered practicable if the incremental cost of the cleanup action is substantial and disproportionate to the incremental degree of protection and it would achieve over a lower preference cleanup action (WAC 173-340-360[3][e][i]).

8.2.1 Remedial Alternatives

The source of contamination that remains in groundwater above the applicable cleanup level originates offsite. At this time, the potentially liable persons (PLPs) have taken limited interim remedial actions, but appear to have ceased any further actions to complete the RI/FS and continue with a full scale cleanup. With or without implementation of further cleanup actions, PCE will continue to migrate on to the Property from the upgradient source potentially for decades. Implementation of an active treatment system (e.g., pump and treat) or an in situ treatment of the on Property plume (e.g., chemical oxidation, enhanced natural biodegradation) would not be effective in achieving cleanup levels as long as there is a continuing source of contamination migrating onto the Property. In order to complete an FS analysis that complies with MTCA requirements the following three alternatives were considered.

Alternative 1 – No Action

Alternative 1 is to take no actions and allow the plume to naturally attenuate, or to rely on the PLP of the PCE source to implement a remedial action. However, this alternative fails to meet the intent of MTCA because the restoration time frame would be immeasurably long and it may not be protective of human health and the environment. The no action alternative does not protect against the potential for soil vapor intrusion into future buildings constructed on the Property, exposure of construction workers engaged in subsurface work within the area of the plume, or

exposure to groundwater withdrawn from the Property, whether for purposes of dewatering or use as a water supply, potable or not.

Alternative 2 – Site Controls

Alternative 2 would be to implement institutional controls to protect against potential exposures to PCE in groundwater. Institutional controls have a requirement that before any subsurface work is conducted, the potential risk of exposure is assessed and any measures for mitigation are implemented. It would also place restrictions on groundwater withdrawal to ensure that groundwater would never be used as a source of drinking water and that groundwater withdrawn for purposes of dewatering would be disposed of appropriately. Another element of the institutional controls would be the requirement to assess and mitigate (if needed) soil vapor intrusion for any future buildings constructed on Site.

Long-term groundwater monitoring on the Snohomish Shop upper terrace property is not proposed for this alternative as it provides no useful purpose as long as the institutional controls and soil vapor evaluation measures are implemented. This determination is based on the following:

1) An interim remedial action involving removal of source contamination in soils has been implemented on the Snohomish Square dry cleaner site and at this time there is no apparent additional significant source of contamination in soils.

2) Dry cleaning services are no longer provided as the Snohomish Square shopping center and so there are no potential future releases of PCE (i.e., no new source), unless a new dry cleaning establishment that uses PCE occupies the center.

3) The plume is mature and has reached equilibrium. With the source removal conducted at the former dry cleaner contaminant concentrations will decline, albeit very slowly, but they will not substantially increase. The Snohomish Shop upper terrace property represents the maximum downgradient edge of the plume. This RI has demonstrated that at the point where the plume has reached the western edge of the terrace concentrations are low enough such the PCE is attenuated to below detection limits by the time it reaches the surface water in the drainage ditch at the bottom of the slope on the lower terrace.

4) Monitoring on the Snohomish Shop upper terrace property will not provide information relevant to source of the plume.

Alternative 3 - Active Remediation of the Onsite Plume

At a minimum, any active treatment methodology for the Property plume would require installation of some type of subsurface barrier wall, such as a permeable reactive barrier wall (PRB). A PRB would cut off the plume as it enters the Property, but would not remediate the existing plume on the Property. Installation of such a system would require maintenance and monitoring in perpetuity. Additional remedial action alternatives for the on Property plume would either be to allow the time necessary for it to naturally attenuate, or to implement some form of active treatment such as enhanced bioremediation, chemical oxidation, or pump and treat.

8.2.2 Evaluation and Selection

Alternative 1 fails to meet the intent of MTCA and fails to offer any measure of protection of human health and the environment. It is therefore not appropriate for the site.

Alternative 2 represents a reasonable approach that is protective of human health and the environment and does not preclude or encumber a final cleanup for the former dry cleaner site.

Alternative 3 is the most costly alternative. Assuming the installation of a PRB and onsite treatment of groundwater, the cost for Alternative 3 is estimated to be as much as $3.7M (**Appendix G**). It does not offer an increased level of benefit that justifies such a cost. For example, if only the PRB is installed it offers essentially no additional protectiveness for human health and the environment in the short term over that of Alternative 2 as the existing plume onsite would need time to naturally attenuate. If active treatment of the groundwater plume is implemented after installation of the PRB, there is still no guarantee that the plume would be fully remediated within several years. Again, Alternative 3 does not address the source of the plume itself. Alternative 3 is contrary to the economic development and Road Fund revenue objectives of the City and County. For these reasons, the cost of implementing an active treatment remedial alternative is substantial and disproportionate to any incremental environmental benefit achieved. It is therefore not practicable to meet the cleanup level for groundwater throughout the property within a reasonable restoration time frame.

Alternative 2 is therefore the recommended remedial alternative for this Property.

Section 9
Conclusions and Recommendations

The results of the RI for the Snohomish Shop upper terrace determined the following:

- There have been no releases from the Snohomish Shop's historical operations within the upper terrace area that have resulted in the requirement to conduct remedial actions under MTCA.
- There have been no impacts to the upper terrace as a result of migration of contamination originating at adjacent gas station properties.
- Perched groundwater on the upper terrace has been impacted by a source of PCE originating from the former Snohomish Square Cleaners located approximately 620 feet upgradient (north) of the Site. Delineation of this plume has further determined:
    - On Site, PCE concentrations exceed the MTCA Method A cleanup level over an area that extends from the north corner southward, all the way to the edge of the terrace, a distance of approximately 300 feet. The plume attenuates to below the Method A cleanup level at the proposed conditional point of compliance along the western edge of the Property, before entry into the surface water.
    - Because of the relatively great elevation difference between the Snohomish Shop upper and lower terrace areas (approximately 30 feet) and discontinuous nature of perched groundwater, the perched groundwater systems on the two terraces are separate. The perched water system studied during this RI is not in hydrologic connection with groundwater in the lower terrace. Rather, the upper zone of perched groundwater on the upper terrace ultimately discharges to surface water in a drainage swale on the lower terrace.
    - Results of surface water testing indicate the surface water swale at the upgradient (north) edge of the Property attenuates prior to reaching the lower terrace drainage swale as surface water samples did not contain PCE or other cVOCs at concentrations greater than method reporting limits.

MTCA Method A cleanup levels for cVOCs, specifically PCE, are appropriate cleanup levels for the Property because of the limited number of contaminants of concern and that there is a Method A cleanup level for PCE. The Property qualifies for an exclusion from ecological-based cleanup levels due to the small area of contiguous undeveloped property within 500 feet.

Results of the focused FS determined that a property specific NFA determination is warranted and that the appropriate remedial alternative is implementation of site institutional controls that would address restrictions on groundwater withdrawal, controls necessary to protect human health and the environment for future construction-related activities (i.e., construction dewatering), and potential vapor mitigation in future buildings.

Section 10
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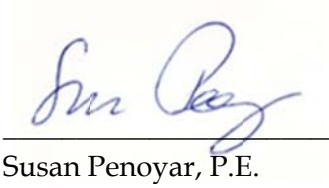


Susan Penoyar, P.E.
Vice President

Tables

Table 1
Groundwater Elevation Data
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation [a] (ft MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)
GW-1	09/17/09	0902	144.80	3.47	141.33
	07/01/10	0812		2.47	142.33
GW-2	09/17/09	0904	144.99	3.43	141.56
	07/01/10	0815		2.22	142.77
GW-3	09/17/09	0906	144.34	3.40	140.94
	07/01/10	0822		3.19	141.15
GW-4	09/17/09	0908	144.24	3.38	140.86
	07/01/10	0824		3.10	141.14
GW-5	09/17/09	0909	144.78	4.98	139.80
	07/01/10	0828		4.61	140.17
GW-6	09/17/09	0911	144.78	4.24	140.54
	07/01/10	0833		3.95	140.83
GW-7	07/01/10	0840	147.53	3.65	143.88
GW-8	07/01/10	0837	146.30	2.98	143.32
GW-9	07/01/10	0845	146.37	3.04	143.33
GW-10	07/01/10	0858	168.38	22.40	145.98
GW-11	07/01/10	0853	164.25	19.59	144.66
MW-1	07/01/10	1005	162.20	7.98	154.22
MW-2	07/01/10	NM	164.41	NM	NM
MW-3	07/01/10	0937	161.57	6.58	154.99
MW-4	07/01/10	1010	161.09	6.23	154.86
MW-5	07/01/10	NM	169.51	NM	NM
MW-6	07/01/10	1036	165.61	13.58	152.03
MW-7	07/01/10	1031	163.64	10.47	153.17
MW-8	07/01/10	1000	163.75	10.36	153.39
MW-9	07/01/10	1041	163.00	7.96	155.04
MW-10	07/01/10	1008	NM	6.12	NM
MW-11	07/01/10	1013	NM	6.58	NM

Notes:
a) Surveyed by Snohomish County surveyors using State Plane Coordinate System NAD 83/2007. Benchmark for survey: brass plug in concrete on west side of Bickford Rd at SE corner of building. Snohomish County Point ID#248 Designation #5501. NAD 1983/91, Elevation = 136.31'.
ft MSL - feet Mean Sea Level.
TOC - top of casing.
NM - not measured.

Table 2
Groundwater Field-Measured Parameters
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop Upper Terrace
Snohomish, Washington

Monitoring Well	Date Sampled	Time Sampled	Temperature (^{o}C)	Specific Conductance (µs/cm)	pH	Turbidity (NTU)	Appearance/ Odor
GW-1	09/17/09	0945	20.5	92	6.00	2.3	Clear, colorless, odorless
GW-2	09/17/09	1040	20.0	284	6.08	1.5	Clear, colorless, odorless
GW-3	09/17/09	1145	22.4	162	6.42	0.5	Clear, colorless, odorless
	07/01/10	1556	16.3	159	6.29	2.5	Clear, colorless, odorless
GW-4	09/17/09	1235	21.5	183	6.03	2.0	Clear, colorless, odorless
	07/01/10	1502	14.8	200	6.17	1.4	Clear, colorless, odorless
GW-5	09/17/09	1340	21.9	216	6.11	0.0	Clear, colorless, odorless
	07/02/10	0942	14.5	1,183	5.41	0.0	Clear, colorless, odorless
GW-6	09/17/09	1140	22.7	183	6.16	3.7	Clear, colorless, odorless
	07/02/10	0850	15.9	172	5.70	0.0	Clear, colorless, odorless
GW-7	07/02/10	1229	15.5	197	5.36	1.0	Clear, colorless, odorless
GW-8	07/02/10	1139	15.7	271	6.42	0.07	Clear, colorless, odorless
GW-9	07/02/10	1042	16.7	304	5.84	2.4	Clear, colorless, sulfide odor
GW-10	07/01/10	1206	13.9	258	5.79	59.2	Sl. turbid, colorless, odorless
GW-11	07/01/10	1350	14.3	332	5.76	1.4	Clear, colorless, odorless

Notes:
^{o}C - degrees Celsius.
NTU - nephelometric turbidity units.
µs/cm - microsiemens per centimeter.

Table 3
Analytical Results - Soil
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Analyte	MTCA Cleanup Levels [a]	Sample Location, Depth (ft bgs), and Date Sampled												
		TP12	TP13	TP14	TP15	TP16	TP17	TP18	TP19	TP20	TP21	TP22	TP23	TP24
		1	4.5	1.5	4	1	1	1.5	1	1	1.5	0.5	0.5	1
		6/19/2009	6/18/2009	6/18/2009	6/18/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009
Petroleum Hydrocarbons														
NWTPH-HCID (mg/kg)														
Gasoline		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Diesel		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Oil		<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	>100	>100	<100
NWTPH-Gx (mg/kg)														
Gasoline	100/30 [b]	--	--	--	--	--	--	--	--	--	--	--	--	--
NWTPH-Dx (mg/kg)														
Diesel	2,000	--	--	--	--	--	--	--	--	--	--	<45	<25	--
Lube Oil	2,000	--	--	--	--	--	--	--	--	--	--	**940**	**110**	--
Total Metals (mg/kg)														
EPA Method 6010/7420														
Arsenic	20	--	--	--	<5.0	--	<5.0	--	--	<5.0	--	<5.0	--	--
Cadmium	2	--	--	--	<1.0	--	<1.0	--	--	<1.0	--	<1.0	--	--
Chromium (III)	2,000	--	--	--	**34**	--	**24**	--	--	**33**	--	**41**	--	--
Lead	250	--	--	--	**21**	--	<5.0	--	--	<5.0	--	<5.0	--	--
Mercury	2	--	--	--	**0.04**	--	**0.02**	--	--	<0.02	--	<0.02	--	--
Polycyclic Aromatic Hydrocarbons (PAH) (mg/kg)														
EPA Method 8270/SIM														
Naphthalene		--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
2-Methylnaphthalene	5 [c]	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
1-Methylnaphthalene		--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Acenaphthylene	NE	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Acenaphthene	4,800	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Fluorene	3,200	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Phenanthrene	NE	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Anthracene	24,000	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Fluoranthene	3,200	--	<0.02	<0.02	**0.03**	<0.02	--	--	--	--	--	--	--	--

Table 3
Analytical Results - Soil
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Analyte	MTCA Cleanup Levels [a]	Sample Location, Depth (ft bgs), and Date Sampled												
		TP12	TP13	TP14	TP15	TP16	TP17	TP18	TP19	TP20	TP21	TP22	TP23	TP24
		1	4.5	1.5	4	1	1	1.5	1	1	1.5	0.5	0.5	1
		6/19/2009	6/18/2009	6/18/2009	6/18/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009
Pyrene	2,400	--	<0.02	<0.02	**0.03**	<0.02	--	--	--	--	--	--	--	--
Benzo(a)anthracene*	NE	--	<0.02	<0.02	<0.02	<0.02			--	--	--	--	--	--
Chrysene*	NE	--	<0.02	<0.02	**0.04**	<0.02	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene*	NE	--	<0.02	<0.02	**0.04**	<0.02	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene*	NE	--	<0.02	<0.02	**0.02**	<0.02	--	--	--	--	--	--	--	--
Benzo(a)pyrene*	0.1	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene*	NE	--	<0.02	<0.02	**0.03**	<0.02	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene*	NE	--	<0.02	<0.02	<0.02	<0.02	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	NE	--	<0.02	<0.02	**0.03**	<0.02	--	--	--	--	--	--	--	--
TEQ [d]	0.1	--	<0.02	<0.02	0.0094	<0.02	--	--	--	--	--	--	--	--
Semivolatile Organic Compounds (SVOC) (mg/kg) [e]														
EPA Method 8270														
Fluoranthene	3,200	--	<0.100	<0.100	<0.100	<0.100	--	--	--	--	--	--	--	--
Pyrene	2,400	--	<0.100	<0.100	<0.100	<0.100	--	--	--	--	--	--	--	--
Chrysene	137	--	<0.100	<0.100	<0.100	<0.100	--	--	--	--	--	--	--	--
bis (2-Ethylhexyl)phthalate	71	--	<0.130	<0.130	<0.130	<0.130	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOC) (µg/kg) [f]														
EPA 8260											--	--	--	--
Tetrachloroethene	50	--	--	--	<10	--	--	<10	--	--	--	--	--	--
Trichloroethene	30	--	--	--	<10	--	--	<10	--	--	--	--	--	--
cis-1,2-Dichloroethene	800	--	--	--	**6** J	--	--	<10	--	--	--	--	--	--
trans-1,2-Dichloroethene	1,600	--	--	--	<10	--	--	<10	--	--	--	--	--	--
1,1-Dichlorothene	4,000	--	--	--	<10	--	--	<10	--	--	--	--	--	--
Vinyl Chloride	0.69	--	--	--	<10	--	--	<10	--	--	--	--	--	--

Table 3
Analytical Results - Soil
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

		Sample Location, Depth (ft bgs), and Date Sampled												
							TP28 Area Excavation							
	Method A	TP25	TP26	TP27	TP28		Trench28-W-2	Trench28-N-2	Trench28-S-2	Trench28-E-2	EX10	TP29	TP30	TP31
	Cleanup	1.5	1	1	2	2.5	2	2	2	2	2	1	0.5	1.5
Analyte	Levels [a]	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	10/25/2011	10/25/2011	10/25/2011	10/25/2011	9/28/2011	6/19/2009	6/19/2009	6/19/2009
Petroleum Hydrocarbons														
NWTPH-HCID (mg/kg)														
Gasoline		<20	<20	<20	<20	<20	--	--	--	--	--	<20	<20	<20
Diesel		<50	<50	<50	>50	<50	--	--	--	--	--	<50	<50	<50
Oil		<100	<100	<100	>100	<100	--	--	--	--	--	<100	<100	<100
NWTPH-Gx (mg/kg)														
Gasoline	100/30 [b]	--	--	--	--	--	--	--	--	--	--	--	--	--
NWTPH-Dx (mg/kg)														
Diesel	2,000	--	--	--	<470	--	<25	<25	<25	<25	<25	--	--	--
Lube Oil	2,000	--	--	--	**9,300**	--	**54**	<50	**1,900**	<50	<50	--	--	--
Total Metals (mg/kg)														
EPA Method 6010/7420														
Arsenic	20	--	**9.5**	--	<5.0	--	--	--	--	--	--	<5.0	<5.0	--
Cadmium	2	--	<1.0	--	<1.0		--	--	--	--	--	<1.0	<1.0	--
Chromium (III)	2,000	--	**40**	--	**48**	--	--	--	--	--	--	**40**	**26**	--
Lead	250	--	**30**	--	**190**	--	**24**	**9.2**	**210**	**4.8**	--	<5.0	**8.8**	--
Mercury	2	--	**0.05**	--	**0.04**	--	--	--	--	--	--	**0.04**	**0.03**	--
Polycyclic Aromatic Hydrocarbons (PAH) (mg/kg)														
EPA Method 8270/SIM														
Naphthalene		<0.02	--	--	<0.02	<0.02	--	--	--	--	--	--	<0.2	--
2-Methylnaphthalene	5 [c]	<0.02	--	--	**0.03**	<0.2	--	--	--	--	--	--	<0.2	--
1-Methylnaphthalene		<0.02	--	--	**0.03**	<0.2	--	--	--	--	--	--	<0.2	--
Acenaphthylene	NE	<0.02	--	--	**0.03**	<0.2	--	--	--	--	--	--	<0.2	--
Acenaphthene	4,800	<0.02	--	--	**0.02**	<0.2	--	--	--	--	--	--	<0.2	--
Fluorene	3,200	<0.02	--	--	**0.04**	<0.2	--	--	--	--	--	--	<0.2	--
Phenanthrene	NE	<0.02	--	--	**0.14**	<0.2	--	--	--	--	--	--	<0.2	--
Anthracene	24,000	<0.02	--	--	**0.07**	<0.2	--	--	--	--	--	--	<0.2	--
Fluoranthene	3,200	<0.02	--	--	**0.1**	<0.2	--	--	--	--	--	--	<0.2	--

Table 3
Analytical Results - Soil
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

		Sample Location, Depth (ft bgs), and Date Sampled												
							TP28 Area Excavation							
	Method A	TP25	TP26	TP27	TP28		Trench28-W-2	Trench28-N-2	Trench28-S-2	Trench28-E-2	EX10	TP29	TP30	TP31
	Cleanup	1.5	1	1	2	2.5	2	2	2	2	2	1	0.5	1.5
Analyte	Levels [a]	6/19/2009	6/19/2009	6/19/2009	6/19/2009	6/19/2009	10/25/2011	10/25/2011	10/25/2011	10/25/2011	9/28/2011	6/19/2009	6/19/2009	6/19/2009
Pyrene	2,400	**0.02**	--	--	**0.32**	<0.2	--	--	--	--	--	--	<0.2	--
Benzo(a)anthracene*	NE	<0.02	--	--	**0.05**	<0.2	--	--	--	--	--	--	<0.2	--
Chrysene*	NE	**0.03**	--	--	**0.21**	<0.2	--	--	--	--	--	--	<0.2	--
Benzo(b)fluoranthene*	NE	**0.03**	--	--	**0.06**	<0.2	--	--	--	--	--	--	<0.2	--
Benzo(k)fluoranthene*	NE	<0.02	--	--	**0.03**	<0.2	--	--	--	--	--	--	<0.2	--
Benzo(a)pyrene*	0.1	<0.02	--	--	**0.02**	<0.2	--	--	--	--	--	--	<0.2	--
Indeno(1,2,3-c,d)pyrene*	NE	**0.02**	--	--	**0.04**	<0.2	--	--	--	--	--	--	<0.2	--
Dibenz(a,h)anthracene*	NE	<0.02	--	--	**0.02**	<0.2	--	--	--	--	--	--	<0.2	--
Benzo(g,h,i)perylene	NE	**0.03**	--	--	**0.05**	<0.2	--	--	--	--	--	--	<0.2	--
TEQ [d]	0.1	0.0053	--	--	0.0481	<0.2	--	--	--	--	--	--	<0.2	--
Semivolatile Organic Compounds (mg/kg) [e]														
EPA Method 8270														
Fluoranthene	3,200	<0.100	--	--	**0.10**	<0.100	--	--	--	--	--	--	<0.100	--
Pyrene	2,400	<0.100	--	--	**0.62**	<0.100	--	--	--	--	--	--	<0.100	--
Chrysene	137	<0.100	--	--	**0.20**	<0.100	--	--	--	--	--	--	<0.100	--
bis (2-Ethylhexyl)phthalate	71	<0.130	--	--	**0.49**	<0.130	<0.130	<0.130	<0.130	<0.130	--	--	<0.130	--
Volatile Organic Compounds (µg/kg) [f]														
EPA 8260		--	--	--	--	--								
Tetrachloroethene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	30	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichlorothene	4,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	0.69	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Results - Soil
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Analyte	Method A Cleanup Levels [a]	Sample Location, Depth (ft bgs), and Date Sampled										
		TP32	TP33	TP34	GW-2	GW-3	GW-4	GW-7	GW-8	GW-9	GW-10	GW-11
		1.5	1.5	1.5	3.5	3.5	3.5	2.5	2	2	15.5	16
		6/19/2009	6/19/2009	6/19/2009	9/10/2009	9/10/2009	9/11/2009	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010
Petroleum Hydrocarbons												
NWTPH-HCID (mg/kg)												
Gasoline		<20	<20	<20	<20	--	--	--	--	--	--	--
Diesel		<50	<50	<50	<50	--	--	--	--	--	--	--
Oil		<100	<100	>100	<100	--	--	--	--	--	--	--
NWTPH-Gx (mg/kg)												
Gasoline	100/30 [b]	--	--	--	--	--	--	--	--	--	--	--
NWTPH-Dx (mg/kg)												
Diesel	2,000	--	--	<25	--	--	--	--	--	--	--	--
Lube Oil	2,000	--	--	**230**	--	--	--	--	--	--	--	--
Total Metals (mg/kg)												
EPA Method 6010/7420												
Arsenic	20	--	--	--	--	--	--	--	--	--	--	--
Cadmium	2	--	--	--	--	--	--	--	--	--	--	--
Chromium (III)	2,000	--	--	--	--	--	--	--	--	--	--	--
Lead	250	--	--	--	--	--	--	--	--	--	--	--
Mercury	2	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAH) (mg/kg)												
EPA Method 8270/SIM												
Naphthalene		--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	5 [c]	--	--	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene		--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	NE	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	4,800	--	--	--	--	--	--	--	--	--	--	--
Fluorene	3,200	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	NE	--	--	--	--	--	--	--	--	--	--	--
Anthracene	24,000	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	3,200	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Results - Soil
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Analyte	Method A Cleanup Levels [a]	Sample Location, Depth (ft bgs), and Date Sampled										
		TP32	TP33	TP34	GW-2	GW-3	GW-4	GW-7	GW-8	GW-9	GW-10	GW-11
		1.5	1.5	1.5	3.5	3.5	3.5	2.5	2	2	15.5	16
		6/19/2009	6/19/2009	6/19/2009	9/10/2009	9/10/2009	9/11/2009	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010
Pyrene	2,400	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene*	NE	--	--	--	--	--	--	--	--	--	--	--
Chrysene*	NE	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene*	NE	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene*	NE	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene*	0.1	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene*	NE	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene*	NE	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	NE	--	--	--	--	--	--	--	--	--	--	--
TEQ [d]	0.1	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organic Compounds (mg/kg) [e]												
EPA Method 8270												
Fluoranthene	3,200	--	--	--	--	--	--	--	--	--	--	--
Pyrene	2,400	--	--	--	--	--	--	--	--	--	--	--
Chrysene	137	--	--	--	--	--	--	--	--	--	--	--
bis (2-Ethylhexyl)phthalate	71	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (µg/kg) [f]												
EPA 8260												
Tetrachloroethene	50	<10	<10	--	<10	<10	<10	<1.0	**4.4**	<0.9	**1.6**	<1.0
Trichloroethene	30	<10	<10	--	<10	<10	<10	<1.0	<0.8	<0.9	<0.9	<1.0
cis-1,2-Dichloroethene	800	<10	<10	--	<10	<10	<10	<1.0	<0.8	<0.9	<0.9	<1.0
trans-1,2-Dichloroethene	1,600	<10	<10	--	<10	<10	<10	<1.0	<0.8	<0.9	<0.9	<1.0
1,1-Dichlorothene	4,000	<10	<10	--	<10	<10	<10	<1.0	<0.8	<0.9	<0.9	<1.0
Vinyl Chloride	0.69	<10	<10	--	<10	<10	<10	<1.0	<0.8	<0.9	<0.9	<1.0

Notes:

* Carcinogenic PAHs.

Boxed value exceeds Method A or B cleanup level.

Bold values are concentrations of detected compounds.

a) Washington Administrative Code Chapter 173-340, Model Toxics Control Act Cleanup Regulation, Method A suggested soil cleanup level for unrestricted land uses. Where Method A cleanup levels were not available, the most stringent Method B cleanup levels presented in Ecology's Cleanup Levels and Risk Calculation Database were used (as of February 28, 2013).

b) 100 mg/kg without benzene and total of ethylbenzene, toluene, and xylene are less than 1% of the gasoline mixture; 30 mg/kg all other gasoline mixtures.

c) Total napthalene, 1-methynaphthalene, and 2-methylnaphthalene

d) Total carcinogenic PAH concentration based on toxic equivalency method (TEQ) outlined in WAC 173-340-708(8).

e) Only those analytes that were detected in at least one sample are listed on this table.

f) Only tetrachloroethene and its degradation products listed as these were the only volatile organic compounds detected.

NE - not established

mg/kg - milligrams per kilogram.

µg/kg - micrograms per kilogram.

-- not analyzed.

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

Table 4
Analytical Results - Groundwater
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Analyte	MTCA Cleanup Level [a]	Sample ID and Date Sampled											
		Test Pits											
		TP16-GW	TP17-GW	TP19-GW	TP26-GW	EP1-W	EP2-W	EP3-W	EP4-W	EP5-W	EP6-W	EP7-W	EP8-W
		06/18/09	06/18/09	06/18/09	06/19/09	12/08/09	12/08/09	12/08/09	01/14/10	01/14/10	01/14/10	01/14/10	01/14/10
Petroleum Hydrocarbons													
NWTPH-HCID (µg/L)													
Gasoline		--	--	--	ND	--	--	--	--	--	--	--	--
Diesel		--	--	--	ND	--	--	--	--	--	--	--	--
Oil		--	--	--	ND	--	--	--	--	--	--	--	--
NWTPH-Gx (µg/L)													
Gasoline	800/1,000 [b]	--	--	--	--	--	--	--	--	--	--	--	--
BTEX													
EPA 8021 (µg/L)													
Benzene	5	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	1,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	700	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes	1,000	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (µg/L) [c]													
EPA 8260													
Tetrachloroethene	5	**11**	<2	**15**	--	**22**	**2.6**	**11**	**6.9**	**3.0**	**3.7**	**2.2**	**2.5**
Trichloroethene	5	<2	<2	<2	--	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,2-Dichloroethene	16	<2	<2	<2	--	<2	<2	<2	<2	<2	<2	<2	<2
trans, 1,2-Dchloroethene	160	<2	<2	<2	--	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	400	<2	<2	<2	--	<2	<2	<2	<2	<2	<2	<2	<2
Vinyl Chloride	0.2	<0.2	<0.2	<0.2	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	80	<2	<2	<2	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

Table 4
Analytical Results - Groundwater
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Analyte	MTCA Cleanup Level [a]	Sample ID and Date Sampled											
		Test Pits				Monitoring Wells							
		EP9-W	EP10-W	EP11-W	EP12-W	GW-1	GW-2	GW-3		GW-4		GW-5	
		01/14/10	01/14/10	01/14/10	01/14/10	09/17/09	09/17/09	09/17/09	07/01/10	09/17/09	07/01/10	09/17/09	07/02/10
Petroleum Hydrocarbons													
NWTPH-HCID (µg/L)													
Gasoline		--	--	--	--	--	--	--	--	--	--	--	--
Diesel		--	--	--	--	--	--	--	--	--	--	--	--
Oil		--	--	--	--	--	--	--	--	--	--	--	--
NWTPH-Gx (µg/L)													
Gasoline	800/1,000 [b]	--	--	--	--	<50	<50	--	--	--	--	--	--
BTEX													
EPA 8021 (µg/L)													
Benzene	5	--	--	--	--	<1	<1	--	--	--	--	--	--
Toluene	1,000	--	--	--	--	<1	<1	--	--	--	--	--	--
Ethylbenzene	700	--	--	--	--	<1	<1	--	--	--	--	--	--
Xylenes	1,000	--	--	--	--	<3	<3	--	--	--	--	--	--
Volatile Organic Compounds (µg/L) [c]													
EPA 8260													
Tetrachloroethene	5	**35**	**36**	<2	<2	<2	<2	**2.8**	**3.0**	**28**	**18**	**11**	**6.6**
Trichloroethene	5	<2	<2	<2	**2.5**	<2	<2	<2	<0.2	<2	**0.7**	<2	**0.5**
cis-1,2-Dichloroethene	16	<2	<2	<2	<2	<2	<2	<2	<0.2	<2	<0.2	<2	**0.5**
trans, 1,2-Dchloroethene	160	<2	<2	<2	<2	<2	<2	<2	<0.2	<2	<0.2	<2	<0.2
1,1-Dichloroethene	400	<2	<2	<2	<2	<2	<2	<2	<0.2	<2	<0.2	<2	<0.2
Vinyl Chloride	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	80	<2.0	<2.0	<2.0	<2.0	**15**	<2.0	<2.0	--	<2.0	--	<2.0	--

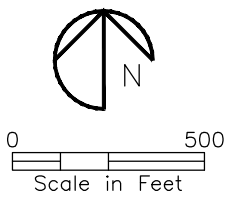
Table 4
Analytical Results - Groundwater
Remedial Investigation/Focused Feasibility Study
Snohomish County Shop-Upper Terrace
Snohomish, Washington

Analyte	MTCA Cleanup Level [a]	Sample ID and Date Sampled							
		Monitoring Wells							
		GW-6		GW-7	GW-8	GW-9	GW-10	GW-10/GW-0*	GW-11
		09/17/09	07/02/10	07/02/10	07/02/10	07/02/10	07/01/10	07/01/10	07/01/10
Petroleum Hydrocarbons									
NWTPH-HCID (µg/L)									
Gasoline		--	--	--	--	--	--	--	--
Diesel		--	--	--	--	--	--	--	--
Oil		--	--	--	--	--	--	--	--
NWTPH-Gx (µg/L)									
Gasoline	800/1,000 [b]	--	--	--	--	--	--	--	--
BTEX									
EPA 8021 (µg/L)									
Benzene	5	--	--	--	--	--	--	--	--
Toluene	1,000	--	--	--	--	--	--	--	--
Ethylbenzene	700	--	--	--	--	--	--	--	--
Xylenes	1,000	--	--	--	--	--	--	--	--
Volatile Organic Compounds (µg/L) [c]									
EPA 8260									
Tetrachloroethene	5	**23**	**16**	**2.4**	**50**	**0.4**	**39**	**37**	**40**
Trichloroethene	5	<2	**0.6**	<0.2	**0.8**	**0.6**	**2.2**	**2.2**	**0.6**
cis-1,2-Dichloroethene	16	<2	<0.2	<0.2	**0.4**	**2.3**	**0.4**	**0.4**	**0.3**
trans, 1,2-Dchloroethene	160	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	400	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	80	<2.0	--	--	--	--	--	--	--

Notes:
*GW-0 is a duplicate of sample GW-10.
Boxed value exceeds Method A or B cleanup level.
Bold values are concentrations of detected compounds.
a) Washington Administrative Code Chapter 173-340, Model Toxics Control Act Cleanup Regulation, Method A suggested groundwater cleanup level. Where Method A cleanup levels were not available, the most stringent Method B cleanup levels presented in Ecology's Cleanup Levels and Risk Calculation Database were used (as of February 28, 2011).
b) 800 µg/L if benzene is present in groundwater; 1000 µg/L if no detectable benzene in groundwater.
c) Only those analytes that were detected in at least one sample, as well as tetrachloroethene and its degradation products are listed on this table.
NE - not established.
µg/L - micrograms per liter.
-- not analyzed.
< - analyte not detected at or greater than the listed concentration.

Figures

Source: GOOGLE EARTH PRO, 2010



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CDM Smith

SNOHOMISH COUNTY SHOP UPPER TERRACE
SNOHOMISH, WASHINGTON

Figure No. 1
Vicinity Map

Shell Station

Avenue D

160

160

150

Snohomish Shop
Upper Terrace

Former VehicleWash Facility

Sump

Pressure WashShed

Asphalt

Dentist

Mobile Home Park

140

140

130

120

Asphalt

Sheriff Department SpecialOperations

Existing USTs

Chevron

Former USTs

Concrete WashPad

Sign Shop

Traffic Operation

Northern StorageShed

CentralStorageShed

Steam Cleaner

Snohomish Shop Lower Terrace

Southern Storage Shed

Fleet Maintenance Office

Carpentry Shop

120

130

Welding Shop

Fleet Maintenance Building

Tire Shop

M & O Division Office

110

97th Avenue SE (Bonneville Avenue)

110

100

90

110

100

90

80

Undeveloped

Commercial

Legend

- Snohomish Shop Property Boundary
- Snohomish Shop Upper Terrace Boundary (Property)
- Existing Structure
- Former Structure
- 120 — Lines of Equal Ground Surface Elevation
- Edge of Asphalt
- Storm Drain (Showing flow Direction)
- Swale
- Catch Basin

Reference: AGI, 1992
Final Report. Focused Remedial Investigation / Feasibility Study of Volatile Organic Compounds, Snohomish Shop, Snohomish, Washington. Modified for current conditions.

Note: Elevations are in feet above mean sea level. (MSL)

N

100 0 100

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Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 2
Former Snohomish Shop and Vicinity

Shell Station

Avenue D

Snohomish Shop Upper Terrace

Suspected Dredge Fill

Suspected Creosote Application

Dentist

MW8

Sump

Asphalt

FormerVehicle WashFacility

TP10

TP11

VP2

B1

Asphalt

Existing USTs

Chevron

Former USTs

Sheriff Department SpecialOperations

Sign Shop

Traffic Operation

Concrete WashPad

Northern StorageShed

CentralStorageShed

Steam Cleaner

Asphalt

Carpentry Shop

Fleet Maintenance Office

Snohomish Shop Lower Terrace

Southern Storage Shed

Welding Shop

Fleet Maintenance Building

Tire Shop

M & O Division Office

Condominiums

160 150 140 130 120

Legend

- Property Boundary
- Existing Structure
- Former Structure
- Potential Contaminated Source Area Identified During Initial Property Studies-Contamination Not Identified
- 130 Lines of Equal Ground Surface Elevation
- Edge of Asphalt
- Storm Drain (Showing flow Direction)
- Swale
- Catch Basin

Initial RI Exploration Locations

- B1-Borehole
- MW8-Monitoring Well
- VP2-Vapor Probe
- TP11-Test Pit

Reference: AGI, 1992
Final Report. Focused Remedial Investigation / Feasibility Study of Volatile Organic Compounds, Snohomish Shop, Snohomish, Washington. Modified for current conditions.

N

75 0 75

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 3
Potential Contaminated Source Areas
Per Initial RI Studies

Legend

- Snohomish Shop Boundary
- Upper Terrace Boundary (Property)

Source: Bing Map Service

N

100 0 100

wynfedsvr1\projects F:\93110-Snohomish\MXD\UPPER TERRACE\Figure4_UPPER Terrace and Shopping Center_v20130304.mxd

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 4
Snohomish Shop Upper Terrace and Snohomish Square Shopping Center

wynfedsvr1\projects Y:\93110-Snohomish\MXD\UPPER TERRACE\Figure5_UPPER Test Pits and Monitoring Wells11x17_v20130304.mxd

Legend

- Area of Detail (Figure 6)
- Property Boundary
- Existing Structure
- Former Structure
- Potential Contaminated Source Area Identified During Initial Property Studies-Contamination Not Identified
- 130 — Lines of Equal Ground Surface Elevation
- Edge of Asphalt
- Storm Drain (Showing flow Direction)
- Swale
- Catch Basin
- TP23-Test Pit Location and ID
- GW-5-Monitoring Well Location and ID
- Ditch 1-Surface Water Sample Location and ID

Reference: AGI, 1992
Final Report. Focused Remedial Investigation / Feasibility Study of Volatile Organic Compounds, Snohomish Shop, Snohomish, Washington. Modified for current conditions.

Test Pit locations surveyed by CDM Smith using GPS
Monitoring well locations surveyed by Snohomish County

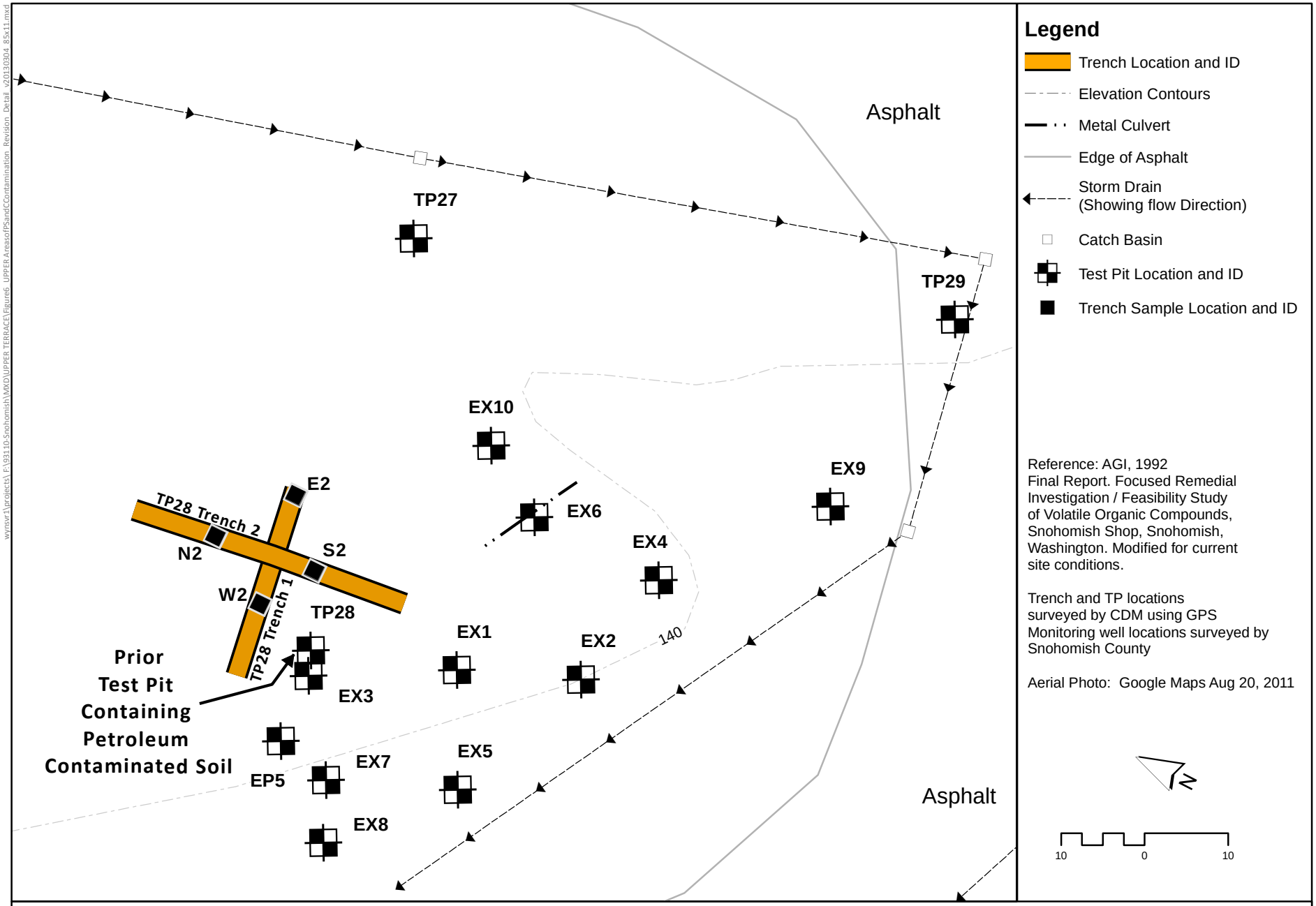
N

100 0 100

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 5
Test Pit and Monitoring Well Location Map

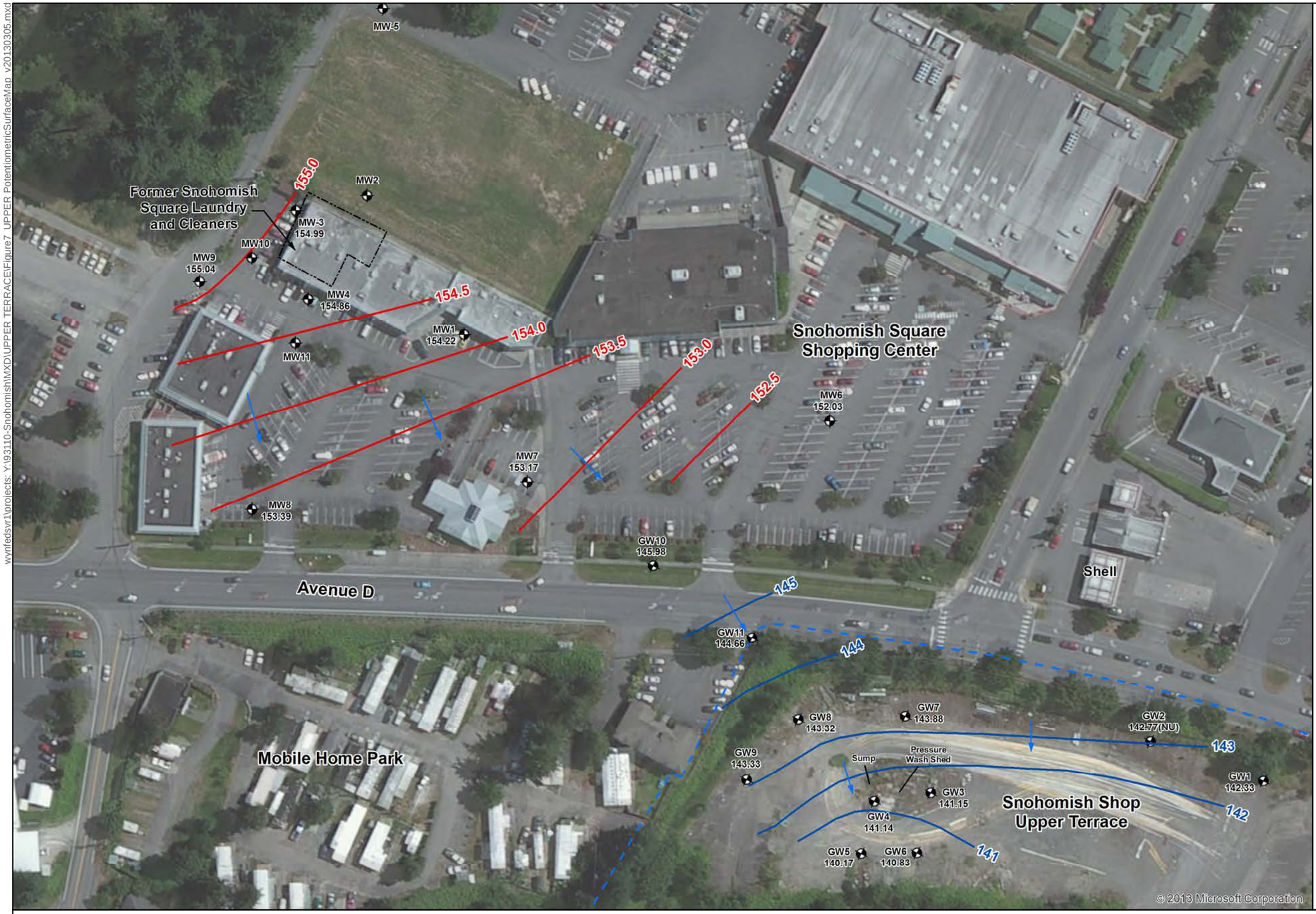


CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 6
Explorations Surrounding TP28

wynfedsvr1\projects: Y\193110-SnohomishMXD\UPPER TERRACE\Figure7_UPPER PotentiometricSurfaceMap_v20130305.mxd



Legend

- Property Boundary
- GW-5 140.17 — Monitoring Well Location and ID with Groundwater Elevation
- Line of Equal Elevation First Water Bearing Unit
- Line of Equal Elevation Second Water Bearing Unit
- Groundwater Flow Direction

NU = Not used for contours

Source: Google Earth Pro™ (June 21, 2010)

N

100 0 100

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 7
Potentiometric Surface Map
July 1, 2010

wynfedsvr1\projects\ Y:\93110-Snohomish\MXD\UPPER TERRACE\Figure8_UPPER OnsitePCEPlumeLimits_V20130305.mxd

GW10 39
GW11 40
Avenue D
Shell Station
160
150
140
130
120
Dentist
EP9 35
EP8 2.5
GW7 2.4
GW8 50
EP10 36
EP1 22
Former Vehicle Wash Facility
EP7 2.2
Sump
Pressure Wash Shed
GW2 <2
GW1 <2
GW9 0.4
EP11 <2
GW4 18
GW3 3.0
TP20
TP16 11
TP19 15
EP6 3.7
TP17 <2
GW5 6.6
GW6 16
EP3 11
EP4 6.9
EP2 2.6
EP5 3.0
Snohomish Shop Upper Terrace
Sheriff Department SpecialOperations
Existing USTs
Former USTs
Chevron
Concrete WashPad
Northern Storage Shed
CentralStorageShed
Steam Cleaner
Snohomish Shop Lower Terrace
Sign Shop
Traffic Operation
Fleet Maintenance Office
Carpentry Shop
Welding Shop
Southern Storage Shed
Fleet Maintenance Building
Tire Shop
M & O Division Office (Not Demolished)
Condominiums

Legend

- Property Boundary
- Existing Structure
- Former Structure
- 5 — PCE Isoconcentration Contour in µg/L (Dashed where inferred)
- 130 - - - Lines of Equal Ground Surface Elevation
- Edge of Asphalt
- Storm Drain (Showing Flow Direction)
- Swale
- Catch Basin
- TP18 2.6 — Test Pit Location and ID with PCE Concentration in µg/L*
- GW5 6.6 — Monitoring Well Location and ID with PCE Concentration in µg/L*

PCE - Tetrachloroethene
µg/L - micrograms per liter
< - not detected at the reported concentration

* Dates sampled vary between 06/18/09 and 07/01/10. Where monitoring wells were sampled more than once, the sample data from 07/01/10 are used.

Reference: AGI, 1992
Final Report. Focused Remedial Investigation / Feasibility Study of Volatile Organic Compounds, Snohomish Shop, Snohomish, Washington. Modified for current conditions.

Test Pit locations surveyed by CDM using GPS
Monitoring well locations surveyed by Snohomish County

N
75 0 75

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 8
On-Property Groundwater PCE Plume Limits

wynfedsvr1\projects: Y:\93110-Snohomish\MXD\UPPER TERRACE\Figure9_UPPER TotalcVOCPlume_v20130305.mxd

Legend

- Property Boundary
- GW5 07/10 - 7.1 — Monitoring Well Location and ID with Total cVOC Concentration in µg/L on Date Indicated
- 5 — Total cVOC Isoconcentration Contour in µg/L Dashed Where Inferred
- 100 — Total cVOC Isoconcentration Contour in µg/L Dashed Where Inferred

cVOC - Chlorinated Volatile Organic Compounds - Tetrachloroethene and its degradation products

µg/L - micrograms per liter

Reference - ERM, 2007. Source Area Removal and Remedial Action Pilot Study. Source of data and contours for all "MW" wells.

ND = Not detected

Source: Google Earth Pro™ (June 21, 2010)

N

100 0 100
Feet

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure 9
On- and Off-Property Total cVOCs in Groundwater >5 µg/L

Appendix A
Site Photographs

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

Pre-Demolition Photos

March, 2009

Photograph No. A1

Photographed By:
Pam Morrill

Description: Standing at location of Sheriff Special Operations facility facing north – view of lay down yard area.

March, 2009

Photograph No. A2

Photographed By:
Pam Morrill

Description: Sign shop, office, and carpentry shop, prior to demolition.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

Pre-Demolition Photos

March, 2009

Photograph No. A3

Photographed By:
Pam Morrill

Description: At southeast corner of the Property facing the adjacent Chevron station, prior to demolition of Shop buildings.

March, 2009

Photograph No. A4

Photographed By:
Pam Morrill

Description: Hillside separating the Lower and Upper Terraces.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

Pre-Demolition Photos

March, 2009

Photograph No. A5

Photographed By:
Pam Morrill

Description: Vehicle wash facility sump.

September, 2009

Photograph No. A6

Photographed By:
August Welch

Description: Pavement in upper terrace used for line painting practice.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

First Round of Test Pit Excavations

June, 2009

Photograph No. A7

Photographed By:
Alexis Lopez

Description: Test Pit TP13.

June, 2009

Photograph No. A8

Photographed By:
Alexis Lopez

Description: Test Pit TP17.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

First Round of Test Pit Excavations

June, 2009

Photograph No. A9

Photographed By:
Alexis Lopez

Description: Test Pit TP21.

June, 2009

Photograph No. 10

Photographed By:
Alexis Lopez

Description: Test Pit TP33.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

Second Round of Test Pit Excavations

December, 2009

Photograph No. A11

Photographed By:
August Welch

Description: View looking north of the excavation of EP1 located up gradient of the wash facility. The sign for the dental office next to where GW-11 was eventually installed is visible in the background of the photograph.

January, 2010

Photograph No. A12

Photographed By:
August Welch

Description: Test Pit EP8 near where GW-7 was eventually installed.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

Third Round of Test Pit Excavations

December, 2009

Photograph No. A13

Photographed By:
August Welch

Description: Test Pit EP10 located near the north property line.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

First Round of Monitoring Well Installations

September, 2009

Photograph No. A14

Photographed By:
August Welch

Description: Installing GW-3.

September, 2009

Photograph A15

Photographed By:
August Welch

Description: Monitoring Well GW-4 between wash water sump and concrete pad of former pressure wash shed.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

First Round of Monitoring Well Installations

September, 2009

Photograph No. A16

Photographed By:
August Welch

Description: Installing GW-6.

FIELD PHOTOGRAPHY LOG SHEET
Snohomish County Shop Upper Terrace
Snohomish, Washington

Second Round of Monitoring Well Installations

June, 2010

Photograph No. A17

Photographed By:
August Welch

Description: Photograph of limited access drill rig installing GW-9 near the northern property boundary.

June, 2010

Photograph No. A18

Photographed By:
August Welch

Description: View looking north, across Avenue D, at installation of GW-10 located in the City of Snohomish right-of-way.

Appendix B
Excerpts from Original Site Investigation Reports

A Report Prepared For

Snohomish County Public Works
Design Construction
Marion Building
2829 Rucker
Everett, Washington 98201

VOLUME I
FINAL REPORT

FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY OF VOLATILE ORGANIC COMPOUNDS SNOHOMISH SHOP SNOHOMISH, WASHINGTON

AGI Project No. 15,512.030

by:

Annette M. Jakubiak
Staff Scientist/Chemist

Susan J. Penoyar, P.E.
Senior Engineer

Mark A. Adams, P.G.
Associate Geologist

APPLIED GEOTECHNOLOGY INC.
300 120th Avenue N.E.
Building 4, Suite 215
Bellevue, Washington 98005
206/453-8383

April 27, 1992

Fuel dispensers (one or two) for pumping gasoline and diesel have been located in front of the fleet maintenance building since the early 1960s. By the late 1970s, three fuel dispensers were in use in this area. The southernmost USTs and dispenser were removed in 1988.

Rittenhouse Zeman and Associates (RZA) performed a "rough on-site soil evaluation" during excavation of the southern USTs. Soil headspace was measured on site with a Gastechtor probe and soil measuring over 15 ppm was considered contaminated. No chemical analyses were performed on soil from the excavation. Two USTs (approximately 2,000 gallons in capacity) and 15 tons of contaminated soil were removed from the site.

3.2.3 Southern Portion

The southern portion of the lower terrace has been primarily used for storage of road maintenance equipment such as tack oil spreaders, grass cutters, and dump trucks. Equipment such as generators, asphalt rollers, and road line painters have also been stored in the southern storage shed since the 1960s. Some spills have been reported around this shed. A confirmed spill of approximately 1,000 gallons of tack oil occurred in the late 1980s when a tack oil truck tank valve was accidently left open over a weekend. The tack oil reportedly spread laterally along and under the western fence (see Figure 3).

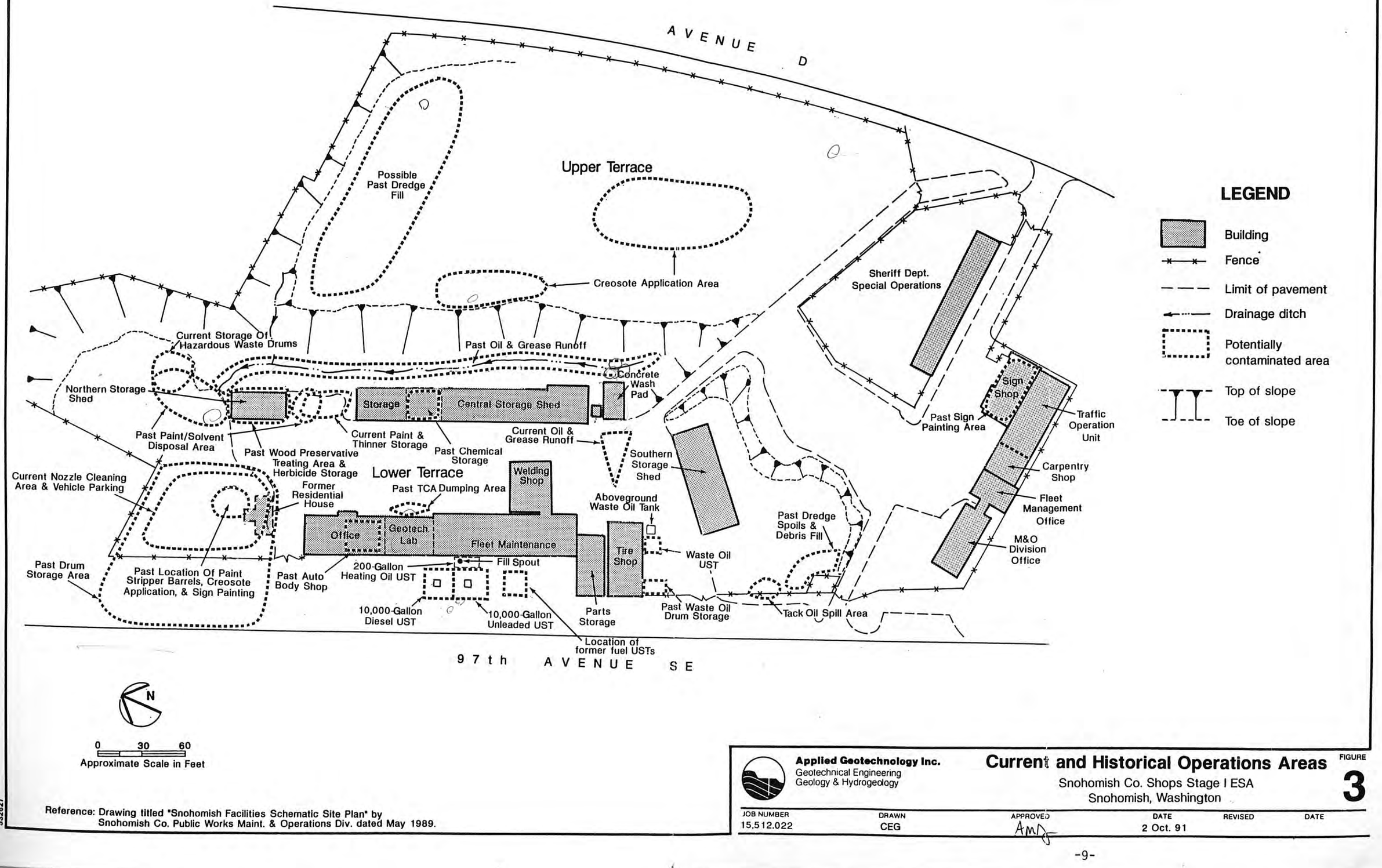
Unconfirmed solvent spills took place near the eastern corner of the southern storage shed. An aerial photograph from 1974 showed a bare spot along the slope in the unconfirmed spill area; however, a past employee reported that crushed gravel was stockpiled in this area and was likely the reason the area appeared unvegetated. Debris, asphalt, and possible ditch spoils were also reportedly deposited in the southern corner of the site.

3.3 Upper Terrace

In the 1940s, the upper terrace was generally covered with vegetation and unconfirmed gravel mining took place in the southern portion. The County began storing culverts and timber in the central portion of the terrace in the 1950s. Unconfirmed filling using ditch dredge spoils took place in the northern portion of the terrace. In the late 1970s and 1980s, creosote was poured and sprayed on timber along the western edge and central portion of the upper terrace.

Currently, culverts are stored along the eastern and western boundaries of the upper terrace. Barricades and creosote-treated timber are also stored along the western edge. County vehicles and vehicle equipment (dump trucks, backhoe buckets, and plow shovels) are parked or stored in the central portion of the terrace near a new wash rack. The new wash rack is connected to the storm drainage network in the upper terrace. It contains an oil/water separator, but is not currently in use because a water source is not available in the area.

The southern portion of the upper terrace was first developed in the early 1970s with the erection of two buildings (currently the sheriffs department building and the traffic operations unit). The current sheriffs department building was originally operated by the County bridge crew and used for timber storage up to the early 1970s. The current traffic operations buildings were operated by the Parks Department until approximately 1980 and by County construction until approximately 1985. In the past, the northern open area of the traffic operations building was used for small-scale traffic sign painting. Signs are currently stored in this area.



Reference: Drawing titled "Snohomish Facilities Schematic Site Plan" by Snohomish Co. Public Works Maint. & Operations Div. dated May 1989.

532627

Applied Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

Current and Historical Operations Areas

Snohomish Co. Shops Stage I ESA
Snohomish, Washington

FIGURE **3**

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED	DATE
15,512.022	CEG	AMJ	2 Oct. 91		

A report prepared for

Snohomish County Public Works Department
Public Administration Building
Everett, Washington 98201

STAGE I ENVIRONMENTAL SITE ASSESSMENT
SNOHOMISH COUNTY SHOPS FACILITY
SNOHOMISH, WASHINGTON

AGI Project No. 15,512.022

by

Annette M. Jakubiak
Geochemist

Susan J. Penoyar, P.E.
Project Engineer

Mark A. Adams, P.G.
Associate Geologist

APPLIED GEOTECHNOLOGY INC.
300 120th Avenue N.E.,
Building 4, Suite 215
Bellevue, Washington 98005
206/453-8383

November 7, 1991

Table 3–1
Soil Boring and Well and Probe Completion Data
Snohomish County/Snohomish Shop RI/FS
Snohomish, Washington

Designation	Designed By	Completed	Drilling Method	Measuring [a] Point Elevation (ft. above MSL)	Exploration Depth (ft. bgs)	Screen Type	Screen Diameter (inches)	Screened Interval (ft. bgs)
Monitoring Wells [b]								
MW1	SCPW	07/12/91	4.25–inch ID Auger	114.17	49	0.010–inch slot PVC	2	39–49
MW2	AGI	09/07/91	4.25–inch ID Auger	112.35	50	0.020–inch slot PVC	2	34–44
MW3	AGI	09/03/91	4.25–inch ID Auger	114.67	51	0.020–inch slot PVC	2	40–50
MW4A	AGI	12/05/91	Hand Auger	80.31	5.5	0.020–inch slot PVC	2	3.5–5.5
MW4B	AGI	11/26/91	Hand Driven	80.66	10.5	0.020–inch slot PVC	2	7–10.5
MW5A	AGI	12/05/91	Hand Auger	78.50	8	0.020–inch slot PVC	2	5–8
MW5B	AGI	11/27/91	Hand Driven	78.46	9.5	0.020–inch slot PVC	2	6.5–9.5
MW6 (VEW1)	AGI	12/18/91	10–inch ID Cable Tool	114.51	75	0.020–inch slot PVC	2	56–66
MW8	AGI	01/10/92	4.25–inch ID Auger	141.04	78	0.020–inch slot PVC	2	55–70
MW12	AGI	01/09/92	4.25–inch ID Auger	114.48	98.5	0.020–inch slot PVC	2	87.5–97.5
Vapor Extraction Well								
VEW1 (MW6)	AGI	12/18/91	10–inch ID Cable Tool	114.59	75	0.040–inch and 0.020–inch slot PVC	4	5–19
VEW2	AGI	01/02/92	10–inch ID Cable Tool	114.03	55.4	0.040–inch slot PVC	4	35–45
Vapor Probes								
VP1	AGI	01/07/92	10–inch ID Cable Tool	114.72	61	0.020–inch slot PVC	2	7–12
VP2	AGI	01/07/92	4.25–inch ID Auger	140.64	37	0.020–inch slot PVC	2	17–27
VP3	AGI	01/13/92	4.25–inch ID Auger	114.41	47.5	0.020–inch slot PVC	2	41–46
VP4	AGI	01/14/92	4.25–inch ID Auger	113.22	42.5	0.020–inch slot PVC	2	28–33

Table 3–1
Soil Boring and Well and Probe Completion Data
Snohomish County/Snohomish Shop RI/FS
Snohomish, Washington

Designation	Designed By	Completed	Drilling Method	Measuring [a] Point Elevation (ft. above MSL)	Exploration Depth (ft. bgs)	Screen Type	Screen Diameter (inches)	Screened Interval (ft. bgs)
Borings								
B1	AGI	09/06/91	4.25–inch ID Auger	N/A	37	N/A	N/A	N/A
B2	AGI	09/03/91	4.25–inch ID Auger	N/A	10	N/A	N/A	N/A
B3	AGI	09/04/91	4.25–inch ID Auger	N/A	15	N/A	N/A	N/A
B4	AGI	09/06/91	4.25–inch ID Auger	N/A	21.5	N/A	N/A	N/A
B5	AGI	09/04/91	4.25–inch ID Auger	N/A	19	N/A	N/A	N/A
B6	AGI	01/08/92	4.25–inch ID Auger	N/A	57.5	N/A	N/A	N/A

Notes:

a) Measuring point was top of PVC well casing.
b) Wells MW7, MW9, MW11, and MW13 were not installed as originally planned, but converted to vapor probes VP1–VP4.

AGI – Applied Geotechnology Inc.
SCPW – Snohomish County Public Works.
Survey Datum: National Geodetic Vertical Datum 1929.
bgs – Below ground surface.
ID – Inside diameter.
N/A – Not applicable.
PVC – Polyvinyl chloride plastic with milled slots.

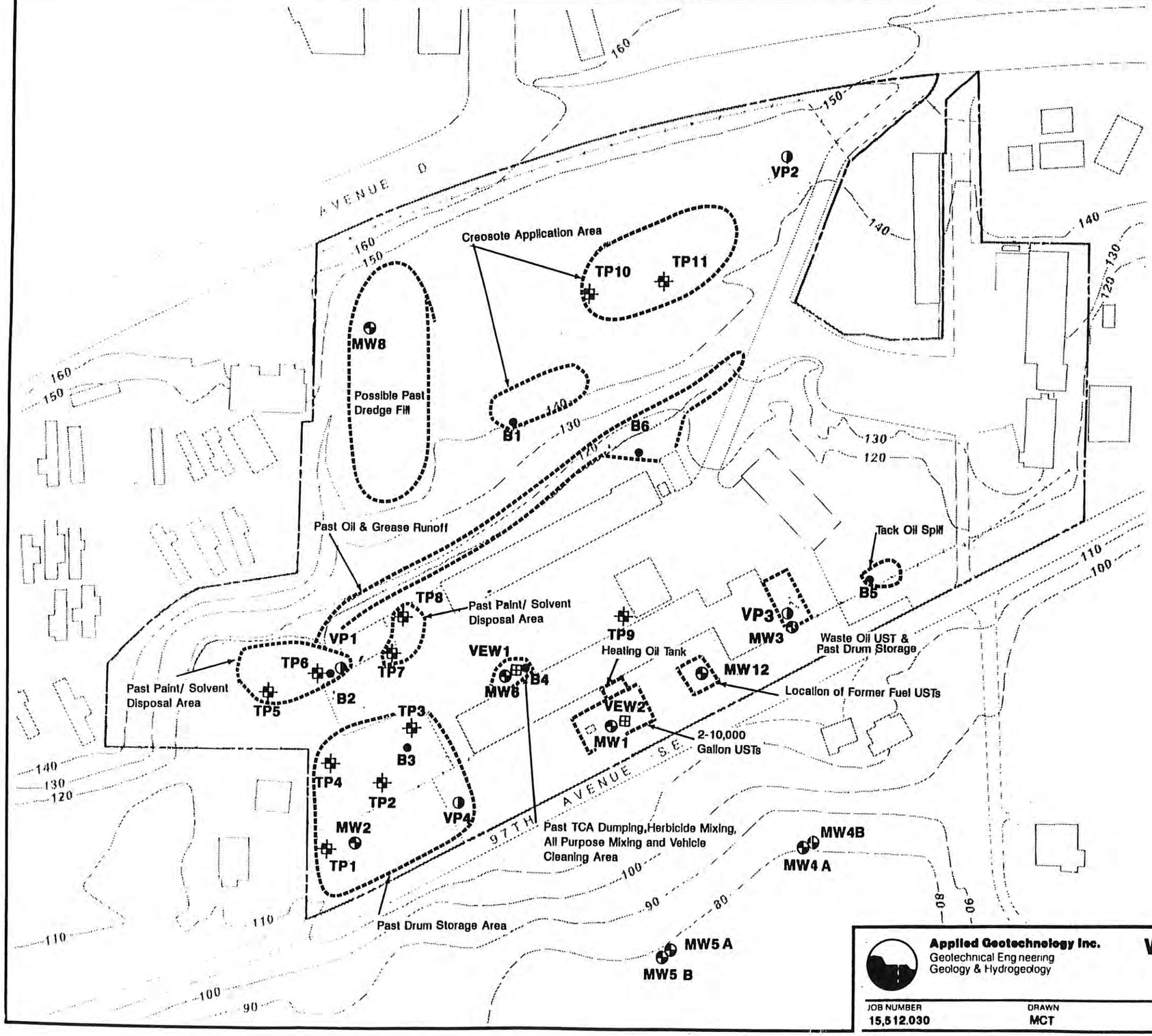
Table 5–1
Soil Vapor Production Test Results
Snohomish County/Snohomish Shop RI/FS
Snohomish, Washington

Test Location	Test Date	Vapor Screening Method and Maximum Concentration		
		OVM (ppm)	OVA (ppm)	Sensidyne Tubes (ppm)
Temporary Well				
MW6A	12/13/91	2	--	G = <5
Current Wells and Probes				
MW1	12/13/91	229	>1000	G = 1400 TCA = <20 TCE = 6
MW3	01/06/92	0	--	TCE = <0.4
MW6	12/13/91	0	--	G = <5
MW6	12/27/91	--	0	TCE = <0.4
VEW1	12/27/91	--	90	TCE = 40
VEW2	01/06/91	255	--	TCE = 180 [a]
VP1	01/21/92	0	--	TCE = <0.4
VP2	01/22/92	0	--	TCE = <0.4 TCA = <20
VP3	01/21/92	0	--	TCE = <0.4
VP4	01/21/92	0	--	TCE = 0.4

Notes:

a) This measurement was recorded during initial blower startup. The vapor concentration attained maximum value after 35 minutes of operation.

G – Gasoline specific tube.
OVA – Organic vapor meter with flame ionization detector.
OVM – Organic vapor meter with photoionization detector.
TCA – 1,1,1–trichloroethane specific tube.
TCE – Trichloroethene specific tube.



LEGEND

- MW1 — Monitoring Well number and approximate location
- B6 — Boring number and approximate location
- VP1 — Vapor Probe number and approximate location
- VEW1 — Vapor Extraction Well number and approximate location
- TP1 — Test Pit number and approximate location
- Approximate location of potential contaminant source area

N

0 50 100

Approximate Scale in Feet

Reference: Drawings titled "City of Snohomish Aerial Topographic Map" by Degross Aerial Mapping, dated 4-9-88, and "City of Snohomish NW 1/4, Sec. 7, T. 28 N., R. 6 E." by Walker & Associates Inc., dated 3-30-84.

Applied Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

Well, Boring, and Test Pit Locations

Snohomish County/ Snohomish Shop RI/FS
Snohomish, Washington

FIGURE **3-1**

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED	DATE
15,512.030	MCT	Ams	25 Feb92		

Reference: Drawings titled "City of Snohomish Aerial Topographic Map" by Degross Aerial Mapping, dated 4-9-88, and "City of Snohomish NW 1/4, Sec. 7, T. 28 N., R. 6 E." by Walker & Associates Inc., dated 3-30-84.

Applied Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

Sediment & Surface Water Sample Locations

Snohomish County/Snohomish Shop RI/FS
Snohomish, Washington

FIGURE **3-3**

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED	DATE
15,512.030	SLB	AMD	25 Feb 92		

Appendix C
Excerpts from Snohomish Square Cleaners Facility Reports

Attorney-Client Privileged Work Product

Skotdal Real Estate

Source Area Removal and Remedial Action Pilot Study

Snohomish Square Cleaners
1419 Avenue D
Snohomish, Washington

November 2007

Project No. 0048167.03

David P. Edwards, P.G.
Principal

A. Michael Arnold, R.G.
Senior Project Manager

Brian D. Magee, R.G.
Project Geologist

ERM-West, Inc.
915 118th Avenue SE, Suite 130
Bellevue, Washington 98005
T: 425-462-8591
F: 425-455-3573

Table 1

Summary of Volatile Organic Compounds and Total Organic Carbon in Soil
Snohomish Square Cleaners Facility
Snohomish, Washington

Sample Location	Sample ID	Collected by	Date	Depth *feet bgs*	Within Excavation Footprint?	Volatile Organic Compounds			TOC *mg/kg*
						PCE *mg/kg*	TCE *mg/kg*	cis-1,2-DCE *mg/kg*	
SNSB-1	SNSB-1-1	Golder	11/19/2003	5-5.5	No	**0.0037**	ND [1]	<0.0014	---
	SNSB-1-2	Golder	11/19/2003	10-10.5	No	**0.0023**	ND [1]	<0.0013	---
SNSB-2	SNSB-2-1	Golder	11/19/2003	5-5.5	No	**0.0074**	ND [1]	<0.0013	---
	SNSB-2-2	Golder	11/19/2003	10-10.5	No	**0.021**	ND [1]	<0.0012	---
HA-1	SNHA-1	Golder	11/19/2003	0.5	No	**0.0062**	ND [1]	<0.0010	---
	SNHA-2	Golder	11/19/2003	3	No	**0.051**	ND [1]	<0.0012	---
MW-1	MW-1-5	Golder	2/5/2004	5-5.5	No	<0.0013	ND [1]	<0.0013	---
	MW-1-10	Golder	2/5/2004	10-10.5	No	**0.0019**	ND [1]	<0.0012	---
MW-2	MW-2-5	Golder	2/5/2004	5-5.5	No	<0.0013	ND [1]	<0.0013	---
	MW-2-10	Golder	2/5/2004	10-10.5	No	**0.0019**	ND [1]	<0.0012	---
B-1	B-1-2.5	ERM	10/7/2004	2.5	Yes	**2.4**	< 0.010	<0.010	---
B-2	B-2-4.5	ERM	10/7/2004	4.5	Yes	**0.170**	< 0.010	0.012	---
B-3	B-3-4.5	ERM	10/7/2004	4.5	No	<0.010	< 0.010	<0.010	---
B-4	B-4-0.8	ERM	10/7/2004	0.8	No	<0.010	< 0.010	<0.010	---
B-6	B-6	ERM	5/5/2005	6.5-7.0	No	**0.021**	< 0.010	<0.010	720
B-7	B-7	ERM	5/5/2005	4.5-5.0	No	<0.010	< 0.010	<0.010	---
B-8	B-8	ERM	5/5/2005	5.0-5.5	No	<0.010	< 0.010	<0.010	6,400
B-9	B-9	ERM	5/5/2005	4.75-5.25	No	<0.010	< 0.010	<0.010	---
B-10	B-10	ERM	5/5/2005	4.5-5.0	No	<0.010	< 0.010	<0.010	---
B-13	B-13-0.5	ERM	11/23/2005	0.5	Yes	**0.038**	<0.010	<0.010	---
	B-13-3.5	ERM	11/23/2005	3.5	Yes	**4.7**	**0.160**	<0.010	---
B-14	B-14-0.5	ERM	11/23/2005	0.5	Yes	**0.570**	<0.010	<0.010	---
	B-14-4.0	ERM	11/23/2005	4.0	Yes	**0.016**	<0.010	<0.010	---
B-15	B-15-0.5	ERM	11/23/2005	0.5	Yes	**0.034**	<0.010	<0.010	---
	B-15-4.0	ERM	11/23/2005	4.0	Yes	**0.440**	<0.010	<0.010	---
B-16	B-16-3.0	ERM	4/26/2006	3.0	No	<0.010	<0.010	<0.010	---
	B-16-8.0	ERM	4/26/2006	8.0	No	<0.010	<0.010	<0.010	---
B-17	B-17-3.5	ERM	4/26/2006	3.5	Yes	**0.053**	<0.010	<0.010	---
	B-17-8.0	ERM	4/26/2006	8.0	Yes	**0.010**	<0.010	<0.010	---
B-18	B-18-3.0	ERM	4/26/2006	3.0	No	<0.010	<0.010	<0.010	---
	B-18-8.0	ERM	4/26/2006	8.0	No	**0.043**	<0.010	<0.010	---
B-19	B-19-3.0	ERM	4/26/2006	3.0	Yes	<0.010	<0.010	<0.010	---
	B-19-8.0	ERM	4/26/2006	8.0	Yes	**7.600**	**0.012**	**0.020**	---
S-1	S-1	ERM	11/2/2004	NA	Yes	<0.010	< 0.010	<0.010	---
Storm Drain-1	Storm Drain-1	ERM	4/29/2005	NA	Yes	<0.010	< 0.010	<0.010	---
Project Screening Goal [2]						**0.05**	**0.03**	---	---

Notes:

Shaded cells indicate concentrations that exceed project screening goals.
Bold value indicates that the constituent was detected.

bgs = below ground surface
cis-1,2-DCE = cis-1,2-Dichloroethene
ERM = Sample collected by ERM-West Inc
Golder = Samples collected by Golder Associates Inc
mg/kg = milligram per kilogram
NA = Not applicable
NM = Not measured
PCE = Tetrachoroethene
TCE = Trichloroethene
TOC = Total Organic Carbon

[1]Sample collected by Golder, detection limit not available.

[2]Washington State Department of Ecology Model Toxics Control Act - WAC 173-340-900 Table 745-1

Table 2

Summary of Volatile Organic Compounds Detected in Ground Water
Snohomish Square Cleaners Facility
Snohomish, Washington

Sample Location	Collected by	Date	Volatile Organic Compounds					
			PCE µg/l	TCE µg/l	cis-1,2-DCE µg/l	trans-1,2-DCE µg/l	Vinyl Chloride µg/l	Chloroform µg/l
Soil Borings								
SNSB-1	Golder	11/19/2003	430	8.4	5.5	---	---	5.2
SNSB-2	Golder	11/19/2003	480	<4.0	<4.0	---	---	<4.0
B-5	ERM	10/7/2004	23	<2	<2	---	---	<2
B-6	ERM	5/5/2005	26,000	180	210	---	---	<10
B-7	ERM	5/5/2005	1,300	12	12	---	---	<2
B-8	ERM	5/5/2005	300	7	9	---	---	<2
B-9	ERM	5/5/2005	23	15	16	---	---	<2
B-10	ERM	5/5/2005	7	3	10	---	---	<2
B-11	ERM	11/9/2005	<2	<2	<2	---	---	<2
Monitoring Wells								
MW-1	Golder	2/8/2004	180	<1.0	<1.0	---	---	2
	ERM	11/4/2004	810	9	6	---	---	<2
	ERM	5/5/2005	140	<2	<2	---	---	<2
	ERM	8/19/2005	360	3	<2	---	---	<2
MW-2	Golder	2/8/2004	0.51	<0.20	<0.20	---	---	1.8
	ERM	11/4/2004	<2	<2	<2	---	---	2
	ERM	5/5/2005	<2	<2	<2	---	---	<2
	ERM	8/19/2005	<2	<2	<2	---	---	<2
MW-3	Golder	2/8/2004	17	<0.20	<0.20	---	---	2.3
	ERM	11/4/2004	120	<2	<2	---	---	<2
	ERM	5/5/2005	44	<2	<2	---	---	<2
	ERM	8/19/2005	120	<2	<2	---	---	<2
MW-4	Golder	2/8/2004	530	<4.0	<4.0	---	---	<4.0
	ERM	11/4/2004	970	9	8	---	---	<2
	ERM	5/5/2005	330	3	7	---	---	<2
	ERM	8/19/2005	1,400	11	17	---	---	<2
	ERM	11/20/2006	1,190	9.23	7.51	0.320	<0.200	<0.200
	ERM	1/17/2007	103	210	4.26	<0.200	<0.200	0.330
	ERM	3/19/2007	7.50	16.6	182	1.64	5.48	<1.00
	ERM	5/18/2007	15.3	11.7	156	1.15	3.43	<0.200
MW-5	ERM	11/4/2004	<2	<2	<2	---	---	<2
	ERM	5/6/2005	<2	<2	<2	---	---	<2
	ERM	8/19/2005	<2	<2	<2	---	---	<2
MW-6	ERM	11/4/2004	<2	<2	<2	---	---	4
	ERM	5/5/2005	<2	<2	<2	---	---	<2
	ERM	8/19/2005	<2	<2	<2	---	---	<2
MW-7	ERM	11/4/2004	68	<2	<2	---	---	<2
	ERM	5/5/2005	200	3	2	---	---	<2
	ERM	8/19/2005	80	<2	2	---	---	<2
MW-8	ERM	11/4/2004	<2	<2	<2	---	---	<2
	ERM	5/5/2005	<2	<2	<2	---	---	<2
	ERM	8/19/2005	<2	<2	<2	---	---	<2
MW-9	ERM	11/4/2004	43	<2	<2	---	---	<2
	ERM	5/5/2005	380	<2	<2	---	---	<2
	ERM	8/19/2005	11	<2	<2	---	---	<2
MW-10	ERM	11/20/2006	1,460	27.8	12.7	0.940	<0.200	<0.200
	ERM	1/17/2007	228	20.6	7.28	0.230	<0.200	<0.200
	ERM	3/19/2007	287	35.5	10.6	<1.00	<0.200	<1.00
	ERM	5/18/2007	380	20.0	13.3	0.430	<0.200	<0.200
MW-11	ERM	11/20/2006	1,010	31.5	10.6	0.630	<0.200	<0.200
	ERM	1/17/2007	372	207	18.0	0.880	<0.200	<0.200
	ERM	3/19/2007	326	26.4	149	1.25	0.780	<1.00
	ERM	5/18/2007	266	17.3	101	1.03	0.400	<0.200
Project Screening Goal			5[1]	5[1]	80[2]	160[2]	0.2[1]	7.17[2]

Notes:
Shaded cells indicate concentrations that exceed project screening goals.
Bold value indicates that the constituent was detected.
bgs = below ground surface
µg/l - Micrograms per liter
DCE = Dichloroethene
ERM = ERM-West, Inc.
Golder = Golder Associates, Inc.
PCE = Tetrachloroethene
TCE = Trichlorethene
[1]Model Toxics Control Act Method A Ground Water Cleanup Level (Chapter 173-340-900 Washington Administrative Code)
[2]Model Toxics Control Act Method B Ground Water Cleanup Level (Chapter 173-340-705 Washington Administrative Code)

Table 4

Summary of Volatile Organic Compounds in Excavation Soil Samples
Snohomish Square Cleaners Facility
Snohomish, Washington

Sample ID/Location	Date	Depth (feet bgs)	Excavation Phase	Volatile Organic Compounds		
				PCE *mg/kg*	TCE *mg/kg*	cis-1,2-DCE *mg/kg*
S-1-8.0	8/7/2006	8	1	**2.9**	< 0.010	<0.010
S-2-6.0	8/7/2006	6	1	**0.071**	< 0.010	< 0.010
S-3-5.0	8/7/2006	5	1	**0.051**	< 0.010	<0.010
B-4-0.8	10/7/2004	0.8	1	<0.010	< 0.010	<0.010
S-4-6.5	8/7/2006	6.5	1	**1**	**0.011**	<0.010
S-5-8.0	8/7/2006	8	1	**39**	**0.058**	**0.084**
S-6-6.0	8/10/2006	6	1	**0.77**	< 0.010	<0.010
S-7-6.0	8/10/2006	6	2	**0.43**	< 0.010	<0.010
S-8-8.0	8/10/2006	8	2	**6.3**	**0.11**	**0.19**
S-9-6.0	8/10/2006	6	2	**0.72**	< 0.010	<0.010
S-10-8.0	8/10/2006	8	2	**1.3**	< 0.010	<0.010
S-11-6.0	8/10/2006	6	2	**0.45**	< 0.010	<0.010
S-12-8.0	8/10/2006	8	2	**0.64**	**0.16**	<0.010
S-13-5.0	8/11/2006	5	3	**0.14**	<0.010	<0.010
S-14-8.0	8/11/2006	8	3	**0.66**	<0.010	<0.010
S-15-5.0	8/11/2006	5	3	**0.014**	<0.010	<0.010
S-16-8.0	8/11/2006	8	3	**0.55**	<0.010	<0.010
S-17-5.0	8/11/2006	5	3	**0.61**	<0.010	<0.010
S-18-8.0	8/11/2006	8	3	**1.3**	<0.010	<0.010
S-19-5.0	8/11/2006	5	3	<0.010	<0.010	<0.010
S-20-8.0	8/11/2006	8	3	<0.010	<0.010	<0.010
S-21-5.0	8/14/2006	5	4	**0.55**	<0.010	<0.010
S-22-8.0	8/14/2006	8	4	**0.25**	<0.010	<0.010
S-23-5.0	8/14/2006	5	4	**0.08**	<0.010	<0.010
S-24-8.0	8/14/2006	8	4	**0.014**	<0.010	<0.010
SP-1	8/10/2006	Stockpile	2	**0.11**	<0.010	<0.010
SP-2	8/10/2006	Stockpile	2	**0.095**	<0.010	<0.010
SP-3	8/10/2006	Stockpile	2	**0.11**	<0.010	<0.010
SP2-1	8/14/2006	Stockpile	3 & 4	**0.036**	<0.010	<0.010
SP-2-2	8/14/2006	Stockpile	3 & 4	**0.019**	<0.010	<0.010
SP-2-3	8/14/2006	Stockpile	3 & 4	**0.077**	<0.010	<0.010
Project Screening Levels				**1.9**[1]	**2.5**[1]	**800**[1]

Notes:
Shaded cells indicate concentrations that exceed project screening goals.
Bold value indicates that the constituent was detected.

bgs = below ground surface
cis-1,2-DCE = cis-1,2-Dichloroethene
mg/kg = milligram per kilogram
NA = Not applicable
PCE = Tetrachoroethene
TCE = Trichloroethene

[1]Model Toxics Control Act Method B Soil Cleanup Level - Direct Contact (Chapter 173-340-740 Washington Administrative Code)

Table 5

Monitoring Well Construction Details

Snohomish Square Cleaners Facility

Snohomish, Washington

Monitoring Well	Well Installed By	Diameter of Well *inches*	Well Construction Material	Ground Surface Elevation *feet amsl*	Top of Casing Elevation *feet amsl*	Top of Filter Pack *feet bgs*	Screened Interval *feet bgs*	Total Depth of Borehole *feet bgs*	Well Depth *feet bgs*
MW-1	Golder	2.00	PVC	162.57	162.20	4.0	5.0-15.0	15.5	15.00
MW-2	Golder	2.00	PVC	164.62	164.41	4.0	5.0-15.0	15.3	15.00
MW-3	Golder	2.00	PVC	161.90	161.57	4.0	4.68-14.68	15.0	14.68
MW-4	Golder	2.00	PVC	161.94	161.09	4.0	5.0-15.0	15.0	15.00
MW-5	ERM	2.00	PVC	169.51	169.03	8.0	10.0-20.0	23.5	20.00
MW-6	ERM	2.00	PVC	165.61	165.61	8.0	9.60-19.60	20.4	19.60
MW-7	ERM	2.00	PVC	164.01	163.64	4.0	5.91-15.91	16.4	15.91
MW-8	ERM	2.00	PVC	164.07	163.75	6.0	8.13-18.13	18.4	18.13
MW-9	ERM	2.00	PVC	163.38	163.00	3.0	5.10-15.10	15.4	15.10
MW-10	ERM	2.00	PVC	NA	NA	8.0	10-20	21.0	20.00
MW-11	ERM	2.00	PVC	NA	NA	8.0	10-20	21.0	20.00

Notes:
amsl = Above mean sea level
bgs = Below ground surface
ERM = ERM-West, Inc.
Golder = Golder Associates, Inc.
PVC = Polyvinyl chloride
NA = Not Available

CAD File:	Drawn By:	Date:	Project No.
G:\\0048167\01\004816701-17.dwg	J. Estrada	09/17/07	0048167.01

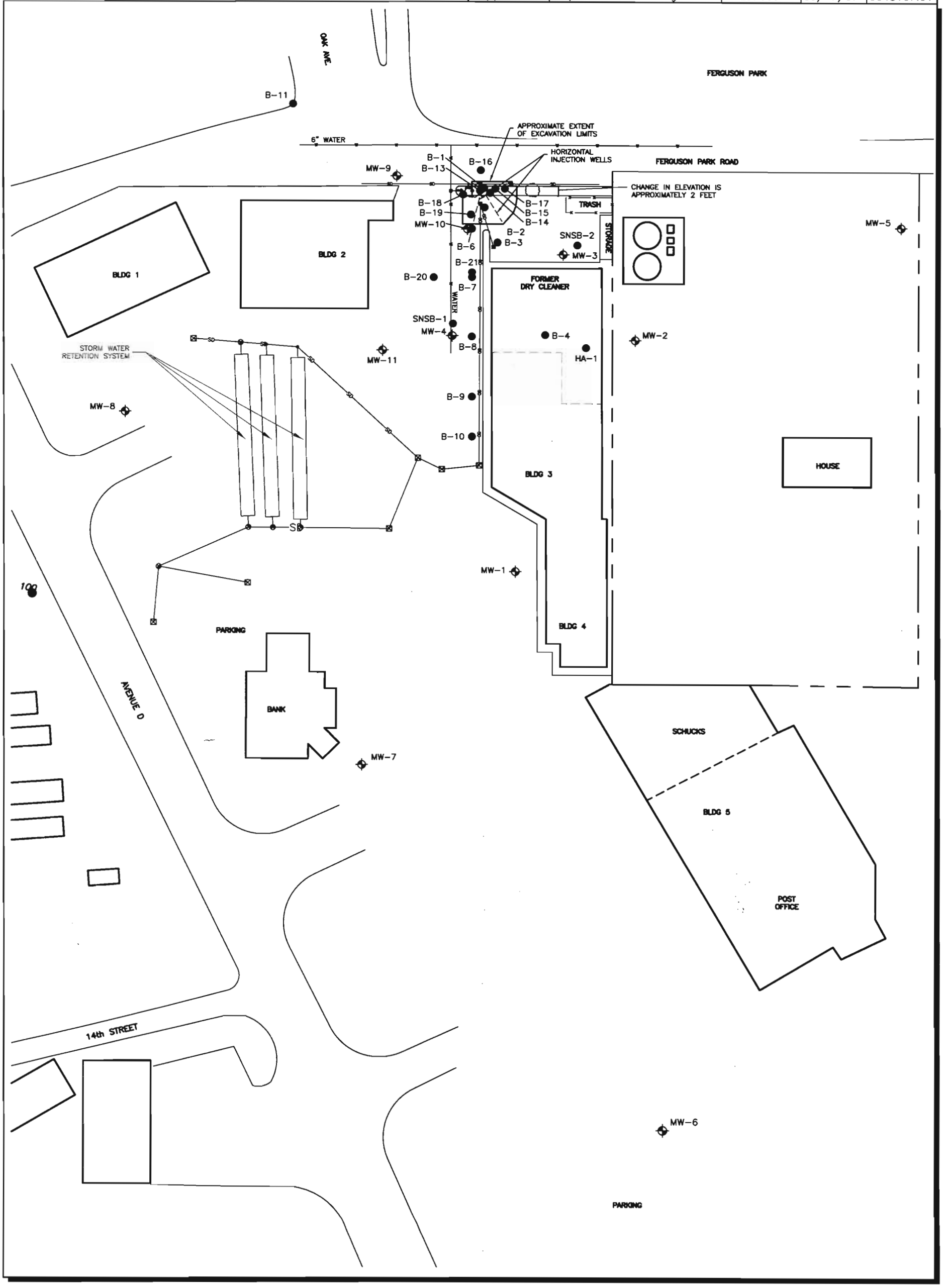


Figure 2
Monitoring Well and Soil Boring Locations
Snohomish Square Cleaners Facility
Snohomish, Washington

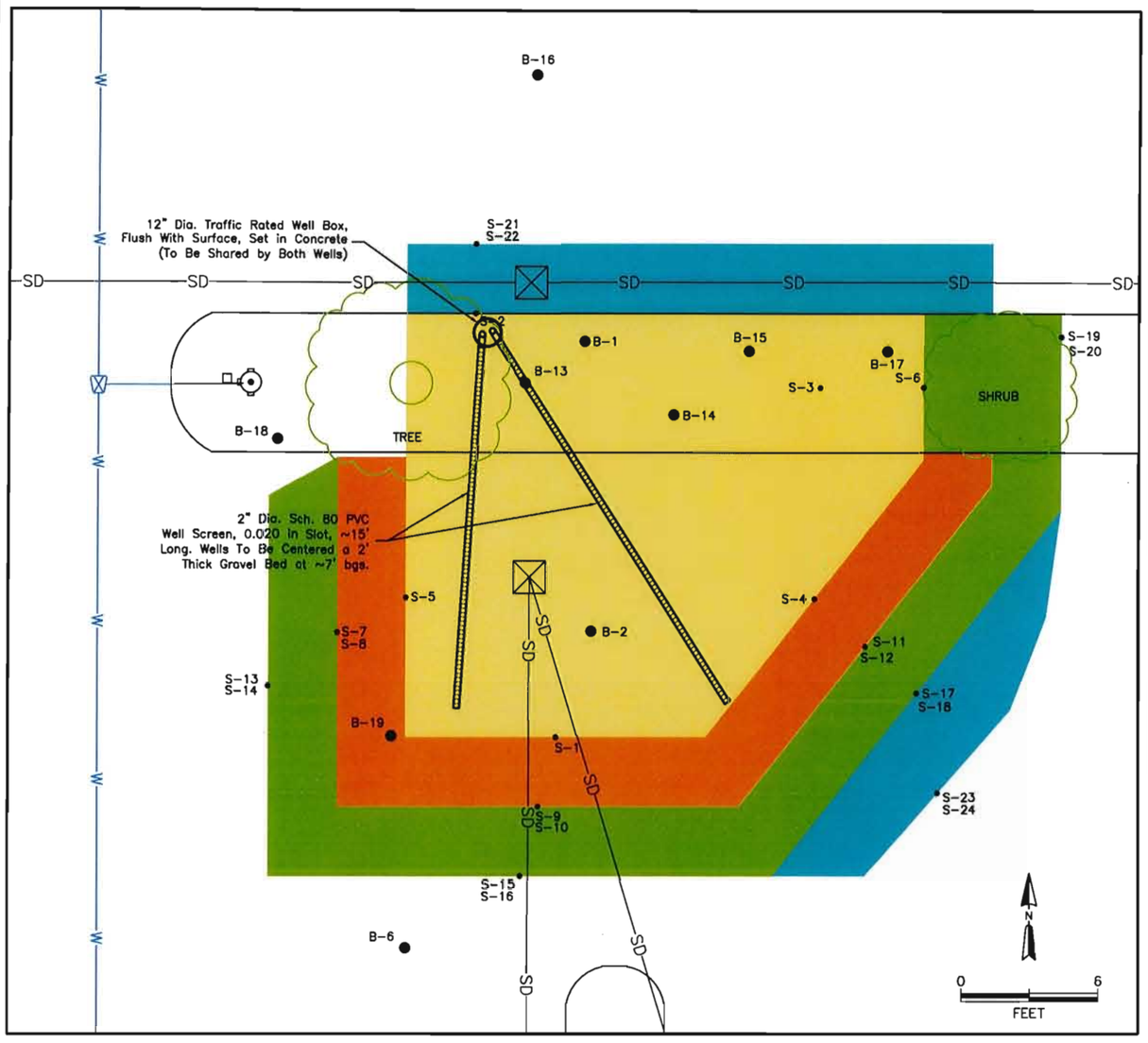
ERM 09/07

CAD File: G:\0048167\01\004816701-15.dwg

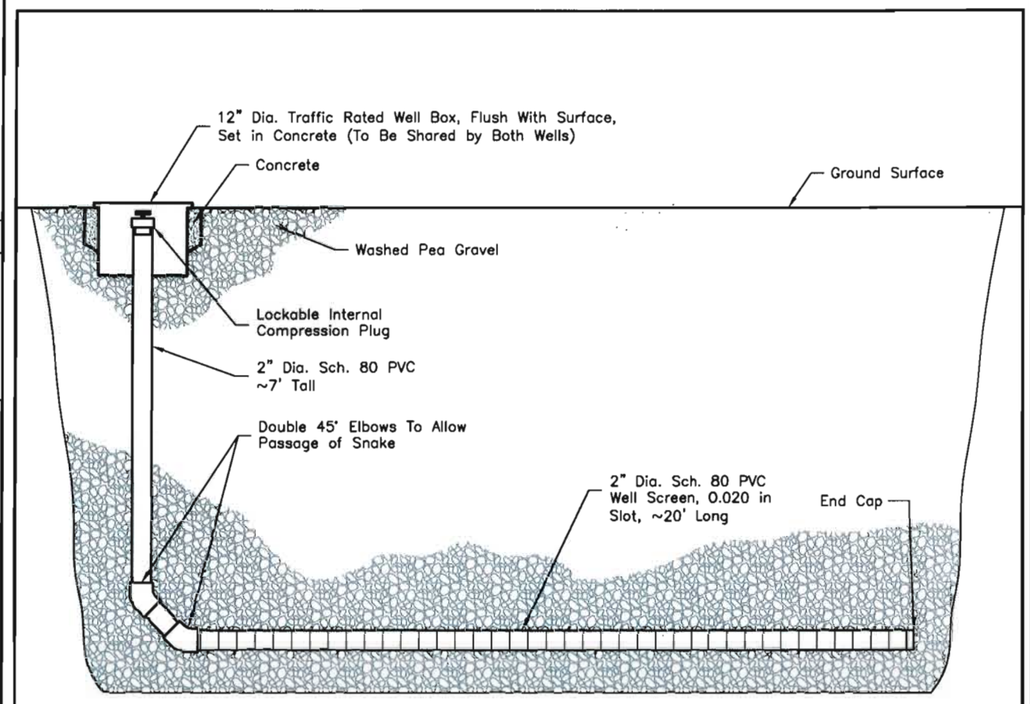
Drawn By: J. Estrada

Date: 09/17/07

Project No. 0048167.01



Plan View



Cross Section Detail A

Not to Scale

LEGEND

- Monitoring Well
- Confirmation Soil Sampling Lacation
- Soil Baring
- Fire Hydrant
- Water Control Valve
- Storm Drain

- Phase 1 Excavation Limits
- Phase 2 Excavation Limits
- Phase 3 Excavation Limits
- Phase 4 Excavation Limits

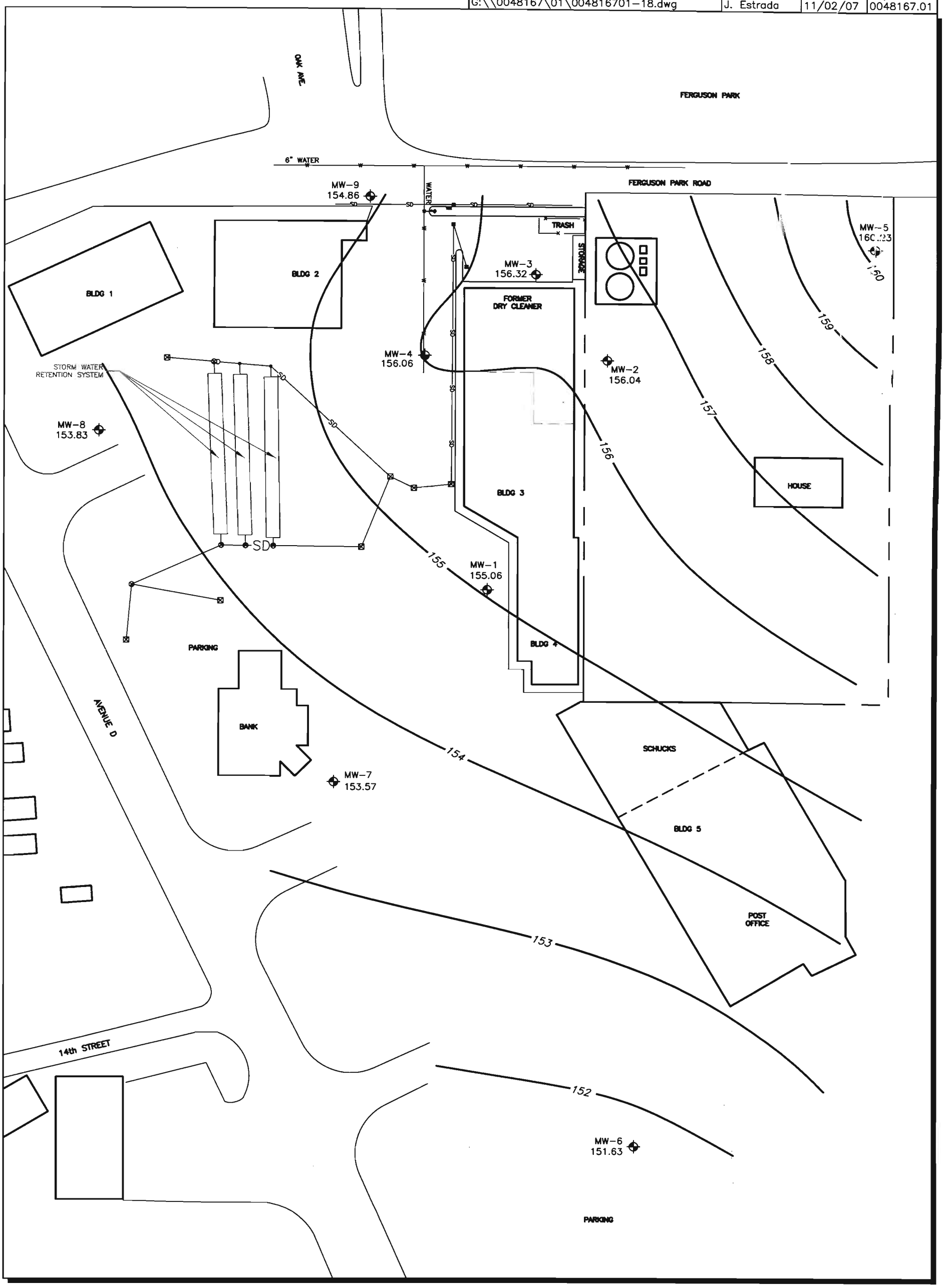
Notes:
Utility locations are approximate locations and will be confirmed by a private utility lacator.
Actual depth and limits of excavtion will be determined in the field using soil clearance sampling data.

Figure 3

Excavation Area and Confirmation Soil Sample Locations
Snohomish Square Cleaners Facility
Snohomish, Washington

ERM *09/07*

CAD File:	Drawn By:	Date:	Project No.
G:\\0048167\01\004816701-18.dwg	J. Estrada	11/02/07	0048167.01



LEGEND

- Monitoring Well
- 151.63 Groundwater Elevation (feet amsl)
- *152* Groundwater Elevation Contour (feet amsl)

N

0 60

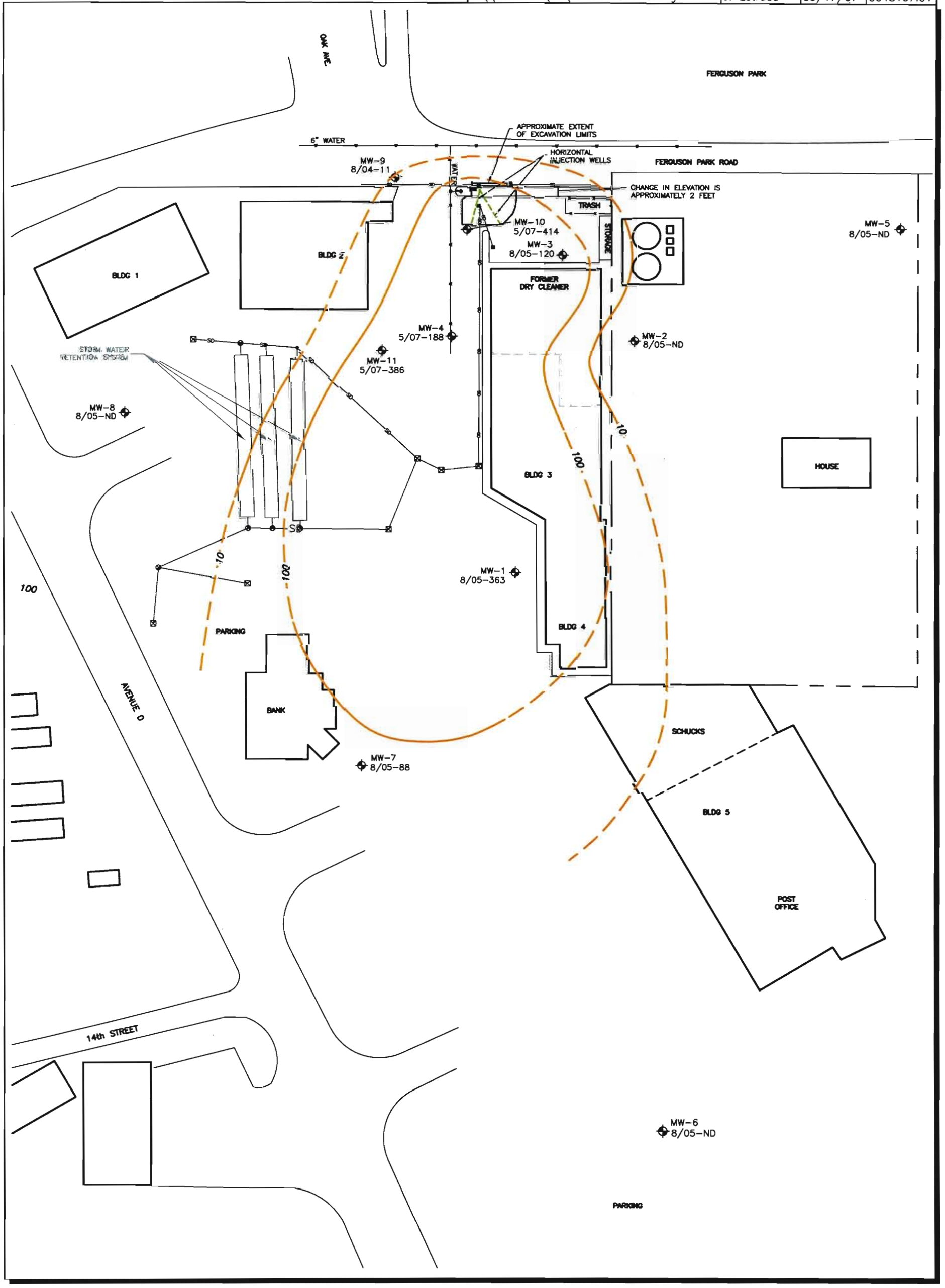
FEET

Figure 5

Potentiometric Surface Map
January 2007
Snohomish Square Cleaners Facility
Snohomish, Washington

ERM *11/07*

CAD File:	Drawn By:	Date:	Project No.
G:\\0048167\01\004816701-19.dwg	J. Estrada	09/17/07	0048167.01



LEGEND

⊕	Monitoring Well
8/05-363	Sample Date – Total CVOC Concentration in Groundwater (µg/l)
10	Total CVOC Concentration Contour (µg/l); Dashed Where Inferred
- - - - -	Horizontal Injection Gallery
	CVOC=Chlorinated Volatile Organic Compounds

N

0 60

FEET

Figure 6

Total CVOCs in Groundwater
Snohomish Square Cleaners Facility
Snohomish, Washington

ERM 09/07

ERM
915 118th Avenue SE
Suite 130
Bellevue, WA 98005
(425) 462-8591

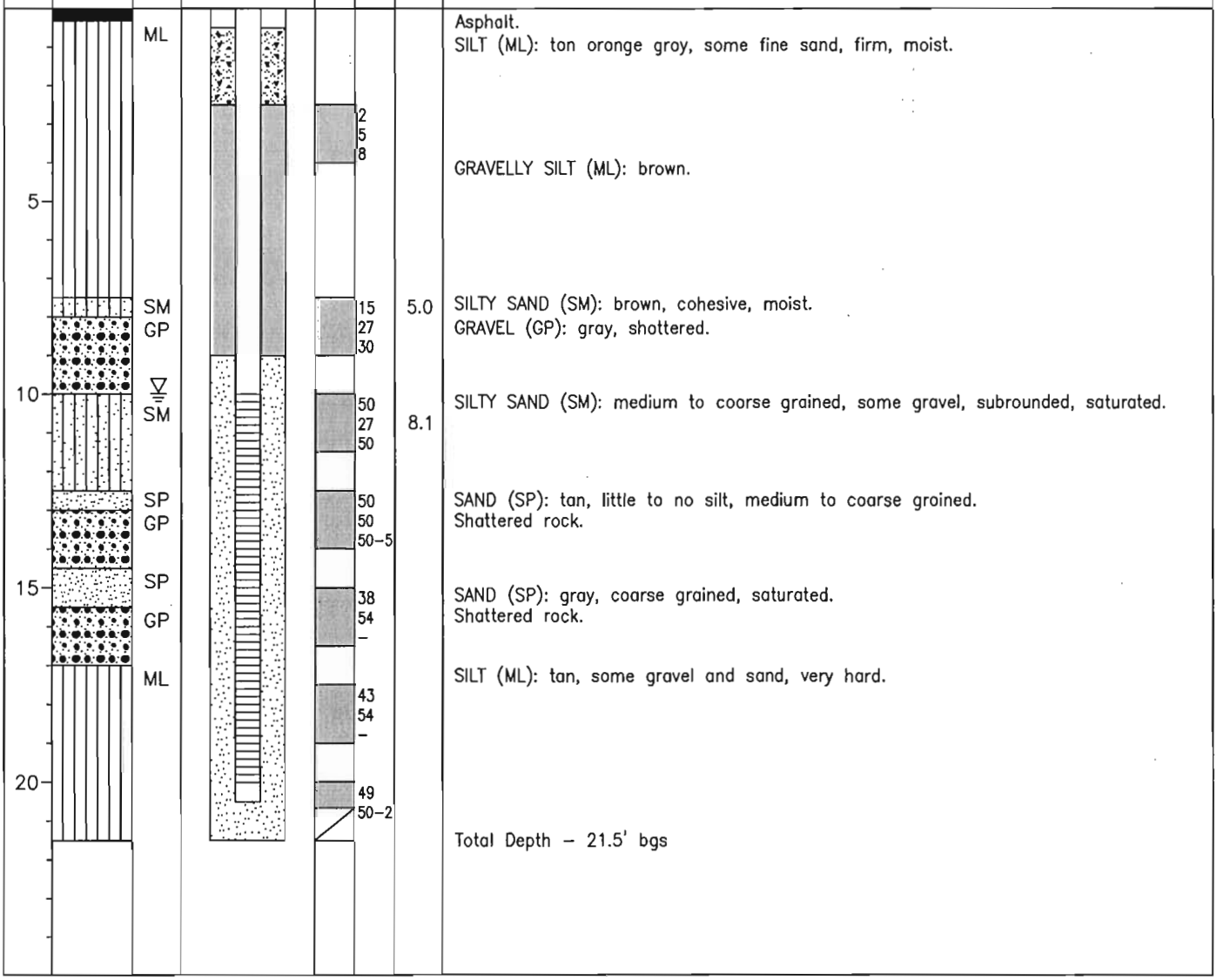
BOREHOLE LOG

Site Id: MW-10

Project Number: 0048167.03
Project Name: Snohomish Square
Location: Snohomish, Washington
Contractor: Holt Drilling
Drilling Method: Hollow Stem Auger
Logged By: B. Magee
Date(s): 11/20/06
Initial Water Level: 10.00'
Static Water Level: NA

Total Depth: 21.50'
Completed Depth: 20.50'
Borehole Dia.: 8.25in

Blank Casing:				
type: Sch. 40 PVC		dia: 2.00in	fm: 0.0'	to: 10.00'
type: Well Cap		dia: 2.00in	fm: 20.00'	to: 20.50'
Screens:				
type: Slotted	size: 0.010in	dia: 2.00in	fm: 10.00'	to: 20.00'
Annular Fill:				
type: Concrete			fm: 0.50'	to: 2.50'
type: Bentonite Chips			fm: 2.50'	to: 9.00'
type: 10-20 Colorado Silica			fm: 9.00'	to: 21.50'



ERM
915 118th Avenue SE
Suite 130
Bellevue, WA 98005
(425) 462-8591

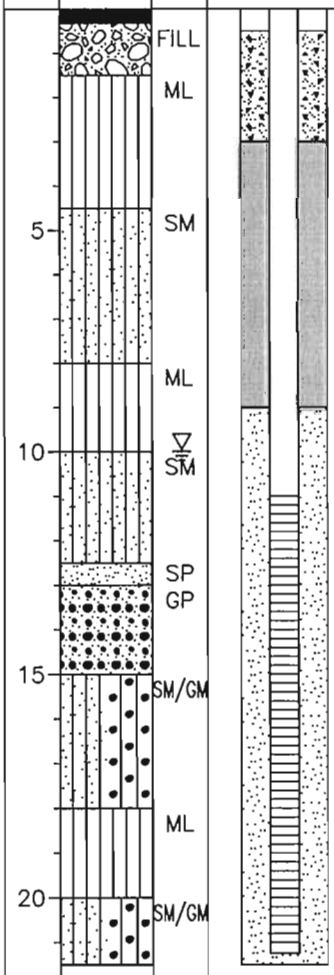
BOREHOLE LOG

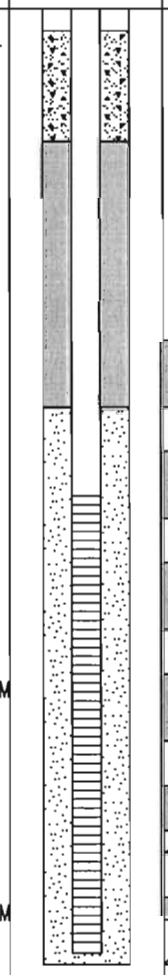
Site Id: MW-11

Project Number: 0048167.03
Project Name: Snohomish Square
Location: Snohomish, Washington
Contractor: Holt Drilling
Drilling Method: Hollow Stem Auger
Logged By: B. Magee
Date(s): 11/20/06
Initial Water Level: 10.00'
Static Water Level: NA

Total Depth: 21.50'
Completed Depth: 21.25'
Borehole Dia.: 8.25in

Blank Casing:				
type: Sch. 40 PVC		dia: 2.00in	fm: 0.0'	to: 11.00'
type: Well Cap		dia: 2.00in	fm: 21.00'	to: 21.25'
Screens:				
type: Slotted	size: 0.010in	dia: 2.00in	fm: 11.00'	to: 21.00'
Annular Fill:				
type: Concrete			fm: 0.50'	to: 3.00'
type: Bentonite Chips			fm: 3.00'	to: 9.00'
type: 10-20 Colorado Silica			fm: 9.00'	to: 21.50'





Blow Count	PID (ppm)	Description/Soil Classification
		Asphalt, 4.0". Sand and gravel.
		SILT (ML): brown, plastic, wet.
		SILTY SAND (SM): brown, some cobbles(?), based on rig behavior.
2 1 2		SILTY SAND (SM): tan, with gravel, slightly cohesive, wet. SILT (ML): tan and orange, firm, cohesive, sligthly moist. No recovery.
7 11 20		SILTY SAND (SM): tan, with gravel, saturated. No recovery.
26 30 39		SAND (SP): tan, medium to coarse grained, some silt, saturated. SANDY GRAVEL (SP): tan gray, large gravel, saturated. Cobbles(?), based on rig chatter.
41 45 55		SILTY SAND/GRAVEL (SM/GM): tan silt, gray sand and shattered gravel.
48 52 –		SILTY SANDY GRAVEL (GM): gray, very hard, cohesive, saturated. SANDY SILT (ML): tan gray, with gravel, hard, cohesive. No recovery.
54 – –		SILTY SAND/GRAVEL (SM/GM): tan, saturated. No recovery. Total Depth – 21.5' bgs

Snohomish Square cleaners
NO WADR
Hzw S.4.1

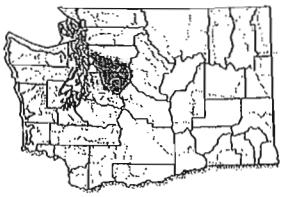
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

August 23, 2006

CERTIFIED MAIL
7005 1820 0004 5364 0904

Mr. Craig Skotdal
Manager
Skotdal Enterprises
P.O. Box 5267
Everett, WA 98206



Your address is in the **Snohomish** watershed

Dear Mr. Skotdal:

RE: DISPOSAL OF SOILS CONTAMINATED WITH F002-LISTED DANGEROUS WASTE CONSTITUENTS

Reference: (a) Letter Report, J. Barrett (ERM) to D. Yasuda (Ecology), dated August 16, 2006, RE: Proposal for "Contained-In" Designation for a Soil Stockpile Snohomish Square Cleaners Facility, Snohomish, Washington

The Department of Ecology (Ecology) has received and reviewed the soil analytical data report dated August 16, 2006 from your environmental consultant, ERM EnviroClean, Inc. Ecology received this information by US Mail on August 17, 2006. This information is in regard to approximately 185 tons of excavated soil contaminated with F002 (perchloroethylene) listed dangerous wastes generated during remediation activities at the former Snohomish Square Cleaners Facility 1419 Avenue D Snohomish, Washington 98290.

The analytical data were submitted to Ecology to determine if these excavated F002-listed waste contaminated soils should be managed as listed dangerous wastes in accordance with the principles of the RCRA "Contained-In" Policy. Ecology understands that these specific soils do not designate under Federal characteristics (WAC 173-303-090) or State-only criteria (WAC 173-303-100).

Based on the data reviewed, it appears that there was a significant volume of contaminated soil from the most recent excavation that should have been stockpiled separately for management as dangerous wastes under Chapter 173-303 WAC. However, these higher contaminated soils were mixed in with a larger volume of less contaminated soils and now constitute the current volume of 185 tons for which a contained out determination is sought. It is now unlikely that the original smaller and more contaminated volume of soils can be separated out of the single larger and mixed pile at this time. Concentrations from soil samples collected from the mixed pile and subsequently analyzed are now below MTCA Method B soil cleanup levels for F002 listed waste constituents.

This is not Ecology's preferred method for managing contaminated soils and subsequent excavations of higher (> MTCA Method B) contaminated soils should be stockpiled separately. However in this specific situation alone, Ecology will not require management of the full 185 tons of low level F002-listed waste-contaminated soils as dangerous wastes, and Ecology[1] will not require disposal of these soils as listed wastes at a permitted dangerous waste treatment, storage and disposal facility (TSDF), provided ALL of the conditions below are implemented:

A. The contaminated soils shall be directly transported by truck or railcar (without offloading or temporary storage at any transfer station or intermediary location[2]) and disposed at the ***Columbia Ridge Landfill (Chemical Waste Management)***, or

   If contaminated soils are loaded directly into a truck or railcar, the truck or railcar shall be plastic-lined, and during transport, all loads must be covered to prevent wind dispersion. During transport, all other adequate measures shall be taken to prevent spills and dispersion due to wind or rain erosion. Measures shall also be taken to prevent unauthorized contact with these soils at all times;

B. The contaminated soils shall be placed directly in the landfill cell and are not to be used for daily, intermediate, or final cover;

C. Copies of all applicable analytical data shall be provided to the landfill operator upon request;

D. These contaminated soils shall not be sent to any incinerator, thermal desorption unit, or recycling facility unless that facility is a RCRA Subtitle C permitted hazardous waste TSDF; and

E. Forward copies of all bills of lading/weight (scale) tickets and signed solid waste landfill receipt records for these contaminated soils, ***within 10 days of your receipt***, to the Ecology-Northwest Regional Office, Attention: Dean Yasuda.

---

[1] February 19, 1993 Ecology Contained-In Policy Memo

[2] Unless written permission is granted by Seattle King Co. Department of Health, Solid Waste Department

Please note that the contents of this letter are specific for the data submitted and reviewed. This written decision does not apply to any other environmental media or other sites. Please also be aware that local solid waste agencies have the authority to impose additional requirements on solid waste streams. Furthermore, the intent of this letter is to address the procedures for disposal of contaminated soils in accordance with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) only. Regulatory decisions regarding the applicable soil and groundwater cleanup levels and appropriate exposure pathways will be addressed by the Ecology Toxics Cleanup Program project manager assigned under the Voluntary Cleanup Program.

Be advised that failure to comply with the terms of this letter may result in the issuance of an administrative order and/or penalty as provided by the Revised Code of Washington, Sections 70.105.080 and/or .095 (Hazardous Waste Management Act).

If you have any questions regarding this letter, please feel free to contact me at (425) 649-7264 or by e-mail at dyas461@ecy.wa.gov.

Sincerely,

for Dean Yasuda

Dean Yasuda, P.E.
Environmental Engineer
Hazardous Waste and Toxics Reduction Program

DY:sd

cc: Byung Maeng, NWRO-HWTR
Kay Seiler, SWRO-HWTR
Greg Caron, CRO-HWTR
Lisa Brown, ERO-HWTR
Dave Misko, NWRO-HWTR
Jill Trehemivich, Seattle King Co. Department of Health, Solid Waste Dept.
Jennifer Barrett, ERH
HZW 5.4.1

Snohomish Square Cleaners
No WAD
HSW S.4.1

RECEIVED
AUG 17 2006
DEPT. OF ECOLOGY

ERM EnviroClean, Inc.

915 - 118th Avenue S.E.
Suite 130
Bellevue, WA 98005
(425) 462-8591
(425) 455-3573 (fax)

16 August 2006

Mr. Dean Yasuda
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, Washington 98008

Subject: Proposal for "Contained-In" Designation for a Soil Stockpile
Snohomish Square Cleaners Facility, Snohomish, Washington

Dear Mr. Yasuda:

As discussed on 14 August 2006, we are submitting this proposal on behalf of Skotdal Enterprises to obtain a "contained-in" determination from the Washington State Department of Ecology for a stockpile of soil containing low concentrations of tetrachloroethene (PCE) and PCE degradation products. The soil stockpile was generated as part of an ongoing remediation project being conducted in accordance with the Washington State Model Toxics Control Act (MTCA) as an Independent Cleanup Action.

Information related to the subject property and soil stockpile is provided below, based on guidance provided by David Misko, Department of Ecology Hazardous Waste Compliance Manager, in an email dated 14 August 2006.

Site Name & Location

The site is a former dry cleaner that is no longer in operation.

Snohomish Square Cleaners Facility
1419 Avenue D
Snohomish, Washington 98290

Property Owner & Site Contacts

Note that the former operator is no longer in business. The remedial actions described herein are being performed by the property owner.

Property Owner:
Skotdal Enterprises
P.O. Box 5267
Everett, WA 98206

Site Contacts:

Ms. Jennifer Barrett, P.E.
Project Manager
ERM EnviroClean, Inc.
915-118th Avenue S.E.
Suite 130
Bellevue, WA 98005
(425) 462-8591

Mr. Craig Skotdal
Manager
Skotdal Enterprises
P.O. Box 5267
Everett, WA 98206

Site Map and Description of the Cleanup Action

The soil stockpile was generated as part of a soil removal action being conducted to remove shallow soils containing PCE and PCE degradation products. Based on the observed distribution of PCE in site soils and groundwater, the PCE contamination was likely caused by the disposal of PCE-containing water within a planter box located at the northern extent of the excavation (Figure 1). The ongoing remedial action is being performed in accordance with MTCA as an Independent Cleanup Action. Therefore, no Department of Ecology site contact or manager has been assigned to this project. Remediation activities performed to date include:

- Site characterization – including the installation of groundwater monitoring wells and the collection of groundwater and soil sampling data;
- Soil removal – the removal of shallow soils from the area with concentrations of PCE or PCE degradation products greater than the MTCA Method B Direct Contact values; and
- Bench scale testing of in-situ remediation techniques for site groundwater. Pilot testing of the selected groundwater remediation techniques will be initiated following completion of the soil removal action.

The soil removal action was completed in four phases. The approximate lateral extent of each excavation phase is shown on Figure 1. Excavation was completed to depths of approximately 8.5 to 9 feet below ground

surface (bgs) during each phase. Groundwater was observed at approximately 9.5 to 10 feet bgs.

A total of approximately 365 to 415 tons of soil were excavated during the four excavation phases. The soil excavated during phases 1 and 2 (approximately 215 to 230 tons) were transported to the CWM-NW facility in Arlington, Oregon for direct disposal as F002-listed waste. Soil excavated during phases 3 and 4 (estimated to be between approximately 150 to 185 tons) are currently stockpiled in a single pile on site for possible "contained-in" designation prior to disposal. The stockpile was placed on a liner and is covered. If a "contained-in" designation is provided by the Department of Ecology, the soil will be transported to the Columbia Ridge Subtitle D Landfill for disposal.

Soil Sampling Methods and Results

Soil samples S-1 through S-24 were collected between 7 August 2006 and 14 August 2006 from the excavation side walls during each excavation phase. Sampling locations are shown on Figure 1. Three samples were also collected from the soil stockpile. Excavation-related soil sampling locations, depths, and results are summarized in Table 1. Full laboratory analytical summary sheets are provided as Attachment A. United States Environmental Protection Agency Method 5035A was used for soil sample collection and extraction, and the samples were analyzed for volatile organic compounds using United States Environmental Protection Agency Method 8260B.

As shown on Figure 1 and Table 1, the soil associated with excavation side-wall samples S-2-6.0 and S-6-6.0 through S-24-8.0 was placed within the current stockpile. Samples SP2-1 through SP2-3 were also collected from random locations within the stockpile itself. Of the 23 side-wall and stockpile samples collected, only one sample (S-8-8.0) was greater than the MTCA Method B value for direct contact. This sample was collected from the western excavation side wall following excavation phase 2 at a depth of 8 feet bgs. A second sample collected from this location at 6 feet bgs (S-7-6.0) had a PCE concentration of 0.43 mg/kg. Two samples collected from the western side-wall following excavation phase 3 at a location approximately 3 feet from samples S-7 and S-8 (S-13-5.0 and S-14-8.0) had PCE concentrations 0.14 and 0.66, respectively.

Soil sampling data from borings completed in the area prior to initiation of the excavation are summarized on Table 2. Soil boring locations are

shown on Figure 1. Although none of the soil borings were completed in the area removed and stockpiled as part of excavation phases 3 and 4, these data were used to guide the soil removal action and are useful for evaluating the magnitude and extent of PCE contamination.

Potentially Relevant Groundwater Monitoring Data

A potentiometric surface map, showing groundwater flow directions and the locations of site groundwater monitoring wells, is attached as Figure 2. A summary of the volatile organic compounds detected in site groundwater monitoring wells MW-2, MW-3, MW-4, and MW-9, located in the vicinity of the soil excavation, is provided in Table 3.

Concluding Remarks

We appreciate your review of the information summarized above and in the attached figures and tables. Please contact me at 425-462-8591 should you have any comments or questions.

Sincerely,

Jennifer J. Barrett, P.E.
Project Manager

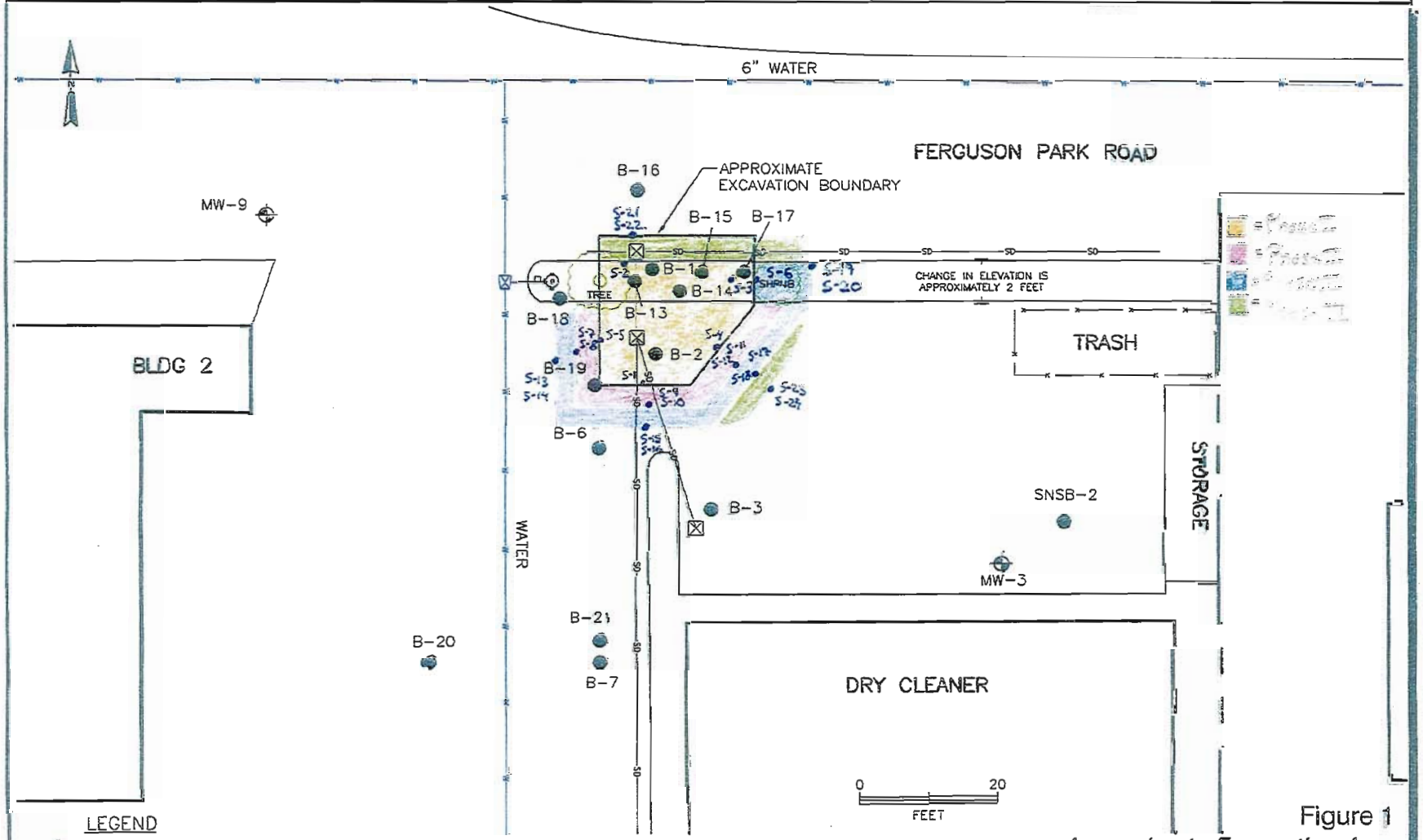
DPE/JJB/jjr/0048167.01

Enclosures

cc: Craig Skotdal, Skotdal Enterprises

Figures

CAD File:	Drawn By:	Date:	Project No.
G:\\0048167\01\004816701-07.dwg	R. Olson	08/14/06	0048167.10



LEGEND

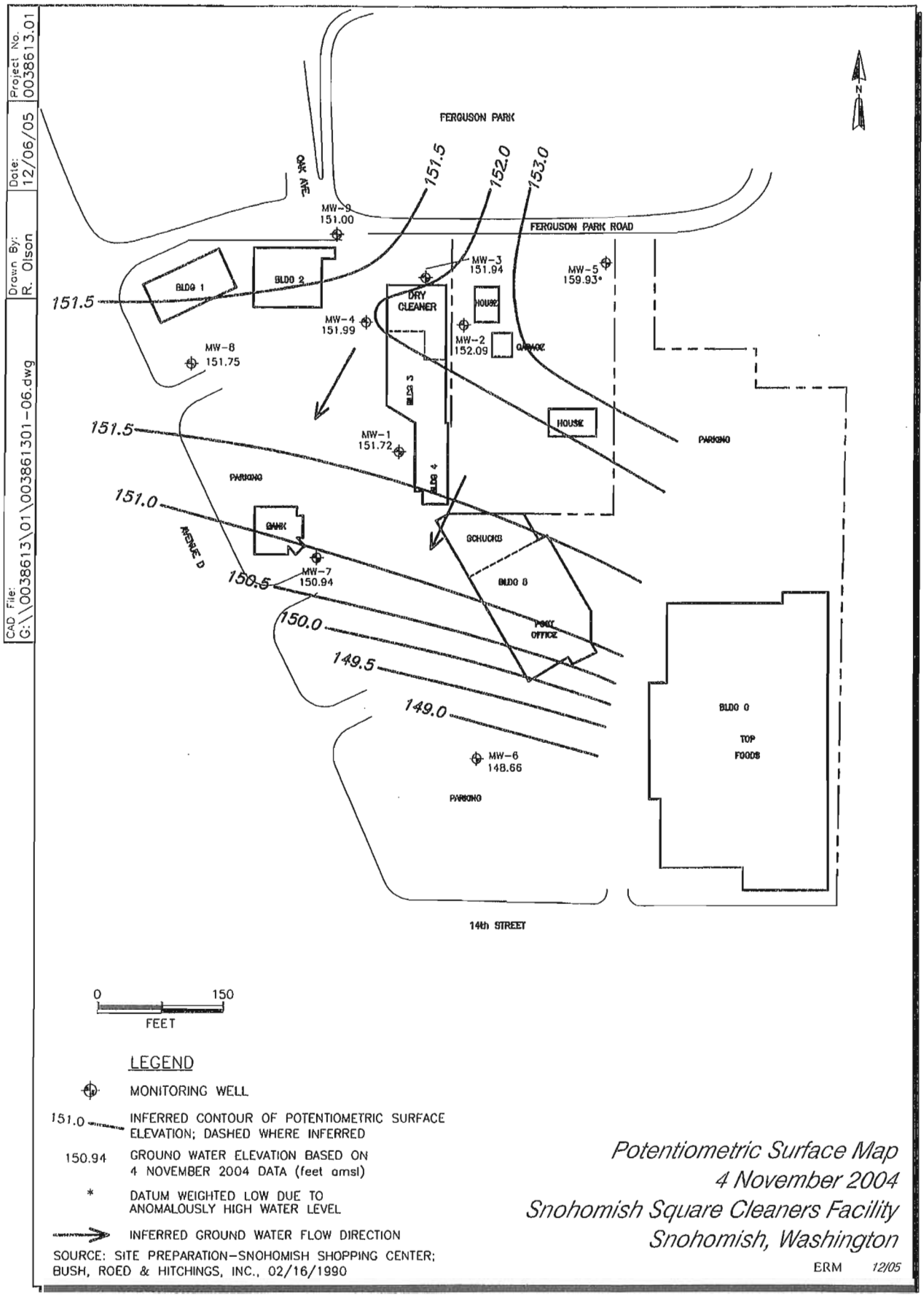
- MONITORING WELL
- SOIL BORING
- FIRE HYDRANT
- WATER CONTROL VALVE
- STORM DRAIN

Notes:
Utility locations are approximate locations and will be confirmed by a private utility locator.
Actual depth and limits of excavtion will be determined in the field using soil clearance sampling data.

Figure 1

Approximate Excavation Area
Snohomish Square Cleaners Facility
Snohomish, Washington

ERM 08/06



LEGEND

- MONITORING WELL
- 151.0 — INFERRED CONTOUR OF POTENTIOMETRIC SURFACE ELEVATION; DASHED WHERE INFERRED
- 150.94 — GROUND WATER ELEVATION BASED ON 4 NOVEMBER 2004 DATA (feet amsl)
- * — DATUM WEIGHTED LOW DUE TO ANOMALOUSLY HIGH WATER LEVEL
- INFERRED GROUND WATER FLOW DIRECTION

SOURCE: SITE PREPARATION–SNOHOMISH SHOPPING CENTER; BUSH, ROED & HITCHINGS, INC., 02/16/1990

Potentiometric Surface Map
4 November 2004
Snohomish Square Cleaners Facility
Snohomish, Washington

ERM 12/05

Tables

Table 1

Summary of Volatile Organic Compounds in Excavation Soil Samples
Snohomish Square Laundry and Cleaners
Snohomish, Washington

Sample ID/Location	Collected by	Date	Depth (feet bgs)	Excavation Phase	Soil Placed in Current Stockpile[2]	Volatile Organic Compounds		
						PCE *mg/kg*	TCE *mg/kg*	cis-1,2-DCE *mg/kg*
S-1-8.0	ERM	8/7/2006	8	1		2.900	< 0.010	<0.010
S-2-6.0	ERM	8/7/2006	6	1	X	0.071	< 0.010	< 0.010
S-3-5.0	ERM	8/7/2006	5	1		0.051	< 0.010	<0.010
S-4-6.5	ERM	8/7/2006	6.5	1		1.000	0.011	<0.010
S-5-8.0	ERM	8/7/2006	8	1		39.000	0.058	0.084
S-6-6.0	ERM	8/10/2006	6	1	X	0.770	< 0.010	<0.010
S-7-6.0	ERM	8/10/2006	6	2	X	0.430	< 0.010	<0.010
S-8-8.0	ERM	8/10/2006	8	2	X	6.300	0.110	0.190
S-9-6.0	ERM	8/10/2006	6	2	X	0.720	< 0.010	<0.010
S-10-8.0	ERM	8/10/2006	8	2	X	1.300	< 0.010	<0.010
S-11-6.0	ERM	8/10/2006	6	2	X	0.450	< 0.010	<0.010
S-12-8.0	ERM	8/10/2006	8	2	X	0.640	0.160	<0.010
S-13-5.0	ERM	8/11/2006	5	3	X	0.140	<0.010	<0.010
S-14-8.0	ERM	8/11/2006	8	3	X	0.660	<0.010	<0.010
S-15-5.0	ERM	8/11/2006	5	3	X	0.014	<0.010	<0.010
S-16-8.0	ERM	8/11/2006	8	3	X	0.550	<0.010	<0.010
S-17-5.0	ERM	8/11/2006	5	3	X	0.610	<0.010	<0.010
S-18-8.0	ERM	8/11/2006	8	3	X	1.300	<0.010	<0.010
S-19-5.0	ERM	8/11/2006	5	3	X	<0.010	<0.010	<0.010
S-20-8.0	ERM	8/11/2006	8	3	X	<0.010	<0.010	<0.010
S-21-5.0	ERM	8/14/2006	5	4	X	0.550	<0.010	<0.010
S-22-8.0	ERM	8/14/2006	8	4	X	0.250	<0.010	<0.010
S-23-5.0	ERM	8/14/2006	5	4	X	0.080	<0.010	<0.010
S-24-8.0	ERM	8/14/2006	8	4	X	0.014	<0.010	<0.010
SP-1	ERM	8/10/2006	Stockpile	2		0.110	<0.010	<0.010
SP-2	ERM	8/10/2006	Stockpile	2		0.095	<0.010	<0.010
SP-3	ERM	8/10/2006	Stockpile	2		0.110	<0.010	<0.010
SP2-1	ERM	8/14/2006	Stockpile	3 & 4	X	0.036	<0.010	<0.010
SP-2-2	ERM	8/14/2006	Stockpile	3 & 4	X	0.019	<0.010	<0.010
SP-2-3	ERM	8/14/2006	Stockpile	3 & 4	X	0.077	<0.010	<0.010
Screening Levels						1.9[1]	2.5[1]	800[1]

Notes:
bgs = below ground surface
cis-1,2-DCE = cis-1,2-Dichloroethene
mg/kg = milligram per kilogram
NA = Not applicable
PCE = Tetrachoroethene
TCE = Trichloroethene
[1]Model Toxics Control Act Method B Soil Cleanup Level - Direct Contact (Chapter 173-340-740 Washington Administrative Code)
[2] Soil placed in lined and covered stockpile on site awaiting designation. All other soil transported to CMW-NW facility in Arlington, OR.

Table 2

Summary of Volatile Organic Compounds and Total Organic Carbon in Soil
Snohomish Square Laundry and Cleaners
Snohomish, Washington

Sample Location	Sample ID	Collected by	Date	Depth (feet bgs)	Within Excavation Footprint?	Volatile Organic Compounds			TOC
						PCE *mg/kg*	TCE *mg/kg*	cis-1,2-DCE *mg/kg*	*mg/kg*
SNSB-2	SNSB-2-1	Golder	11/19/2003	5-5.5	No	0.0074	ND [1]	<0.0013	NM
	SNSB-2-2	Golder	11/19/2003	10-10.5	No	0.021	ND [1]	<0.0012	NM
B-1	B-1-2.5	ERM	10/7/2004	2.5	Yes	2.4	< 0.010	<0.010	NM
B-2	B-2-4.5	ERM	10/7/2004	4.5	Yes	0.170	< 0.010	0.012	NM
B-3	B-3-4.5	ERM	10/7/2004	4.5	No	<0.010	< 0.010	<0.010	NM
B-6	B-6	ERM	5/5/2005	6.5-7.0	No	0.021	< 0.010	<0.010	720
B-7	B-7	ERM	5/5/2005	4.5-5.0	No	<0.010	< 0.010	<0.010	NM
B-13	B-13-0.5	ERM	11/23/2005	0.5	Yes	0.038	<0.010	<0.010	NM
	B-13-3.5	ERM	11/23/2005	3.5	Yes	4.7	0.160	<0.010	NM
B-14	B-14-0.5	ERM	11/23/2005	0.5	Yes	0.570	<0.010	<0.010	NM
	B-14-4.0	ERM	11/23/2005	4.0	Yes	0.016	<0.010	<0.010	NM
B-15	B-15-0.5	ERM	11/23/2005	0.5	Yes	0.034	<0.010	<0.010	NM
	B-15-4.0	ERM	11/23/2005	4.0	Yes	0.440	<0.010	<0.010	NM
B-16	B-16-3.0	ERM	4/26/2006	3.0	No	<0.010	<0.010	<0.010	NM
	B-16-8.0	ERM	4/26/2006	8.0	No	<0.010	<0.010	<0.010	NM
B-17	B-17-3.5	ERM	4/26/2006	3.5	Yes	0.053	<0.010	<0.010	NM
	B-17-8.0	ERM	4/26/2006	8.0	Yes	0.010	<0.010	<0.010	NM
B-18	B-18-3.0	ERM	4/26/2006	3.0	No	<0.010	<0.010	<0.010	NM
	B-18-8.0	ERM	4/26/2006	8.0	No	0.043	<0.010	<0.010	NM
B-19	B-19-3.0	ERM	4/26/2006	3.0	Yes	<0.010	<0.010	<0.010	NM
	B-19-8.0	ERM	4/26/2006	8.0	Yes	7.600	0.012	0.020	NM

Notes:
bgs = below ground surface
cis-1,2-DCE = cis-1,2-Dichloroethene
mg/kg = milligram per kilogram
NA = Not applicable
NM = Not measured
PCE = Tetrachoroethene
TCE = Trichloroethene
TOC = Total Organic Carbon
[1]Sample collected by Golder, detection limit not available.

Table 3

Summary of Volatile Organic Compounds Detected in Ground Water
Snohomish Square Laundry and Cleaners
Snohomish, Washington

Sample Location	Collected by	Date	Volatile Organic Compounds (ug/L)			
			PCE	TCE	cis-1,2-DCE	Chloroform
MW-2	Golder	2/8/2004	0.51	<0.20	<0.20	1.8
	ERM	11/4/2004	<2	<2	<2	2
	ERM	5/5/2005	<2	<2	<2	<2
	ERM	8/19/2005	<2	<2	<2	<2
MW-3	Golder	2/8/2004	17	<0.20	<0.20	2.3
	ERM	11/4/2004	120	<2	<2	<2
	ERM	5/5/2005	44	<2	<2	<2
	ERM	8/19/2005	120	<2	<2	<2
MW-4	Golder	2/8/2004	530	<4.0	<4.0	<4.0
	ERM	11/4/2004	970	9	8	<2
	ERM	5/5/2005	330	3	7	<2
	ERM	8/19/2005	1,400	11	17	<2
MW-9	ERM	11/4/2004	43	<2	<2	<2
	ERM	5/5/2005	180	<2	<2	<2
	ERM	8/19/2005	11	<2	<2	<2

Notes:
ug/L = micrograms per liter.
DCE = Dichloroethene
ERM = ERM-West, Inc.
Golder = Golder Associates, Inc.
PCE = Tetrachloroethene
TCE = Trichlorethene

Golder Associates Inc.

18300 NE Union Hill Road, Suite 200
Redmond, WA USA 98052-3333
Telephone (425) 883-0777
Fax (425) 882-5498
www.golder.com

PRELIMINARY GROUNDWATER INVESTIGATION
SNOHOMISH SQUARE LAUNDRY AND CLEANERS
1419 AVENUE D
SNOHOMISH, WASHINGTON

Submitted to:

Skotdal Real Estate
P. O. Box 5267
Everett, Washington 98206

Submitted by:

Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, Washington 98052

Neil R. Gilham, LG, CHMM,
Senior Environmental Geologist

Douglas J. Morell, Ph.D
Principal

Distribution:

2 Copies - Skotdal Real Estate
1 Copy - Golder Associates Inc.

April 1, 2004

033-1002.001

RECORD OF BOREHOLE MW-2

SHEET 1 of 1

PROJECT: Skotdal/Snohomish Square
PROJECT NUMBER: 033-1002.001
LOCATION: East of Bldg. 3

DRILLING METHOD: HSA
DRILLING DATE: 2/5/04
DRILL RIG: CME-55, Limited Access

DATUM: MSL
AZIMUTH: N/A
COORDINATES: not surveyed

ELEVATION:
INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE: DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLES: NUMBER	TYPE	BLOWS per 6 in (300 lb hammer 30 inch drop)	N	REC / ATT	PENETRATION RESISTANCE BLOWS / ft: 10 20 30 40 / WATER CONTENT (PERCENT): w_p — w — w_l	NOTES WATER LEVELS: GRAPHIC
0	HSA	0.0 - 0.7 Grass, overlying dark orange brown, loose, silty SAND with gravel, roots, damp to moist. (TOPSOIL)	SM									
		0.7 - 7.5 Loose to compact, orange brown, nonstratified, very silty SAND with gravel, trace clay, damp to moist.			0.7							Flush-mount monument & concrete.
		At 3' - becomes compact to very dense, increase in gravels, and tan.	SM									Bentonite seal.
5						1	MC	50/6in	50/6in	0.5 / 0.5		
		At 6' - becomes moist to wet.										Groundwater encountered at 6 ft.
		7.5 - 15.3 Very dense, grayish tan, nonstratified, gravelly medium to coarse SAND, trace fine sand, wet.			7.5							
10			SW			2	MC	50/1in	50/1in	0.1 / 0.1		Sand filter pack. Slotted pvc screen.
15						3	MC	50/3in	50/3in	0.3 / 0.3		
		Boring completed at 15.3 ft.			15.3							
20												

1 in to 3 ft
DRILLING CONTRACTOR: Cascade
DRILLER: Andy

LOGGED: M. Stiehler
CHECKED:
DATE:

Golder Associates

BOREHOLE RECORD 033-1002.001.GPJ GLDR_WA.GDT 3/12/04

RECORD OF BOREHOLE MW-3

SHEET 1 of 1

PROJECT: Skotdal/Snohomish Square
PROJECT NUMBER: 033-1002.001
LOCATION: North of Bldg. 3

DRILLING METHOD: HSA
DRILLING DATE: 2/5/04
DRILL RIG: CME-55, Limited Access

DATUM: MSL
AZIMUTH: N/A
COORDINATES: not surveyed

ELEVATION:
INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE: DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	SAMPLES: NUMBER	TYPE	BLOWS per 6 in (300 lb hammer, 30 inch drop)	N	REC / ATT	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (PERCENT)	NOTES WATER LEVELS / GRAPHIC
0	HSA	0.0 - 15.0 No samples taken. Drilled to 15 feet, similar conditions encountered (to MW-1 & MW-2). Monitoring well installed.										Flush-mount monument & concrete. Bentonite seal. Sand filter pack. Slotted pvc screen.
15		Boring completed at 15.0 ft.			15.0							
20												

1 in to 3 ft
DRILLING CONTRACTOR: Cascade
DRILLER: Andy

LOGGED: M. Stiehler
CHECKED:
DATE:

Golder Associates

BOREHOLE RECORD 033-1002.001.GPJ GLDR_WA.GDT 2/11/04

RECORD OF BOREHOLE MW-4

SHEET 1 of 1

PROJECT: Skotdal/Snohomish Square
PROJECT NUMBER: 033-1002.001
LOCATION: West of Bldg. 3

DRILLING METHOD: HSA
DRILLING DATE: 2/5/04
DRILL RIG: CME-55, Limited Access

DATUM: MSL
AZIMUTH: N/A
COORDINATES: not surveyed

ELEVATION:
INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE: DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	SAMPLES: NUMBER	TYPE	BLOWS per 6 in (300 lb hammer 30 inch drop)	N	REC / ATT	PENETRATION RESISTANCE BLOWS / ft (10 20 30 40) / WATER CONTENT (PERCENT) W_p — W — W_L	NOTES WATER LEVELS / GRAPHIC
0	HSA	0.0 - 15.0 No samples taken. Drilled to 15 feet, similar conditions encountered (to MW-1 & MW-2). Monitoring well installed.										Flush-mount monument & concrete. Bentonite seal. Sand filter pack. Slotted pvc screen.
15		Boring completed at 15.0 ft.			15.0							
20												

1 in to 3 ft
DRILLING CONTRACTOR: Cascade
DRILLER: Andy

LOGGED: M. Stiehler
CHECKED:
DATE:

Golder Associates

BOREHOLE RECORD 033-1002.001.GPJ GLDR_WA.GDT 2/11/04

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www.golder.com

DRAFT

PRELIMINARY SUBSURFACE INVESTIGATION SNOHOMISH SQUARE LAUNDRY & CLEANERS 1419 AVENUE D SNOHOMISH, WASHINGTON

Submitted to:

Skotdal Real Estate
P. O. Box 5267
Everett, Washington 98206

Submitted by:

Golder Associates Inc.
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Redmond, Washington 98052

Neil R. Gilham, LG, CHMM,
Senior Environmental Geologist

Douglas J. Morell, Ph.D
Principal

Distribution:

1 Copy - Skotdal Real Estate
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December 10, 2003

033-1002.000

RECORD OF BOREHOLE SNSB-1

SHEET 1 of 1

PROJECT: Snohomish Dry Cleaners Phase II
PROJECT NUMBER: 033-1002
LOCATION: Snohomish, WA
DRILLING METHOD: HSA
DRILLING DATE: 11/19/03
DRILL RIG: CME 55
DATUM:
AZIMUTH: N/A
COORDINATES: not surveyed
ELEVATION:
INCLINATION: -90

DEPTH (ft)	BORING METHOD	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in (140 lb hammer 30 inch drop)	N	REC / ATT	PENETRATION RESISTANCE BLOWS / ft (10 20 30 40) / WATER CONTENT (PERCENT) (W_p, W, W_l)	NOTES WATER LEVELS GRAPHIC
0	HSA	0.0 - 2.0 Asphalt underlain by pea gravel and sand.										
		2.0 - 8.0 Very stiff, yellowish brown, poorly bedded, CLAYEY SILT to SILTY CLAY with trace sand and gravel. Moist. (GLACIOLACUSTRINE DEPOSIT)	CL-ML		2.0							
5						1	SS	19-10-10	20	0.7 / 1.5		2" Dia. PVC Casing 6.5' ATD - Water level appears to be rising
		8.0 - 15.3 Very dense, yellowish brown and dark gray, unstratified, fine to coarse SAND and fine to coarse sub-rounded to sub-angular GRAVEL with little fines. Wet. (ADVANCE OUTWASH)	SM		8.0							
10						2	SS	10-28-32	>50	1.5 / 1.5	>>	10-20 Silica Sand
15		Basically no recovery - driller noted that sampler appeared to be bouncing off of cobble(s).			15.3		SS	50/3"	50/3"	0.0 / 0.3		Schedule 20 Screen
		Boring completed at 15.3 ft.										
20												

1 in to 3 ft
DRILLING CONTRACTOR: Cascade
DRILLER:

LOGGED: A. McKenzie-Johnson
CHECKED: Neil Gilham
DATE: 12/8/03

Golder Associates

BOREHOLE RECORD 033-1002 BORELOGS.GPJ GLDR_WA.GDT 12/9/03

RECORD OF BOREHOLE SNSB-2

SHEET 1 of 1

PROJECT: Snohomish Dry Cleaners Phase II
PROJECT NUMBER: 033-1002
LOCATION: Snohomish, WA
DRILLING METHOD: HSA
DRILLING DATE: 11/19/03
DRILL RIG: CME 55
DATUM:
AZIMUTH: N/A
COORDINATES: not surveyed
ELEVATION:
INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE: DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	SAMPLES: NUMBER	TYPE	BLOWS per 6 in (140 lb hammer 30 inch drop)	N	REC / ATT	PENETRATION RESISTANCE BLOWS / ft	WATER CONTENT (PERCENT)	NOTES WATER LEVELS GRAPHIC
0	HSA	0.0 - 3.0 Asphalt underlain by pea gravel and sand.											
		3.0 - 8.0 Hard, pale gray, yellowish brown, and black (manganese) with iron oxide staining, poorly bedded, CLAYEY SILT to SILT CLAY with trace to little sand and fine gravel. Moist. (GLACIOLACUSTRINE DEPOSIT)	CL-ML		3.0	1	SS	12-21-22	43	1.2 / 1.5			2" Dia. PVC Casing
5													
		8.0 - 15.0 Very dense, yellowish brown, unstratified, fine to coarse SAND and fine to coarse GRAVEL with little fines. Wet. (ADVANCE OUTWASH)	SM		8.0	2	SS	50/6"	50/6"	0.4 / 0.6			10-20 Silica Sand
10													
													Schedule 20 Screen
15		Driller notes that sampler appears to be bouncing on rock - no recovery Boring completed at 15.0 ft.			15.0		SS	50/0"	50/0"	0.0 / 0.0			13.5' ATD - Water level appears to be rising
20													

1 in to 3 ft
DRILLING CONTRACTOR: Cascade
DRILLER:

LOGGED: A. McKenzie-Johnson
CHECKED: Neil Gilham
DATE: 12/8/03

Golder Associates

BOREHOLE RECORD 033-1002 BORELOGS.GPJ GLDR_WA.GDT 12/9/03

Appendix D
Test Pit and Monitoring Well Logs

SOIL CLASSIFICATION LEGEND

MAJOR DIVISIONS				TYPICAL NAMES
COARSE GRAINED SOILS More than half is larger than No. 200 sieve	GRAVELS More than half coarse fraction is larger than No. 4 sieve	Clean gravels with little or no fines	GW	Well graded gravels, gravel-sand mixtures
			GP	Poorly graded gravels, gravel-sand mixtures
		Gravel with over 12% fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS More than half coarse fraction is smaller than No. 4 sieve size	Clean sands with little or no fines	SW	Well graded sands, gravelly sands
			SP	Poorly graded sands, gravelly sands
		Sands with over 12% fines	SM	Silty sand, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS More than half is smaller than No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic clays and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils

SAMPLE TYPE SYMBOLS

- Disturbed bag or jar sample
- Std. Penetration Test (2.0" OD)
- Type U Ring Sampler (3.25" OD)
- California Sampler (3.0" OD)
- Undisturbed Tube Sample
- Grab Sample
- Core Run
- Non-standard Penetration Test (with split spoon sampler)

CONTACT BETWEEN UNITS

- Change in geologic unit
- Soil type change within geologic unit
- Obscure or gradational change

DESCRIPTORS FOR SOIL STRATA AND STRUCTURE (ENGLISH/METRIC)

General Thickness or Spacing		Structure		General Attitude	
Parting:	less than 1/16 in. (1/6 cm)	Pocket:	Erratic, discontinuous deposit of limited extent	Near horizontal:	0 to 10 deg.
Seam:	1/16 to 1/2 in. (1/6 to 1 1/4 cm)	Lens:	Lenticular deposit	Low angle:	10 to 45 deg.
Layer:	1/2 to 12 in. (1 1/4 to 30 1/2 cm)	Varved:	Alternating seams of silt and clay	High angle:	45 to 80 deg.
Stratum:	> 12 in. (30 1/2 cm)	Laminated:	Alternating seams	Near Vertical:	80 to 90 deg.
Scattered:	< 1 per ft. (30 1/2 cm)	Interbedded:	Alternating layers		
Numerous:	> 1 per ft. (30 1/2 cm)				

MOISTURE DESCRIPTION

Dry - Free of moisture, dusty

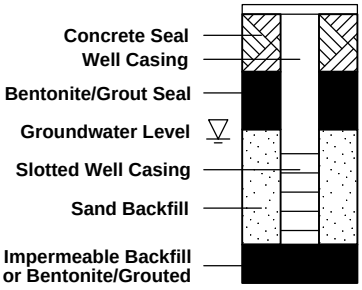
Moist - Damp but no visible free water

Wet - Visible free water, saturated

STRUCTURE DESCRIPTION (cont.)

Fractured	Breaks easily along definite fractured planes
Slickensided	Polished, glossy, fractured planes
Blocky, Diced	Breaks easily into small angular lumps
Sheared	Disturbed texture, mix of strengths
Homogeneous	Same color and appearance throughout

WELL COMPLETIONS



RELATIVE DENSITY OR CONSISTENCY VS. SPT N-VALUE

COARSE GRAINED			FINE GRAINED		
Density	N (blows/ft)	Approx. Relative Density (%)	Consistency	N (blows/ft)	Approx. Undrained Shear Str. (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	Over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

PHYSICAL PROPERTY TEST

AL	-	Atterberg Limits
FC	-	Fines Content
GSD	-	Grain Size Distribution
MC	-	Moisture Content
MD	-	Moisture Content/Dry Density
Comp	-	Compaction Test (Proctor)
SG	-	Specific Gravity
CBR	-	California Bearing Ratio
RM	-	Resilient Modulus
Perm	-	Permeability
TXP	-	Triaxial Permeability
Cons	-	Consolidation
Chem	-	Analytical Chemical Analysis
Corr	-	Corrosion
VS	-	Vane Shear
DS	-	Direct Shear
UC	-	Unconfined Compression
TX	-	Triaxial Compression
UU	-	Unconsolidated, Undrained
CU	-	Consolidated, Undrained
CD	-	Consolidated, Drained

Notes:

1. Sample descriptions in this report are based on visual field and laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates, and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual classification methods in accordance with ASTM D 2488 were used as an identification guide. Where laboratory data are available, soil classifications are in general accordance with ASTM D 2487.

2. Dual symbols are used to indicate gravel and sand units with 5 to 12 percent fines.

3. WOR = weight of rod.

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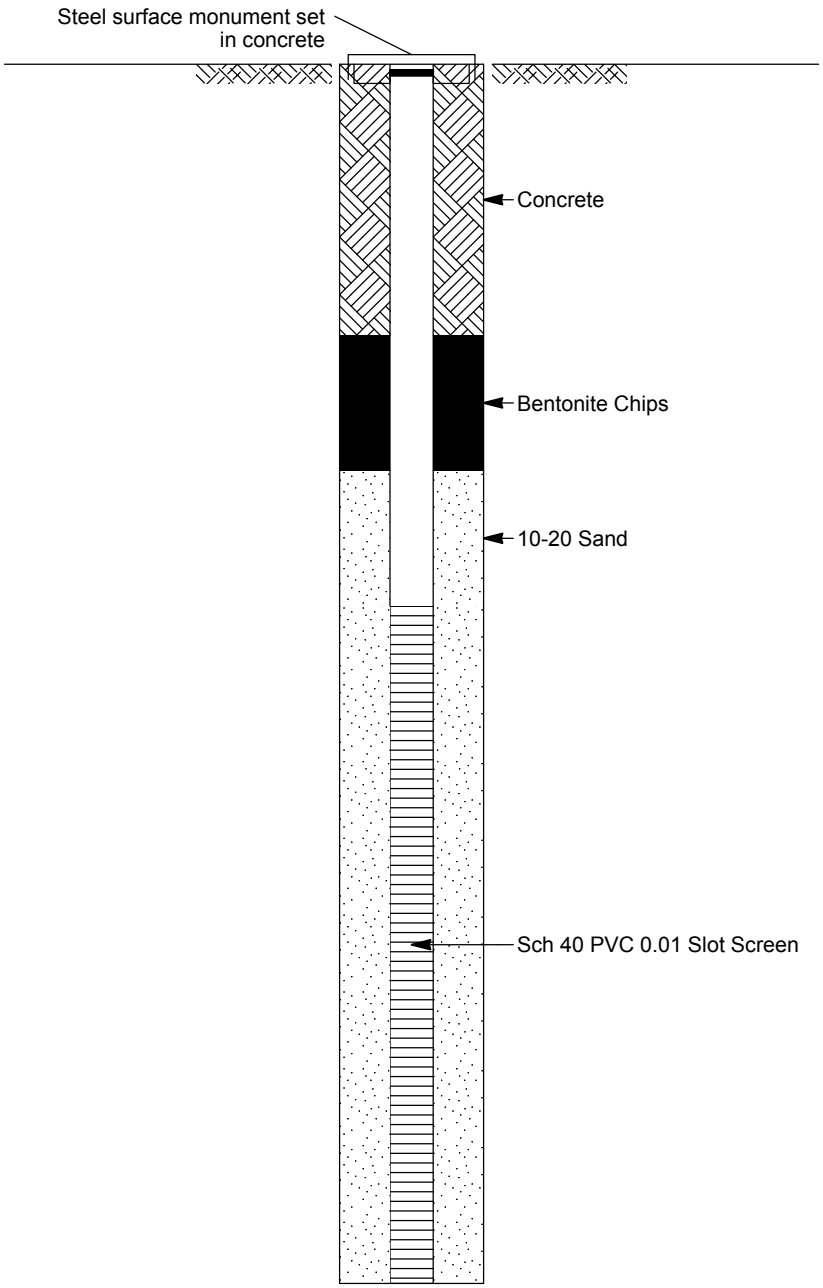
Project No: 19947.71366 Figure: D1

SOIL CLASSIFICATION/LEGEND 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.



TYPICAL MONITORING WELL CONSTRUCTION 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.

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TYPICAL MONITORING WELL CONSTRUTION

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Project No: 19947.71366 Figure: D2
1 of 1

Test Pit TP12

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0						Gravelly, Silty SAND (SM), brown, angular to subrounded gravel, dense, moist.	
				0			G				
				0		2		SM		Blue discoloration.	
				0		4				Some asphalt debris.	
				0		6	G	SM		Silty SAND (SM), olive-gray, very dense, moist.	
										Test pit completed at 6 ft bgs. No groundwater encountered.	
						8					
						10					

Location: _____
Surface Elevation: _____
Logged By: AAL

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 6-18-09

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Test Pit TP12 — Figure: D3
Project No: 19947.71366 — 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP13

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0		2		SM		Silty SAND (SM), dark brown, organic-rich, loose, wet.	
				0						Becomes gray-blue, fine grained, medium dense, wet.	
				0		4	G			Increased gravel and moisture content.	
				0		6				Becomes light brown, saturated, dense.	
						8				Test pit completed at 4.5 ft bgs. Groundwater encountered at 3.5 ft bgs.	
						10					

Location: _____
Surface Elevation: _____
Logged By: AAL

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 6-18-09

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Test Pit TP13 Figure: D4
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP14

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										6" Asphalt.	
				0				SM		Gravelly, Silty SAND (SM), yellow-red, dense, moist.	
				1.5		▽	G				
						2		GP		Sandy GRAVEL (GP), black, dense, saturated.	
										Test pit completed at 2.5 ft bgs. Groundwater encountered at 1.5 ft bgs.	
						4					
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-18-09

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Test Pit TP14 Figure: D5

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP15

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										6" Asphalt.	
				0						Gravelly, Silty SAND (SM), yellow-red, dense, moist, with cobbles.	
				0						Becomes dark gray.	
				0		2		SM		Becomes brown-yellow, increased moisture content, decreased cobble size, contains wood debris.	
				0		▽4	G			Becomes saturated.	
										Test pit completed at 4 ft bgs. Groundwater encountered at 4 ft bgs.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-18-09

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Test Pit TP15 Figure: D6

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP16

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
				0				SM		Gravelly, Silty SAND (SM), red-brown, dense, moist, angular gravel.	
				0			G				
						2				Gravelly, Silty SAND (SM), gray, dense, wet.	
				0				SM		Becomes saturated, gravel becomes subrounded to rounded.	
						4				Test pit completed 4 ft bgs. Groundwater encountered at 2 ft bgs.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

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Test Pit TP16 Figure: D7

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP17

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0				SM		Gravelly, Silty SAND (SM), brown, angular gravel, dense, moist.	
				0			G	SM		Silty SAND (SM), dark gray, dense, moist.	
				0		2		SM		Gravelly, Silty SAND (SM), brown-yellow, with subrounded gravel, dense, moist, contains wood debris.	
				0						Increased moisture, decreased silt content, with iron mottling.	
				0		▽4				Becomes saturated.	
						6				Test pit completed at 4 ft bgs. Groundwater encountered at 4 ft bgs.	
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-18-09

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Test Pit TP17 Figure: D8

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP18

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0						Gravelly, Silty SAND (SM), brown, fine to medium grained, angular gravel with cobbles, dense, moist.	
				0			G				
						2		SM		Increased silt and moisture content, sand becomes fine grained.	
				0						Sand becomes medium grained.	
				0						Sand becomes medium-coarse grained.	
				0		4		SM		Silty SAND (SM), brown-yellow, fine to medium grained sand, very dense, moist, with mica-rich seams. Becomes dark brown, and gravelly.	
				0			G				
										Test pit completed at 5 ft bgs. No groundwater encountered.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-18-09

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Test Pit TP18 Figure: D9

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP19

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
				0				SM		Gravelly, Silty SAND (SM), red-brown, angular gravel, medium dense, moist.	
				0			G				
						2		SM		Gravelly, Silty SAND (SM), gray, with iron mottling, dense, moist, with subrounded gravel.	
				0						Becomes olive-gray, with decreasing silt content.	
				0				SP		Gravelly SAND (SP), olive-gray, dense, saturated.	
						4		SM		Silty SAND (SM), gray, medium grained, with some gravel, very dense, wet.	
				0						Test pit completed at 4 ft bgs. Groundwater encountered at 3 ft bgs.	
						6					
						8					
						10					

Location: _____
Surface Elevation: _____
Logged By: AAL

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 6-18-09

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Test Pit TP19 Figure: D10
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP20

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
				0				SM		Gravelly, Silty SAND (SM), brown, angular gravel, dense, moist.	
				0			G				
						2		SP		Gravelly SAND (SP), brown, subrounded gravel, some silt, dense, moist.	
										Increased moisture and gravel content.	
				0							
				0		▽				Becomes saturated.	
						4				Test pit completed at 3.5 ft bgs. Groundwater encountered at 3.5 ft bgs.	
						6					
						8					
						10					

Location: _____
Surface Elevation: _____
Logged By: AAL

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 6-18-09

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Test Pit TP20 Figure: D11
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP21

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
								SM		Gravelly, Silty SAND (SM), brown, angular gravel, dense, moist.	
				0						Silty SAND (SM), brown, with subrounded to rounded gravel, dense, moist.	
				0			G				
				0		2					
								SM			
				0						Increased gravel content, with brown/black staining, no odor.	
				0		4				Increased silt content.	
										Increased sand and gravel content, becomes saturated.	
				0						Test pit completed at 5 ft bgs. Groundwater encountered at 4.5 ft bgs.	
						6					
						8					
						10					

Location: _____
Surface Elevation: _____
Logged By: AAL

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 6-18-09

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Test Pit TP21 Figure: D12
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP22

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0	G	SM		Gravelly, Silty SAND (SM), brown-yellow, angular gravel, dense, moist.	
						2		SM		Becomes brown, decreasing gravel, contains cobbles.	
						4		GM		Silty, Sandy GRAVEL (GM), brown, subrounded to rounded gravel with cobbles and boulders, dense, moist.	
						4	G	SM		Gravelly, Silty SAND (SM), gray, subrounded to rounded gravel, fine-grained sand, very dense, moist.	
						5				Test pit completed at 5 ft bgs. No groundwater encountered.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-18-09

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Test Pit TP22 Figure: D13

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP23

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0			G			Gravelly, Silty SAND (SM), brown-yellow, angular gravel, with black/brown staining at 0.5 ft bgs, dense, moist.	
				0		2		SM			
				0						Gravelly, Silty SAND (SM), brown, with cobbles, fine-grained sand, subrounded gravel, dense, moist.	
				0		4		SM			
				0			G			Test pit completed at 5 ft bgs. No groundwater encountered.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-18-09

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Test Pit TP23 Figure: D14

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP24

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0		0	G	SM		Gravelly, Silty SAND (SM), brown-yellow, angular gravel, dense, moist.	
				0		2		GM		Silty, Sandy GRAVEL (GM), brown, subrounded to rounded gravel, dense, moist.	
				0		▽				Becomes saturated.	
				0		4		SP		Gravelly SAND (SP), dark brown, some silt, subrounded to rounded gravel, dense, saturated.	
										Test pit completed at 4 ft bgs. Groundwater encountered at 3 ft bgs.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

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Test Pit TP24 Figure: D15

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP25

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0		2	G	SM		Gravelly, Silty SAND (SM), brown-yellow, angular gravel, dense, dry.	
				0		4		GM		Sandy, Silty GRAVEL (GM), brown, subrounded gravel, dense, moist.	
				0				SP		Gravelly SAND (SP), brown, with some silt, with cobbles, dense, wet. Becomes saturated.	
						6				Test pit completed at 5 ft bgs. Groundwater encountered at 5 ft bgs.	
						8					
						10					

Location: _____
Surface Elevation: _____
Logged By: AAL

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 6-18-09

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Test Pit TP25 Figure: D16
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP26

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0						Gravelly, Silty SAND (SM), brown, angular gravel, dense, moist.	
				0			G	SM		Increased gravel content, gravel becomes subrounded with cobbles.	
				0		2				Silty SAND (SM), brown-yellow, with occasional cobbles, medium to fine-grained sand, dense, moist.	
				0				SM			
				0		▽ 4				Becomes saturated, slightly decreased silt content.	
										Becomes gray-green, very dense.	
				0						Test pit completed at 5 ft bgs. Groundwater encountered 4 ft bgs.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-19-09

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Test Pit TP26
Project No: 19947.71366

Figure: D17
1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP27

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0			G			Gravelly, Silty SAND (SM), brown, angular gravel, loose, moist.	
				0						Becomes gray-green, with slightly increased silt content.	
								SM			
				0		2				Becomes brown with scattered iron mottling, very gravelly.	
				0				GP		Silty, Sandy GRAVEL (GP), brown, subrounded to rounded gravel, medium dense, with increased moisture content.	
								SM		Silty SAND (SM), brown, medium grained, with some gravel, dense, saturated.	
				0		4				Test pit completed at 4 ft bgs. Groundwater encountered at 3.25 ft bgs.	
						6					
						8					
						10					

Location: _____
Surface Elevation: _____
Logged By: AAL

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 6-19-09

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Test Pit TP27 Figure: D18
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP28

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0		0				Gravelly, Silty SAND (SM), brown, angular gravel, dense, moist.	
				0						Becomes brown-yellow with gray-green, with cobbles, coarse to fine-grained sand.	
				8.3		2	G G	SM		Becomes gray-green, with hydrocarbon-like odor, steel plate encountered at 2.25 ft bgs.	
				0							
				0		4				Gravelly, Silty SAND (SM), brown, fine to coarse grained, dense, moist.	
				0				SM		With finer-grained sand. Becomes saturated.	
						▽				Test pit completed at 5.5 ft bgs. Groundwater encountered at 5.5 ft bgs.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

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Test Pit TP28 Figure: D19

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP29

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
				0						Gravelly, Silty SAND (SM), brown, angular gravel, dense, moist.	
				0			G				
								SM			
				0		2				Decreased silt content, medium to coarse grained sand.	
				0						GRAVEL (GP), brown, subrounded to rounded gravel, dense, moist.	
								GP			
						▽4				Becomes saturated, black discoloration on rocks, no odor.	
				0						Test pit completed at 4 bgs. Groundwater encountered at 4 ft bgs.	
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-19-09

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Test Pit TP29 Figure: D20

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP30

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0			G			Gravelly, Silty SAND (SM), brown, subrounded to rounded gravel, loose, wet.	
										Becomes gray-green.	
				0		▽		SM		Becomes brown-yellow with decreased gravel content, becomes saturated.	
				0		2				Test pit completed at 2 ft bgs. Groundwater encountered at 1 ft bgs.	
						4					
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-19-09

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Snohomish, Washington

Test Pit TP30 Figure: D21

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP31

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
				0						Gravelly, Silty SAND (SM), brown, subrounded to rounded gravel, dense, moist.	
				0			G			Becomes brown-yellow with decreased silt content, medium to coarse-grained sand.	
				0		2				Abandoned water line (PVC pipe).	
				0				SM			
				0		4				Becomes dense.	
				0							
				0		6				Becomes very dense, with fine-grained sand.	
										Test pit completed at 6 ft bgs. No groundwater encountered.	
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-19-09

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit TP31 Figure: D22

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP32

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
				0				SM		Gravelly, Silty SAND (SM), brown, angular gravel, loose, moist.	
				0			G			Silty SAND (SM), gray-blue, fine-grained sand, dense, moist.	
				0		2				Decreasing silt, becomes very dense, contains wood debris.	
				0						With some cobbles.	
				0		4				Increased silt, contains roots and organics.	
								SM			
				0		6					
				0		8					
						10				Test pit completed at 10 ft bgs. No groundwater encountered.	

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-19-09

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit TP32 Figure: D23

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP33

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										3" Asphalt.	
				0				SM		Gravelly, Silty SAND (SM), brown, angular to subrounded gravel, loose, moist.	
				0			G			Becomes dark brown, contains coarse-grained sand.	
						2				Silty SAND (SM), yellow-brown, fine-grained sand, dense, moist.	
				0				SM			
				0						Becomes gray and very dense, decreased moisture content.	
				0						Test pit completed at 3.5 ft bgs. No groundwater encountered.	
						4					
						6					
						8					
						10					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-19-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Test Pit TP33 Figure: D24

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit TP34

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
				0						Gravelly, Silty SAND (SM), brown, subrounded to rounded gravel, loose, moist, with cobbles and roots.	
				0						Sand becomes fine-grained, contains wood debris.	
							G			Garbage bag.	
				0		2				Dark brown silty sand layer.	
				0						Becomes fine-grained silty sand with iron mottling.	
				0		4					
								SM		Boulder encountered.	
				0		6					
				0		8					
				0						Becomes light gray, very dense, moist.	
						10				Test pit completed at 10 ft bgs. No groundwater encountered.	

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AAL Date Completed: 6-19-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Test Pit TP34 Figure: D25

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947.71366.JUNE 2009 TP.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP1

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						2		SM		Gravelly, Silty SAND (SM), olive-gray, moist (Fill).	
						4		GM		Sandy GRAVEL (GM), rounded cobbles 1" to 6" diam., dense, becomes wet at 3.5 ft bgs (Outwash).	
						6		SM		Gravelly, Silty SAND (SM), gray, very dense (Till).	
						8				Test pit terminated at 7 ft bgs. Groundwater encountered at 3.5 ft bgs.	
						10					
						12					
						14					

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 12-8-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Test Pit EP1 Figure: D26
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP2

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						2				Gravelly, Silty SAND (SM), brown, rounded gravel <1" to 6" diam., loose, moist.	
						4					
						6		SM		Increasing coarse gravel.	
						▽ 8				Becomes wet.	
						10				Becomes gray, very dense, moist.	
						12				Test pit terminated at 10.5 ft bgs. Groundwater encountered at 8 ft bgs.	
						14					

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 12-8-09

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP2 Figure: D27
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP3

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						2		SM		Gravelly, Silty SAND (SM), brown, moist.	
						4				Becomes wet.	
						6				Becomes olive-gray, increasing gravel, medium dense.	
								SM		Gravelly, Silty SAND (SM), gray, very dense, moist.	
						8				Test pit terminated at 7.5 ft bgs. Groundwater encountered at 5 ft bgs.	
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: _____/_____

Logged By: AW Date Completed: _____

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Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP3 Figure: D28

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP4

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0				Gravelly, Silty SAND (SM), olive-gray, rounded, well graded gravel.	
						2					
						4		SM			
						6 ▽				Increased gravel, becomes stratified, groundwater seepage at 6 ft bgs.	
						8					
								SM		Becomes very dense, moist.	
										Test Pit terminated at 9 ft bgs. Groundwater encountered at 6 ft bgs.	
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP4 Figure: D29

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP5

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0				Gravelly, Silty SAND (SM), olive-gray.	
						2				Becomes stratified.	
						4		SM			
						6					
						8				Becomes gray, very dense, moist.	
						10				Test pit terminated at 9 ft bgs. Groundwater encountered at 7 ft bgs.	
						12					
						14					

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: _____
Equipment/Hammer: /
Date Completed: 1-14-10

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP5 Figure: D30
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP6

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						2		SM		Gravelly, Silty SAND (SM), olive-gray, well graded, stratified gravel.	
						4				Groundwater seepage at 4.5 ft bgs.	
						6				Becomes gray, very dense, moist.	
						8				Test pit terminated at 6.5 ft bgs. Groundwater encountered at 4.5 ft bgs.	
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP6 Figure: D31

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP7

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0				Gravelly, Silty SAND (SM), olive-gray, well graded sand, some wood fragments.	
						2		SM		Becomes stratified.	
						4				Groundwater seepage at 4.5 ft bgs. Becomes gray, very dense, moist.	
						6				Test pit terminated at 5 ft bgs. Groundwater encountered at 4.5 ft bgs.	
						8					
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

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Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP7 Figure: D32

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LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP8

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0				Gravelly, Silty SAND (SM), olive-gray, well graded sand.	
						2		SM		Becomes stratified.	
						4		SM		Becomes gray, very dense, moist.	
						6				Test pit terminated at 5 ft bgs. Groundwater encountered at 3.5 ft bgs.	
						8					
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP8 Figure: D33

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LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP9

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						2		SM		Gravelly, Silty SAND (SM), olive-gray, well graded sand. Becomes stratified. Groundwater seepage at 3 ft bgs. Becomes gray, very dense, moist.	
						4				Test pit terminated at 5 ft bgs. Groundwater encountered at 3 ft bgs.	
						6					
						8					
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

CDM Smith

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Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP9 Figure: D34

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LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP10

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0				Gravelly, Silty SAND (SM), olive-gray, well graded sand.	
										Some gray discoloration from 1 to 2 ft bgs.	
						2		SM		Becomes stratified.	
						4				Groundwater seepage at 4 ft bgs.	
										Becomes gray, very dense, moist.	
										Test pit terminated at 5 ft bgs. Groundwater encountered at 4 ft bgs.	
						6					
						8					
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

CDM Smith

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Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP10 Figure: D35

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LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP11

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0				Gravelly, Silty SAND (SM), olive-gray, moist.	
						2				Gray discoloration from 1.5 to 2.5 ft bgs, no odors.	
								SM		Becomes stratified.	
						4				Groundwater seepage at 5 ft bgs.	
										Becomes gray, very dense, moist.	
						6				Test pit terminated at 6 ft bgs. Groundwater encountered at 5 ft bgs.	
						8					
						10					
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

CDM Smith

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Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP11 Figure: D36

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LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Test Pit EP12

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						2				Gravelly, Silty SAND (SM), brown, rounded gravel.	
						4		SM			
						6				Becomes moderately stratified.	
										Slight groundwater seepage at 7 ft bgs.	
						8				Becomes gray, very dense, moist.	
						10				Test pit terminated at 9.5 ft bgs. Groundwater encountered at 7 ft bgs.	
						12					
						14					

Location: _____ Drill Rig: _____

Surface Elevation: _____ Equipment/Hammer: / _____

Logged By: AW Date Completed: 1-14-10

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Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Test Pit EP12 Figure: D37

Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-1

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
						0				Gravelly, Silty SAND (SM), dark brown, fine, rounded gravel, medium to coarse grained sand, very dense, wet.		
						2						
						4		SM		Becomes saturated.		
				0.8	50/6"							
						6						
										Silty SAND (SM), gray-olive, trace fine gravel, very dense, moist.		
						8						
				0.6	50/3"							
	GW1-10					10		SM				
						12						
				0.6	50/6"	14				Boring terminated at 14 ft bgs. Groundwater encountered at 4 ft bgs.		

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: Hollow-Stem Auger/CME
Equipment/Hammer: Split Spoon/300 lb/30"
Date Completed: 9-11-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

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Monitoring Well GW-1 Figure: D38
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LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-2

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
										Gravelly SAND (SP), yellow-red, trace silt, medium-grained sand and medium rounded gravel, very dense, moist.		
	GW2-3.5			0.4	27 50/6"	2		SP				
						4 ▽				Sand becomes coarse grained, saturated at 4 ft bgs, with some silt, gravel becomes medium to coarse.		
				0.4	21 50/6"	6						
						8		SM		Silty SAND (SM), brown-yellow, with some fine gravel, very dense, moist.		
				0.4	50/6"	10				Boring terminated at 10 ft bgs. Groundwater encountered at 4 ft bgs.		
						12						
						14						

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: Hollow-Stem Auger/CME
Equipment/Hammer: Split Spoon/300 lb/30"
Date Completed: 9-11-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Monitoring Well GW-2
Project No: 19947.71366

Figure: D39
1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-3

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
						0				Gravelly SAND (SP), dark brown, coarse rounded gravel, fine-grained sand, dense, moist.		
	GW3-3.5			0.4	25 50/6"	2		SP				
						4		SP		Gravelly SAND (SP), olive-gray, fine rounded gravel, very dense.		
				0.4	50/6"	6		GM		Sandy Silty GRAVEL (GM), very dense, saturated, increasing subangular gravel.		
						8		SM		Gravelly, Silty SAND (SM), olive-gray, fine rounded gravel, diamictic texture, very dense, moist.		
				0.4	50/6"	10				Boring terminated at 9.5 ft bgs. Groundwater encountered at 5 ft bgs.		
						12						
						14						

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: Hollow-Stem Auger/CME
Equipment/Hammer: Split Spoon/300 lb/30"
Date Completed: 9-11-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

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Monitoring Well GW-3 Figure: D40
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-4

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
	GW4-3.5			0.4	22 50/6"	2 4		GW		Sandy GRAVEL (GW), brown, some silt, fine to coarse subangular to rounded gravel, dense, saturated.		
				0.4	50/6"	6		SW		Gravelly SAND (SW), brown, some silt, fine to coarse rounded gravel, fine to coarse-grained sand, very dense, saturated.		
				0.4	50/6"	8 10		SM		Silty SAND (SM), olive-gray, with some fine grained rounded gravel, very dense, moist. Boring terminated at 10 ft bgs. Groundwater encountered at 3 ft bgs.		
						12 14						

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: Hollow-Stem Auger/CME
Equipment/Hammer: Split Spoon/300 lb/30"
Date Completed: 9-11-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

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Monitoring Well GW-4 Figure: D41
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LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-5

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
						2		CL		Silty CLAY (CL), yellow-red, trace fine gravel and coarse sand with diamictic texture, medium plasticity, some oxidation, very stiff, moist.		
				0.4	7 23 50	4						
	GW5-5			0.4	27 50/6"			SP		Gravelly SAND (SP), brown, fine rounded gravel, dense, moist.		
						6		GP		Gravelly SAND (GW), saturated, well graded sand.		
						8				Silty SAND (SM), olive-gray, with coarse gravel, very dense, moist.		
				0.4	50/6"							
				0.6	50/6"	10		SM		Becomes wet, fine to coarse gravel.		
						12						
				0.4	50/6"	14				Boring terminated at 14.5 ft bgs. Groundwater encountered at 5.35 ft bgs.		

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: Hollow-Stem Auger/CME
Equipment/Hammer: Split Spoon/300 lb/30"
Date Completed: 9-11-09

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

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Monitoring Well GW-5 Figure: D42
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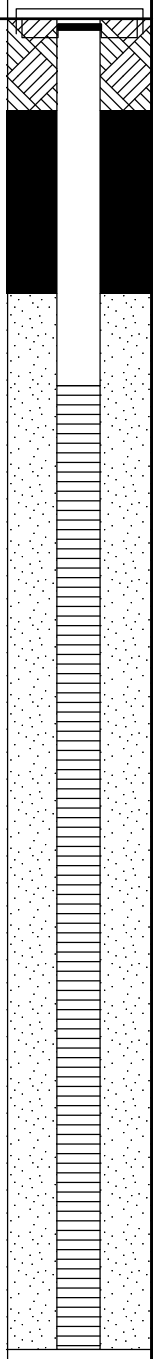
LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitorng Well GW-6

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
						0				Gravelly, Silty SAND (SM), brown, well graded, fine to coarse sand, fine rounded gravel, very dense, moist.	
						2					
				0.4	50/6"						
						4		SM		Decreasing silt.	
	GW6-5			0.4	50/6"					Gravel becomes subangular, increasing silt.	
						6					
						8				Gravelly, Silty SAND (SM), olive-gray, fine sand, fine to coarse rounded gravel, very dense, wet.	
				0.4	50/6"						
						10					
								SM			
						12					
										Decreasing gravel, becomes moist.	
				0.4	50/6"	14					
										Boring terminated at 14 ft bgs.	

Well or Piezometer Completion



Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: Hollow-Stem Auger/CME
Equipment/Hammer: Split Spoon/300 lb/30"
Date Completed: 9-11-09

CDM Smith

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

Monitoring Well GW-6 — Figure: D43
Project No: 19947.71366 — 1 of 1

LOG OF BORING WITH WELL 19947-71366-SEP 2009 TO JAN 2010.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-7

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
				1.3	75/3" 75/6"	0		SM		Slightly Silty, Gravelly SAND (SM), olive-gray, poorly graded, fine to medium sand, fine to coarse, rounded gravel (1/4-1-14" dia.), some subangular gravel, dense, moist.		
										Becomes wet at 3 ft bgs.		
				1.3	50/6" 50/6"	5				Gravelly, Silty SAND (SM), brown to olive-gray, well graded medium to coarse sand, fine rounded to subangular gravel (1/4-1/2" dia.), dense, saturated.		
				1.3	50/4"			SM		Slightly decreasing fine gravel and silt.		
										Boring terminated at 9 ft bgs. Groundwater encountered at 3.5 ft bgs during drilling.		
						10						
						15						
						20						
						25						

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: LAR Hollow-stem Auger
Equipment/Hammer: Split Spoon/140 lb/30"
Date Completed: 6-17-10

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Monitoring Well GW-7 Figure: D44
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-8

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
										3 inches Asphalt.		
				1.3	50/4"					Gravelly, Silty SAND (SM), brown to olive-gray, well graded, medium to coarse sand, fine to coarse, rounded to subangular gravel (1/4-1-1/2" dia.), dense, saturated.		
				1.3	50/6"	5		SM		Decreasing gravel, becomes well graded, fine gravel only, sand becomes fine to coarse.		
				1.3	100/5"					Sand grain size decreases to primarily well graded, fine to medium with some coarse grains.		
				1.3	75/6" 100/4"	10						
								SM		Gravelly, Silty SAND (SM), olive-gray, poorly graded, fine sand, fine, rounded gravel, very dense, moist.		
										Boring terminated at 11.5 ft bgs. Groundwater encountered at 2.25 ft bgs during drilling.		
						15						
						20						
						25						

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: LAR Hollow-stem Auger
Equipment/Hammer: Split Spoon/140 lb/30"
Date Completed: 6-17-10

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Monitoring Well GW-8 Figure: D45
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-9

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
										7 inches Asphalt.		
										Slightly Silty, Gravelly SAND (SM), dark gray to gray-green, well graded, fine to coarse sand, fine to coarse, rounded to subangular gravel (1/4-1" dia.), dense, saturated.		
								SM				
				1.3	60/4"	5						
				1.3	50/6" 50/6"					Very Silty, Sandy GRAVEL (GM), gray-green, poorly graded, fine, subangular gravel (1/4-3/4" dia.), medium to coarse sand, dense, saturated.		
								GM				
					60/4"	10				Very Silty, Gravelly SAND (SM), gray-green, well graded, medium to coarse sand, fine, subangular gravel, dense, saturated.		
								SM		Becomes moist and till-like texture at 11 ft bgs.		
										Boring terminated at 11 ft bgs.		
						15						
						20						
						25						

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: LAR Hollow-stem Auger
Equipment/Hammer: Split Spoon/140 lb/30"
Date Completed: 6-17-10

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Monitoring Well GW-9 Figure: D46
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-9B

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
										7 inches Asphalt.		
					75/8"			SM		Gravelly, Silty SAND (SM), olive-gray sand, brown silt, poorly graded, fine to medium sand, fine to coarse, rounded to subangular gravel (1/4-1" dia.), dense, moist.		
					100/1"	5		GM		Silty, Sandy GRAVEL (GM), gray-green, well graded, fine to coarse, subangular gravel (1/4-1-1/2" dia.), poorly graded, fine sand, dense, saturated. Refusal at 5 ft bgs.		
						10						
						15						
						20						
						25						

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: LAR Hollow-stem Auger
Equipment/Hammer: Split Spoon/140 lb/30"
Date Completed: 6-17-10

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Monitoring Well GW-9B
Project No: 19947.71366

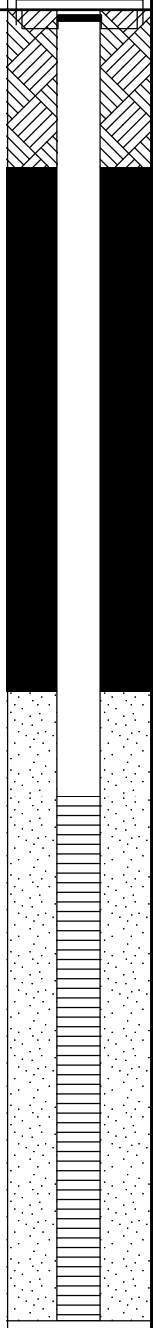
Figure: D47
1 of 1

LOG OF BORING WITH WELL 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-10

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / foot)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
								SM		0 to 7 ft bgs cleared with vac truck. Gravelly, Silty SAND (SM), brown, poorly graded medium sand, fine, rounded gravel (1/4-1/-1/2" dia.), loose, wet.	
						5				Old tree stump present from 5 to 7 ft bgs.	
				1.3	23/6" 50/5"			SM		Silty SAND (SM), brown, poorly graded, fine sand, trace fine to coarse gravel (1/4-1" dia.), dense, moist, root present in sample.	
				1.3	33/6" 50/6"	10		SM		Slightly Silty, Gravelly SAND (SM), olive-gray, well graded, fine to coarse sand, fine to coarse, rounded gravel (1/4-1" dia.), dense, moist.	
				2.7		15 ▽		SP-SM		Becomes wet. Slightly Silty SAND (SP), brown, poorly graded, fine sand, dense, wet.	
				5.4				SM		Gravelly, Silty SAND (SM), brown to olive-gray, poorly graded, fine sand and rounded gravel (1/4-1/2" dia.), dense, wet, till-like texture.	
				1.3	100/4"	20		SM		Gravelly, Silty SAND (SM), olive-gray, well graded, fine to coarse sand, fine to coarse, rounded gravel (1/4->2" dia.), very dense, wet.	
				1.3	100/4"	25		SM		Silty SAND (SM), brown, poorly graded, coarse sand, some fine, subangular gravel, very dense, saturated. Boring terminated at 26 ft bgs. Groundwater appeared to be encountered at 15.5 ft bgs during drilling.	

Well or Piezometer Completion



Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: LAR Hollow-stem Auger
Equipment/Hammer: Split Spoon/140 lb/30"
Date Completed: 6-18-10

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Monitoring GW-10
Project No: 19947.71366

Figure: D48
1 of 1

LOG OF BORING WITH WELL 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Monitoring Well GW-11

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	OVM (ppm)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)	Well or Piezometer Completion
										3 inches Asphalt.		
								SP-SM		Slightly Silty, Gravelly SAND (SP-SM), light gray, poorly graded, medium sand, fine, rounded gravel, loose, moist.		
				1.3	12 16 20	5						
								ML		Sandy SILT (ML), red-brown, fine sand with some fine to coarse, rounded gravel (1/4-1" dia.), medium dense, moist.		
				1.3	12 18 20	10				Slightly Gravelly, Silty SAND (SM), brown, poorly graded, fine sand, fine to coarse, rounded gravel (1/4-1" ida.), medium dense, moist.		
				1.3	50/6"			SM		Increasing silt and gravel. Becomes very dense and till-like texture, becomes moist to wet.		
					100/0"	15 ▽						
				1.3	56/6"					Slightly Gravelly, Silty SAND (SM), brown to olive-gray, poorly graded, medium sand, fine to coarse, rounded gravel (1/4-1-1/4" dia.), very dense, wet.		
				1.3	100/4"	20		SM		Poor recovery, 3" rock in spoon, some coarse sand.		
				1.3	50/6"	25		SM		Gravelly, Silty SAND (SM), brown, poorly graded, medium sand, fine, subangular gravel, very dense, saturated.		
										Boring terminated at 26 ft bgs. Groundwater appeared to be encountered at 14.75 ft bgs during drilling.		

Location: _____
Surface Elevation: _____
Logged By: AW

Drill Rig: LAR Hollow-stem Auger
Equipment/Hammer: Split Spoon/140 lb/30"
Date Completed: 6-18-10

Snohomish County
Upper Terrace, Snohomish County Shop
Snohomish, Washington

CDM Smith

Monitoring Well GW-11 Figure: D49
Project No: 19947.71366 1 of 1

LOG OF BORING WITH WELL 19947-71366-JUNE 2010 GP7-GP11.GPJ GINT STD US LAB.GDT 12/20/12 REV.

Appendix E
Laboratory Reports

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:35 TP12-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 9:35 TP13-4.5
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/24/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 9:35 TP13-4.5
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 9:35 TP13-4.5
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:10 TP14-1.5
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/24/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:10 TP14-1.5
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:10 TP14-1.5
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:35 TP15-4
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Vinyl Chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acetone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Methylene chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acrylonitrile	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Butanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	6	UG/KG	6/23/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromodichloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Toluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:35 TP15-4
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Hexanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Tetrachloroethylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<5)	UG/KG	6/23/2009	GAP
Chlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Ethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
m,p-Xylene	EPA-8260	ND(<20)	UG/KG	6/23/2009	GAP
Styrene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
o-Xylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromoform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Isopropylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
T-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Butylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Naphthalene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:35 TP15-4
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270 SIM	0.03	MG/KG	6/24/2009	RAL
Pyrene	EPA-8270 SIM	0.03	MG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Chrysene	EPA-8270 SIM	0.04	MG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.04	MG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.02	MG/KG	6/24/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.03	MG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.03	MG/KG	6/24/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/24/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:35 TP15-4
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Isophorone	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 10:35 TP15-4
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Arsenic	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	34	MG/KG	6/24/2009	BAM
Lead	EPA-6010	21	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	0.04	MG/KG	6/24/2009	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CERTIFICATE OF ANALYSIS

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

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ALS JOB #: 0906124
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:40 TP16-1
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/24/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:40 TP16-1
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:40 TP16-1
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CERTIFICATE OF ANALYSIS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 14:25 TP16-GW
ALS SAMPLE #: -09

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/25/2009	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/25/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/25/2009	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Tetrachloroethylene	EPA-8260	11	UG/L	6/25/2009	GAP

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CERTIFICATE OF ANALYSIS

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 14:25 TP16-GW
ALS SAMPLE #: -09

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/25/2009	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 14:25 TP16-GW
ALS SAMPLE #: -09

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

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ALS JOB #: 0906124
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:30 TP17-1.5
ALS SAMPLE #: -10

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Arsenic	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	24	MG/KG	6/24/2009	BAM
Lead	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	0.02	MG/KG	6/24/2009	BAM

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P.O. BOX 3885
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DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 13:40 TP17-GW
ALS SAMPLE #: -11

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/25/2009	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/25/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/25/2009	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP

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CERTIFICATE OF ANALYSIS

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 13:40 TP17-GW
ALS SAMPLE #: -11

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/25/2009	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP

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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 13:40 TP17-GW
ALS SAMPLE #: -11

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:25 TP18-1.5
ALS SAMPLE #: -12

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Vinyl Chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acetone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Methylene chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acrylonitrile	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Butanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromodichloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Toluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:25 TP18-1.5
ALS SAMPLE #: -12

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Hexanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Tetrachloroethylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<5)	UG/KG	6/23/2009	GAP
Chlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Ethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
m,p-Xylene	EPA-8260	ND(<20)	UG/KG	6/23/2009	GAP
Styrene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
o-Xylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromoform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Isopropylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
T-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Butylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Naphthalene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

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CERTIFICATE OF ANALYSIS

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:25 TP18-1.5
ALS SAMPLE #: -12

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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APPROVED BY:

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:10 TP19-1
ALS SAMPLE #: -14

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 14:00 TP19-GW
ALS SAMPLE #: -15

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/25/2009	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/25/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/25/2009	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Tetrachloroethylene	EPA-8260	15	UG/L	6/25/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 14:00 TP19-GW
ALS SAMPLE #: -15

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/25/2009	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP

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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/18/2009 14:00 TP19-GW
ALS SAMPLE #: -15

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:00 TP20-1
ALS SAMPLE #: -16

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Arsenic	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	33	MG/KG	6/24/2009	BAM
Lead	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	ND(<0.02)	MG/KG	6/24/2009	BAM

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:55 TP21-1.5
ALS SAMPLE #: -18

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS

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DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:20 TP22-0.5
ALS SAMPLE #: -19

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	>100	MG/KG	6/24/2009	EBS
Arsenic	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	41	MG/KG	6/24/2009	BAM
Lead	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	ND(<0.02)	MG/KG	6/24/2009	BAM

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS UNIDENTIFIED OIL RANGE PRODUCT.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:10 TP23-0.5
ALS SAMPLE #: -22

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	>100	MG/KG	6/23/2009	EBS

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LUBE OIL.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:15 TP24-1
ALS SAMPLE #: -23

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:45 TP25-1.5
ALS SAMPLE #: -25

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyrene	EPA-8270 SIM	0.02	MG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Chrysene	EPA-8270 SIM	0.03	MG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.03	MG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.02	MG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.03	MG/KG	6/24/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/24/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:45 TP25-1.5
ALS SAMPLE #: -25

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:45 TP25-1.5
ALS SAMPLE #: -25

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:55 TP26-1
ALS SAMPLE #: -27

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS
Arsenic	EPA-6010	9.5	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	40	MG/KG	6/24/2009	BAM
Lead	EPA-6010	30	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	0.05	MG/KG	6/24/2009	BAM

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CERTIFICATE OF ANALYSIS

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:55 TP26-GW
ALS SAMPLE #: -28

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<130)	UG/L	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<310)	UG/L	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<310)	UG/L	6/24/2009	EBS

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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:05 TP27-1
ALS SAMPLE #: -29

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/23/2009	EBS

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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:00 TP27-GW
ALS SAMPLE #: -30

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/25/2009	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/25/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/25/2009	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 15:00 TP27-GW
ALS SAMPLE #: -30

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/25/2009	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/25/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/25/2009	GAP

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CLIENT SAMPLE ID: 6/19/2009 15:00 TP27-GW
ALS SAMPLE #: -30

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 8:55 TP28-2
ALS SAMPLE #: -31

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/23/2009	EBS
HCID-Diesel Range	NWTPH-HCID	>50	MG/KG	6/23/2009	EBS
HCID-Oil Range	NWTPH-HCID	>100	MG/KG	6/23/2009	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.03	MG/KG	6/25/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.03	MG/KG	6/25/2009	RAL
Acenaphthylene	EPA-8270 SIM	0.03	MG/KG	6/25/2009	RAL
Acenaphthene	EPA-8270 SIM	0.02	MG/KG	6/25/2009	RAL
Fluorene	EPA-8270 SIM	0.04	MG/KG	6/25/2009	RAL
Phenanthrene	EPA-8270 SIM	0.14	MG/KG	6/25/2009	RAL
Anthracene	EPA-8270 SIM	0.07	MG/KG	6/25/2009	RAL
Fluoranthene	EPA-8270 SIM	0.10	MG/KG	6/25/2009	RAL
Pyrene	EPA-8270 SIM	0.32	MG/KG	6/25/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0.05	MG/KG	6/25/2009	RAL
Chrysene	EPA-8270 SIM	0.21	MG/KG	6/25/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.06	MG/KG	6/25/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.03	MG/KG	6/25/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.02	MG/KG	6/25/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.04	MG/KG	6/25/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.02	MG/KG	6/25/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.05	MG/KG	6/25/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/25/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL

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CERTIFICATE OF ANALYSIS

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
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DATE RECEIVED: 6/22/2009
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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 8:55 TP28-2
ALS SAMPLE #: -31

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/25/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/25/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/25/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/25/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/25/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/25/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/25/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/25/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/25/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/25/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL

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CLIENT SAMPLE ID: 6/19/2009 8:55 TP28-2
ALS SAMPLE #: -31

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/25/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/25/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/25/2009	RAL
Fluoranthene	EPA-8270	100	UG/KG	6/25/2009	RAL
Pyrene	EPA-8270	620	UG/KG	6/25/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Chrysene	EPA-8270	200	UG/KG	6/25/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	490	UG/KG	6/25/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/25/2009	RAL
Arsenic	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	48	MG/KG	6/24/2009	BAM
Lead	EPA-6010	190	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	0.04	MG/KG	6/24/2009	BAM

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 8:55 TP28-2
ALS SAMPLE #: -31

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS DIESEL #1 OR SIMILAR PRODUCT, LUBE OIL AND LIGHT OIL OR SIMILAR PRODUCT .

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 9:20 TP28-2.5
ALS SAMPLE #: -32

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/24/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/24/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 9:20 TP28-2.5
ALS SAMPLE #: -32

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 9:20 TP28-2.5
ALS SAMPLE #: -32

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:45 TP29-1
ALS SAMPLE #: -34

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS
Arsenic	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	40	MG/KG	6/24/2009	BAM
Lead	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	0.04	MG/KG	6/24/2009	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 16:00 TP30-0.5
ALS SAMPLE #: -36

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	MG/KG	6/25/2009	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	6/24/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3&4-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 16:00 TP30-0.5
ALS SAMPLE #: -36

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	6/24/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 16:00 TP30-0.5
ALS SAMPLE #: -36

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	6/24/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	6/24/2009	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	6/24/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	6/24/2009	RAL
Arsenic	EPA-6010	ND(<5.0)	MG/KG	6/24/2009	BAM
Cadmium	EPA-6010	ND(<1.0)	MG/KG	6/24/2009	BAM
Chromium	EPA-6010	26	MG/KG	6/24/2009	BAM
Lead	EPA-6010	8.8	MG/KG	6/24/2009	BAM
Mercury	EPA-7471	0.02	MG/KG	6/24/2009	BAM

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DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

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** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 11:35 TP31-1.5
ALS SAMPLE #: -37

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 12:10 TP32-1.5
ALS SAMPLE #: -38

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Vinyl Chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acetone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Methylene chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acrylonitrile	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Butanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromodichloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Toluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 12:10 TP32-1.5
ALS SAMPLE #: -38

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Hexanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Tetrachloroethylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<5)	UG/KG	6/23/2009	GAP
Chlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Ethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
m,p-Xylene	EPA-8260	ND(<20)	UG/KG	6/23/2009	GAP
Styrene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
o-Xylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromoform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Isopropylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
T-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Butylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Naphthalene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

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CERTIFICATE OF ANALYSIS

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P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 12:10 TP32-1.5
ALS SAMPLE #: -38

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 13:25 TP33-1.5
ALS SAMPLE #: -39

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND(<100)	MG/KG	6/24/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Vinyl Chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichlorofluoromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acetone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,1-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Methylene chloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Acrylonitrile	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Butanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Chloroform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Carbon Tetrachloride	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trichloroethene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromomethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromodichloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
Toluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

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CLIENT SAMPLE ID: 6/19/2009 13:25 TP33-1.5
ALS SAMPLE #: -39

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Hexanone	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,3-Dichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Tetrachloroethylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Dibromochloromethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromoethane	EPA-8260	ND(<5)	UG/KG	6/23/2009	GAP
Chlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Ethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
m,p-Xylene	EPA-8260	ND(<20)	UG/KG	6/23/2009	GAP
Styrene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
o-Xylene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromoform	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Isopropylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Bromobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Propyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
2-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
4-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
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1,2,4-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
S-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
P-Isopropyltoluene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
N-Butylbenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<50)	UG/KG	6/23/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Hexachlorobutadiene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
Naphthalene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	6/23/2009	GAP

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ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 13:25 TP33-1.5
ALS SAMPLE #: -39

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS
CLIENT SAMPLE ID: 6/19/2009 14:20 TP34-1.5
ALS SAMPLE #: -40

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND(<20)	MG/KG	6/24/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND(<50)	MG/KG	6/24/2009	EBS
HCID-Oil Range	NWTPH-HCID	>100	MG/KG	6/24/2009	EBS

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LUBE OIL.

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CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0906124-01	NWTPH-HCID	BCB	79
0906124-01	NWTPH-HCID	C25	76
0906124-03	NWTPH-HCID	BCB	80
0906124-03	NWTPH-HCID	C25	79
0906124-03	EPA-8270 SIM	Terphenyl-d14	94
0906124-03	EPA-8270	2-Fluorophenol	94
0906124-03	EPA-8270	Phenol-d6	96
0906124-03	EPA-8270	Nitrobenzene-d5	99
0906124-03	EPA-8270	2-Fluorobiphenyl	81
0906124-03	EPA-8270	2,4,6-Tribromophenol	84
0906124-03	EPA-8270	Terphenyl-d14	81
0906124-04	NWTPH-HCID	BCB	81
0906124-04	NWTPH-HCID	C25	79
0906124-04	EPA-8270 SIM	Terphenyl-d14	90
0906124-04	EPA-8270	2-Fluorophenol	89
0906124-04	EPA-8270	Phenol-d6	86
0906124-04	EPA-8270	Nitrobenzene-d5	89
0906124-04	EPA-8270	2-Fluorobiphenyl	80
0906124-04	EPA-8270	2,4,6-Tribromophenol	81
0906124-04	EPA-8270	Terphenyl-d14	85
0906124-06	NWTPH-HCID	BCB	81
0906124-06	NWTPH-HCID	C25	80
0906124-06	EPA-8260	1,2-Dichloroethane-d4	100
0906124-06	EPA-8260	Toluene-d8	93
0906124-06	EPA-8260	4-Bromofluorobenzene	117
0906124-06	EPA-8270 SIM	Terphenyl-d14	77
0906124-06	EPA-8270	2-Fluorophenol	79
0906124-06	EPA-8270	Phenol-d6	74
0906124-06	EPA-8270	Nitrobenzene-d5	92
0906124-06	EPA-8270	2-Fluorobiphenyl	79
0906124-06	EPA-8270	2,4,6-Tribromophenol	86
0906124-06	EPA-8270	Terphenyl-d14	82
0906124-08	NWTPH-HCID	BCB	80
0906124-08	NWTPH-HCID	C25	81
0906124-08	EPA-8270 SIM	Terphenyl-d14	79
0906124-08	EPA-8270	2-Fluorophenol	80
0906124-08	EPA-8270	Phenol-d6	75
0906124-08	EPA-8270	Nitrobenzene-d5	92
0906124-08	EPA-8270	2-Fluorobiphenyl	81
0906124-08	EPA-8270	2,4,6-Tribromophenol	87
0906124-08	EPA-8270	Terphenyl-d14	89
0906124-09	EPA-8260	1,2-Dichloroethane-d4	105
0906124-09	EPA-8260	Toluene-d8	97
0906124-09	EPA-8260	4-Bromofluorobenzene	100
0906124-10	NWTPH-HCID	BCB	70
0906124-10	NWTPH-HCID	C25	70

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QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0906124-11	EPA-8260	1,2-Dichloroethane-d4	104
0906124-11	EPA-8260	Toluene-d8	97
0906124-11	EPA-8260	4-Bromofluorobenzene	98
0906124-12	NWTPH-HCID	BCB	82
0906124-12	NWTPH-HCID	C25	84
0906124-12	EPA-8260	1,2-Dichloroethane-d4	108
0906124-12	EPA-8260	Toluene-d8	85
0906124-12	EPA-8260	4-Bromofluorobenzene	107
0906124-14	NWTPH-HCID	BCB	83
0906124-14	NWTPH-HCID	C25	81
0906124-15	EPA-8260	1,2-Dichloroethane-d4	107
0906124-15	EPA-8260	Toluene-d8	96
0906124-15	EPA-8260	4-Bromofluorobenzene	101
0906124-16	NWTPH-HCID	BCB	83
0906124-16	NWTPH-HCID	C25	80
0906124-18	NWTPH-HCID	BCB	80
0906124-18	NWTPH-HCID	C25	78
0906124-19	NWTPH-HCID	BCB	75
0906124-19	NWTPH-HCID	C25	*
0906124-22	NWTPH-HCID	BCB	78
0906124-22	NWTPH-HCID	C25	77
0906124-23	NWTPH-HCID	BCB	79
0906124-23	NWTPH-HCID	C25	77
0906124-25	NWTPH-HCID	BCB	80
0906124-25	NWTPH-HCID	C25	78
0906124-25	EPA-8270 SIM	Terphenyl-d14	81
0906124-25	EPA-8270	2-Fluorophenol	80
0906124-25	EPA-8270	Phenol-d6	80
0906124-25	EPA-8270	Nitrobenzene-d5	96
0906124-25	EPA-8270	2-Fluorobiphenyl	82
0906124-25	EPA-8270	2,4,6-Tribromophenol	87
0906124-25	EPA-8270	Terphenyl-d14	90
0906124-27	NWTPH-HCID	BCB	83
0906124-27	NWTPH-HCID	C25	85
0906124-28	NWTPH-HCID	BCB	66
0906124-28	NWTPH-HCID	C25	98
0906124-28	NWTPH-HCID	C25 (Concentrate)	70
0906124-29	NWTPH-HCID	BCB	79
0906124-29	NWTPH-HCID	C25	82
0906124-30	EPA-8260	1,2-Dichloroethane-d4	106
0906124-30	EPA-8260	Toluene-d8	96
0906124-30	EPA-8260	4-Bromofluorobenzene	97
0906124-31	NWTPH-HCID	BCB	78
0906124-31	NWTPH-HCID	C25	*

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SURROGATE RECOVERY

CCIL SAMPLE ID		METHOD	SUR ID	% RECV
0906124-31		EPA-8270 SIM	Terphenyl-d14	93
0906124-31		EPA-8270	2-Fluorophenol	126**
0906124-31		EPA-8270	Phenol-d6	127
0906124-31		EPA-8270	Nitrobenzene-d5	126
0906124-31		EPA-8270	2-Fluorobiphenyl	117
0906124-31		EPA-8270	2,4,6-Tribromophenol	168**
0906124-31		EPA-8270	Terphenyl-d14	188**
0906124-31	DILUTION	EPA-8270	2-Fluorophenol	102
0906124-31	DILUTION	EPA-8270	Phenol-d6	100
0906124-31	DILUTION	EPA-8270	Nitrobenzene-d5	97
0906124-31	DILUTION	EPA-8270	2-Fluorobiphenyl	104
0906124-31	DILUTION	EPA-8270	2,4,6-Tribromophenol	128
0906124-31	DILUTION	EPA-8270	Terphenyl-d14	140**
0906124-32		NWTPH-HCID	BCB	79
0906124-32		NWTPH-HCID	C25	79
0906124-32		EPA-8270 SIM	Terphenyl-d14	90
0906124-32		EPA-8270	2-Fluorophenol	81
0906124-32		EPA-8270	Phenol-d6	74
0906124-32		EPA-8270	Nitrobenzene-d5	98
0906124-32		EPA-8270	2-Fluorobiphenyl	86
0906124-32		EPA-8270	2,4,6-Tribromophenol	81
0906124-32		EPA-8270	Terphenyl-d14	96
0906124-34		NWTPH-HCID	BCB	83
0906124-34		NWTPH-HCID	C25	85
0906124-36		NWTPH-HCID	BCB	80
0906124-36		NWTPH-HCID	C25	79
0906124-36		EPA-8270 SIM	Terphenyl-d14	91
0906124-36		EPA-8270	2-Fluorophenol	87
0906124-36		EPA-8270	Phenol-d6	85
0906124-36		EPA-8270	Nitrobenzene-d5	94
0906124-36		EPA-8270	2-Fluorobiphenyl	90
0906124-36		EPA-8270	2,4,6-Tribromophenol	97
0906124-36		EPA-8270	Terphenyl-d14	101
0906124-37		NWTPH-HCID	BCB	81
0906124-37		NWTPH-HCID	C25	80
0906124-38		NWTPH-HCID	BCB	82
0906124-38		NWTPH-HCID	C25	83
0906124-38		EPA-8260	1,2-Dichloroethane-d4	113
0906124-38		EPA-8260	Toluene-d8	87
0906124-38		EPA-8260	4-Bromofluorobenzene	101
0906124-39		NWTPH-HCID	BCB	95
0906124-39		NWTPH-HCID	C25	97
0906124-39		EPA-8260	1,2-Dichloroethane-d4	117
0906124-39		EPA-8260	Toluene-d8	87
0906124-39		EPA-8260	4-Bromofluorobenzene	105
0906124-40		NWTPH-HCID	BCB	102

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QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0906124-40	NWTPH-HCID	C25	102

* SURROGATE HIGH DUE TO COELUTING COMPOUNDS.

** SURROGATE HIGH DUE TO MATRIX INTERFERENCE WITH INTERNAL STANDARDS.

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QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
NWTPH-HCID	Soil	HS060169	0906124-37 to 40	HCID-Gas Range	ND(<20)	MG/KG
NWTPH-HCID	Soil	HS060169	0906124-37 to 40	HCID-Diesel Range	ND(<50)	MG/KG
NWTPH-HCID	Soil	HS060169	0906124-37 to 40	HCID-Oil Range	ND(<100)	MG/KG
NWTPH-HCID	Soil	HS060239	0906124-01 to 36	HCID-Gas Range	ND(<20)	MG/KG
NWTPH-HCID	Soil	HS060239	0906124-01 to 36	HCID-Diesel Range	ND(<50)	MG/KG
NWTPH-HCID	Soil	HS060239	0906124-01 to 36	HCID-Oil Range	ND(<100)	MG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Dichlorodifluoromethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Chloromethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Vinyl Chloride	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Bromomethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Chloroethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Trichlorofluoromethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Acetone	ND(<50)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1-Dichloroethene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Methylene chloride	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Acrylonitrile	ND(<50)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Methyl T-Butyl Ether	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Trans-1,2-Dichloroethene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1-Dichloroethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	2-Butanone	ND(<50)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Cis-1,2-Dichloroethene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	2,2-Dichloropropane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Bromochloromethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Chloroform	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1,1-Trichloroethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1-Dichloropropene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Carbon Tetrachloride	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2-Dichloroethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Benzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Trichloroethene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2-Dichloropropane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Dibromomethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Bromodichloromethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Trans-1,3-Dichloropropene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	4-Methyl-2-Pentanone	ND(<50)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Toluene	ND(<10)	UG/KG

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QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
EPA-8260	Soil	VS061909	0906124-06 to 39	Cis-1,3-Dichloropropene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1,2-Trichloroethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	2-Hexanone	ND(<50)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,3-Dichloropropane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Tetrachloroethylene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Dibromochloromethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2-Dibromoethane	ND(<5)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Chlorobenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1,1,2-Tetrachloroethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Ethylbenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	m,p-Xylene	ND(<20)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Styrene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	o-Xylene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Bromoform	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Isopropylbenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1,2,2-Tetrachloroethane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2,3-Trichloropropane	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Bromobenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	N-Propyl Benzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	2-Chlorotoluene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,3,5-Trimethylbenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	4-Chlorotoluene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	T-Butyl Benzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2,4-Trimethylbenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	S-Butyl Benzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	P-Isopropyltoluene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,3 Dichlorobenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,4-Dichlorobenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	N-Butylbenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2-Dichlorobenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2-Dibromo 3-Chloropropane	ND(<50)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2,4-Trichlorobenzene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Hexachlorobutadiene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	Naphthalene	ND(<10)	UG/KG
EPA-8260	Soil	VS061909	0906124-06 to 39	1,2,3-Trichlorobenzene	ND(<10)	UG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Naphthalene	ND(<0.02)	MG/KG

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QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	1-Methylnaphthalene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	2-Methylnaphthalene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Acenaphthylene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Acenaphthene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Fluorene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Phenanthrene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Anthracene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Fluoranthene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Pyrene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Benzo[A]Anthracene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Chrysene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Benzo[B]Fluoranthene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Benzo[K]Fluoranthene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Benzo(A)Pyrene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Indeno[1,2,3-Cd]Pyrene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Dibenz[A,H]Anthracene	ND(<0.02)	MG/KG
EPA-8270 SIM	Soil	SVS062409	0906124-03 to 36	Benzo[G,H,I]Perylene	ND(<0.02)	MG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Pyridine	ND(<200)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	N-Nitrosodimethylamine	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Phenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Aniline	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Bis(2-Chloroethyl)Ether	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2-Chlorophenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	1,3-Dichlorobenzene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	1,4-Dichlorobenzene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Benzyl Alcohol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	1,2-Dichlorobenzene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2-Methylphenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Bis(2-Chloroisopropyl)Ether	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	3&4-Methylphenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	N-Nitroso-Di-N-Propylamine	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Hexachloroethane	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Nitrobenzene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Isophorone	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2-Nitrophenol	ND(<250)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,4-Dimethylphenol	ND(<100)	UG/KG

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BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
EPA-8270	Soil	SVS062409	0906124-03 to 36	Benzoic Acid	ND(<1000)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Bis(2-Chloroethoxy)Methane	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,4-Dichlorophenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	1,2,4-Trichlorobenzene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Naphthalene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Chloroaniline	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,6-Dichlorophenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Hexachlorobutadiene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Chloro-3-Methylphenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2-Methylnaphthalene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	1-Methylnaphthalene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Hexachlorocyclopentadiene	ND(<500)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,4,6-Trichlorophenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,4,5-Trichlorophenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2-Chloronaphthalene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2-Nitroaniline	ND(<250)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Acenaphthylene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Dimethylphthalate	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,6-Dinitrotoluene	ND(<250)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Acenaphthene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	3-Nitroaniline	ND(<250)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,4-Dinitrophenol	ND(<500)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Nitrophenol	ND(<500)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Dibenzofuran	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,4-Dinitrotoluene	ND(<250)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,3,4,6-Tetrachlorophenol	ND(<250)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Diethylphthalate	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Fluorene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Chlorophenyl-Phenylether	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Nitroaniline	ND(<250)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	4,6-Dinitro-2-Methylphenol	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	N-Nitrosodiphenylamine	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Azobenzene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Bromophenyl-Phenylether	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Hexachlorobenzene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Pentachlorophenol	ND(<500)	UG/KG

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QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
EPA-8270	Soil	SVS062409	0906124-03 to 36	Phenanthrene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Anthracene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Carbazole	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Di-N-Butylphthalate	ND(<130)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Fluoranthene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Pyrene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Butylbenzylphthalate	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	3,3'-Dichlorobenzidine	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Benzo[A]Anthracene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Chrysene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Bis(2-Ethylhexyl)Phthalate	ND(<130)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Di-N-Octylphthalate	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Benzo[B]Fluoranthene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Benzo[K]Fluoranthene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Benzo[A]Pyrene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Indeno[1,2,3-Cd]Pyrene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Dibenz[A,H]Anthracene	ND(<100)	UG/KG
EPA-8270	Soil	SVS062409	0906124-03 to 36	Benzo[G,H,I]Perylene	ND(<100)	UG/KG
EPA-7471	Soil	HGS062409-1	0906124-06 to 36	Mercury	ND(<0.02)	MG/KG
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Arsenic	ND(<5.0)	MG/KG
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Cadmium	ND(<1.0)	MG/KG
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Chromium	ND(<1.0)	MG/KG
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Lead	ND(<5.0)	MG/KG
NWTPH-HCID	Water	HW062309	0906124-28	HCID-Gas Range	ND(<130)	UG/L
NWTPH-HCID	Water	HW062309	0906124-28	HCID-Diesel Range	ND(<310)	UG/L
NWTPH-HCID	Water	HW062309	0906124-28	HCID-Oil Range	ND(<310)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Dichlorodifluoromethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Chloromethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Vinyl Chloride	ND(<0.2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Bromomethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Chloroethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Trichlorofluoromethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Acetone	ND(<25)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1-Dichloroethene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Methylene Chloride	ND(<5)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Acrylonitrile	ND(<10)	UG/L

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CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
EPA-8260	Water	VW062209	0906124-9,11,15,30	Methyl T-Butyl Ether	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Trans-1,2-Dichloroethene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1-Dichloroethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	2-Butanone	ND(<10)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Cis-1,2-Dichloroethene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	2,2-Dichloropropane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Bromochloromethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Chloroform	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1,1-Trichloroethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1-Dichloropropene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Carbon Tetrachloride	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2-Dichloroethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Benzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Trichloroethene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2-Dichloropropane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Dibromomethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Bromodichloromethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Trans-1,3-Dichloropropene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	4-Methyl-2-Pentanone	ND(<10)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Toluene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Cis-1,3-Dichloropropene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1,2-Trichloroethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	2-Hexanone	ND(<10)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,3-Dichloropropane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Tetrachloroethylene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Dibromochloromethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2-Dibromoethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Chlorobenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1,1,2-Tetrachloroethane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Ethylbenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	m,p-Xylene	ND(<4)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Styrene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	o-Xylene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Bromoform	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Isopropylbenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1,2,2-Tetrachloroethane	ND(<2)	UG/L

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QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2,3-Trichloropropane	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Bromobenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	N-Propyl Benzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	2-Chlorotoluene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,3,5-Trimethylbenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	4-Chlorotoluene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	T-Butyl Benzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2,4-Trimethylbenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	S-Butyl Benzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	P-Isopropyltoluene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,3 Dichlorobenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,4-Dichlorobenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	N-Butylbenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2-Dichlorobenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2-Dibromo 3-Chloropropane	ND(<10)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2,4-Trichlorobenzene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Hexachlorobutadiene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	Naphthalene	ND(<2)	UG/L
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,2,3-Trichlorobenzene	ND(<2)	UG/L

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QUALITY CONTROL RESULTS

DUPLICATE RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	DUP RESULT	RPD
NWTPH-HCID	Soil	HS060169	0906124-37 to 40	HCID-Gas Range	<20	<20	0
NWTPH-HCID	Soil	HS060169	0906124-37 to 40	HCID-Diesel Range	<50	<50	0
NWTPH-HCID	Soil	HS060169	0906124-37 to 40	HCID-Oil Range	<100	<100	0
NWTPH-HCID	Soil	HS060239	0906124-01 to 36	HCID-Gas Range	<50	<50	0
NWTPH-HCID	Soil	HS060239	0906124-37 to 40	HCID-Gas Range	<20	<20	0
NWTPH-HCID	Soil	HS060239	0906124-01 to 36	HCID-Diesel Range	<100	<100	0

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CERTIFICATE OF ANALYSIS

CLIENT: CAMP DRESSER & MCKEE, INC.
P.O. BOX 3885
BELLEVUE, WA 98009-3885

DATE: 7/1/2009
ALS JOB #: 0906124
DATE RECEIVED: 6/22/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: PAM MORRILL
CLIENT PROJECT ID: SNOHOMISH COUNTY SHOPS

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

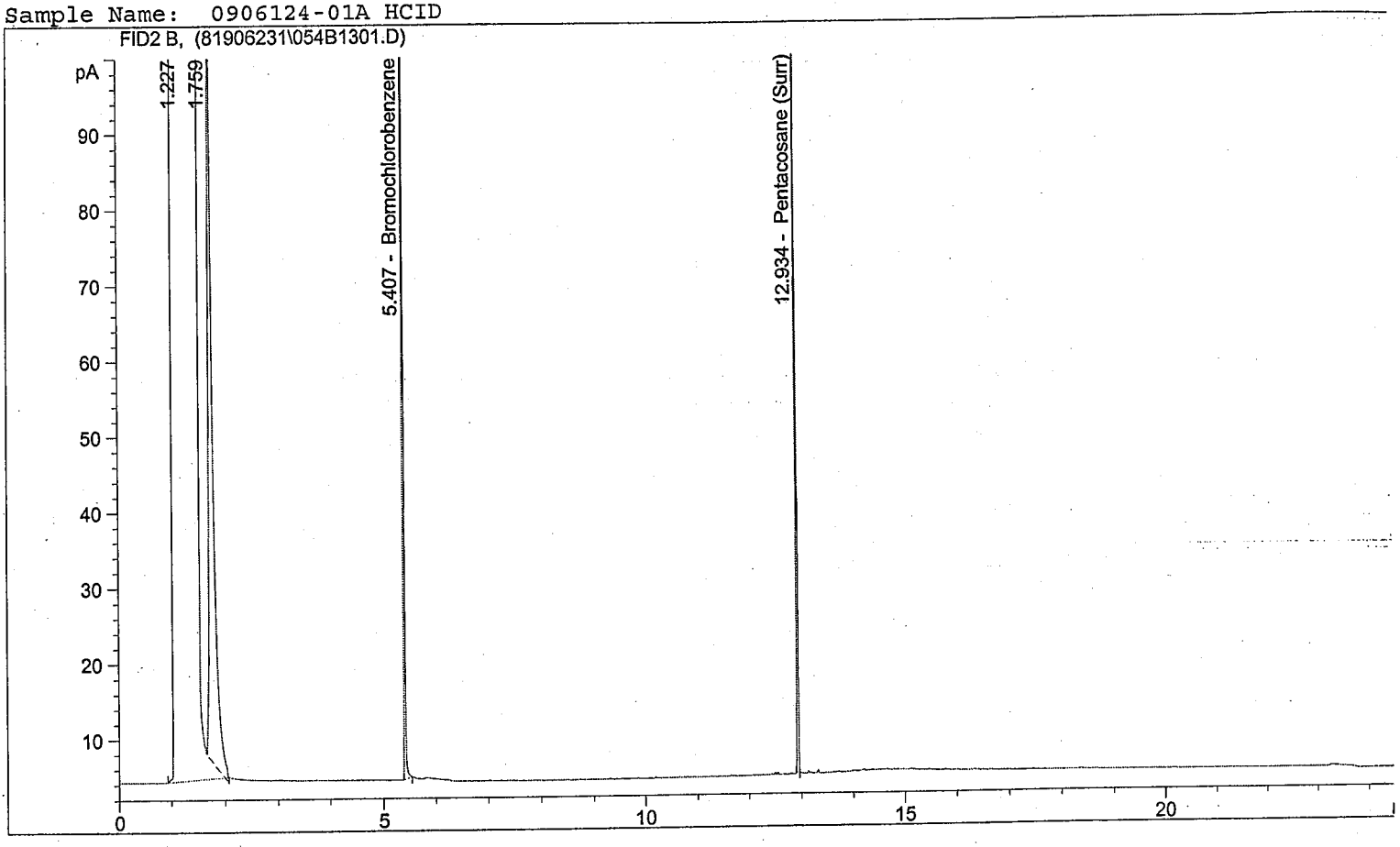
METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	BLANK SPIKE RECOVERY	BLANK SPIKE DUP RECOVERY	RPD
EPA-8260	Soil	VS061909	0906124-06 to 39	1,1-Dichloroethene	98 %	105 %	7
EPA-8260	Soil	VS061909	0906124-06 to 39	Benzene	94 %	99 %	5
EPA-8260	Soil	VS061909	0906124-06 to 39	Trichloroethene	108 %	111 %	3
EPA-8260	Soil	VS061909	0906124-06 to 39	Toluene	107 %	115 %	7
EPA-8260	Soil	VS061909	0906124-06 to 39	Chlorobenzene	99 %	97 %	1
EPA-8270	Soil	SVS062409	0906124-03 to 36	Phenol	79 %	84 %	5
EPA-8270	Soil	SVS062409	0906124-03 to 36	2-Chlorophenol	71 %	76 %	8
EPA-8270	Soil	SVS062409	0906124-03 to 36	1,4-Dichlorobenzene	75 %	82 %	9
EPA-8270	Soil	SVS062409	0906124-03 to 36	N-Nitroso-Di-N-Propylamine	77 %	76 %	2
EPA-8270	Soil	SVS062409	0906124-03 to 36	1,2,4-Trichlorobenzene	77 %	80 %	5
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Chloro-3-Methylphenol	81 %	82 %	2
EPA-8270	Soil	SVS062409	0906124-03 to 36	Acenaphthene	60 %	61 %	0
EPA-8270	Soil	SVS062409	0906124-03 to 36	4-Nitrophenol	75 %	66 %	12
EPA-8270	Soil	SVS062409	0906124-03 to 36	2,4-Dinitrotoluene	85 %	80 %	6
EPA-8270	Soil	SVS062409	0906124-03 to 36	Pentachlorophenol	74 %	79 %	8
EPA-8270	Soil	SVS062409	0906124-03 to 36	Pyrene	100 %	85 %	10
EPA-7471	Soil	HGS062409-1	0906124-06 to 36	Mercury	100 %	103 %	3
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Arsenic	106 %	107 %	1
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Cadmium	100 %	101 %	1
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Chromium	102 %	102 %	0
EPA-6010	Soil	ICPS062409-2	0906124-06 to 36	Lead	100 %	100 %	0
EPA-8260	Water	VW062209	0906124-9,11,15,30	1,1-Dichloroethene	106 %	105 %	1
EPA-8260	Water	VW062209	0906124-9,11,15,30	Benzene	101 %	102 %	1
EPA-8260	Water	VW062209	0906124-9,11,15,30	Trichloroethene	101 %	102 %	1
EPA-8260	Water	VW062209	0906124-9,11,15,30	Toluene	103 %	101 %	1
EPA-8260	Water	VW062209	0906124-9,11,15,30	Chlorobenzene	105 %	102 %	3

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\054B1301.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 6:54:57 PM 6/23/2009 6:54:57 PM
Report Creation: 6/24/2009 10:16:16 AM

Sample Name: 0906124-01A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	325.888	39.386	79%
12.934		Pentacosane (Surr)	153.939	7.627	76%

G < 20 mg/kg

D < 50 mg/kg

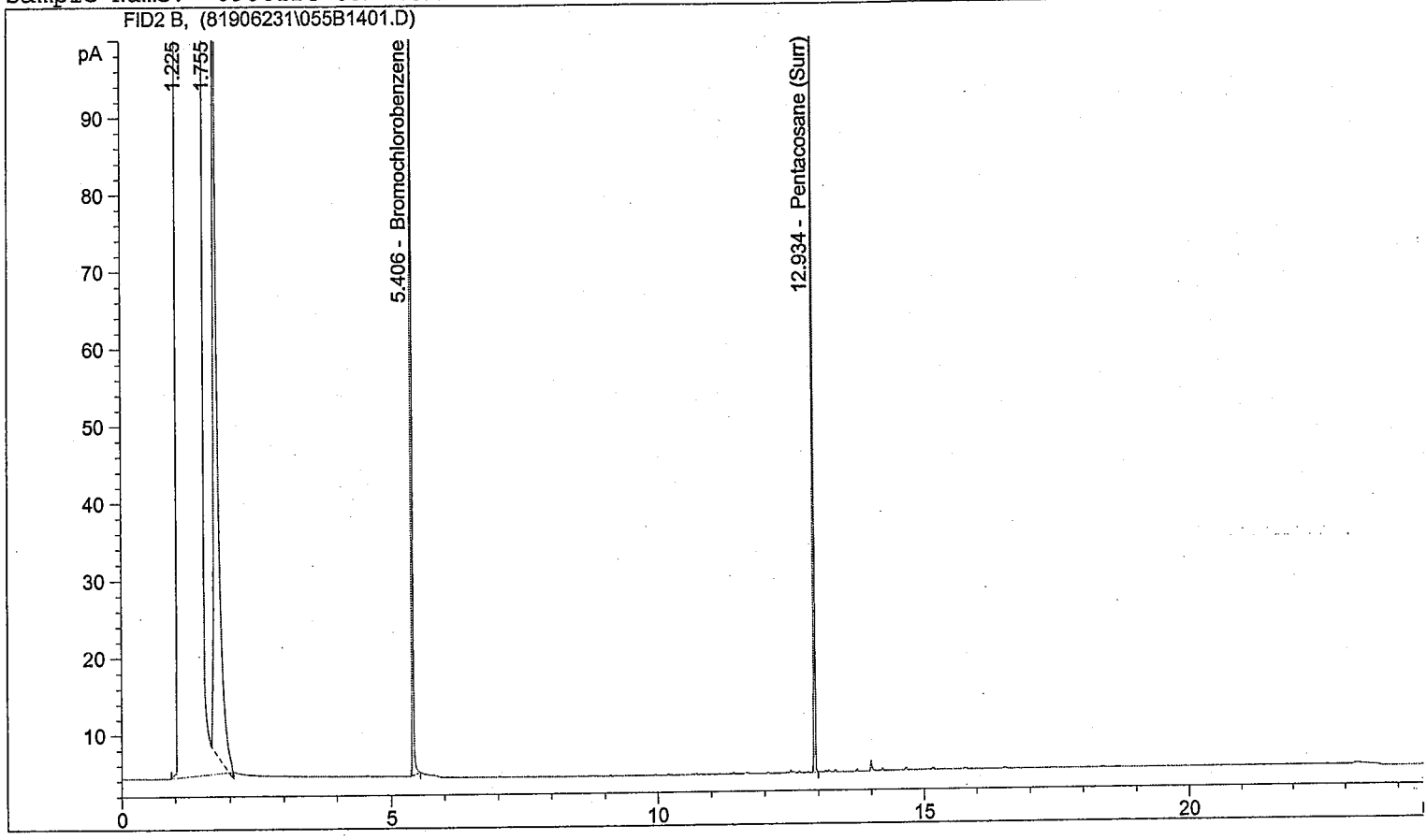
O < 100 mg/kg

REVIEWED BY & DATE 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\055B1401.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 7:29:54 PM 6/23/2009 7:29:54 PM
Report Creation: 6/24/2009 10:16:37 AM

Sample Name: 0906124-03A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.406	FID2 B,	Bromochlorobenzene	330.289	39.918	80%
12.934		Pentacosane (Surr)	158.998	7.877	79%

C < 20 mg/kg

D < 50 mg/kg

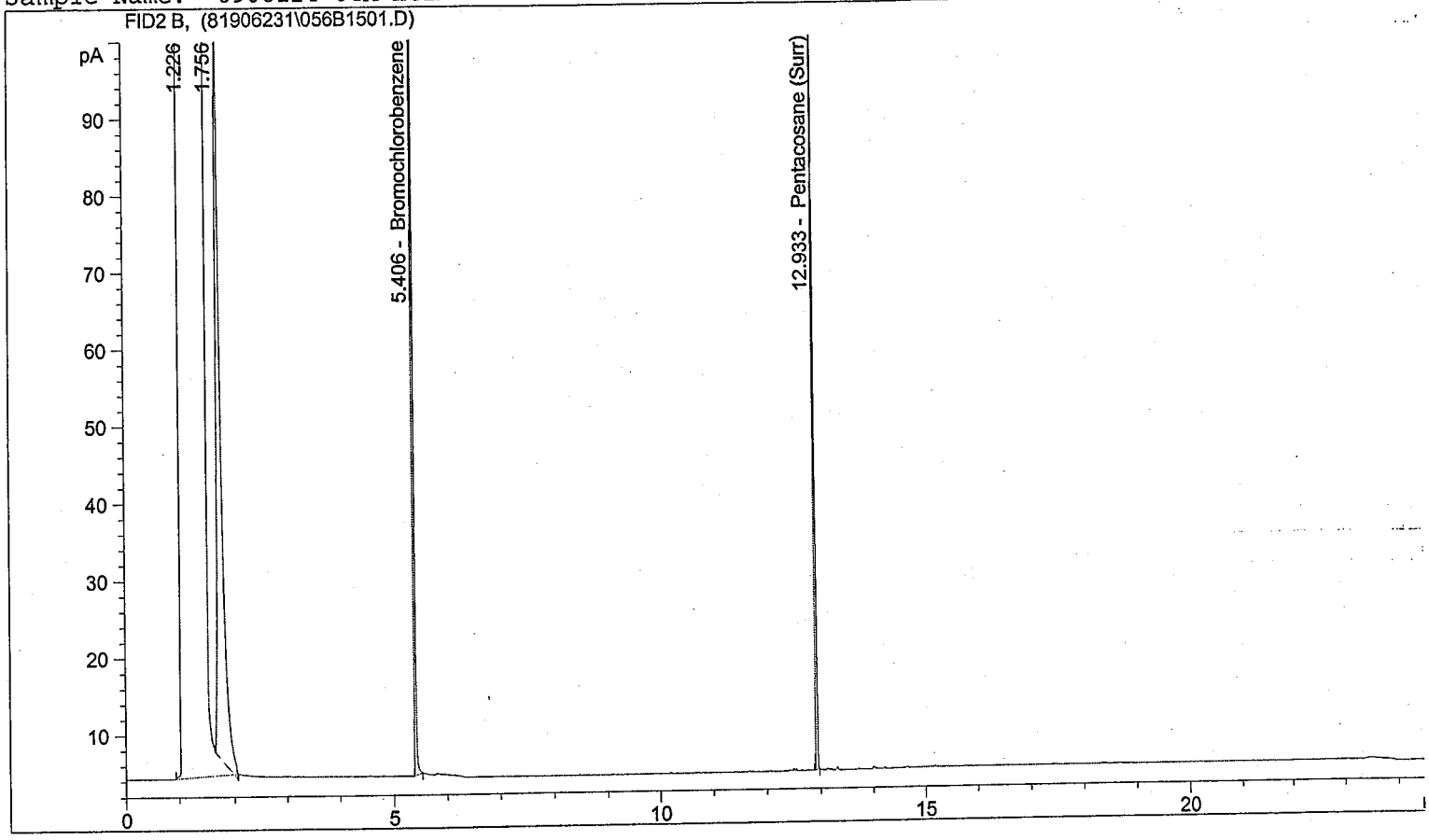
O < 100 mg/kg

REVIEWED BY & DATE MB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\056B1501.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 8:04:41 PM 6/23/2009 8:04:41 PM
Report Creation: 6/24/2009 10:16:55 AM

Sample Name: 0906124-04A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.406	FID2 B,	Bromochlorobenzene	334.001	40.367	81%
12.933		Pentacosane (Surr)	159.495	7.902	79%

G < 20 mg/kg

D < 50 mg/kg

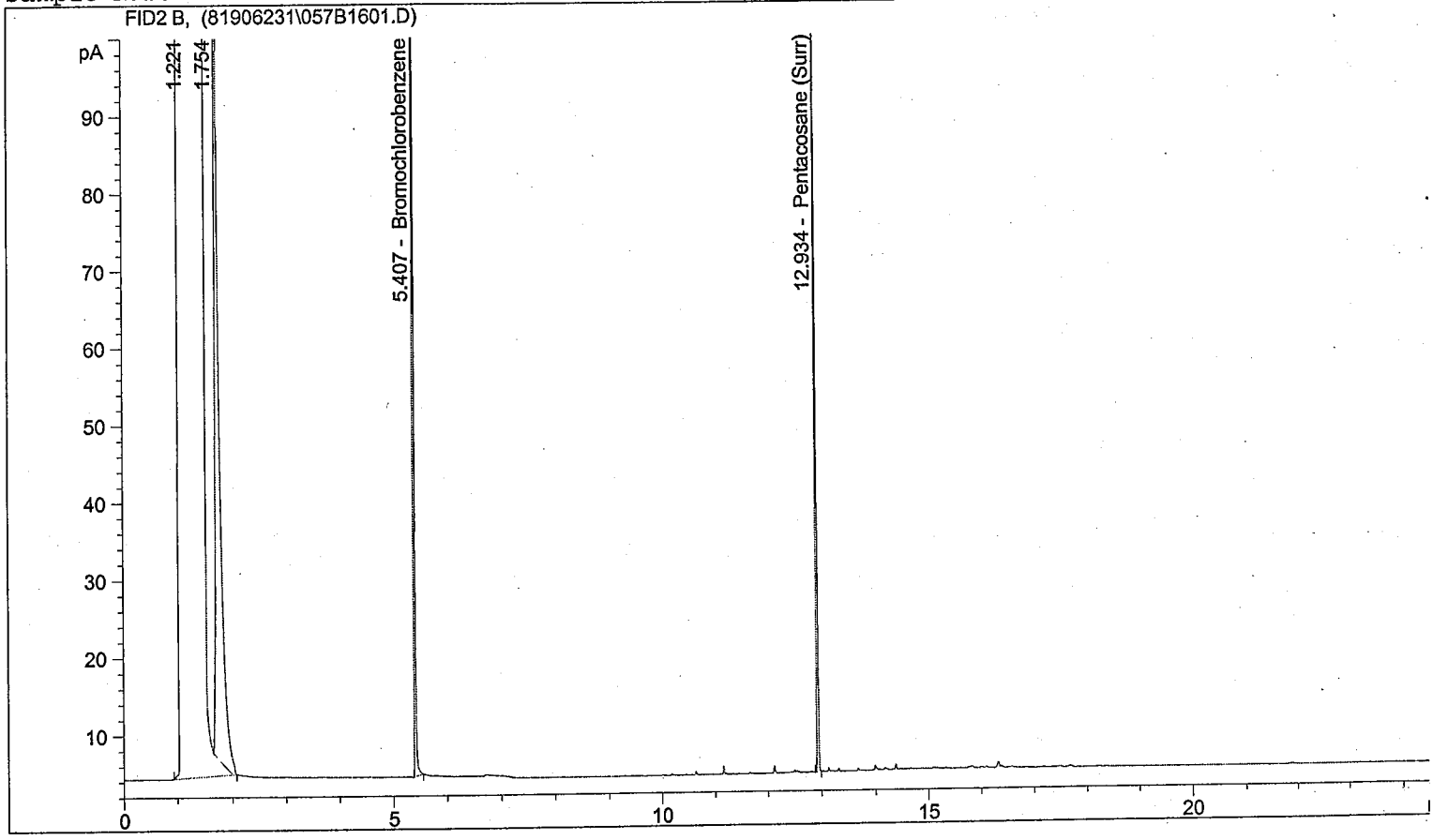
O < 100 mg/kg

REVIEWED BY & DATE MB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\057B1601.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 8:39:09 PM 6/23/2009 8:39:09 PM
Report Creation: 6/24/2009 10:17:15 AM

Sample Name: 0906124-06A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	334.779	40.461	81 %
12.934		Pentacosane (Surr)	160.656	7.960	80 %

G < 20 mg/kg

D < 50 mg/kg

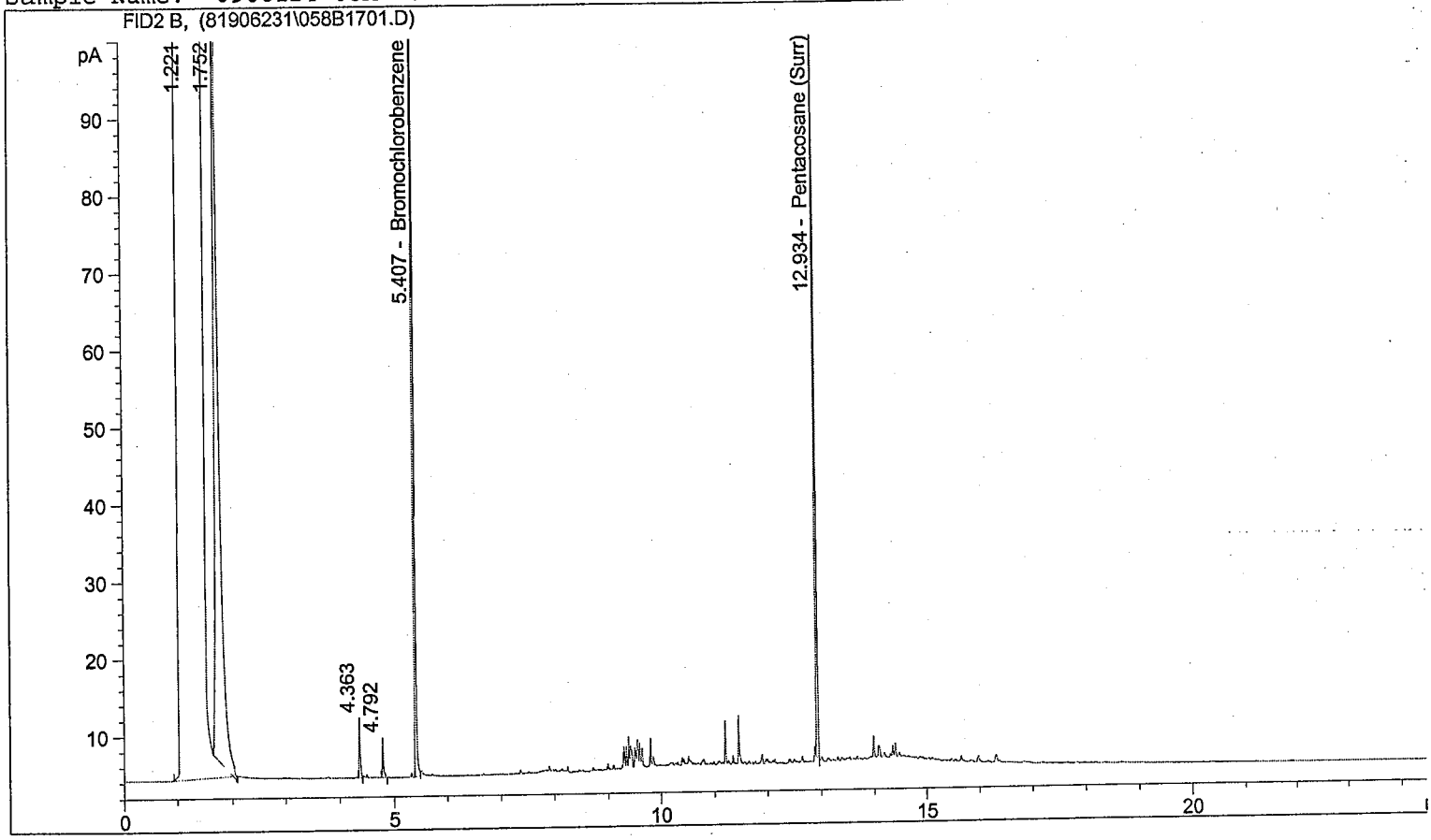
O < 100 mg/kg

REVIEWED BY & DATE JB 6/25/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\058B1701.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 9:13:32 PM 6/23/2009 9:13:32 PM
Report Creation: 6/24/2009 10:17:36 AM

Sample Name: 0906124-08A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	332.779	40.219	80%
12.934		Pentacosane (Surr)	163.130	8.082	81%

G < 20 mg/kg

D < 50 mg/kg

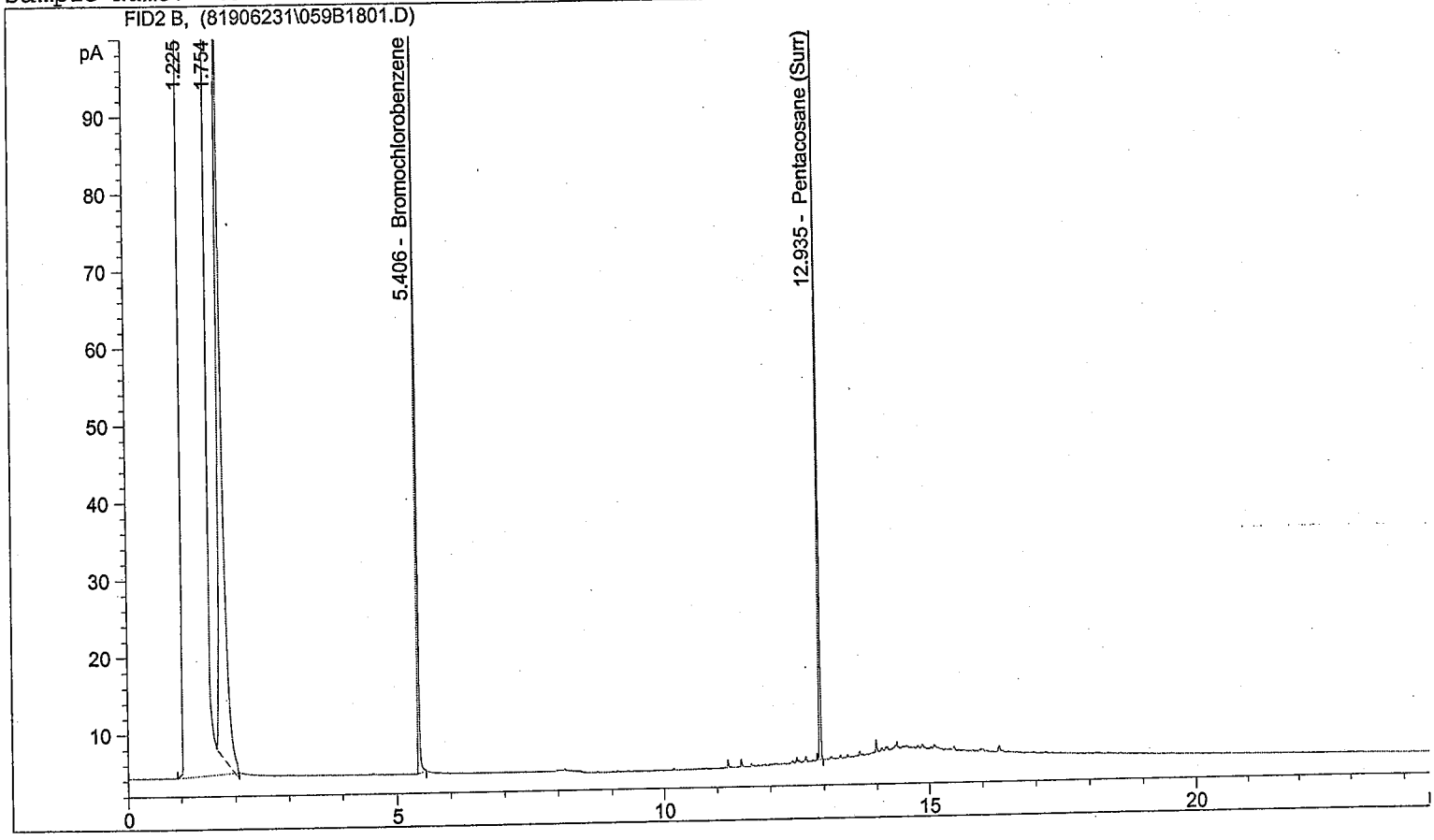
O < 100 mg/kg

REVIEWED BY & DATE MB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\059B1801.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 9:47:56 PM 6/23/2009 9:47:56 PM
Report Creation: 6/24/2009 10:17:58 AM

Sample Name: 0906124-10A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.406	FID2 B,	Bromochlorobenzene	290.507	35.110	70%
12.935		Pentacosane (Surr)	140.804	6.976	~~90~~ 70% ES

G <20 mg/kg

D <50 mg/kg

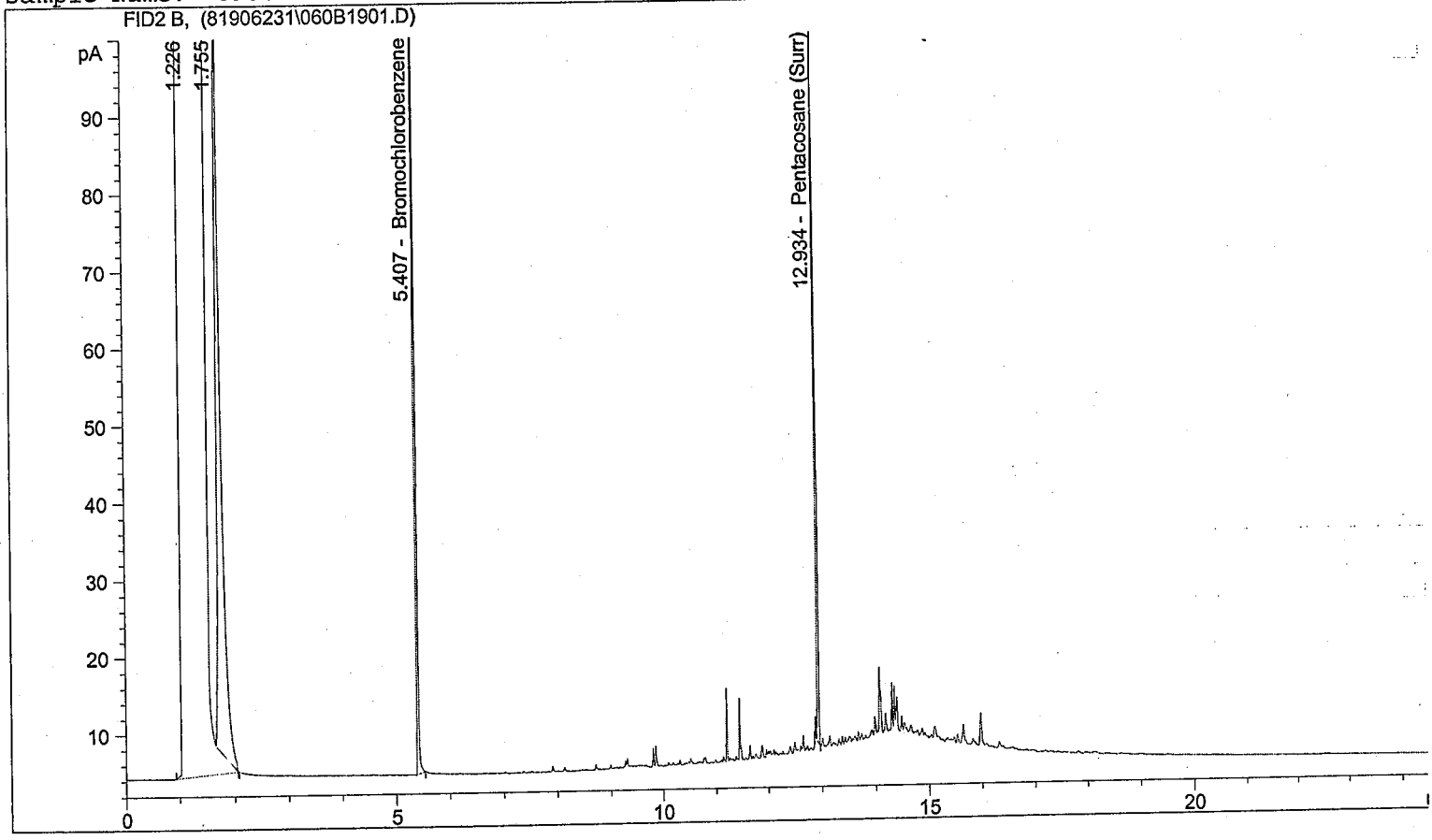
O <100 mg/kg

REVIEWED BY & DATE MB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\060B1901.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 10:22:18 PM 6/23/2009 10:22:18 PM
Report Creation: 6/24/2009 10:18:15 AM

Sample Name: 0906124-12A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	338.186	40.872	82%
12.934		Pentacosane (Surr)	170.297	8.437	84%

G < 20 mg/kg

D < 50 mg/kg

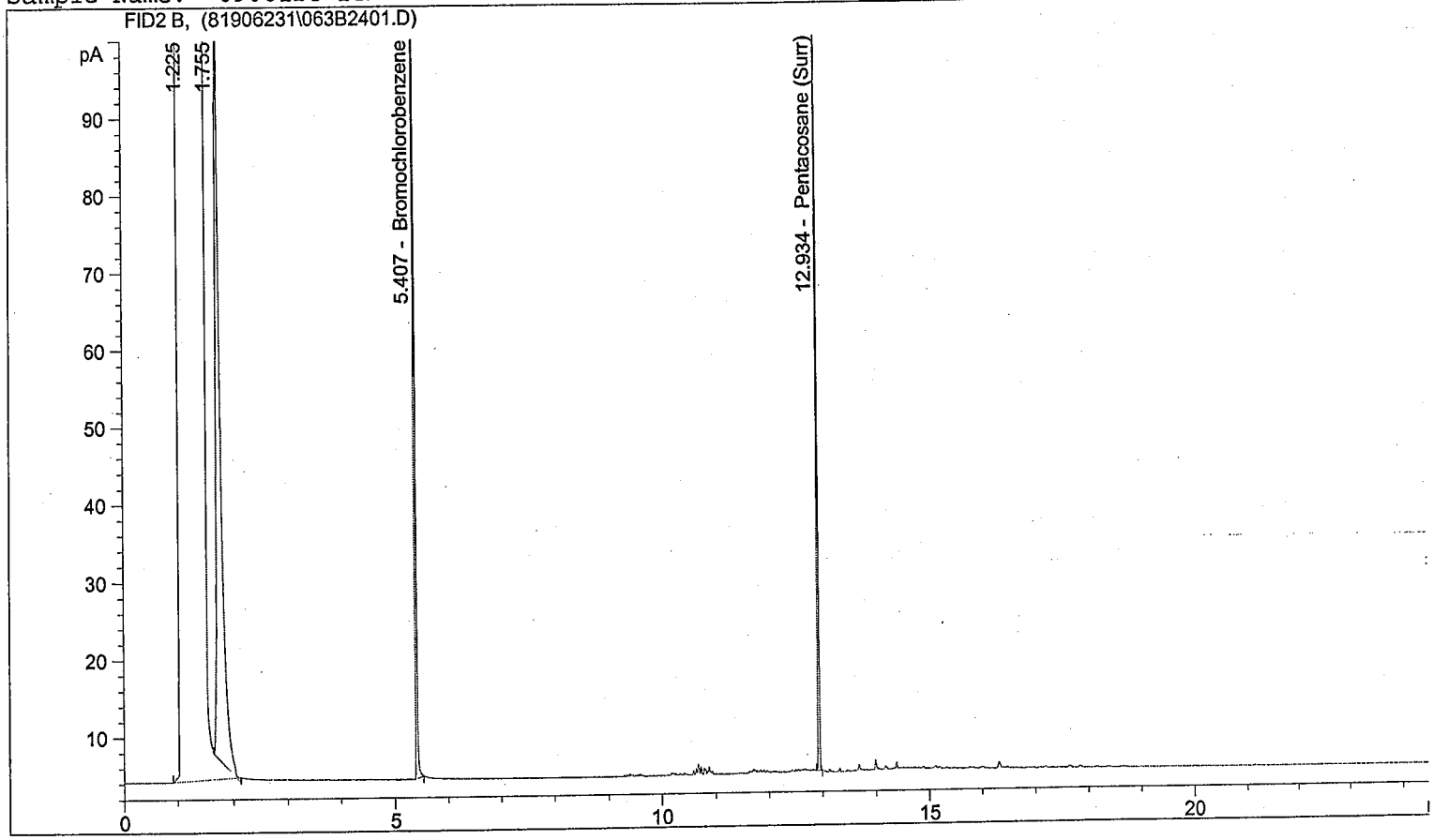
O < 100 mg/kg

REVIEWED BY & DATE NB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\063B2401.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/24/2009 1:14:10 AM 6/24/2009 1:14:10 AM
Report Creation: 6/24/2009 10:20:22 AM

Sample Name: 0906124-14A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	341.777	41.306	83%
12.934		Pentacosane (Surr)	162.533	8.053	81%

G < 20 mg/kg

D < 50 mg/kg

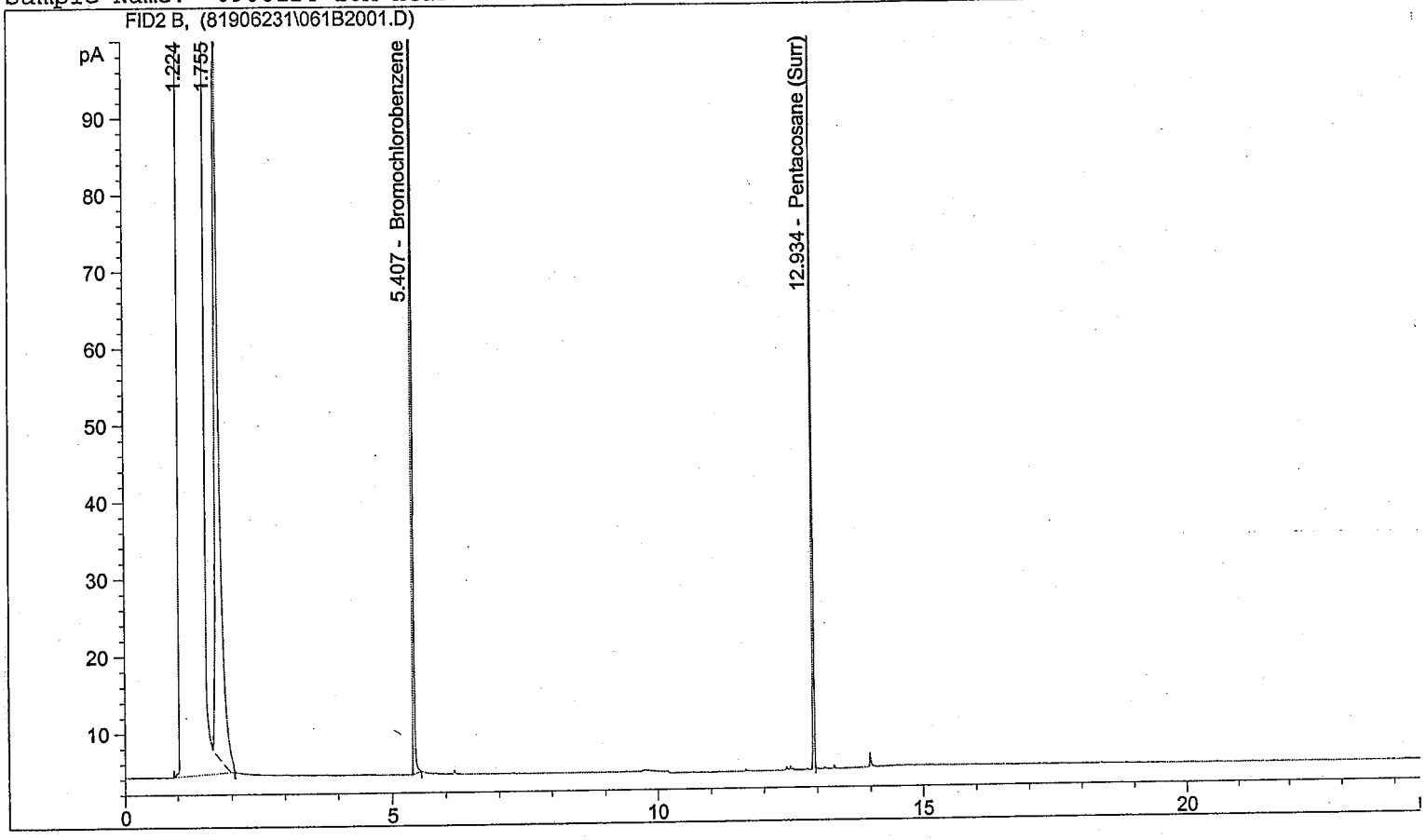
O < 100 mg/kg

REVIEWED BY & DATE TB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\061B2001.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/23/2009 10:56:43 PM 6/23/2009 10:56:43 PM
Report Creation: 6/24/2009 10:18:49 AM

Sample Name: 0906124-16A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	341.509	41.274	83%
12.934		Pentacosane (Surr)	161.616	8.007	80%

G < 20 mg/kg

D < 50 mg/kg

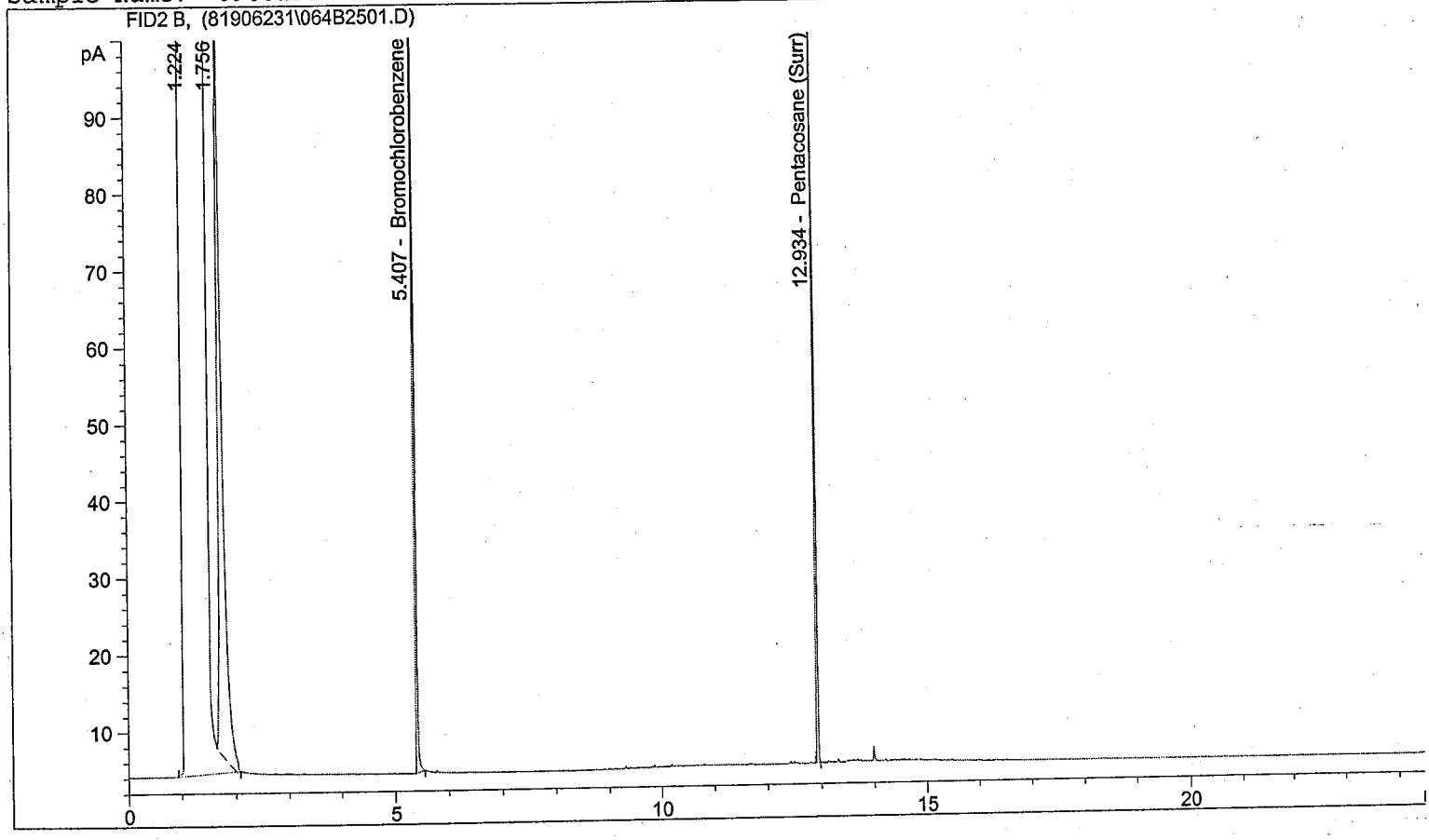
O < 100 mg/kg

REVIEWED BY & DATE 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\064B2501.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/24/2009 1:48:25 AM 6/24/2009 1:48:25 AM
Report Creation: 6/24/2009 10:20:41 AM

Sample Name: 0906124-18A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	329.092	39.773	80 %
12.934		Pentacosane (Surr)	157.156	7.786	78 %

G < 20 mg/kg

D < 50 mg/kg

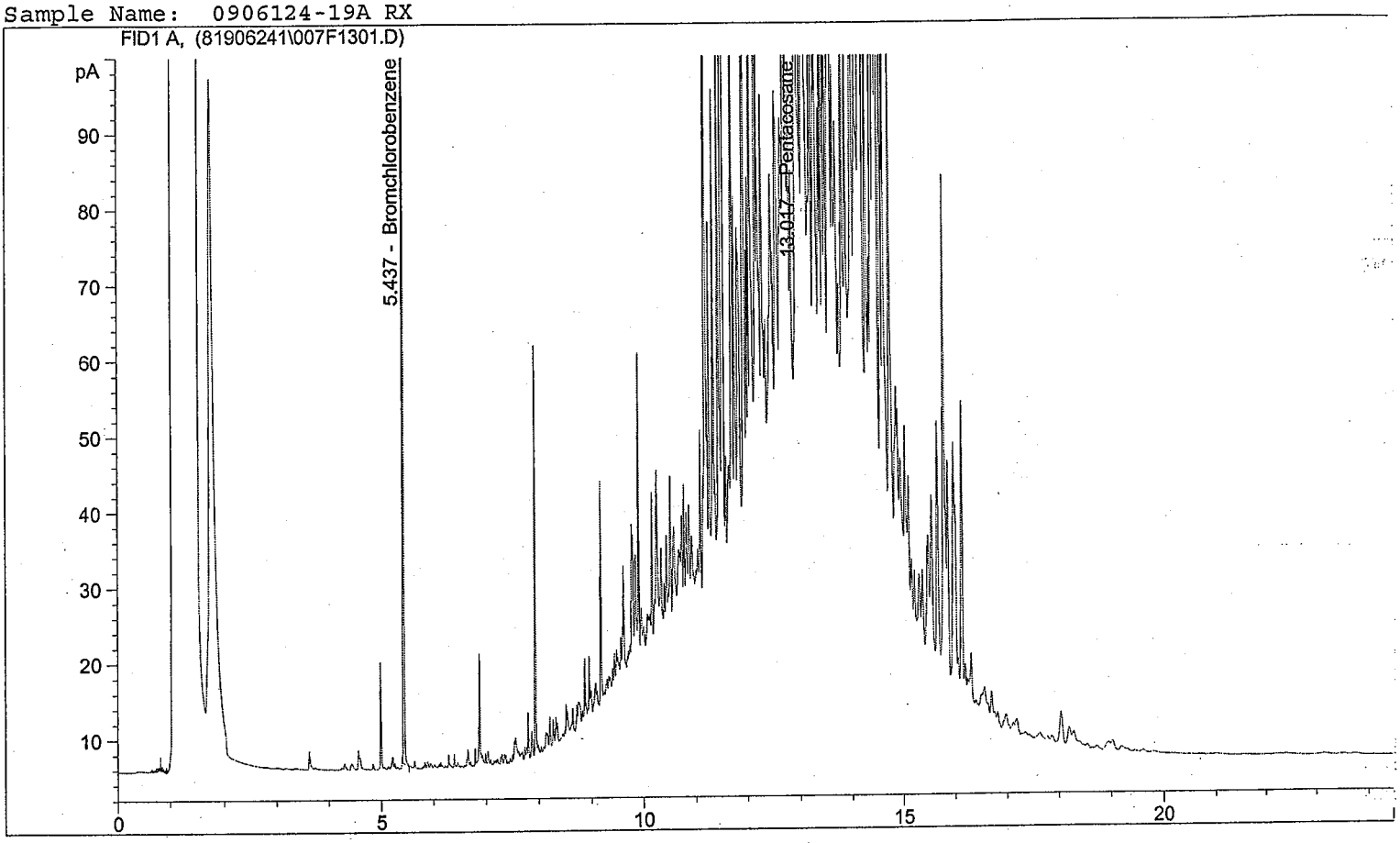
O < 100 mg/kg

REVIEWED BY & DATE NB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906241\007F1301.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/24/2009 2:50:35 PM 6/24/2009 2:50:35 PM
Report Creation: 6/25/2009 12:09:00 PM

Sample Name: 0906124-19A RX



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
5.437	FID1 A,	Bromchlorobenzene	317.417	37.291 75%
13.017		Pentacosane	692.155	35.113 *

* surrogate high due to co-eluting compounds

G < 20 mg/kg

D < 50 mg/kg

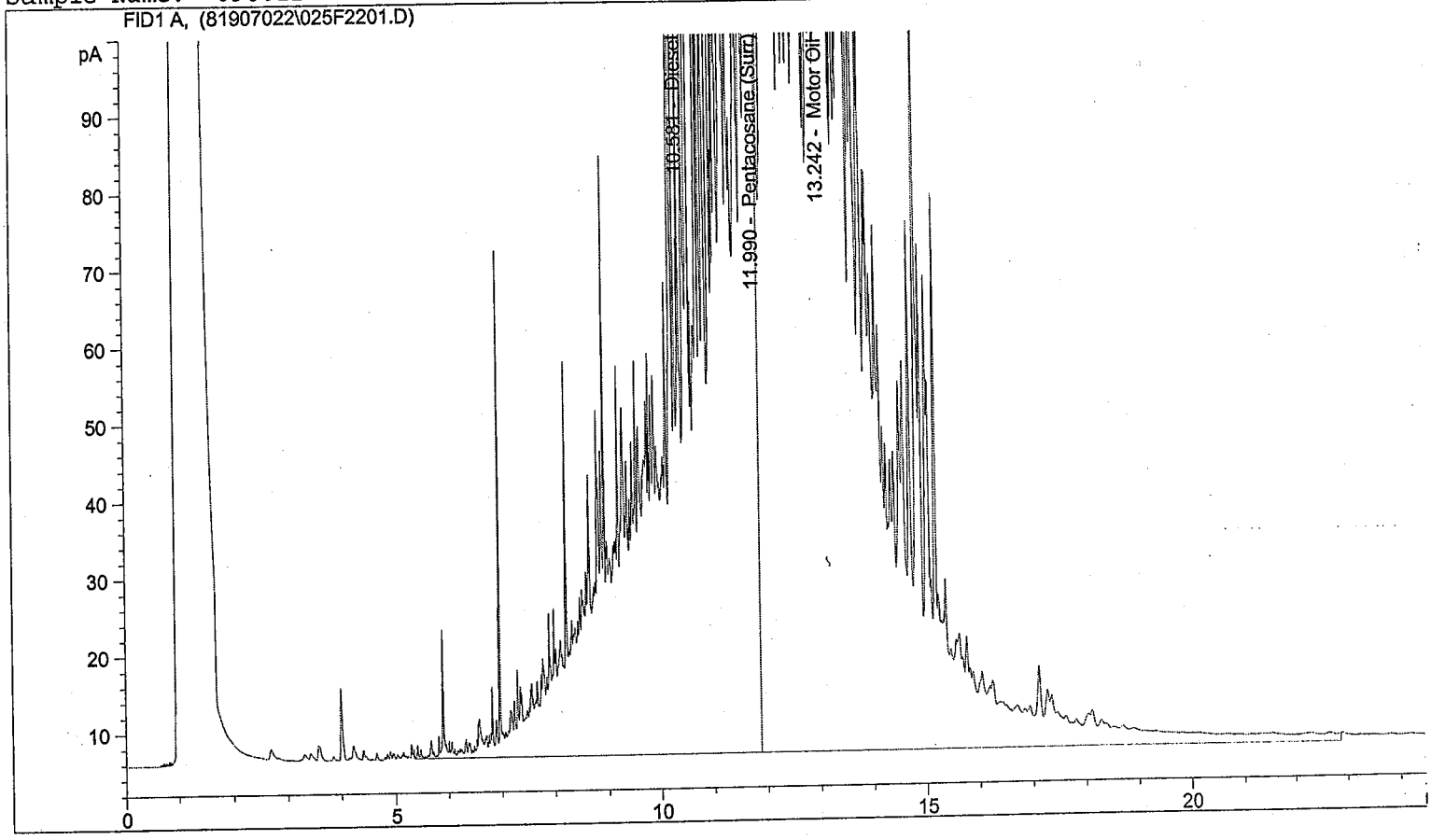
O > 100 mg/kg Unidentified Oil Range Product

REVIEWED BY & DATE 6/27/09

06.25.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81907022\025F2201.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FDMO0609.M
Injection Date & Time: 7/2/2009 8:55:20 PM 7/2/2009 8:55:20 PM
Report Creation: 7/3/2009 4:16:26 PM

Sample Name: 0906124-19A RR



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
10.581	FID1 A,	Diesel	17070.902	1235.449
11.990		Pentacosane (Surr)	428.287	20.315 *
13.242		Motor Oil	23048.754	2065.966
				21.98g

* surrogate high due to co-eluting compounds

$$D < 100\ \mu g/mL \times \frac{10\ mL}{21.98g} < 45\ mg/kg\ **$$

** reporting limit raised due to Oil Range Product overlap

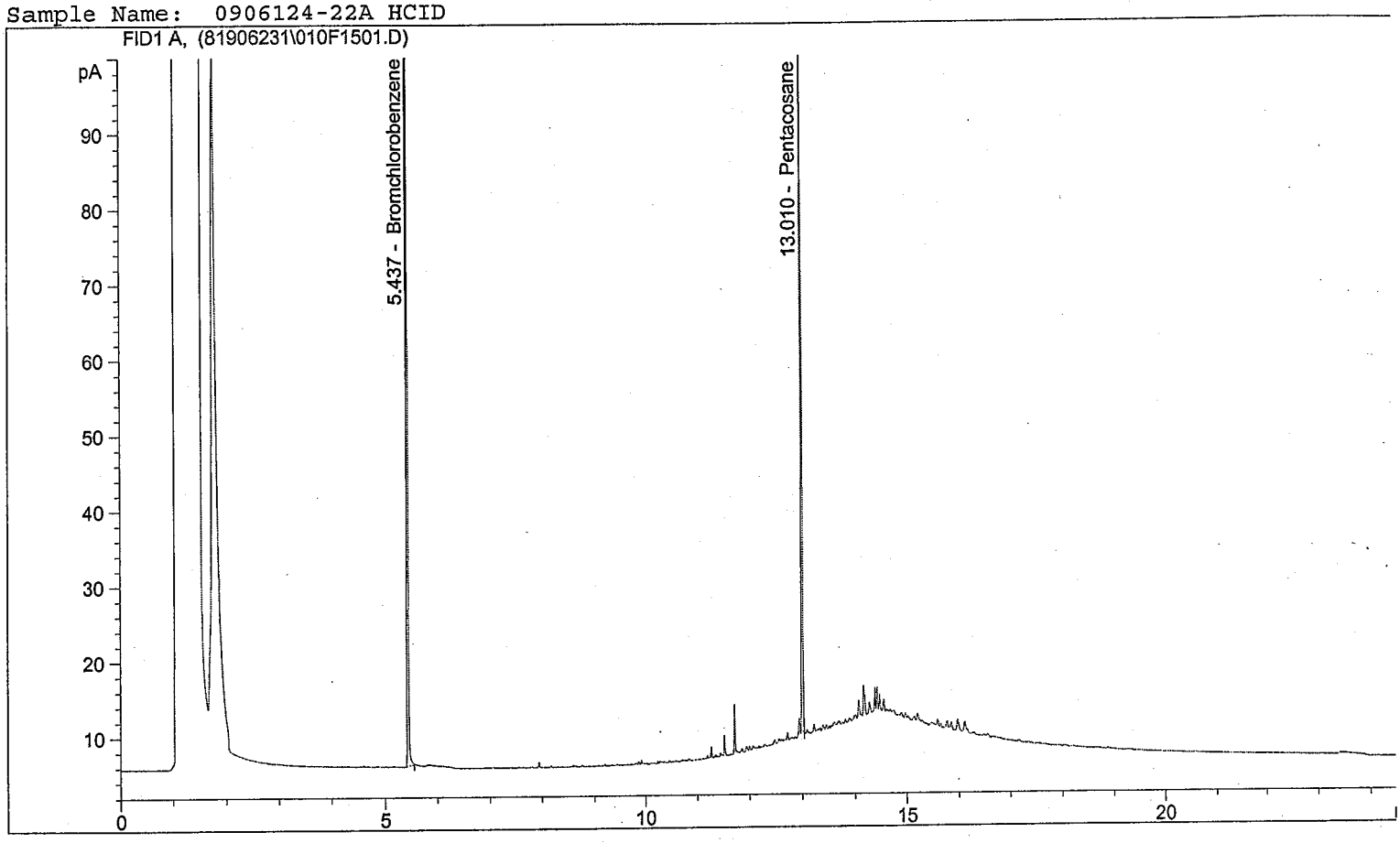
$$O = 2065.966\ \mu g/mL \times \frac{10mL}{21.98g} = 9.40\ mg/kg\ \text{Lube Oil}$$

REVIEWED BY & DATE 7/6/09

07.03.09

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\010F1501.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/23/2009 8:04:41 PM 6/23/2009 8:04:41 PM
Report Creation: 6/24/2009 9:47:01 AM

Sample Name: 0906124-22A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	333.944	39.232	78 %
13.010		Pentacosane	152.759	7.749	77 %

G < 20 mg/kg

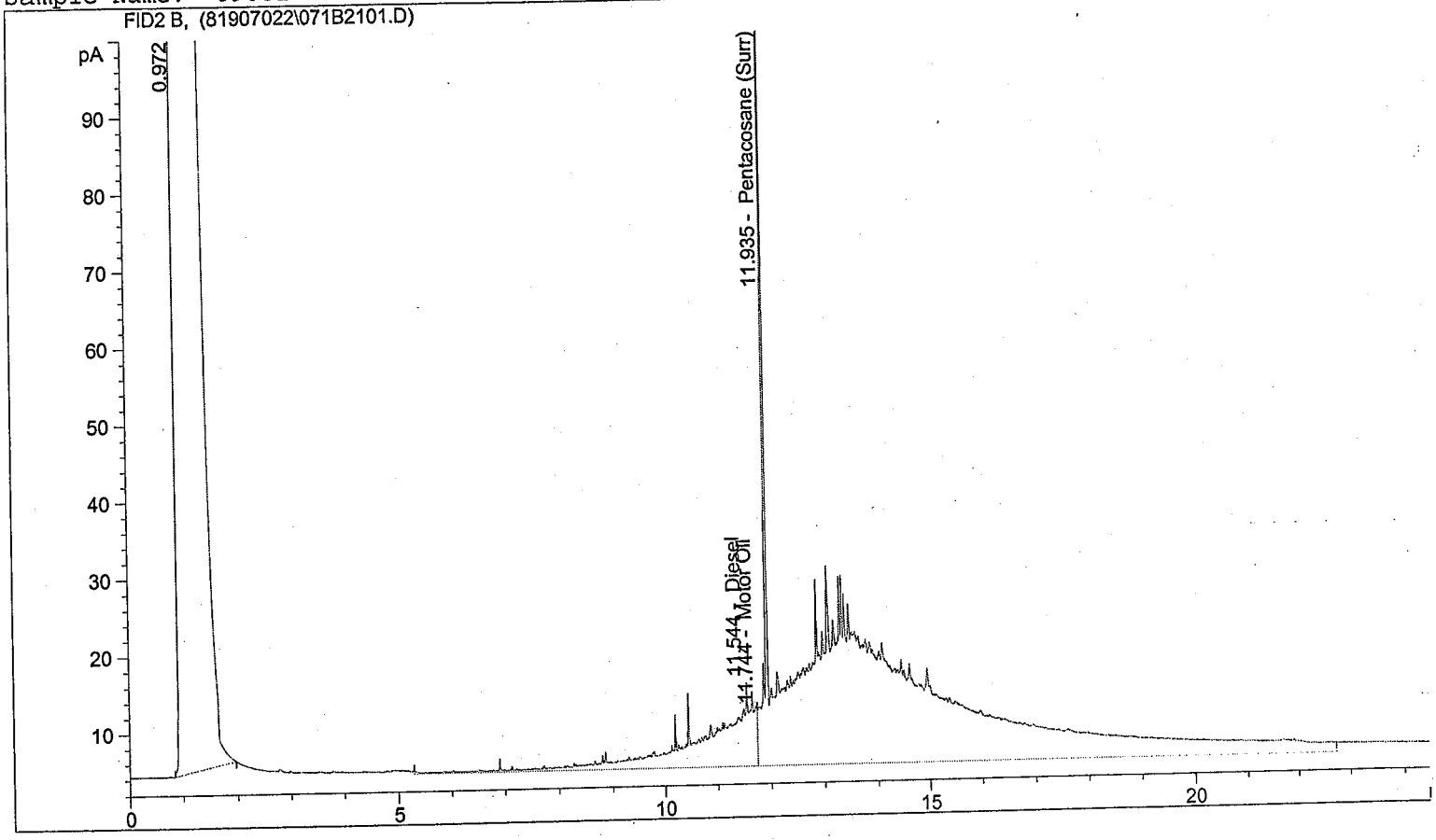
D < 50 mg/kg

O > 100 mg/kg Lube Oil

REVIEWED BY & DATE 6/24/09 06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81907022\071B2101.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BDMO4009.M
Injection Date & Time: 7/2/2009 8:24:44 PM 7/2/2009 8:24:44 PM
Report Creation: 7/3/2009 4:09:28 PM

Sample Name: 0906124-22A RR



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
11.544	FID2 B,	Diesel	634.056	49.874
11.744		Motor Oil	4081.788	330.502
11.935		Pentacosane (Surr)	246.536	10.288 103%

31.28g

D < 25 mg/kg

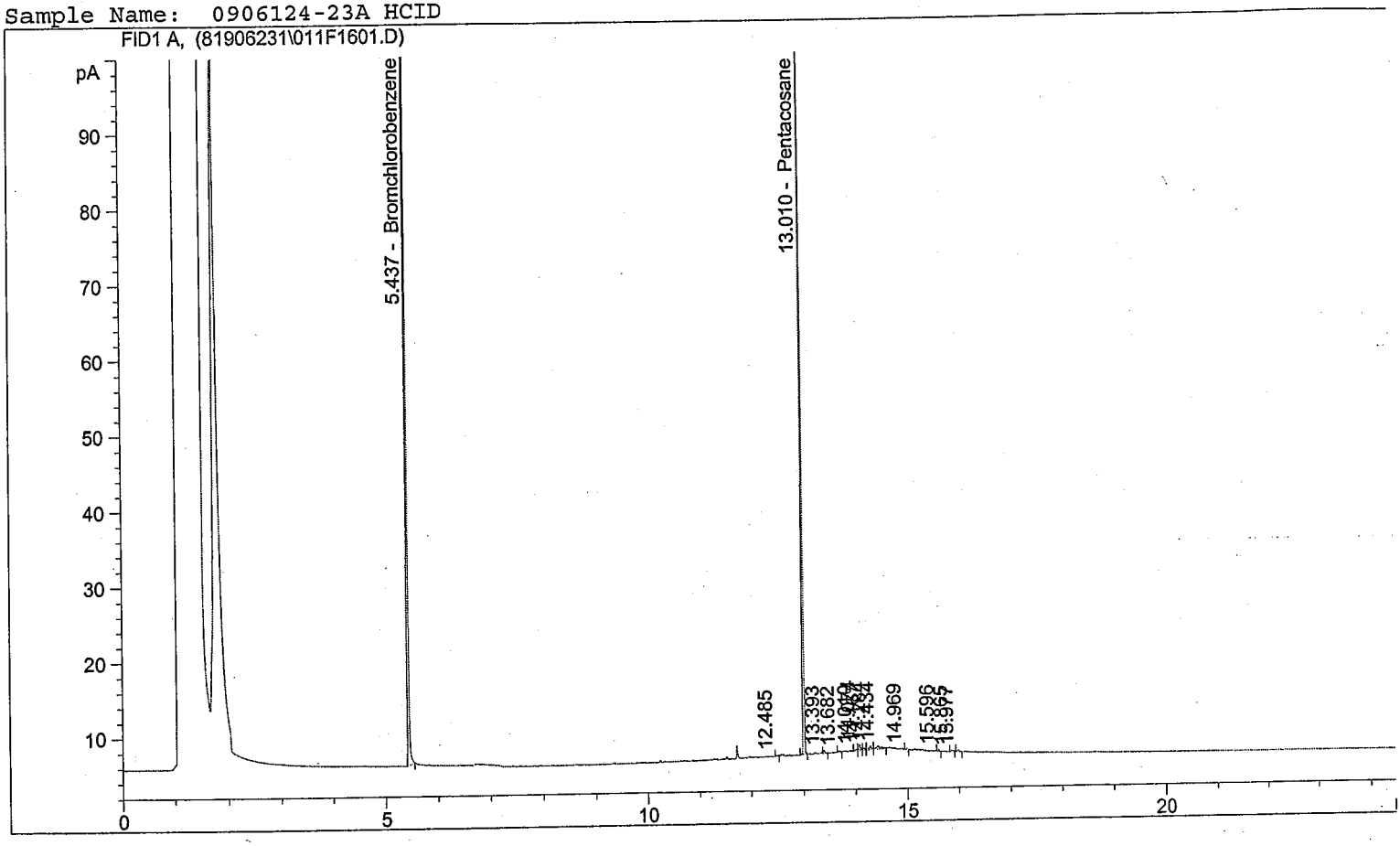
$$O = 330.502\ ug/mL \times \frac{10mL}{31.28g} = 110\ mg/kg\ Lube\ Oil$$

REVIEWED BY & DATE 7/6/09

07.06.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\011F1601.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/23/2009 8:39:09 PM 6/23/2009 8:39:09 PM
Report Creation: 6/24/2009 9:47:27 AM

Sample Name: 0906124-23A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	335.486	39.414	79%
13.010		Pentacosane	151.122	7.666	77%

G < 20 mg/kg

D < 50 mg/kg

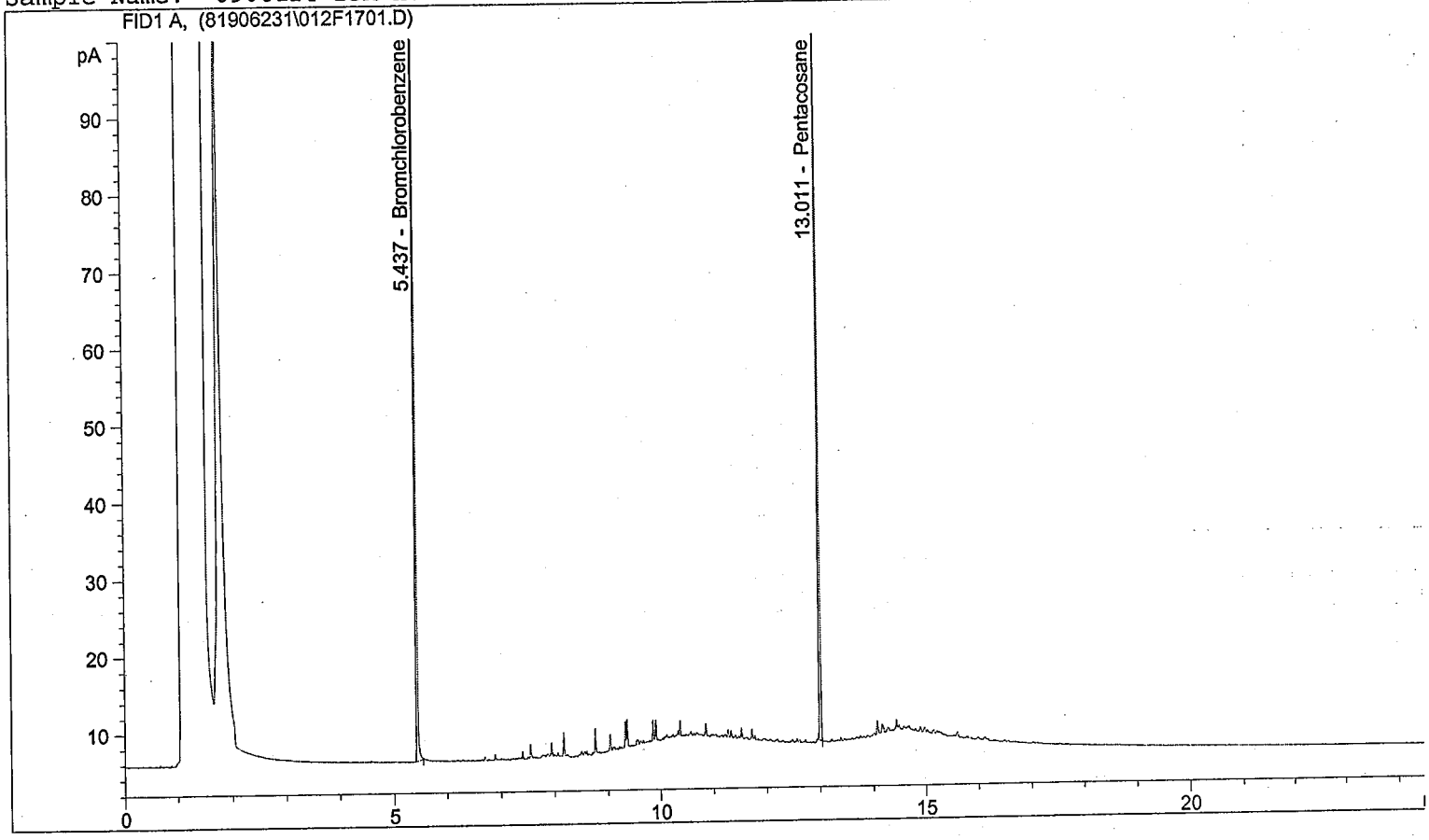
O < 100 mg/kg

REVIEWED BY & DATE MB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\012F1701.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/23/2009 9:13:32 PM 6/23/2009 9:13:32 PM
Report Creation: 6/24/2009 9:48:18 AM

Sample Name: 0906124-25A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	339.380	39.871	80%
13.011		Pentacosane	154.496	7.838	78%

G < 20 mg/kg

D < 50 mg/kg

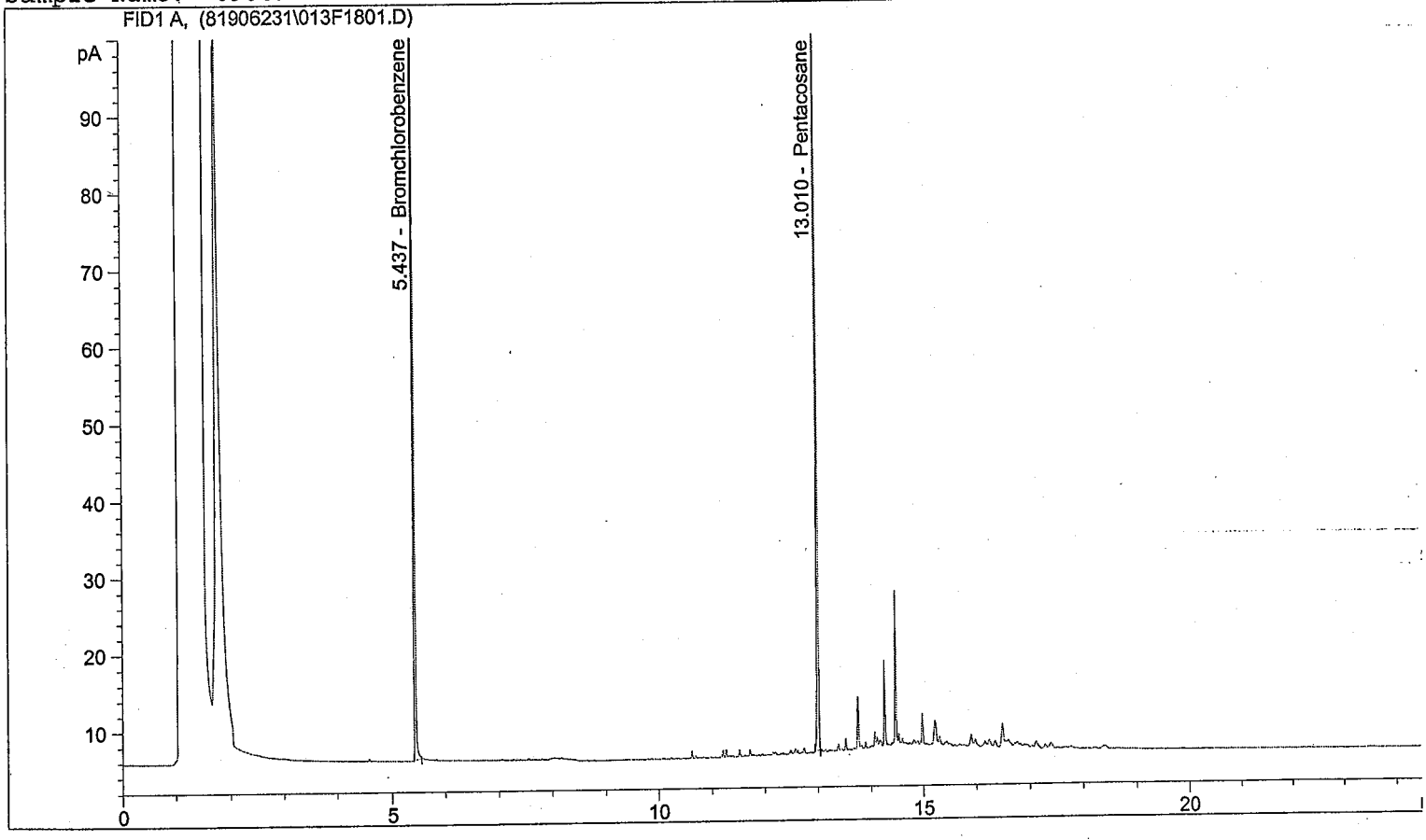
O < 100 mg/kg

REVIEWED BY & DATE 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\013F1801.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/23/2009 9:47:56 PM 6/23/2009 9:47:56 PM
Report Creation: 6/24/2009 9:49:29 AM

Sample Name: 0906124-27A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	351.313	41.273	83%
13.010		Pentacosane	167.416	8.493	85%

G < 20 mg/kg

D < 50 mg/kg

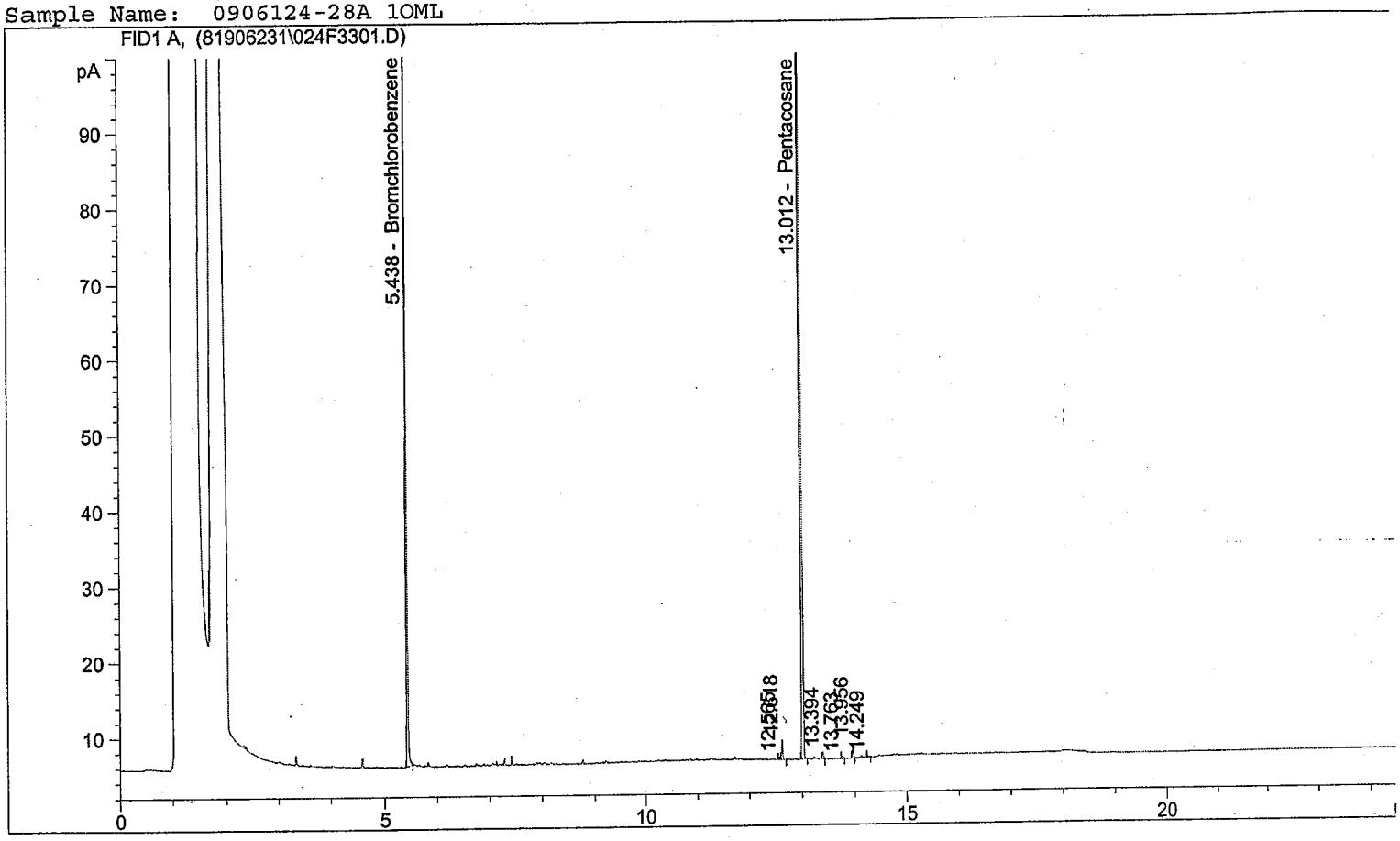
O < 100 mg/kg

REVIEWED BY & DATE 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\024F3301.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDW.M
Injection Date & Time: 6/24/2009 6:22:06 AM 6/24/2009 6:22:06 AM
Report Creation: 6/24/2009 9:39:45 AM

Sample Name: 0906124-28A 10ML



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.438	FID1 A,	Bromchlorobenzene	214.357	16.577	66%
13.012		Pentacosane	286.070	9.786	98%

G < 130 ng/L

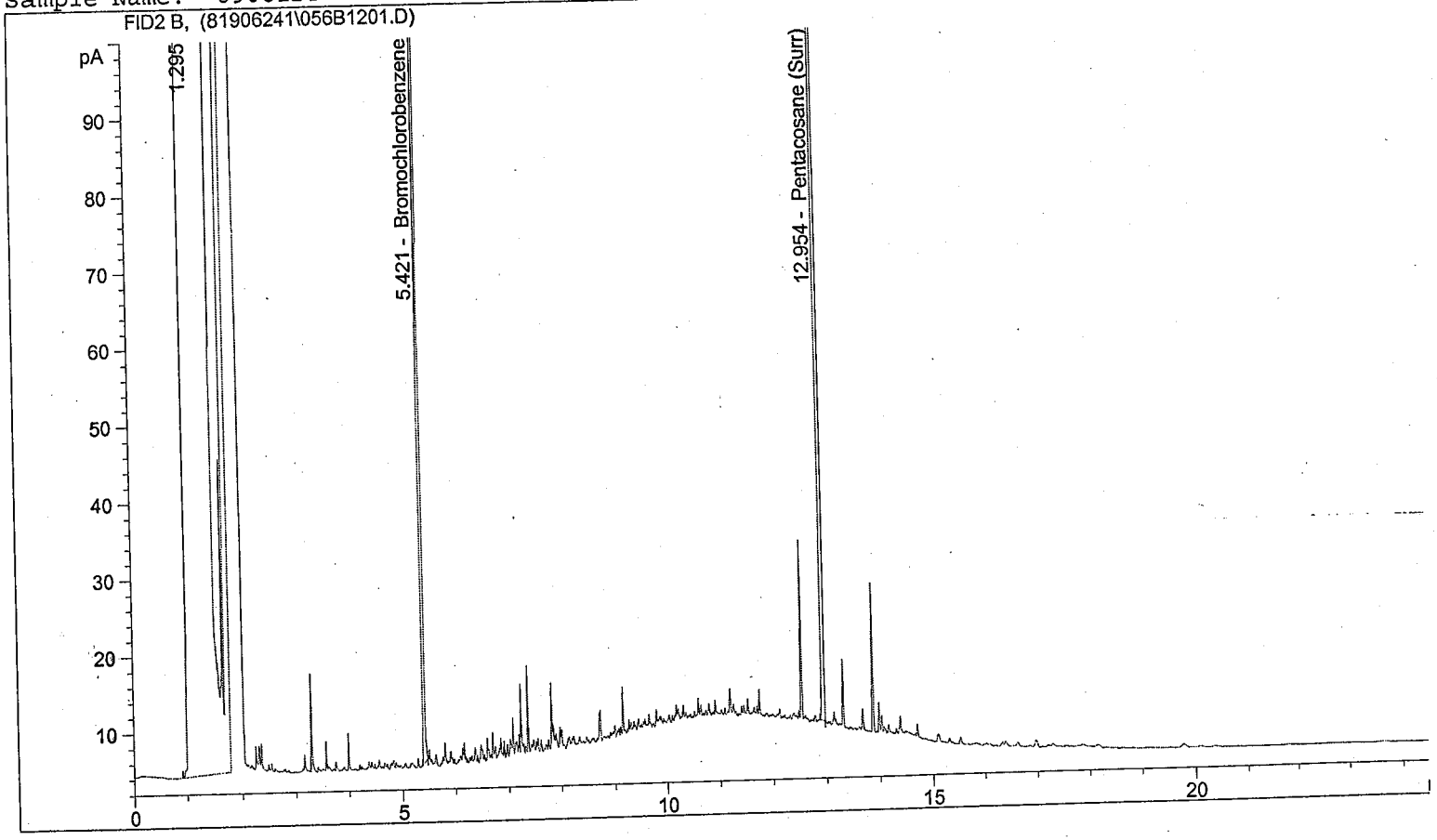
D < 310 ng/L

REVIEWED BY & DATE PB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906241\056B1201.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDW.M
Injection Date & Time: 6/24/2009 2:15:36 PM 6/24/2009 2:15:36 PM
Report Creation: 6/24/2009 4:11:03 PM

Sample Name: 0906124-28A RR 1 ML



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
5.421	FID2 B,	Bromochlorobenzene	1895.683	128.459
12.954		Pentacosane (Surr)	2584.984	69.626

70%.

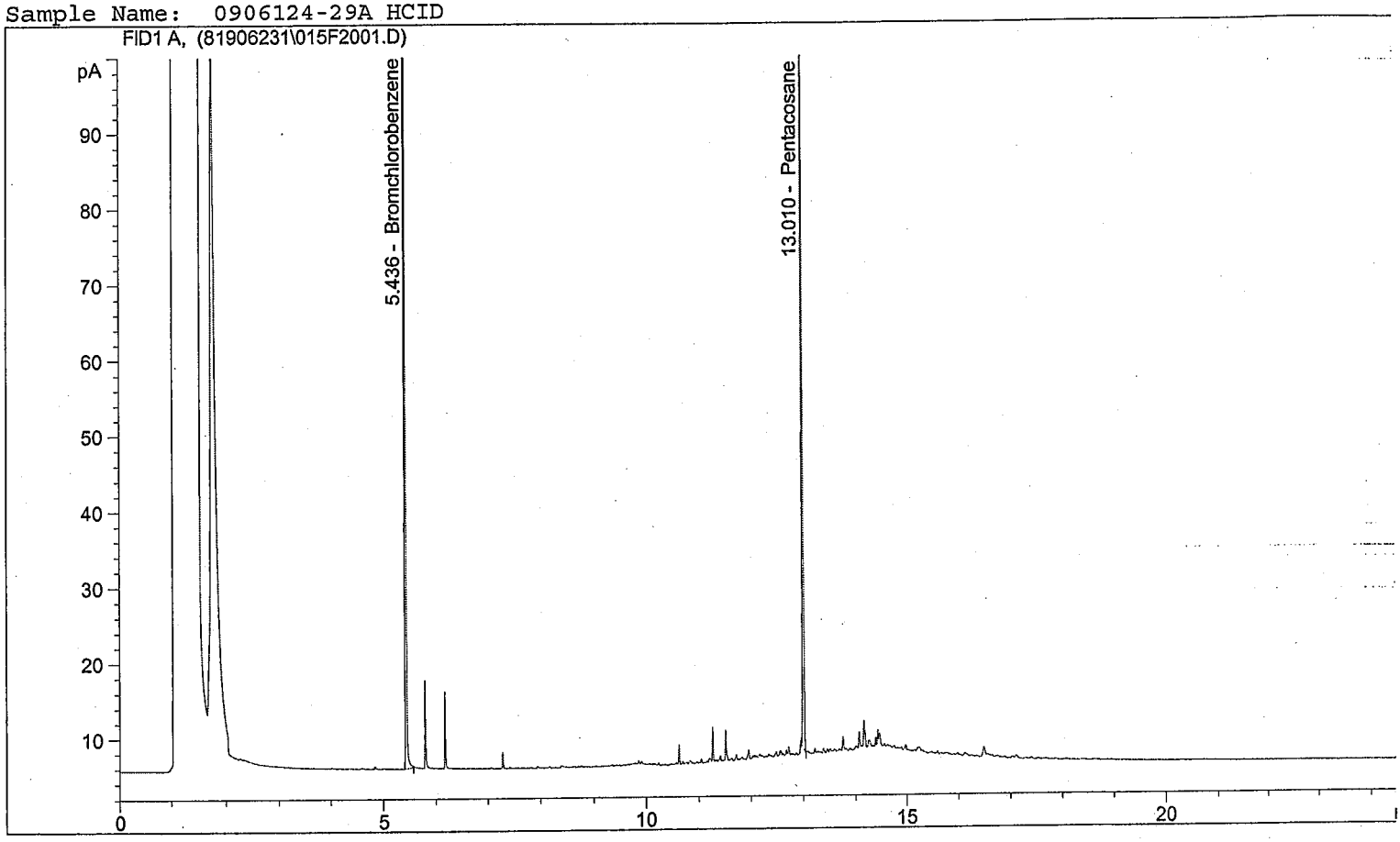
0 < 310 ng/L

REVIEWED BY & DATE RS 6/27/09

06-24.09ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\015F2001.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/23/2009 10:56:43 PM 6/23/2009 10:56:43 PM
Report Creation: 6/24/2009 9:50:31 AM

Sample Name: 0906124-29A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
5.436	FID1 A,	Bromchlorobenzene	336.927	39.583
13.010		Pentacosane	160.699	8.152

99.79% ES
82%

G < 20 mg/kg

D < 50 mg/kg

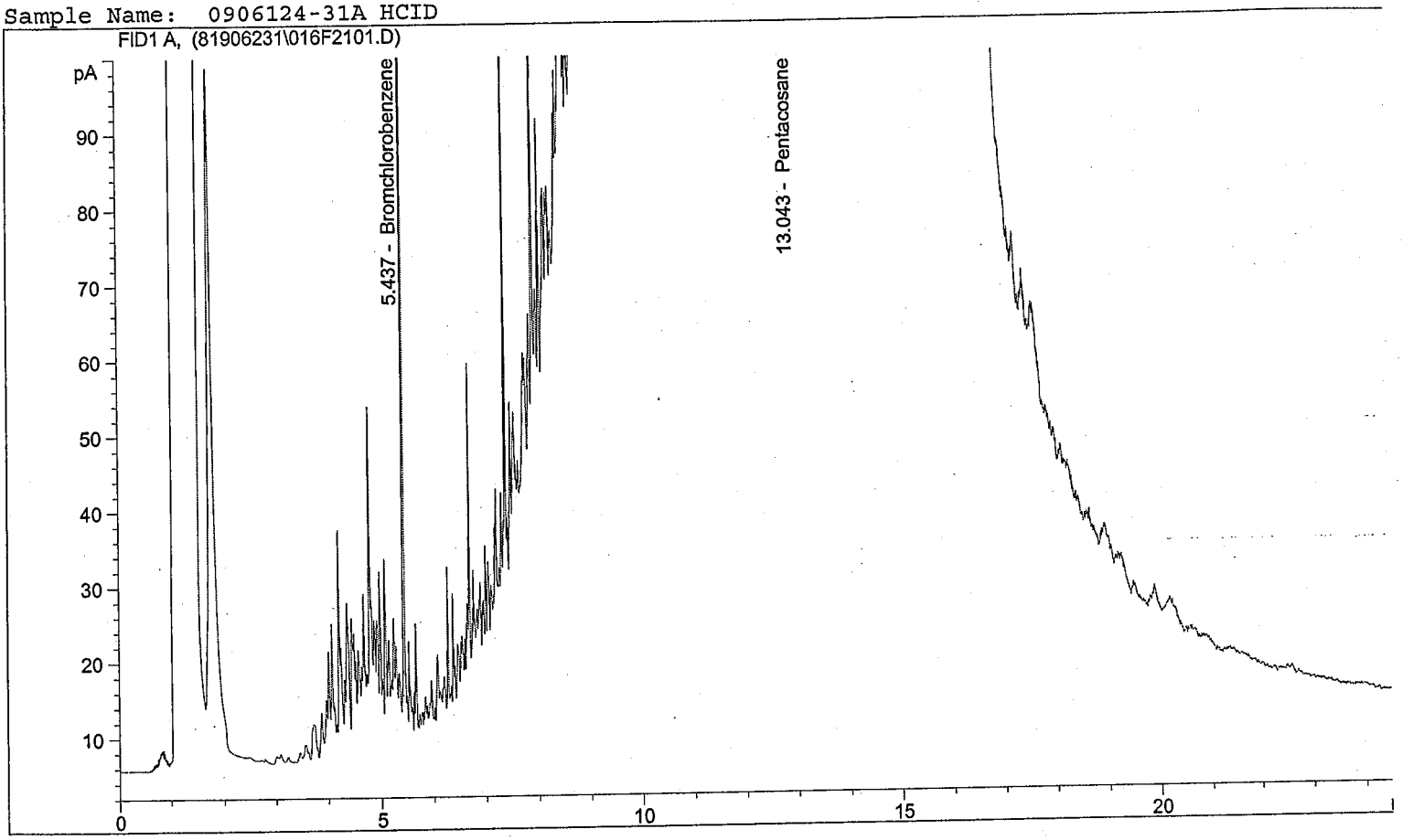
O < 100 mg/kg

REVIEWED BY & DATE ND 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\016F2101.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/23/2009 11:31:07 PM 6/23/2009 11:31:07 PM
Report Creation: 6/24/2009 9:54:45 AM

Sample Name: 0906124-31A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	332.172	39.024	78%
13.043		Pentacosane	298.565	15.146	*

* surrogate high due to co-eluting compounds

G < 20 mg/kg

D > 50 mg/kg Diesel #1 or similar product

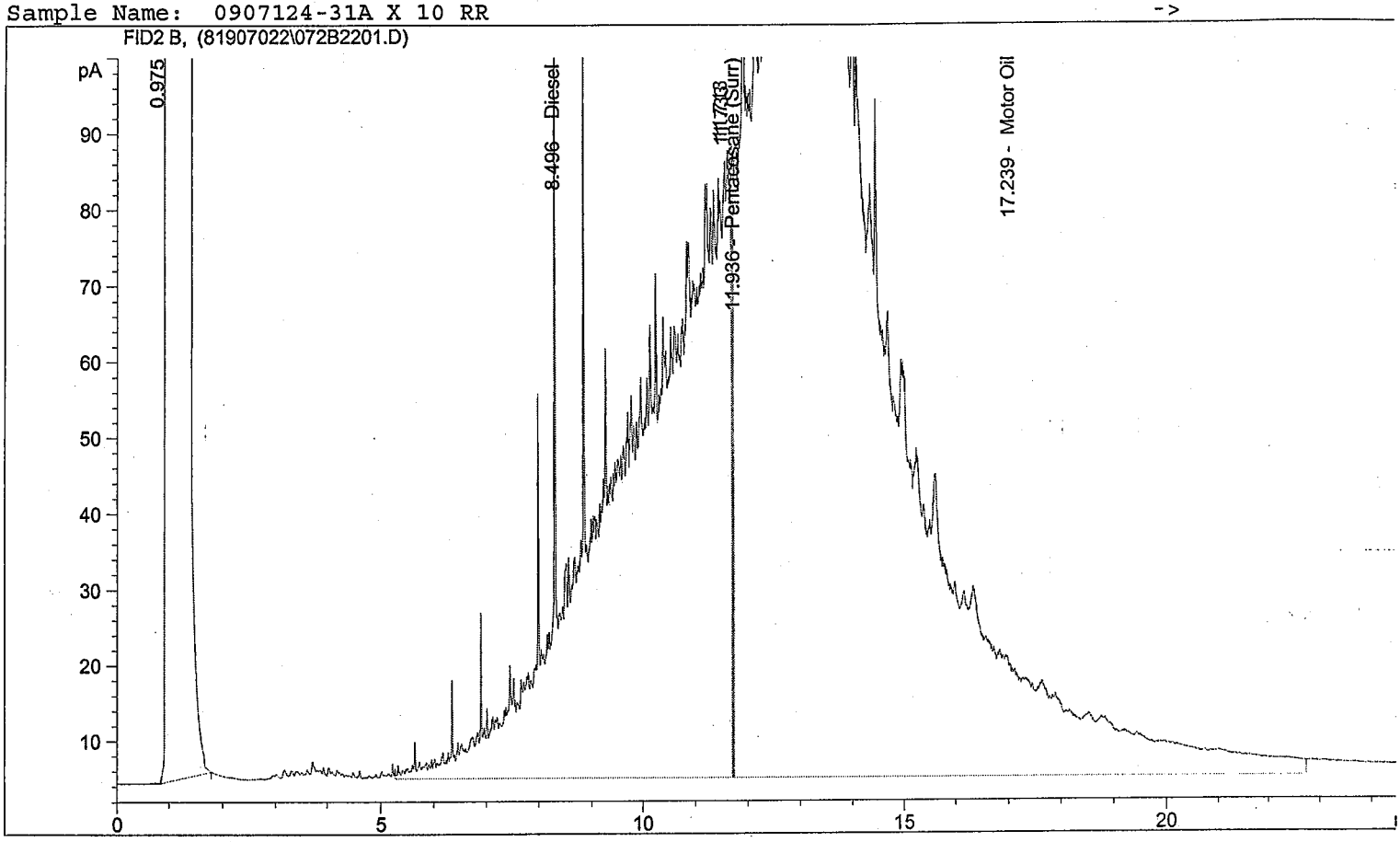
O > 100 mg/kg Lube Oil and Light Oil or similar product

REVIEWED BY [illegible] DATE 6/27/09

06.24.09 E1

Instrument #81 Data File: C:\HPCHEM\1\DATA\81907022\072B2201.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BDMO4009.M
Injection Date & Time: 7/2/2009 8:55:20 PM 7/2/2009 8:55:20 PM
Report Creation: 7/3/2009 4:12:16 PM

Sample Name: 0907124-31A X 10 RR ->



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
8.496	FID2 B,	Diesel	11330.840	891.268	
11.936		Pentacosane (Surr)	26.508	1.106	*
17.239		Motor Oil	24351.131	1971.709	

* surrogate low due to dilution 21.09g

$D < 100\ ug/mL \times \frac{10mL}{21.09g} \times 10 < 470\ mg/kg$ **

** reporting limit raised due to Oil Range Product overlap

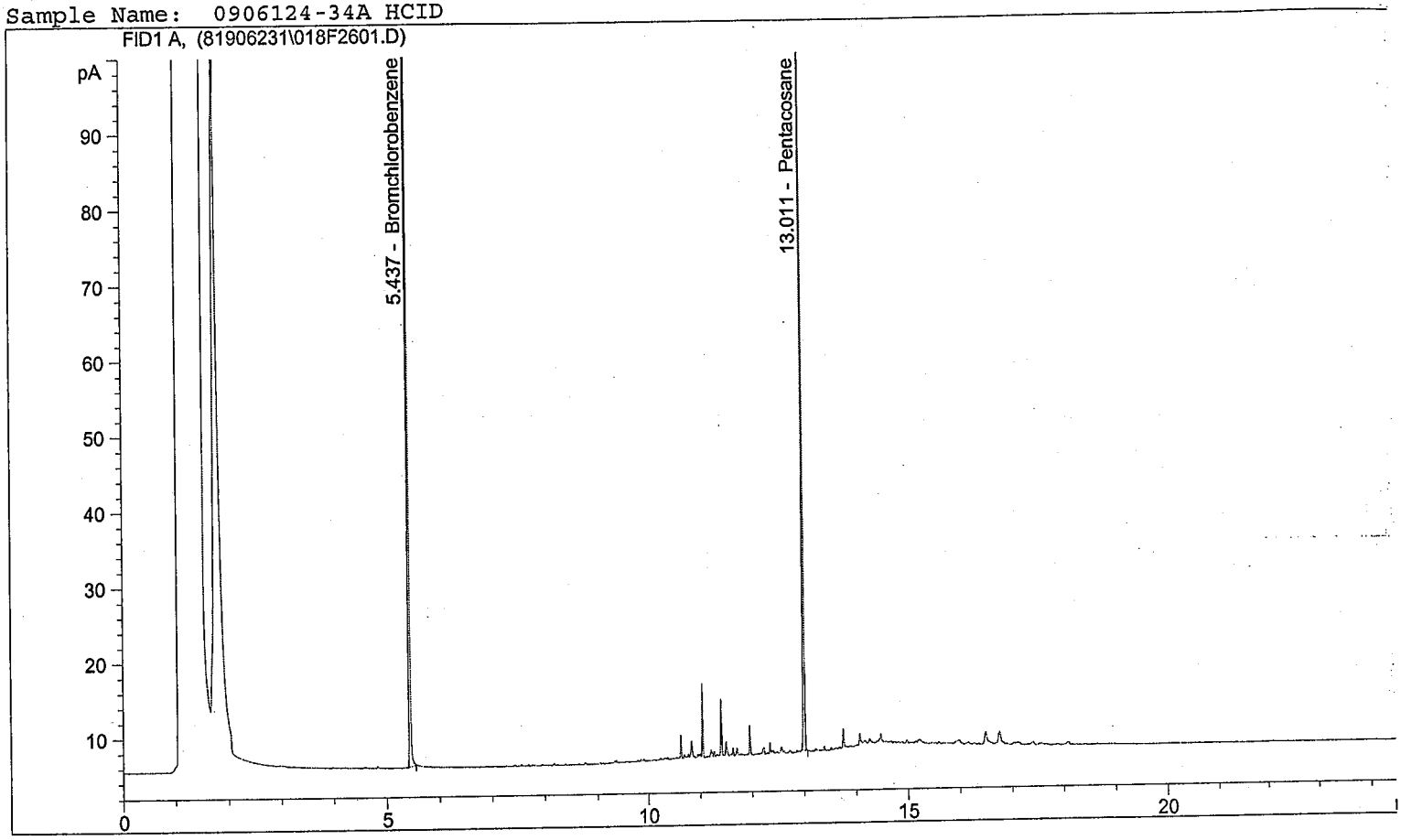
$O = 1971.709\ ug/mL \times \frac{10mL}{21.09g} \times 10 = 9300\ mg/kg$ Lube Oil

REVIEWED BY & DATE MB 7/6/09

07.03.09

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\018F2601.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/24/2009 2:22:34 AM 6/24/2009 2:22:34 AM
Report Creation: 6/24/2009 10:01:54 AM

Sample Name: 0906124-34A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	355.304	41.742	83%
13.011		Pentacosane	166.861	8.465	85%

G <20 mg/kg

D <50 mg/kg

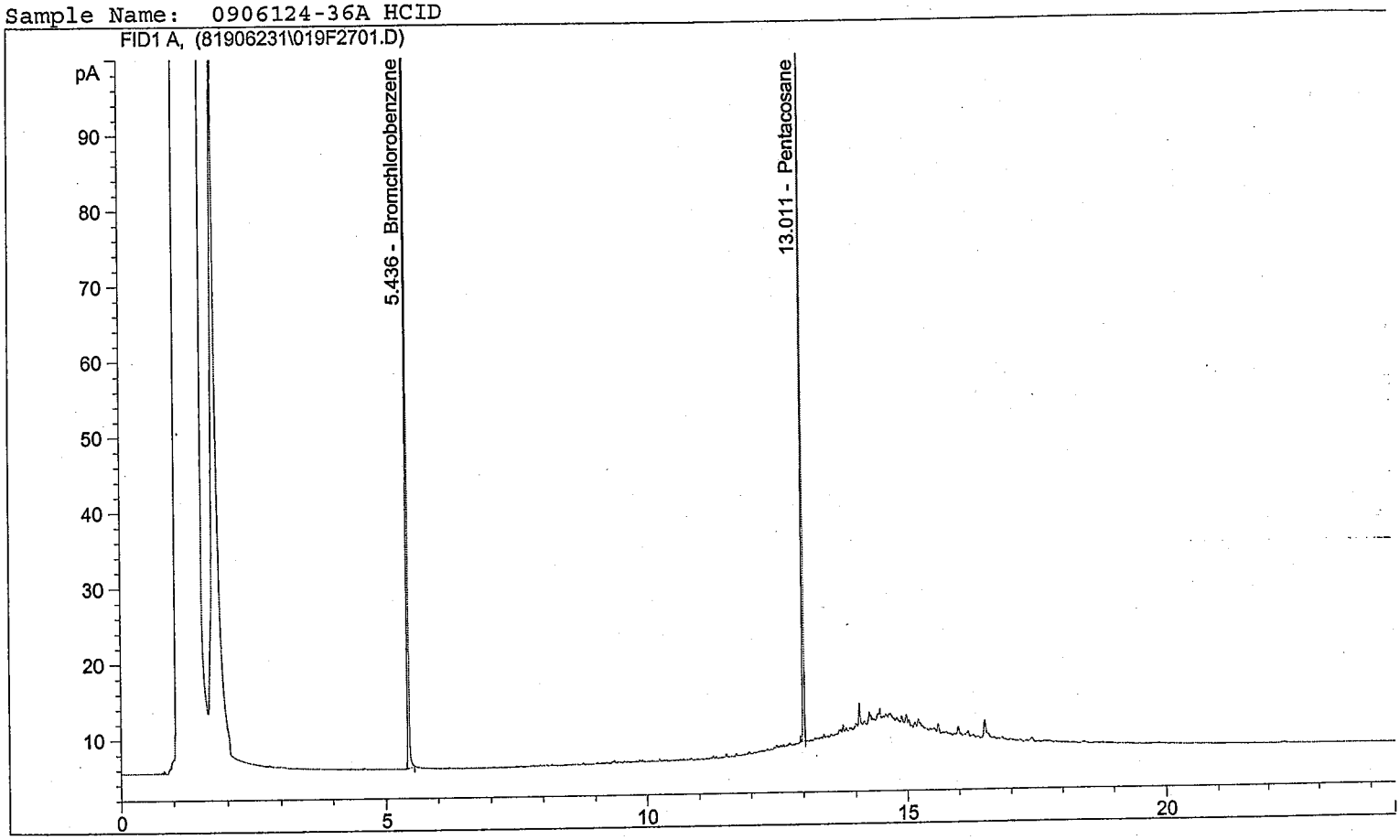
O <100 mg/kg

REVIEWED BY & DATE KS 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\019F2701.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/24/2009 2:56:42 AM 6/24/2009 2:56:42 AM
Report Creation: 6/24/2009 10:02:58 AM

Sample Name: 0906124-36A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.436	FID1 A,	Bromchlorobenzene	340.359	39.986	80 %
13.011		Pentacosane	156.501	7.939	79 %

G < 20 mg/kg

D < 50 mg/kg

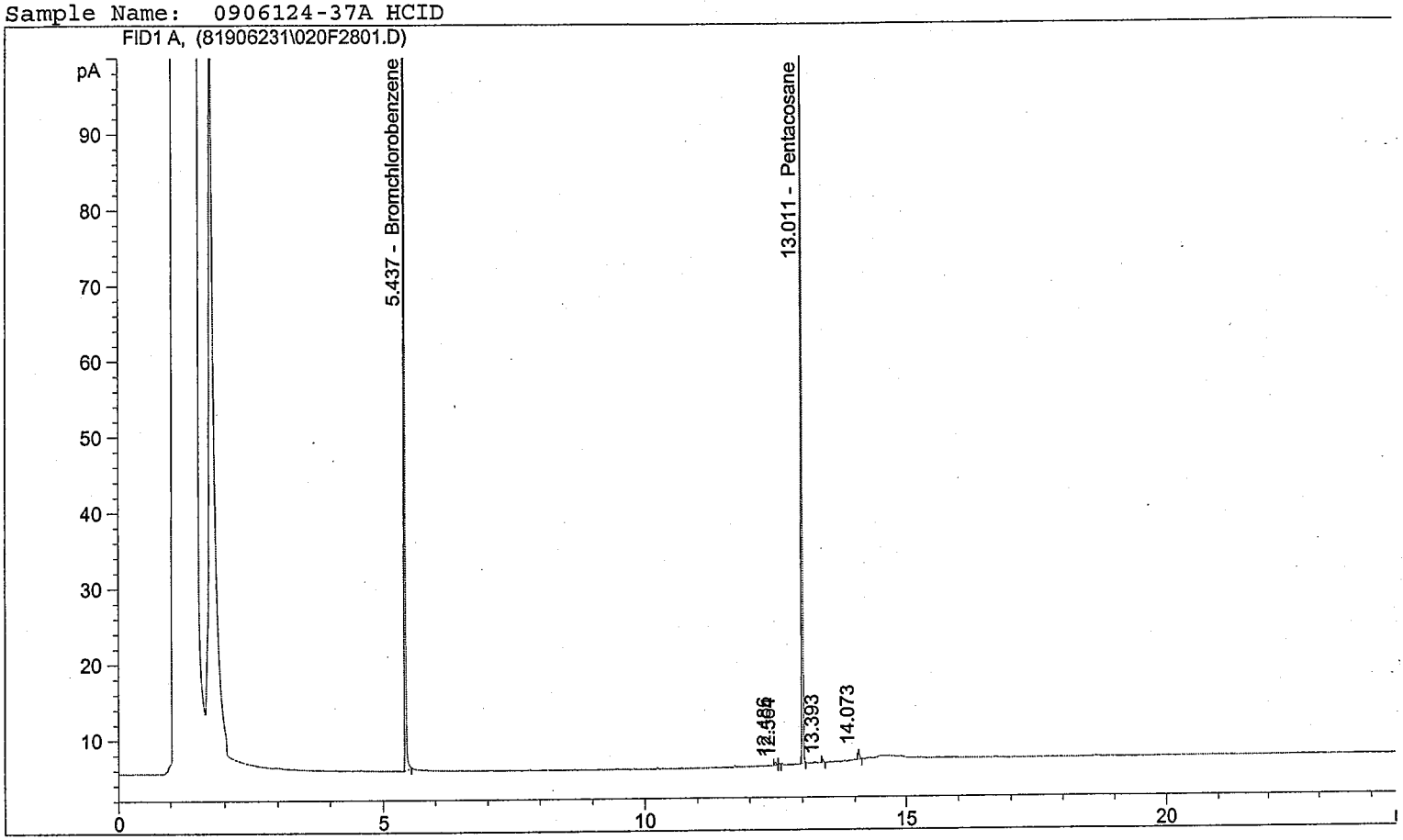
O < 100 mg/kg

REVIEWED BY & DATE NB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\020F2801.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/24/2009 3:30:54 AM 6/24/2009 3:30:54 AM
Report Creation: 6/24/2009 10:08:21 AM

Sample Name: 0906124-37A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	345.987	40.647	81%
13.011		Pentacosane	158.188	8.025	80%

G <20 mg/kg

D <50 mg/kg

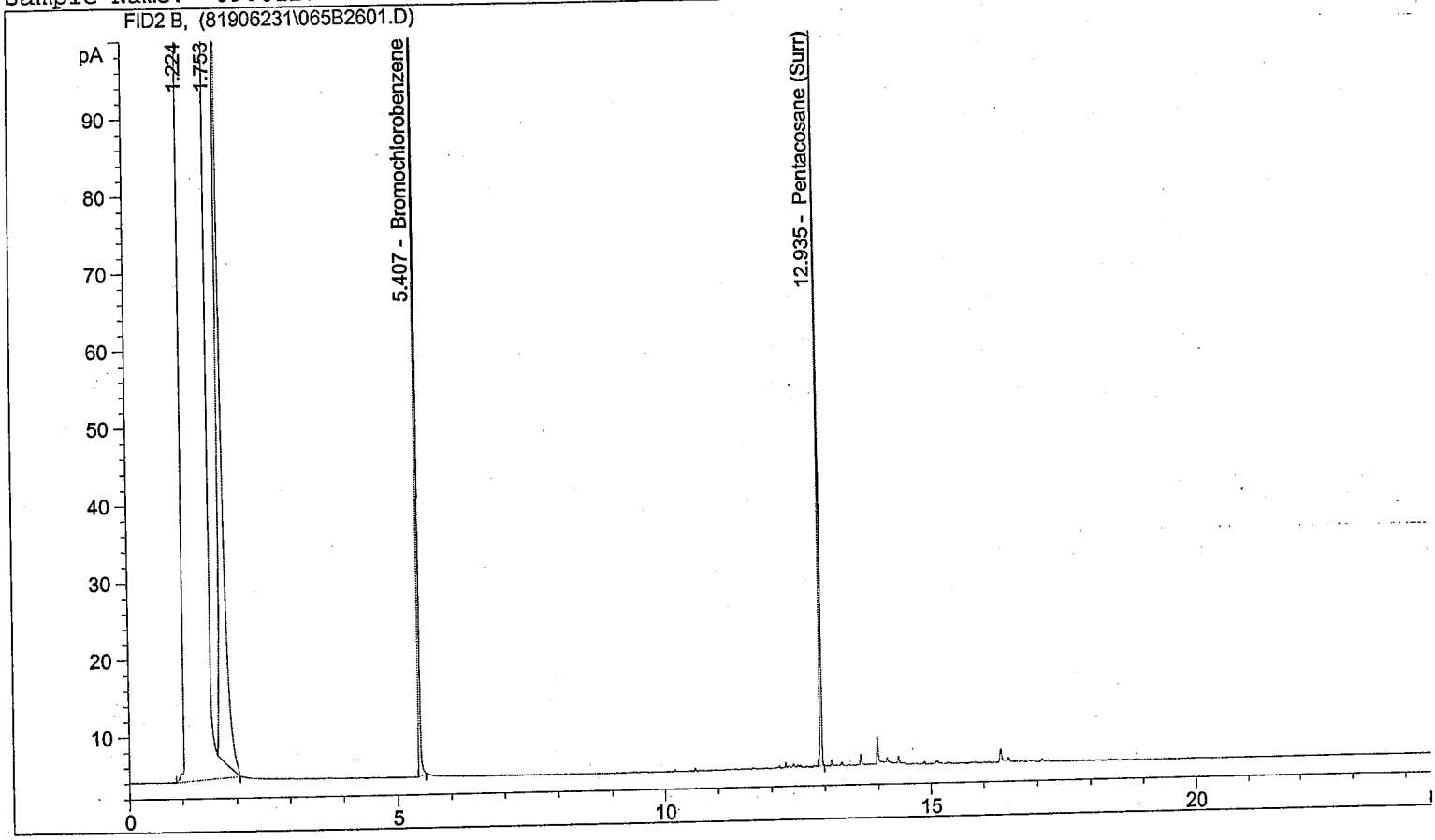
O <100 mg/kg

REVIEWED BY & DATE MD 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\065B2601.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/24/2009 2:22:34 AM 6/24/2009 2:22:34 AM
Report Creation: 6/24/2009 10:21:00 AM

Sample Name: 0906124-38A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	341.029	41.216	82%
12.935		Pentacosane (Surr)	168.311	8.339	83%

G < 20 mg/kg

D < 50 mg/kg

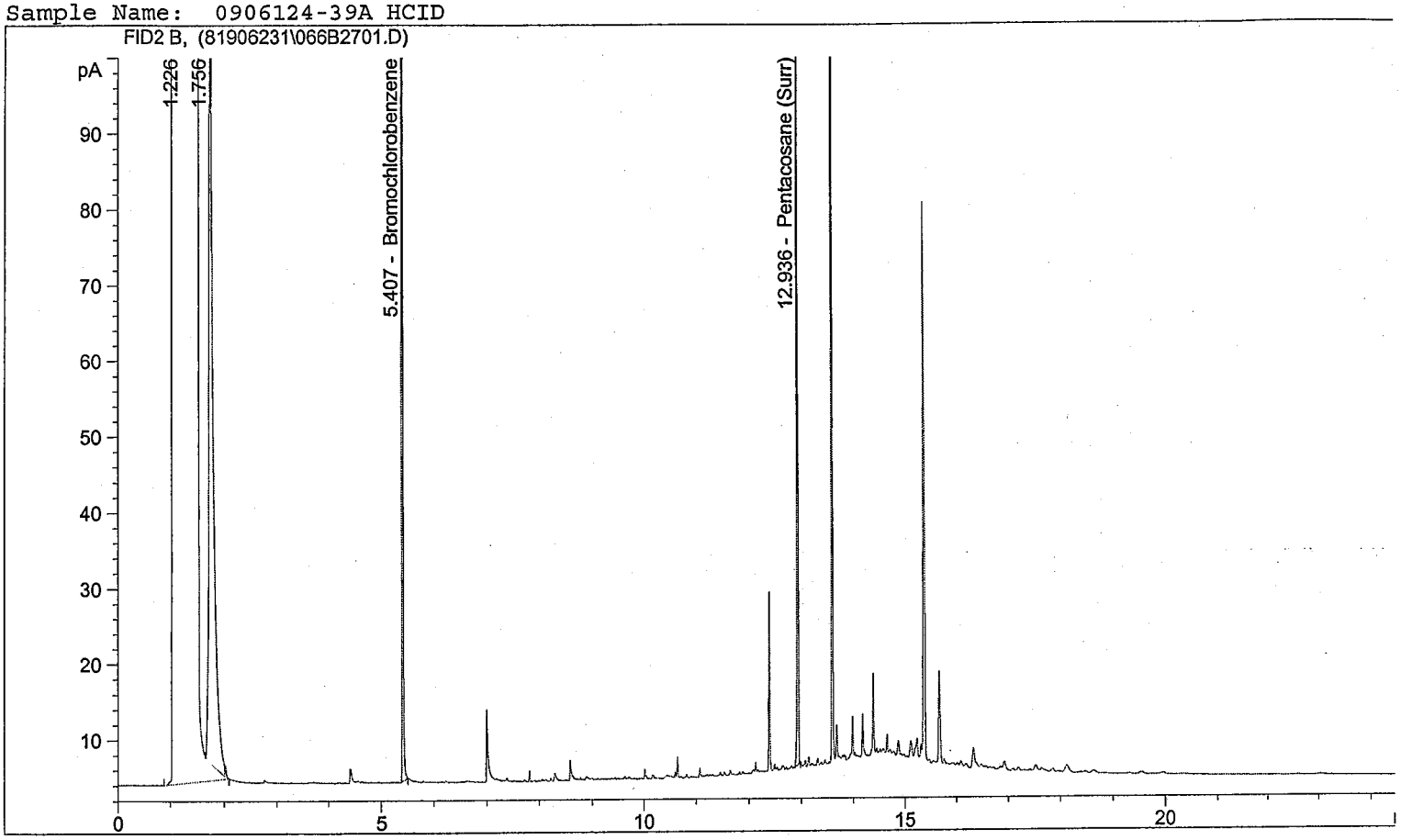
O < 100 mg/kg

REVIEWED BY & DATE MB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\066B2701.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\BHCIDS.M
Injection Date & Time: 6/24/2009 2:56:42 AM 6/24/2009 2:56:42 AM
Report Creation: 6/24/2009 10:21:57 AM

Sample Name: 0906124-39A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.407	FID2 B,	Bromochlorobenzene	394.832	47.719	95%
12.936		Pentacosane (Surr)	195.877	9.705	97%

G < 20 mg/kg

D < 50 mg/kg

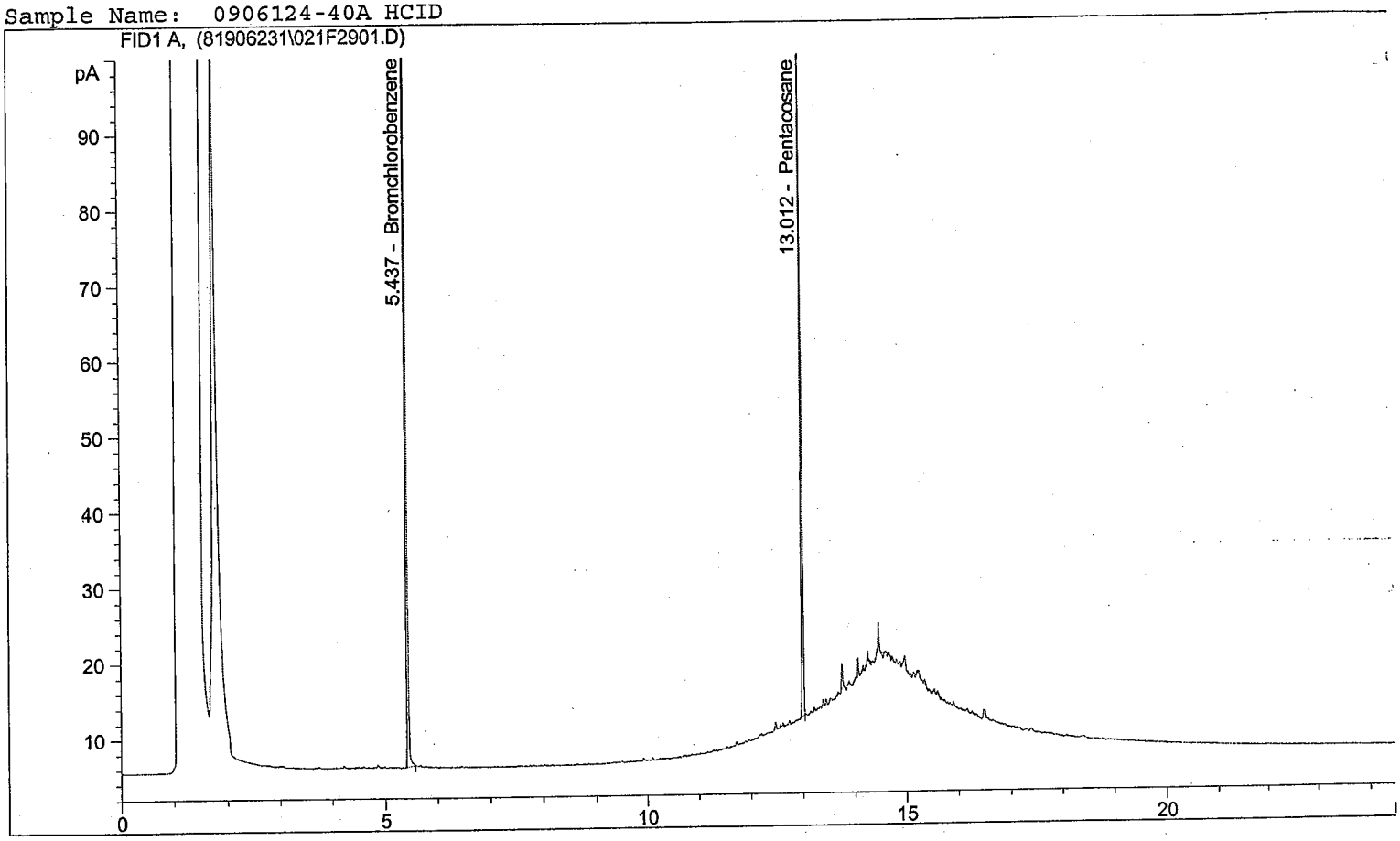
O < 100 mg/kg

REVIEWED BY & DATE MS 6/27/09

06-24-09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81906231\021F2901.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FHCIDS.M
Injection Date & Time: 6/24/2009 4:05:08 AM 6/24/2009 4:05:08 AM
Report Creation: 6/24/2009 10:08:47 AM

Sample Name: 0906124-40A HCID



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
5.437	FID1 A,	Bromchlorobenzene	434.020	50.990	102 %
13.012		Pentacosane	201.633	10.229	102 %

G < 20 mg/kg

D < 50 mg/kg

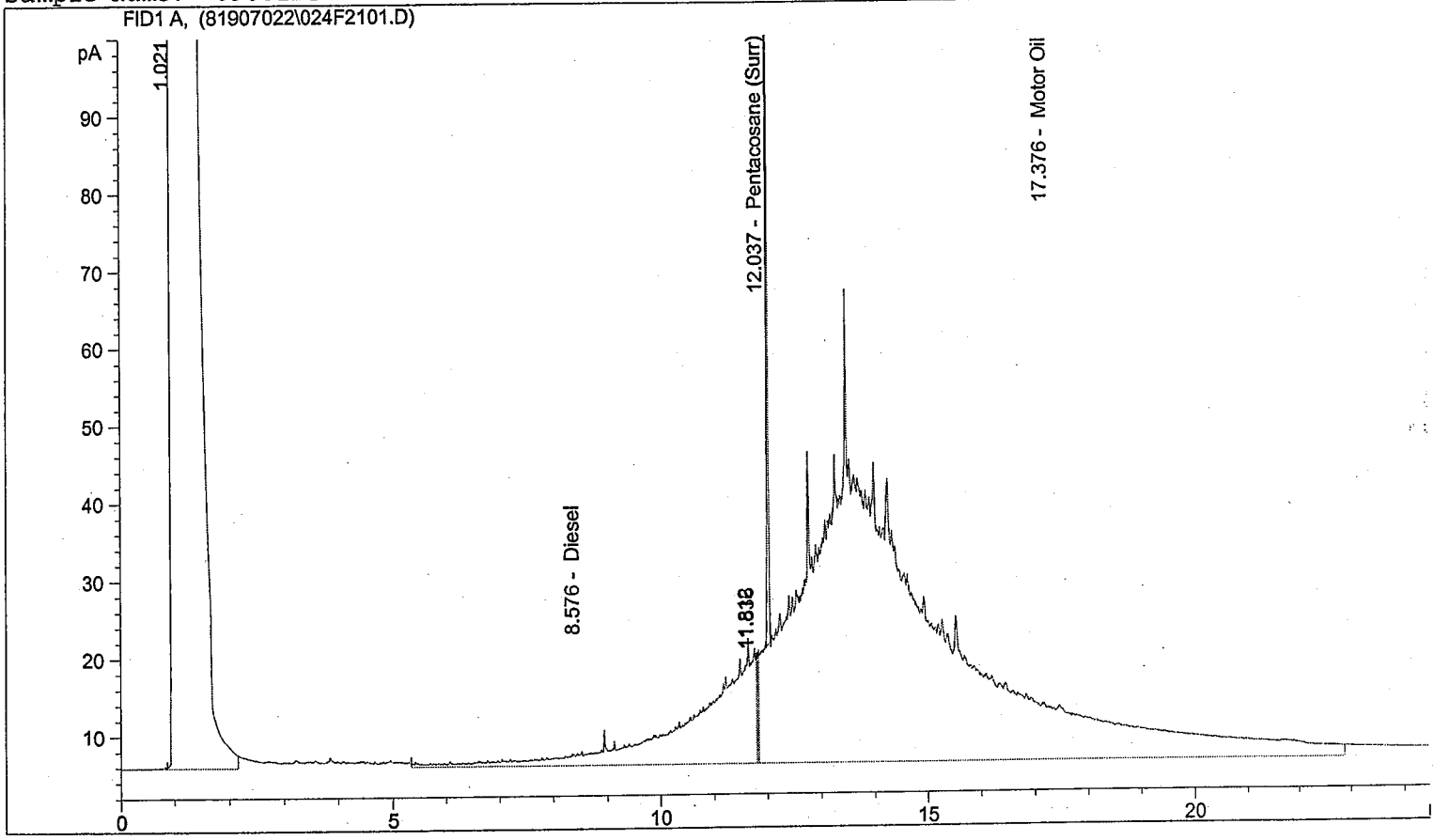
O > 100 mg/kg Lube Oil

REVIEWED BY & DATE NB 6/27/09

06.24.09 ES

Instrument #81 Data File: C:\HPCHEM\1\DATA\81907022\024F2101.D
Operator: EBS
Method: C:\HPCHEM\1\METHODS\FDM00609.M
Injection Date & Time: 7/2/2009 8:24:44 PM 7/2/2009 8:24:44 PM
Report Creation: 7/3/2009 4:13:50 PM

Sample Name: 0906124-40A RR



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.576	FID1 A,	Diesel	1191.105	86.202
12.037		Pentacosane (Surr)	193.109	9.160
17.376		Motor Oil	7644.411	685.204

92%

29.57g

D < 25 mg/kg

$D = 685.204\ ug/mL \times \frac{10mL}{29.57g} = 230\ mg/kg$ Lube Oil

REVIEWED BY & DATE 7/6/09

07.03.09

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 906124

Date 06/19/09 Page 1 Of 4

PROJECT ID: Snohomish County Shops
REPORT TO COMPANY: CDM
PROJECT MANAGER: Pam Merrill
ADDRESS: 11811 NE 1st St, Suite 201
Bellevue, WA
PHONE: 425-453-8393 FAX: —
P.O. NUMBER: 19947-713166 E-MAIL: —
INVOICE TO COMPANY: CDM
ATTENTION: ↓
ADDRESS: ↓

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. TP12-1	06/19/09	15:35	Soil	1	X																
2. TP12-6	06/18/09	09:05	Soil	2																	
3. TP13-4.5	06/18/09	09:35	Soil	3	X									X	X						
4. TP14-1.5	06/18/09	10:10	S	4	X									X	X						
5. TP14-GW	06/18/09	14:10	GW	5																	
6. TP15-4	06/18/09	12:35	S	6	X						X			X	X		X				
7. TP15-GW	06/18/09	14:20	W	7																	
8. TP16-1	06/19/09	15:40	S	8	X									X	X						
9. TP16-GW	06/18/09	14:25	W	9							X										
10. TP17-1.5	06/19/09	15:30	S	10	X												X				

OTHER (Specify)

REPORT COPY

SPECIAL INSTRUCTIONS HOLD ALL SAMPLES until further instructions X = added 6/23/09

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: CDM 06/19/09 1750
   Received By: Shawn Rodeen AS 6/19/09 5:30
2. Relinquished By: _____
   Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify: _____

* Turnaround

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# 906 6091/24 (Laboratory Use Only)

Date 06/19/09 Page 2 Of 4

PROJECT ID: Snohomish County Shops
REPORT TO COMPANY: COM
PROJECT MANAGER: Pam Morrill
ADDRESS:
PHONE: FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

REPORT COPY

	SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1.	TP17-GW	06/18/09	13:40	W	11							X										5	
2.	TP18-1.5	06/19/09	15:25	S	12	X						X										5	
3.	TP18-5	06/18/09	11:55	S	13																	5	
4.	TP19-1	06/19/09	15:10	S	14	X																5	
5.	TP19-GW	06/18/09	14:00	W	15							X										5	
6.	TP20-1	06/19/09	15:00	S	16	X												X				2	
7.	TP20-GW	06/18/09	13:50	W	17																	2	
8.	TP21-1.5	06/19/09	14:55	S	18	X																2	
9.	TP22-0.5	06/19/09	15:20	S	19	X	(X)											X				2	
10.	TP22-5	06/18/09	14:35	S	20																	2	

X = added 6/23/09 (X) AMJ 7/1/09

SPECIAL INSTRUCTIONS Hold All Samples Until Further Instruction

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature], COM, 06/19/09, 1750
   Received By: Shawn Robinson AU 6/19/09 5:50
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 906 609124

Date 06/19/09 Page 3 Of 4

PROJECT ID: Snohomish County Shops
REPORT TO COMPANY: CDM
PROJECT MANAGER: Pam Hamill
ADDRESS:
PHONE: FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

REPORT COPY

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. TP23-S	06/19/09	14:55	S	21																3	
2. TP23-0.5	06/19/09	15:10	S	22	X	(X)														2	
3. TP24-1	06/19/09	15:15	S	23	X															2	
4. TP24-GW	06/18/09	16:00	W	24																2	
5. TP25-1.5	06/19/09	14:45	S	25	X									X	X					2	
6. TP25-GW	06/18/09	14:05	W	26																2	
7. TP26-1	06/19/09	14:55	S	27	X												X			2	
8. TP26-GW	06/19/09	14:55	S W	28	X															1	
9. TP27-1	06/19/09	15:05	S	29	X															2	
10. TP27-GW	06/19/09	15:00	W	30							X									4	

X = added 6/23/09 (X) Added 7/1/09

SPECIAL INSTRUCTIONS: Hold All Samples Until Further Instructions

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [illegible], CDM, 06/19/09, 1750
   Received By: Shawn Robson ACS 6/19/09 5:50
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges.

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 906124

Date 6/19/09 Page 4 Of 4

PROJECT ID: Snohomish County Shops
REPORT TO COMPANY: & Pam Mocrill
PROJECT MANAGER: CDM
ADDRESS:
PHONE: FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

REPORT COPY

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?	OTHER (Specify)
1. TP28-2	06/19	08:55	S	31	X	X								X	X		X			5		5235
2. TP28-2.5	06/19	09:20	S	32	X									X	X					5		
3. TP28-GW	06/19	14:55	W	33																1		
4. TP29-1	06/19	14:45	S	34	X												X			2		
5. TP29-GW	06/19	14:45	W	35																1		
6. TP30-0.5	06/19	16:00	S	36	X									X	X		X			5		5235
7. TP30-1.5 (31-35)	06/19	11:35	S	37	X															5		5235
8. TP32-1.5	06/19	12:10	S	38	X						X									5		5235
9. TP33-1.5	06/19	13:25	S	39	X						X									5		5235
10. TP34-1.5	06/19	14:20	S	40	X	X														2		

X = added 6/23/09

X Added 7/1/09

SPECIAL INSTRUCTIONS Hold all samples until further instructions.

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: CDM, 06/19/09, 1750
   Received By: Shawn Rabuan AES 6/19/09 17:30
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/16/2009
ALS JOB#: 0909047
DATE RECEIVED: 9/11/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II
CLIENT SAMPLE ID: 9/10/2009 GW2-3.5
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND	20	1	MG/KG	9/11/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND	50	1	MG/KG	9/11/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND	100	1	MG/KG	9/11/2009	EBS

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/16/2009
ALS JOB#: 0909047
DATE RECEIVED: 9/11/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II
CLIENT SAMPLE ID: 9/10/2009 GW3-3.5
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Chloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Vinyl Chloride	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromomethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Chloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Methylene chloride	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromochloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Chloroform	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Dibromomethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromodichloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Tetrachloroethylene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Dibromochloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	5.0	1	UG/KG	9/16/2009	GAP
Chlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromoform	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
2-Chlorotoluene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/16/2009
ALS JOB#: 0909047
DATE RECEIVED: 9/11/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II
CLIENT SAMPLE ID: 9/10/2009 GW3-3.5
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	50	1	UG/KG	9/16/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/16/2009
ALS JOB#: 0909047
DATE RECEIVED: 9/11/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II
CLIENT SAMPLE ID: 9/11/2009 GW4-3.5
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Chloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Vinyl Chloride	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromomethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Chloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Methylene chloride	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromochloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Chloroform	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trichloroethene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Dibromomethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromodichloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Tetrachloroethylene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Dibromochloromethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	5.0	1	UG/KG	9/16/2009	GAP
Chlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromoform	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Bromobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
2-Chlorotoluene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/16/2009
ALS JOB#: 0909047
DATE RECEIVED: 9/11/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II
CLIENT SAMPLE ID: 9/11/2009 GW4-3.5
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	50	1	UG/KG	9/16/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	10	1	UG/KG	9/16/2009	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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DATE RECEIVED: 9/11/2009
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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0909047-02	NWTPH-HCID	BCB	89%
0909047-02	NWTPH-HCID	C25	92%
0909047-03	EPA-8260	1,2-Dichloroethane-d4	115%
0909047-03	EPA-8260	4-Bromofluorobenzene	S1
0909047-04	EPA-8260	1,2-Dichloroethane-d4	112%
0909047-04	EPA-8260	4-Bromofluorobenzene	103%

S1- Surrogate outside of control limits due to matrix effect.

APPROVED BY:

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-091009S	Soil	NWTPH-HCID	HCID-Gas Range	ND(<20)	MG/KG
MB-091009S	Soil	NWTPH-HCID	HCID-Diesel Range	ND(<50)	MG/KG
MB-091009S	Soil	NWTPH-HCID	HCID-Oil Range	ND(<100)	MG/KG
MB-091509S	Soil	EPA-8260	Dichlorodifluoromethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Chloromethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Vinyl Chloride	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Bromomethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Chloroethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Trichlorofluoromethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Carbon Tetrachloride	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,1-Dichloroethene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Methylene chloride	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Trans-1,2-Dichloroethene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,1-Dichloroethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Cis-1,2-Dichloroethene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	2,2-Dichloropropane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Bromochloromethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Chloroform	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,1,1-Trichloroethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,1-Dichloropropene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,2-Dichloroethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Trichloroethene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,2-Dichloropropane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Dibromomethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Bromodichloromethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Trans-1,3-Dichloropropene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Toluene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Cis-1,3-Dichloropropene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,1,2-Trichloroethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,3-Dichloropropane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Tetrachloroethylene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Dibromochloromethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,2-Dibromoethane	ND(<5.0)	UG/KG
MB-091509S	Soil	EPA-8260	Chlorobenzene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,1,1,2-Tetrachloroethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Bromoform	ND(<10)	UG/KG

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CERTIFICATE OF ANALYSIS

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P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/16/2009
ALS JOB#: 0909047
DATE RECEIVED: 9/11/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-091509S	Soil	EPA-8260	1,1,2,2-Tetrachloroethane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,2,3-Trichloropropane	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Bromobenzene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	2-Chlorotoluene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	4-Chlorotoluene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,3 Dichlorobenzene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,4-Dichlorobenzene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,2-Dichlorobenzene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,2-Dibromo 3-Chloropropane	ND(<50)	UG/KG
MB-091509S	Soil	EPA-8260	1,2,4-Trichlorobenzene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	Hexachlorobutadiene	ND(<10)	UG/KG
MB-091509S	Soil	EPA-8260	1,2,3-Trichlorobenzene	ND(<10)	UG/KG

APPROVED BY:

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CERTIFICATE OF ANALYSIS

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Bellevue, WA 98009-3885

DATE: 9/16/2009
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DATE RECEIVED: 9/11/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Co. Shops - Phase II

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
264	Soil	EPA-8260	1,1-Dichloroethene	10	95%	103%	8
264	Soil	EPA-8260	Trichloroethene	10	98%	100%	1
264	Soil	EPA-8260	Toluene	10	99%	101%	2
264	Soil	EPA-8260	Chlorobenzene	10	100%	99%	1

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 909047

Date 9/4/09 Page 1 Of 1

PROJECT ID: Snohomish Co. Shops Phase II
REPORT TO COMPANY: CDM
PROJECT MANAGER: Pam Morrill
ADDRESS:
PHONE: 425-453-9383 FAX:
P.O. NUMBER: 19947.71366 E-MAIL: morrillpj@cdm.com
INVOICE TO COMPANY: CDM
ATTENTION: Pam Morrill
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. GW1-10	9/1/09	915	S	1																4	
2. GW2-3.5	↓	1120		2	X															↓	
3. GW3-3.5	↓	1345		3						X											
4. GW4-3.5	9/1/09	855		4						X											
5. GW5-5	↓	1020		5																	
6. GW6-5	↓	1235	↓	6																	
7.																					
8.																					
9.																					
10.																					

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature], CDM 9/1/09 1528
   Received By: Shawn Cohuman ALS 9/1/09 15:28
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-1-09/09
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/18/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/18/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/18/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/18/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/18/2009	DLC
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/18/2009	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/18/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroform	EPA-8260	15	2.0	1	UG/L	9/18/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-1-09/09
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-2-09/09
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/18/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/18/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/18/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/18/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/18/2009	DLC
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/18/2009	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/18/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-2-09/09
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-3-09/09
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/18/2009	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/18/2009	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/18/2009	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Tetrachloroethylene	EPA-8260	2.8	2.0	1	UG/L	9/18/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-3-09/09
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/18/2009	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-3-09/09
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-4-09/09
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/18/2009	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/18/2009	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/18/2009	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Tetrachloroethylene	EPA-8260	28	8.0	4	UG/L	9/21/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-4-09/09
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/18/2009	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-4-09/09
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-5-09/09
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/18/2009	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/18/2009	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/18/2009	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Tetrachloroethylene	EPA-8260	11	2.0	1	UG/L	9/18/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-5-09/09
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/18/2009	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

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ALS Laboratory Group
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P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-5-09/09
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

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Bellevue, WA 98009-3885

DATE: 9/22/2009
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-6-09/09
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/18/2009	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/18/2009	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/18/2009	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Tetrachloroethylene	EPA-8260	23	2.0	1	UG/L	9/18/2009	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
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Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-6-09/09
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/18/2009	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/18/2009	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/18/2009	GAP

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 9/22/2009
ALS JOB#: 0909084
DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366
CLIENT SAMPLE ID: 9/17/2009 GW-6-09/09
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0909084-01	NWTPH-GX	TFT	69%
0909084-01	EPA-8021	TFT	73%
0909084-01	EPA-8260	1,2-Dichloroethane-d4	101%
0909084-01	EPA-8260	4-Bromofluorobenzene	94%
0909084-02	NWTPH-GX	TFT	77%
0909084-02	EPA-8021	TFT	78%
0909084-02	EPA-8260	1,2-Dichloroethane-d4	103%
0909084-02	EPA-8260	4-Bromofluorobenzene	94%
0909084-03	EPA-8260	1,2-Dichloroethane-d4	103%
0909084-03	EPA-8260	Toluene-d8	101%
0909084-03	EPA-8260	4-Bromofluorobenzene	93%
0909084-04	EPA-8260	1,2-Dichloroethane-d4	103%
0909084-04	EPA-8260	Toluene-d8	101%
0909084-04	EPA-8260	4-Bromofluorobenzene	95%
0909084-04 4X Dilution	EPA-8260	1,2-Dichloroethane-d4	98%
0909084-04 4X Dilution	EPA-8260	Toluene-d8	97%
0909084-04 4X Dilution	EPA-8260	4-Bromofluorobenzene	94%
0909084-05	EPA-8260	1,2-Dichloroethane-d4	102%
0909084-05	EPA-8260	Toluene-d8	102%
0909084-05	EPA-8260	4-Bromofluorobenzene	91%
0909084-06	EPA-8260	1,2-Dichloroethane-d4	101%
0909084-06	EPA-8260	Toluene-d8	99%
0909084-06	EPA-8260	4-Bromofluorobenzene	95%

APPROVED BY:

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DATE: 9/22/2009
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DATE RECEIVED: 9/18/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-091809W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-091809W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-091809W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-091809W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-091809W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-091809W	Water	EPA-8260	Dichlorodifluoromethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Chloromethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Vinyl Chloride	ND(<0.20)	UG/L
MB-091809W	Water	EPA-8260	Bromomethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Chloroethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Trichlorofluoromethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Carbon Tetrachloride	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Acetone	ND(<25)	UG/L
MB-091809W	Water	EPA-8260	Carbon Disulfide	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,1-Dichloroethene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Methylene Chloride	ND(<5.0)	UG/L
MB-091809W	Water	EPA-8260	Acrylonitrile	ND(<10)	UG/L
MB-091809W	Water	EPA-8260	Methyl T-Butyl Ether	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Trans-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,1-Dichloroethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	2-Butanone	ND(<10)	UG/L
MB-091809W	Water	EPA-8260	Cis-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	2,2-Dichloropropane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Bromochloromethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Chloroform	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,1,1-Trichloroethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,1-Dichloropropene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2-Dichloroethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Benzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Trichloroethene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2-Dichloropropane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Dibromomethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Bromodichloromethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Trans-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	4-Methyl-2-Pentanone	ND(<10)	UG/L
MB-091809W	Water	EPA-8260	Toluene	ND(<2.0)	UG/L

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CERTIFICATE OF ANALYSIS

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Bellevue, WA 98009-3885

DATE: 9/22/2009
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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-091809W	Water	EPA-8260	Cis-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,1,2-Trichloroethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	2-Hexanone	ND(<10)	UG/L
MB-091809W	Water	EPA-8260	1,3-Dichloropropane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Tetrachloroethylene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Dibromochloromethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2-Dibromoethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Chlorobenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,1,1,2-Tetrachloroethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Ethylbenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	m,p-Xylene	ND(<4.0)	UG/L
MB-091809W	Water	EPA-8260	Styrene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	o-Xylene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Bromoform	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Isopropylbenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,1,2,2-Tetrachloroethane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2,3-Trichloropropane	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Bromobenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	N-Propyl Benzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	2-Chlorotoluene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,3,5-Trimethylbenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	4-Chlorotoluene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	T-Butyl Benzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2,4-Trimethylbenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	S-Butyl Benzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	P-Isopropyltoluene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,3 Dichlorobenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,4-Dichlorobenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	N-Butylbenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2-Dichlorobenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2-Dibromo 3-Chloropropane	ND(<10)	UG/L
MB-091809W	Water	EPA-8260	1,2,4-Trichlorobenzene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Hexachlorobutadiene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	Naphthalene	ND(<2.0)	UG/L
MB-091809W	Water	EPA-8260	1,2,3-Trichlorobenzene	ND(<2.0)	UG/L

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS

APPROVED BY:

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CERTIFICATE OF ANALYSIS

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops Ave D / 19947-71366

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
273	Water	NWTPH-GX	TPH-Volatile Range	500	89%	83%	6
273	Water	EPA-8021	Benzene	20	91%	96%	5
273	Water	EPA-8021	Toluene	20	90%	95%	5
273	Water	EPA-8021	Ethylbenzene	20	90%	95%	5
273	Water	EPA-8021	Xylenes	60	91%	95%	4
278	Water	EPA-8260	1,1-Dichloroethene	10	118%	108%	8
278	Water	EPA-8260	Benzene	10	115%	114%	1
278	Water	EPA-8260	Trichloroethene	10	113%	109%	4
278	Water	EPA-8260	Toluene	10	111%	110%	1
278	Water	EPA-8260	Chlorobenzene	10	114%	115%	0

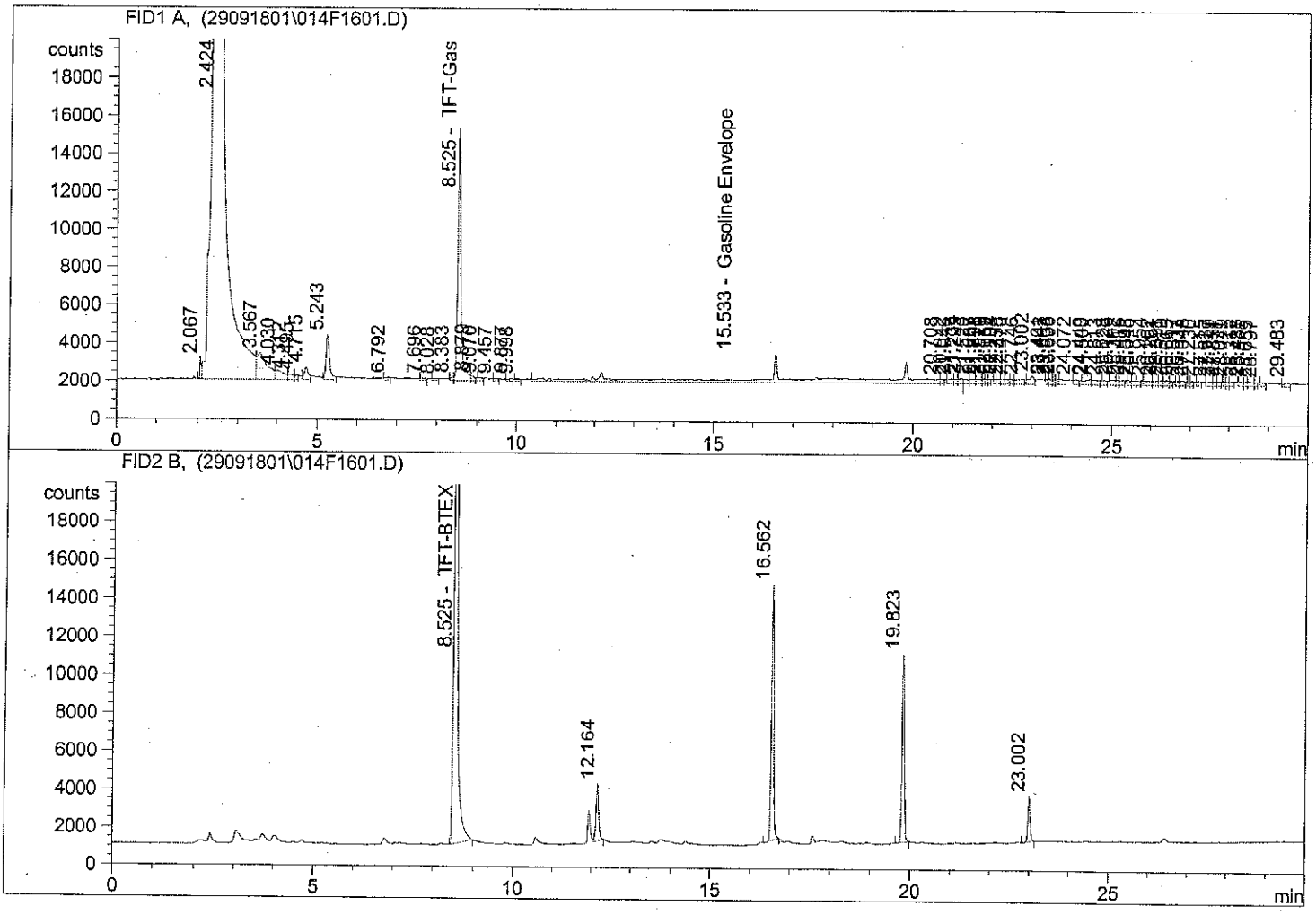
APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

Gas/BTEX Instrument 2
Data File: C:\HPCHEM\2\DATA\29091801\014F1601.D
Injection Date & Time: 9/18/2009 5:17:12 PM
Report Created on: 9/21/2009 8:23:09 AM
Operator: DLC
Aquistion Method: GBTX0907.M
Analysis Method: C:\HPCHEM\2\METHODS\GXBT1108.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:0909084-01A 5ML Dilution: X 0.0



Ret. Time	Compound Name	Area	Amount ug/L
8.525	TFT-Gas	71021.383	6.887
15.533	Gasoline Envelope	107928.234	16.070

69%

Gas < 50 µg/L

Ret. Time	Compound Name	Area	Amount ug/L
0.000	MTBE	0.000	0.000
0.000	Benzene	0.000	0.000
8.525	TFT-BTEX	218726.078	7.267
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

73%

REVIEWED BY & DATE RB 9/22/09

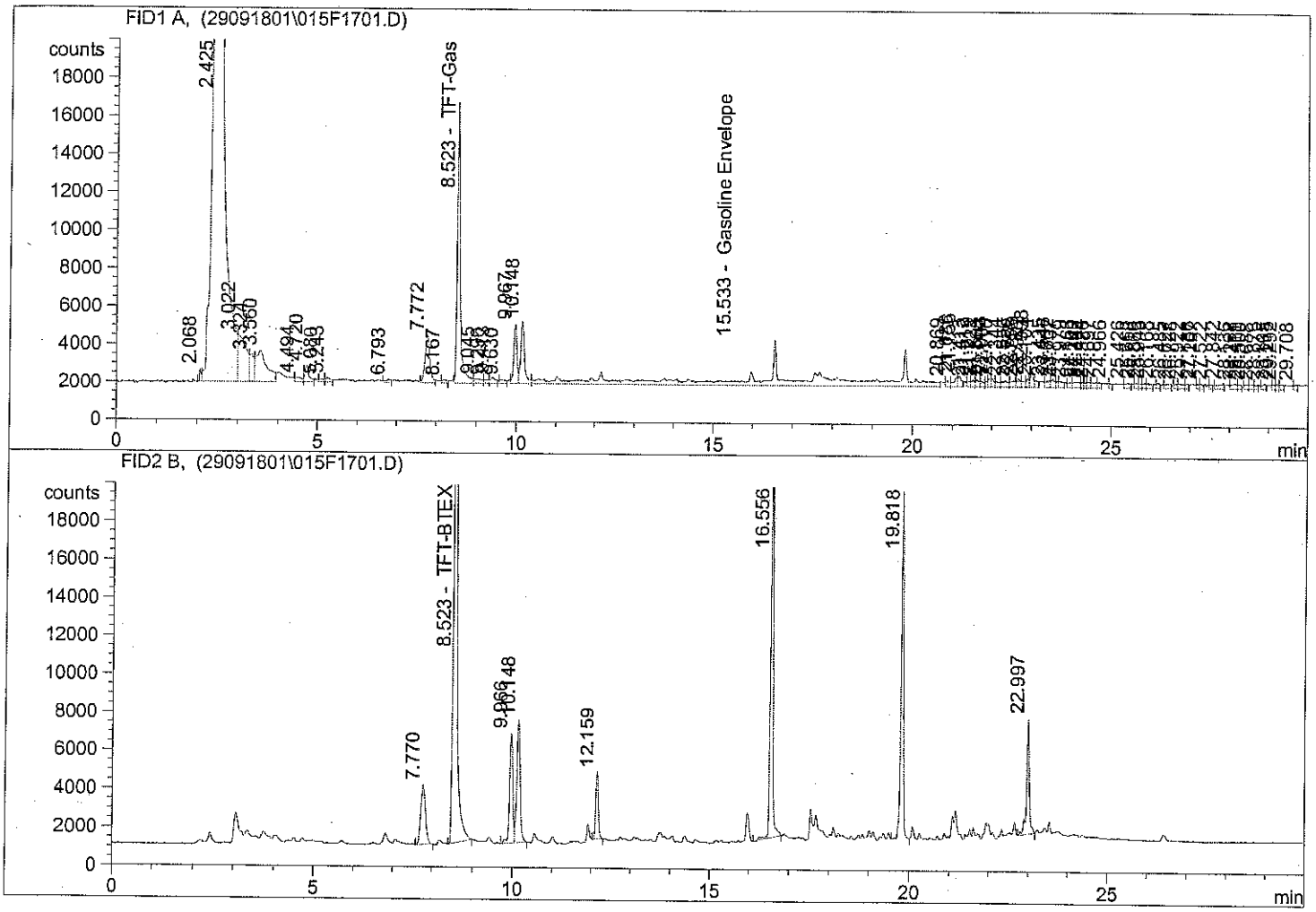
B.T.E < 1 µg/L x < 3 µg/L

9-21-09 N

Gas/BTEX Instrument 2
Data File: C:\HPCHEM\2\DATA\29091801\015F1701.D
Injection Date & Time: 9/18/2009 5:53:42 PM
Report Created on: 9/21/2009 8:23:28 AM
Operator: DLC
Aquistion Method: GBTX0907.M
Analysis Method: C:\HPCHEM\2\METHODS\GXBT1108.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:0909084-02A 5ML Dilution: X 0.0



Ret. Time	Compound Name	Area	Amount ug/L
8.523	TFT-Gas	79822.750	7.741
15.533	Gasoline Envelope	164436.125	24.484

77%

Gas < 50 µg/L

Ret. Time	Compound Name	Area	Amount ug/L
0.000	MTBE	0.000	0.000
0.000	Benzene	0.000	0.000
8.523	TFT-BTEX	236234.344	7.827
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

78%

REVIEWED BY & DATE BB 9/22/09

BTE < 1 µg/L x < 3 µg/L

909084

CDM

CHAIN-OF-CUSTODY

Date 9/18/09 Page 1 of 1

PROJECT INFORMATION

Project Manager: Ben Merrill

Project Name: Snohomish Shops Ave O

Project Number: 19947-71366

Site Location: Snohomish Sampled By: MF

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

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS: TPH-HCID State:	TPH-G State: NWTPH-GBTEX	TPH-D State: NWTPH-Dx	TPH-418.1 State:	8015M Fuel Hydrocarbon	TPH Special Instructions	ORGANIC COMPOUNDS: 8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GC/MS Volatiles (Unpreserved)	8270 GC/MS Semivolatiles	8310 PAHs	8040 Phenols	DWS - Volatiles and Semivolatiles	PESTS/PCBs: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	METALS: Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER: Full VOAs - 8260						NUMBER OF CONTAINERS
GW-1-09/09	9/17/09	0945	Water	1		X								X																			X						5
GW-2-09/09	9/17/09	1040		2		X								X																										5
GW-3-09/09	9/17/09	1145		3																													X						3
GW-4-09/09	9/17/09	1235		4																													X						3
GW-5-09/09	9/17/09	1340		5																													X						3
GW-6-09/09	9/17/09	1440		6																													X						3

LAB INFORMATION

Lab Name: ALS

Lab Address: 8620 Holly Drive Everett

Via: Lab pickup

SAMPLE RECEIPT

Total Number of Containers:

Chain-of-Custody Seals: Y/N/NA

Intact?: Y/N/NA

Received in Good Condition/Cold:

Turn Around Time: ☑ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions: All vials have preservatives

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Mary Lou Fox Time: 0800	Signature: Time:	Signature: Time:
Printed Name: Mary Lou Fox Date: 9/18/09	Printed Name: Date:	Printed Name: Date:
Company: CDM	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 10:00	Signature: Time:	Signature: Time:
Printed Name: Rick Bay Date: 9/18/09	Printed Name: Date:	Printed Name: Date:
Company: ALS	Company:	Company:

CDM OFFICES: Bellevue: (206) 453-8383
Portland: (503) 232-1800

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to CDM Project Files; Gold to CDM Disposal Files

rev. 2/02

forms\field\chainofcustody.p65

Analytical Resources, Incorporated
Analytical Chemists and Consultants

October 20, 2009

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

RE: Project ID: Ave D, 19947-71366
ARI Job No: PS05

Dear Pam:

Please find enclosed the 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 one water sample and two sediment samples on October 8, 2009. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for Halogenated VOCs, as requested on the COC.

The continuing calibration of Vinyl Chloride was outside the 20% control limit high for the 10/16/09 VOC analysis. All detected results on the date of analysis have been flagged with a "Q" qualifier. No further corrective action was required.

The LCSD percent recovery of Vinyl Chloride was outside the control limits high for **LCS-101609**. The LCS percent recovery was within control limits. No corrective action was required.

All matrix spike and matrix spike duplicate percent recoveries were outside the advisory control limits for sample **GRIT #2**. No corrective action is required for matrix QC.

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: PS05

Enclosures

CDM

CHAIN-OF-CUSTODY

Date 10/8/09 Page 1 of 1

PROJECT INFORMATION

Project Manager: Pam Morrill
Project Name: Ave D
Project Number: 9947-71366
Site Location: Snohomish Sampled By: JM

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

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS: TPH-HCID State:	TPH-G State:	TPH-D State:	TPH-418.1 State:	8015M Fuel Hydrocarbon	TPH Special Instructions	ORGANIC COMPOUNDS: 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	PESTS/PCBs: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	METALS: Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER	NUMBER OF CONTAINERS
Sump #1	10/8/09	850	H_2O								X																							3
Grit #1	↓	855	SED								X																							1
Grit #2	↓	905	SED								X																							1

LAB INFORMATION

Lab Name: ARI
Lab Address:
Via: Courier

SAMPLE RECEIPT

Total Number of Containers:
Chain-of-Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 330	Signature: Time: 1655	Signature: Time:
Printed Name: Pamela J. Morrill Date: 10/8/09	Printed Name: Rich Hudson Date: 10/8/9	Printed Name: Date:
Company: CDM	Company: ARI	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

PS95-00002

CDM OFFICES: Bellevue: (206) 453-8383
Portland: (503) 232-1800

rev. 2/02

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to CDM Project Files; Gold to CDM Disposal Files

forms\field\chain of custody.p65

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: CDM
Project Name: Ave D
COC No(s): _____ (NA)
Delivered by: Fed-Ex UPS (Courier) Hand Delivered Other: _____
Assigned ARI Job No: PS05
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) 8.7
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619

Cooler Accepted by: _____ Date: 10/8/09 Time: 1655

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

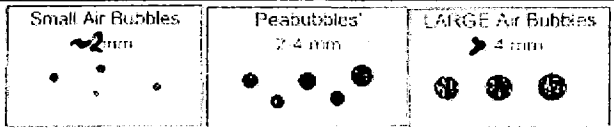
Samples Logged by: MH Date: 10/9/09 Time: 805

***** 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"

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Temperature Compliance Form

Cooler#: 1 Temperature(°C): 8.7

Sample ID	Bottle Count	Bottle Type
Sump #1	3	40ML VOA
Grit #1	1	4oz WMG
Grit #2	1	"

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: [signature] Date: 10/9/04 Time: 805

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: SUMP #1**
Page 1 of 1 **SAMPLE**

Lab Sample ID: PS05A
LIMS ID: 09-23896
Matrix: Water
Data Release Authorized:
Reported: 10/19/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: 10/08/09
Date Received: 10/08/09

Instrument/Analyst: NT5/PKC
Date Analyzed: 10/12/09 18:45

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
75-09-2	Methylene Chloride	0.5	< 0.5	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
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
75-25-2	Bromoform	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	97.3%
d4-1,2-Dichlorobenzene	98.6%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-101209	Method Blank	10	101%	97.3%	NA	99.5%	0
LCS-101209	Lab Control	10	103%	97.8%	NA	100%	0
LCSD-101209	Lab Control Dup	10	102%	97.4%	NA	97.9%	0
PS05A	SUMP #1	10	103%	97.3%	NA	98.6%	0

	LCS/MB LIMITS	QC LIMITS
SW8260C		
(DCE) = d4-1,2-Dichloroethane	70-132	80-143
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 09-23896 to 09-23896

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-101209**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-101209
LIMS ID: 09-23896
Matrix: Water
Data Release Authorized:
Reported: 10/19/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/PKC
LCSD: NT5/PKC
Date Analyzed LCS: 10/12/09 10:28
LCSD: 10/12/09 10:53

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	11.1	10.0	111%	10.6	10.0	106%	4.6%
Methylene Chloride	10.3	10.0	103%	9.5	10.0	95.0%	8.1%
1,1-Dichloroethene	11.0	10.0	110%	10.6	10.0	106%	3.7%
trans-1,2-Dichloroethene	10.9	10.0	109%	10.4	10.0	104%	4.7%
cis-1,2-Dichloroethene	10.8	10.0	108%	10.4	10.0	104%	3.8%
Chloroform	10.7	10.0	107%	10.2	10.0	102%	4.8%
1,2-Dichloroethane	11.0	10.0	110%	10.2	10.0	102%	7.5%
1,1,1-Trichloroethane	11.0	10.0	110%	10.6	10.0	106%	3.7%
Carbon Tetrachloride	12.4	10.0	124%	11.6	10.0	116%	6.7%
Bromodichloromethane	10.8	10.0	108%	10.3	10.0	103%	4.7%
Trichloroethene	10.7	10.0	107%	10.1	10.0	101%	5.8%
Dibromochloromethane	11.2	10.0	112%	10.4	10.0	104%	7.4%
Bromoform	10.8	10.0	108%	10.0	10.0	100%	7.7%
Tetrachloroethene	10.7	10.0	107%	10.1	10.0	101%	5.8%
Chlorobenzene	10.8	10.0	108%	10.3	10.0	103%	4.7%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	103%	102%
d8-Toluene	97.8%	97.4%
d4-1,2-Dichlorobenzene	100%	97.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-101209**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-101209
LIMS ID: 09-23896
Matrix: Water
Data Release Authorized:
Reported: 10/19/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PKC
Date Analyzed: 10/12/09 11:19

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
75-09-2	Methylene Chloride	0.5	< 0.5	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
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
75-25-2	Bromoform	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	101%
d8-Toluene	97.3%
d4-1,2-Dichlorobenzene	99.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GRIT #1**
Page 1 of 1 **SAMPLE**

Lab Sample ID: PS05B
LIMS ID: 09-23897
Matrix: Sediment
Data Release Authorized:
Reported: 10/20/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: 10/08/09
Date Received: 10/08/09

Instrument/Analyst: FINN5/PAB
Date Analyzed: 10/16/09 22:02

Sample Amount: 0.294 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 73.3%

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	17	< 17	U
75-09-2	Methylene Chloride	34	< 34	U
75-35-4	1,1-Dichloroethene	17	< 17	U
156-60-5	trans-1,2-Dichloroethene	17	< 17	U
156-59-2	cis-1,2-Dichloroethene	17	< 17	U
67-66-3	Chloroform	17	< 17	U
107-06-2	1,2-Dichloroethane	17	< 17	U
71-55-6	1,1,1-Trichloroethane	17	< 17	U
56-23-5	Carbon Tetrachloride	17	< 17	U
75-27-4	Bromodichloromethane	17	< 17	U
79-01-6	Trichloroethene	17	< 17	U
124-48-1	Dibromochloromethane	17	< 17	U
75-25-2	Bromoform	17	< 17	U
127-18-4	Tetrachloroethene	17	< 17	U
108-90-7	Chlorobenzene	17	< 17	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	122%
d8-Toluene	98.7%
d4-1,2-Dichlorobenzene	98.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GRIT #2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: PS05C
LIMS ID: 09-23898
Matrix: Sediment
Data Release Authorized:
Reported: 10/20/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: 10/08/09
Date Received: 10/08/09

Instrument/Analyst: FINN5/PAB
Date Analyzed: 10/16/09 21:35

Sample Amount: 3.13 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 51.2%

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	1.6	< 1.6	U
75-09-2	Methylene Chloride	3.2	< 3.2	U
75-35-4	1,1-Dichloroethene	1.6	< 1.6	U
156-60-5	trans-1,2-Dichloroethene	1.6	< 1.6	U
156-59-2	cis-1,2-Dichloroethene	1.6	< 1.6	U
67-66-3	Chloroform	1.6	< 1.6	U
107-06-2	1,2-Dichloroethane	1.6	< 1.6	U
71-55-6	1,1,1-Trichloroethane	1.6	< 1.6	U
56-23-5	Carbon Tetrachloride	1.6	< 1.6	U
75-27-4	Bromodichloromethane	1.6	< 1.6	U
79-01-6	Trichloroethene	1.6	< 1.6	U
124-48-1	Dibromochloromethane	1.6	< 1.6	U
75-25-2	Bromoform	1.6	< 1.6	U
127-18-4	Tetrachloroethene	1.6	< 1.6	U
108-90-7	Chlorobenzene	1.6	< 1.6	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	119%
d8-Toluene	101%
d4-1,2-Dichlorobenzene	99.0%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
PS05B	GRIT #1	Low	122%	98.7%	NA	98.2%	0
MB-101609	Method Blank	Low	109%	97.5%	NA	101%	0
LCS-101609	Lab Control	Low	106%	103%	NA	101%	0
LCSD-101609	Lab Control Dup	Low	107%	101%	NA	101%	0
PS05C	GRIT #2	Low	119%	101%	NA	99.0%	0
PS05CMS	GRIT #2	Low	124%	95.2%	NA	94.0%	0
PS05CMSD	GRIT #2	Low	115%	95.8%	NA	96.3%	0

	LCS/MB LIMITS		QC LIMITS	
SW8260C	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 09-23897 to 09-23898

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GRIT #2**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: PS05C
LIMS ID: 09-23898
Matrix: Sediment
Data Release Authorized:
Reported: 10/20/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: 10/08/09
Date Received: 10/08/09

Instrument/Analyst MS: FINN5/PAB
MSD: FINN5/PAB
Date Analyzed MS: 10/16/09 22:28
MSD: 10/16/09 22:55

Sample Amount MS: 3.05 g-dry-wt
MSD: 3.04 g-dry-wt
Purge Volume MS: 5.0 mL
MSD: 5.0 mL
Moisture: 51.2%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Vinyl Chloride	< 1.6 U	126 Q	82.0	154%	113 Q	82.2	137%	10.9%
Methylene Chloride	< 3.2 U	58.2	82.0	71.0%	54.9	82.2	66.8%	5.8%
1,1-Dichloroethene	< 1.6 U	62.9	82.0	76.7%	57.1	82.2	69.5%	9.7%
trans-1,2-Dichloroethene	< 1.6 U	51.7	82.0	63.0%	46.0	82.2	56.0%	11.7%
cis-1,2-Dichloroethene	< 1.6 U	44.4	82.0	54.1%	40.6	82.2	49.4%	8.9%
Chloroform	< 1.6 U	45.7	82.0	55.7%	42.1	82.2	51.2%	8.2%
1,2-Dichloroethane	< 1.6 U	39.3	82.0	47.9%	38.4	82.2	46.7%	2.3%
1,1,1-Trichloroethane	< 1.6 U	50.6	82.0	61.7%	45.9	82.2	55.8%	9.7%
Carbon Tetrachloride	< 1.6 U	31.4	82.0	38.3%	29.3	82.2	35.6%	6.9%
Bromodichloromethane	< 1.6 U	17.3	82.0	21.1%	16.3	82.2	19.8%	6.0%
Trichloroethene	< 1.6 U	33.7	82.0	41.1%	31.7	82.2	38.6%	6.1%
Dibromochloromethane	< 1.6 U	12.3	82.0	15.0%	12.3	82.2	15.0%	0.0%
Bromoform	< 1.6 U	10.6	82.0	12.9%	10.0	82.2	12.2%	5.8%
Tetrachloroethene	< 1.6 U	23.3	82.0	28.4%	20.8	82.2	25.3%	11.3%
Chlorobenzene	< 1.6 U	19.4	82.0	23.7%	18.1	82.2	22.0%	6.9%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GRIT #2**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: PS05C
LIMS ID: 09-23898
Matrix: Sediment
Data Release Authorized:
Reported: 10/20/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: 10/08/09
Date Received: 10/08/09

Instrument/Analyst: FINN5/PAB
Date Analyzed: 10/16/09 22:28

Sample Amount: 3.05 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 51.2%

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	1.6	---	
75-09-2	Methylene Chloride	3.3	---	
75-35-4	1,1-Dichloroethene	1.6	---	
156-60-5	trans-1,2-Dichloroethene	1.6	---	
156-59-2	cis-1,2-Dichloroethene	1.6	---	
67-66-3	Chloroform	1.6	---	
107-06-2	1,2-Dichloroethane	1.6	---	
71-55-6	1,1,1-Trichloroethane	1.6	---	
56-23-5	Carbon Tetrachloride	1.6	---	
75-27-4	Bromodichloromethane	1.6	---	
79-01-6	Trichloroethene	1.6	---	
124-48-1	Dibromochloromethane	1.6	---	
75-25-2	Bromoform	1.6	---	
127-18-4	Tetrachloroethene	1.6	---	
108-90-7	Chlorobenzene	1.6	---	

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	124%
d8-Toluene	95.2%
d4-1,2-Dichlorobenzene	94.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GRIT #2**
Page 1 of 1 **MATRIX SPIKE DUP**

Lab Sample ID: PS05C
LIMS ID: 09-23898
Matrix: Sediment
Data Release Authorized:
Reported: 10/20/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: 10/08/09
Date Received: 10/08/09

Instrument/Analyst: FINN5/PAB
Date Analyzed: 10/16/09 22:55

Sample Amount: 3.04 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 51.2%

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	1.6	---	
75-09-2	Methylene Chloride	3.3	---	
75-35-4	1,1-Dichloroethene	1.6	---	
156-60-5	trans-1,2-Dichloroethene	1.6	---	
156-59-2	cis-1,2-Dichloroethene	1.6	---	
67-66-3	Chloroform	1.6	---	
107-06-2	1,2-Dichloroethane	1.6	---	
71-55-6	1,1,1-Trichloroethane	1.6	---	
56-23-5	Carbon Tetrachloride	1.6	---	
75-27-4	Bromodichloromethane	1.6	---	
79-01-6	Trichloroethene	1.6	---	
124-48-1	Dibromochloromethane	1.6	---	
75-25-2	Bromoform	1.6	---	
127-18-4	Tetrachloroethene	1.6	---	
108-90-7	Chlorobenzene	1.6	---	

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	115%
d8-Toluene	95.8%
d4-1,2-Dichlorobenzene	96.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-101609**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-101609
LIMS ID: 09-23898
Matrix: Sediment
Data Release Authorized:
Reported: 10/20/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: FINN5/PAB
LCSD: FINN5/PAB
Date Analyzed LCS: 10/16/09 14:43
LCSD: 10/16/09 15:05

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	65.9 Q	50.0	132%	70.9 Q	50.0	142%	7.3%
Methylene Chloride	45.1	50.0	90.2%	48.3	50.0	96.6%	6.9%
1,1-Dichloroethene	46.1	50.0	92.2%	48.0	50.0	96.0%	4.0%
trans-1,2-Dichloroethene	46.4	50.0	92.8%	48.3	50.0	96.6%	4.0%
cis-1,2-Dichloroethene	45.6	50.0	91.2%	48.2	50.0	96.4%	5.5%
Chloroform	48.3	50.0	96.6%	51.2	50.0	102%	5.8%
1,2-Dichloroethane	46.5	50.0	93.0%	48.7	50.0	97.4%	4.6%
1,1,1-Trichloroethane	49.7	50.0	99.4%	51.8	50.0	104%	4.1%
Carbon Tetrachloride	49.0	50.0	98.0%	50.1	50.0	100%	2.2%
Bromodichloromethane	47.0	50.0	94.0%	50.1	50.0	100%	6.4%
Trichloroethene	46.6	50.0	93.2%	48.1	50.0	96.2%	3.2%
Dibromochloromethane	49.0	50.0	98.0%	50.2	50.0	100%	2.4%
Bromoform	50.0	50.0	100%	48.1	50.0	96.2%	3.9%
Tetrachloroethene	43.8	50.0	87.6%	42.7	50.0	85.4%	2.5%
Chlorobenzene	48.0	50.0	96.0%	49.2	50.0	98.4%	2.5%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	106%	107%
d8-Toluene	103%	101%
d4-1,2-Dichlorobenzene	101%	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-101609**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-101609
LIMS ID: 09-23898
Matrix: Sediment
Data Release Authorized:
Reported: 10/20/09

QC Report No: PS05-CDM, Inc.
Project: AVE D
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst: FINN5/PAB
Date Analyzed: 10/16/09 15:32

Sample Amount: 5.00 g-dry-wt
Purge Volume: 5.0 mL
Moisture: NA

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
75-25-2	Bromoform	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	109%
d8-Toluene	97.5%
d4-1,2-Dichlorobenzene	101%

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

DEC 18 2009

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 12/15/2009
ALS JOB#: 0912052
DATE RECEIVED: 12/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 EP1-W
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	12/10/2009	CCN
Bromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	12/10/2009	CCN
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Tetrachloroethylene	EPA-8260	22	2.0	1	UG/L	12/10/2009	CCN
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromoform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 12/15/2009
ALS JOB#: 0912052
DATE RECEIVED: 12/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 EP1-W
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	12/10/2009	CCN
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

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DATE: 12/15/2009
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 EP2-W
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	12/10/2009	CCN
Bromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	12/10/2009	CCN
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Tetrachloroethylene	EPA-8260	2.6	2.0	1	UG/L	12/10/2009	CCN
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromoform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

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Bellevue, WA 98009-3885

DATE: 12/15/2009
ALS JOB#: 0912052
DATE RECEIVED: 12/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 EP2-W
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	12/10/2009	CCN
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 12/15/2009
ALS JOB#: 0912052
DATE RECEIVED: 12/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 EP3-W
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	12/10/2009	CCN
Bromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	12/10/2009	CCN
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Tetrachloroethylene	EPA-8260	11	2.0	1	UG/L	12/10/2009	CCN
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromoform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

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ANALYTICAL CHEMISTRY & TESTING SERVICES

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 EP3-W
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	12/10/2009	CCN
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 12/15/2009
ALS JOB#: 0912052
DATE RECEIVED: 12/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 Sump-W
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	12/10/2009	CCN
Bromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	12/10/2009	CCN
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chloroform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Tetrachloroethylene	EPA-8260	12	2.0	1	UG/L	12/10/2009	CCN
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromoform	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

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P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 12/15/2009
ALS JOB#: 0912052
DATE RECEIVED: 12/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops
CLIENT SAMPLE ID: 12/8/2009 Sump-W
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	12/10/2009	CCN
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	12/10/2009	CCN

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0912052-01	EPA-8260	1,2-Dichloroethane-d4	106%
0912052-01	EPA-8260	4-Bromofluorobenzene	101%
0912052-02	EPA-8260	1,2-Dichloroethane-d4	107%
0912052-02	EPA-8260	4-Bromofluorobenzene	95%
0912052-03	EPA-8260	1,2-Dichloroethane-d4	107%
0912052-03	EPA-8260	4-Bromofluorobenzene	95%
0912052-04	EPA-8260	1,2-Dichloroethane-d4	109%
0912052-04	EPA-8260	4-Bromofluorobenzene	99%

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CLIENT PROJECT ID: Snohomish Shops

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-121109A	Water	EPA-8260	Dichlorodifluoromethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Chloromethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Vinyl Chloride	ND(<0.020)	UG/L
MB-121109A	Water	EPA-8260	Bromomethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Chloroethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Trichlorofluoromethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Carbon Tetrachloride	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,1-Dichloroethene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Methylene Chloride	ND(<0.50)	UG/L
MB-121109A	Water	EPA-8260	Trans-1,2-Dichloroethene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,1-Dichloroethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Cis-1,2-Dichloroethene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	2,2-Dichloropropane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Bromochloromethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Chloroform	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,1,1-Trichloroethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,1-Dichloropropene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,2-Dichloroethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Trichloroethene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,2-Dichloropropane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Dibromomethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Bromodichloromethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Trans-1,3-Dichloropropene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Toluene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Cis-1,3-Dichloropropene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,1,2-Trichloroethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,3-Dichloropropane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Tetrachloroethylene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Dibromochloromethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,2-Dibromoethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Chlorobenzene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,1,1,2-Tetrachloroethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Bromoform	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,1,2,2-Tetrachloroethane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,2,3-Trichloropropane	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Bromobenzene	ND(<0.20)	UG/L

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish Shops

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-121109A	Water	EPA-8260	2-Chlorotoluene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	4-Chlorotoluene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,3 Dichlorobenzene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,4-Dichlorobenzene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,2-Dichlorobenzene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,2-Dibromo 3-Chloropropane	ND(<1.0)	UG/L
MB-121109A	Water	EPA-8260	1,2,4-Trichlorobenzene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	Hexachlorobutadiene	ND(<0.20)	UG/L
MB-121109A	Water	EPA-8260	1,2,3-Trichlorobenzene	ND(<0.20)	UG/L

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CLIENT PROJECT ID: Snohomish Shops

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
429	Water	EPA-8260	1,1-Dichloroethene	1	104%	98%	6
429	Water	EPA-8260	Trichloroethene	1	98%	95%	3
429	Water	EPA-8260	Toluene	1	90%	87%	3
429	Water	EPA-8260	Chlorobenzene	1	90%	88%	2

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

912052

CDM

CHAIN-OF-CUSTODY

Date 12/8/09 Page 1 of 1

PROJECT INFORMATION

Project Manager: Pam Morrill

Project Name: Snohomish Shops

Project Number: 19947.71633

Site Location: _____ Sampled By: AW

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

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS: TPH-HCID State:	TPH-G State:	TPH-D State:	TPH-418.1 State:	8015M Fuel Hydrocarbon	TPH Special Instructions	ORGANIC COMPOUNDS: 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	PESTS/PCBs: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	METALS: Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (We)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER	NUMBER OF CONTAINERS
EP1-W	12/8/09	1405	W	1							X																							3
EP2-W	1	1350	1	2							X																							3
EP3-W	1	1340	1	3							X																							3
SUMP-W	↓	1415	↓	4							X																							3

LAB INFORMATION

Lab Name: ~~ONSITE~~ ALS

Lab Address:

Via:

SAMPLE RECEIPT

Total Number of Containers: 12

Chain-of-Custody Seals: Y/N/NA

Intact?: Y/N/NA

Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 12/9/09 8:00	Signature: [signature] Time: 8:35	Signature: Time:
Printed Name: Date:	Printed Name: Rick Bagan Date: 12/9/09	Printed Name: Date:
Company:	Company: ALS	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

CDM OFFICES: Bellevue: (206) 453-8383
Portland: (503) 232-1800

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to CDM Project Files; Gold to CDM Disposal Files

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
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DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP4-W
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	6.9	2.0	1	UG/L	1/15/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP4-W
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP5-W
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	3.0	2.0	1	UG/L	1/15/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP5-W
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
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DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP6-W
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	3.7	2.0	1	UG/L	1/15/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP6-W
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
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DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP7-W
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	2.2	2.0	1	UG/L	1/15/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP7-W
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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CERTIFICATE OF ANALYSIS

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DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP8-W
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	2.5	2.0	1	UG/L	1/15/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP8-W
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP9-W
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	35	8.0	4	UG/L	1/18/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP9-W
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
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DATE: 1/19/2010
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP10-W
ALS SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	36	8.0	4	UG/L	1/18/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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CERTIFICATE OF ANALYSIS

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P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP10-W
ALS SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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CERTIFICATE OF ANALYSIS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP11-W
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP11-W
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

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DATE: 1/19/2010
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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP12-W
ALS SAMPLE #: -09

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	1/15/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	1/15/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trichloroethene	EPA-8260	2.5	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
P.O. Box 3885
Bellevue, WA 98009-3885

DATE: 1/19/2010
ALS JOB#: 1001055
DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops
CLIENT SAMPLE ID: 1/14/2010 EP12-W
ALS SAMPLE #: -09

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	1/15/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	1/15/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1001055-01	EPA-8260	1,2-Dichloroethane-d4	98%
1001055-01	EPA-8260	4-Bromofluorobenzene	107%
1001055-02	EPA-8260	1,2-Dichloroethane-d4	99%
1001055-02	EPA-8260	4-Bromofluorobenzene	106%
1001055-03	EPA-8260	1,2-Dichloroethane-d4	101%
1001055-03	EPA-8260	4-Bromofluorobenzene	106%
1001055-04	EPA-8260	1,2-Dichloroethane-d4	96%
1001055-04	EPA-8260	4-Bromofluorobenzene	104%
1001055-05	EPA-8260	1,2-Dichloroethane-d4	100%
1001055-05	EPA-8260	4-Bromofluorobenzene	103%
1001055-06	EPA-8260	1,2-Dichloroethane-d4	100%
1001055-06	EPA-8260	4-Bromofluorobenzene	106%
1001055-06 4X Dilution	EPA-8260	1,2-Dichloroethane-d4	101%
1001055-06 4X Dilution	EPA-8260	4-Bromofluorobenzene	100%
1001055-07	EPA-8260	1,2-Dichloroethane-d4	100%
1001055-07	EPA-8260	4-Bromofluorobenzene	100%
1001055-07 4X Dilution	EPA-8260	1,2-Dichloroethane-d4	102%
1001055-07 4X Dilution	EPA-8260	4-Bromofluorobenzene	97%
1001055-08	EPA-8260	1,2-Dichloroethane-d4	101%
1001055-08	EPA-8260	4-Bromofluorobenzene	101%
1001055-09	EPA-8260	1,2-Dichloroethane-d4	102%
1001055-09	EPA-8260	4-Bromofluorobenzene	101%

APPROVED BY:

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DATE RECEIVED: 1/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-011510W	Water	EPA-8260	Dichlorodifluoromethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Chloromethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Vinyl Chloride	ND(<0.20)	UG/L
MB-011510W	Water	EPA-8260	Bromomethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Chloroethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Trichlorofluoromethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Carbon Tetrachloride	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,1-Dichloroethene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Methylene Chloride	ND(<5.0)	UG/L
MB-011510W	Water	EPA-8260	Trans-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,1-Dichloroethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Cis-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	2,2-Dichloropropane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Bromochloromethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Chloroform	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,1,1-Trichloroethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,1-Dichloropropene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,2-Dichloroethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Trichloroethene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,2-Dichloropropane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Dibromomethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Bromodichloromethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Trans-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Toluene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Cis-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,1,2-Trichloroethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,3-Dichloropropane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Tetrachloroethylene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Dibromochloromethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,2-Dibromoethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Chlorobenzene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,1,1,2-Tetrachloroethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Bromoform	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,1,2,2-Tetrachloroethane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,2,3-Trichloropropane	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Bromobenzene	ND(<2.0)	UG/L

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CERTIFICATE OF ANALYSIS

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Bellevue, WA 98009-3885

DATE: 1/19/2010
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Snohomish County Shops

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-011510W	Water	EPA-8260	2-Chlorotoluene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	4-Chlorotoluene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,3 Dichlorobenzene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,4-Dichlorobenzene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,2-Dichlorobenzene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,2-Dibromo 3-Chloropropane	ND(<10)	UG/L
MB-011510W	Water	EPA-8260	1,2,4-Trichlorobenzene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	Hexachlorobutadiene	ND(<2.0)	UG/L
MB-011510W	Water	EPA-8260	1,2,3-Trichlorobenzene	ND(<2.0)	UG/L

APPROVED BY:

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DATE: 1/19/2010
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CLIENT PROJECT ID: Snohomish County Shops

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
480	Water	EPA-8260	1,1-Dichloroethene	10	103%	103%	0
480	Water	EPA-8260	Trichloroethene	10	106%	105%	1
480	Water	EPA-8260	Toluene	10	97%	99%	1
480	Water	EPA-8260	Chlorobenzene	10	97%	99%	2

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 100155

Date 1/14/10 Page 1 Of 1

PROJECT ID: Snohomish County SHPS
REPORT TO COMPANY: CDM
PROJECT MANAGER: Pam Morrill
ADDRESS:
PHONE: FAX:
P.O. NUMBER: 19447.21366 E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☑ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. EP4-W	1/14/10	940	W	1						X											3	
2. EP5-W	"	1015	"	2						X											"	
3. EP6-W	"	1030	"	3						X											"	
4. EP7-W	"	1040	"	4						X											"	
5. EP8-W	"	1125	"	5						X											"	
6. EP9-W	"	1140	"	6						X											"	
7. EP10-W	"	1200	"	7						X											"	
8. EP11-W	"	1245	"	8						X											"	
9. EP12-W	1/14/10	1300	"	9						X											"	
10.																						

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] CDM 1/14/10 1338
   Received By: Shawn Rotaw ALS 1/14/10 1338
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

Analytical Resources, Incorporated
Analytical Chemists and Consultants

July 2, 2010

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

RE: Project ID: Snohomish Co. Shops, 19947.71366
ARI Job No: RB19

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 soil samples and a trip blank on June 18, 2010, under ARI job RB19. 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.

The surrogate percent recovery of d4-1,2-Dichloroethane fell outside the control limits low for **LCSD-062510**. All other surrogate percent recoveries were within control limits. No corrective action was taken.

There were no other 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 RB19

Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: RB19	Turn-around Requested: STD.	Page: 1 of 1	
ARI Client Company: CDM	Phone: 425-519-8300	Date: 6/18/10	Ice Present? Y
Client Contact: Pam Morrill		No. of Coolers: 1	Cooler Temps: 8.4
Client Project Name: Snohomish Co. Shops			
Client Project #: 19947.71366	Samplers: August Welch		

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

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: cVOCs	Notes/Comments
GW7-2.5	6/17/10	920	S	4	X	
GW8-2	6/17/10	1055	S	4	X	
GW9-2B	6/17/10	1305	S	4	X	
GW10-15.5	6/18/10	855	S	4	X	
GW11-16	6/18/10	1140	S	4	X	

Comments/Special Instructions	Relinquished by (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	August Welch	Jonathon Walter		
	Printed Name: August Welch	Printed Name: Jonathon Walter	Printed Name:	Printed Name:
	Company: CDM	Company: ARI	Company:	Company:
	Date & Time: 6/18/10 16:00	Date & Time: 6/18/10 1600	Date & Time:	Date & Time:

RB19:00002

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

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: CDM Project Name: Snohomish Co. Shops

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____

Assigned ARI Job No: RB19 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)..... 8.4 ____ ____ ____ ____ ____

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90441619

Cooler Accepted by: JW Date: 6/18/10 Time: 1600

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ...	Bubble Wrap (Wet Ice) Gel Packs (Baggies) (Foam Block) Paper Other: _____		
Was sufficient ice used (if appropriate)?	NA	YES	(NO)
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	NA	(YES)	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	NA	6/15/10	

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

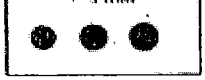
Samples Logged by: AV Date: 6/19/10 Time: 1112

***** 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 Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
		

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Temperature Compliance Form

RB19

Cooler#: 1 Temperature(°C): 8.4

Sample ID	Bottle Count	Bottle Type
All Samples associated with this job arrived out of temp compliance	4	3 40ml vials, 1 1/2oz jar
	2	Trip Blanks 2 40ml vials

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: AV Date: 10/19/10 Time: 1114

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW7-2.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RB19A
LIMS ID: 10-14794
Matrix: Soil
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops 19947-71366
Date Sampled: 06/17/10
Date Received: 06/18/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 06/26/10 23:31

Sample Amount: 5.27 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 5.4%

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

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	129%
Bromofluorobenzene	97.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW8-2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RB19B
LIMS ID: 10-14795
Matrix: Soil
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops 19947-71366
Date Sampled: 06/17/10
Date Received: 06/18/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 06/26/10 23:58

Sample Amount: 6.29 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 10.2%

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
127-18-4	**Tetrachloroethene**	**0.8**	**4.4**	

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	131%
Bromofluorobenzene	96.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW9-2B**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RB19C
LIMS ID: 10-14796
Matrix: Soil
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops 19947-71366
Date Sampled: 06/17/10
Date Received: 06/18/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 06/27/10 00:26

Sample Amount: 5.85 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 5.7%

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

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	135%
Bromofluorobenzene	91.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW10-15.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RB19D
LIMS ID: 10-14797
Matrix: Soil
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops
19947-71366
Date Sampled: 06/18/10
Date Received: 06/18/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 06/27/10 00:54

Sample Amount: 5.50 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 7.4%

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

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	137%
Bromofluorobenzene	103%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW11-16**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RB19E
LIMS ID: 10-14798
Matrix: Soil
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops 19947-71366
Date Sampled: 06/18/10
Date Received: 06/18/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 06/27/10 01:21

Sample Amount: 4.97 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 15.2%

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

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	132%
Bromofluorobenzene	98.6%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops
19947-71366

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-062610	Method Blank	Low	118%	NA	95.9%	NA	0
LCS-062610	Lab Control	Low	86.6%	NA	100%	NA	0
LCSD-062610	Lab Control Dup	Low	102%	NA	99.3%	NA	0
RB19A	GW7-2.5	Low	129%	NA	97.3%	NA	0
RB19B	GW8-2	Low	131%	NA	96.5%	NA	0
RB19C	GW9-2B	Low	135%	NA	91.3%	NA	0
RB19D	GW10-15.5	Low	137%	NA	103%	NA	0
RB19E	GW11-16	Low	132%	NA	98.6%	NA	0

	LCS/MB LIMITS		QC LIMITS	
SW8260C	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 10-14794 to 10-14798

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-062610**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-062610
LIMS ID: 10-14794
Matrix: Soil
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: FINN5/AAR
LCSD: FINN5/AAR
Date Analyzed LCS: 06/26/10 20:24
LCSD: 06/26/10 20:57

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	50.6	50.0	101%	53.0	50.0	106%	4.6%
1,1-Dichloroethene	53.1	50.0	106%	56.7	50.0	113%	6.6%
trans-1,2-Dichloroethene	52.5	50.0	105%	52.8	50.0	106%	0.6%
cis-1,2-Dichloroethene	51.8	50.0	104%	51.7	50.0	103%	0.2%
Trichloroethene	52.7	50.0	105%	50.4	50.0	101%	4.5%
Tetrachloroethene	53.9	50.0	108%	51.8	50.0	104%	4.0%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	86.6%	102%
Bromofluorobenzene	100%	99.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-062610**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-062610
LIMS ID: 10-14794
Matrix: Soil
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops 19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst: FINN5/AAR
Date Analyzed: 06/26/10 22:08

Sample Amount: 5.00 g-dry-wt
Purge Volume: 5.0 mL
Moisture: NA

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

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	118%
Bromofluorobenzene	95.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: Trip Blanks**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RB19F
LIMS ID: 10-14799
Matrix: Water
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops 19947-71366
Date Sampled: 06/17/10
Date Received: 06/18/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 06/25/10 16:59

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

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

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	116%
Bromofluorobenzene	95.1%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops
19947-71366

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-062510	Method Blank	5	120%	NA	94.6%	NA	0
LCS-062510	Lab Control	5	98.6%	NA	98.6%	NA	0
LCSD-062510	Lab Control Dup	5	82.6%*	NA	101%	NA	1
RB19F	Trip Blanks	5	116%	NA	95.1%	NA	0

	LCS/MB LIMITS	QC LIMITS
SW8260C		
(DCE) = d4-1,2-Dichloroethane	83-122	80-125
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 10-14799 to 10-14799

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-062510**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-062510
LIMS ID: 10-14799
Matrix: Water
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: FINN5/AAR
LCSD: FINN5/AAR
Date Analyzed LCS: 06/25/10 12:16
LCSD: 06/25/10 15:07

Sample Amount LCS: 5.00 mL
LCSD: 5.00 mL
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	52.7	50.0	105%	51.0	50.0	102%	3.3%
1,1-Dichloroethene	49.0	50.0	98.0%	50.5	50.0	101%	3.0%
trans-1,2-Dichloroethene	50.5	50.0	101%	48.0	50.0	96.0%	5.1%
cis-1,2-Dichloroethene	51.6	50.0	103%	47.4	50.0	94.8%	8.5%
Trichloroethene	50.1	50.0	100%	51.1	50.0	102%	2.0%
Tetrachloroethene	52.7	50.0	105%	54.0	50.0	108%	2.4%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	98.6%	82.6%
Bromofluorobenzene	98.6%	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-062510**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-062510
LIMS ID: 10-14799
Matrix: Water
Data Release Authorized:
Reported: 07/02/10

QC Report No: RB19-CDM, Inc.
Project: Snohomish Co. Shops 19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst: FINN5/AAR
Date Analyzed: 06/25/10 16:31

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

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

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	120%
Bromofluorobenzene	94.6%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Received
JUL 16 2010

July 15, 2010

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

RE: Project ID: Avenue D PCE Source Identification, 19947-71366
ARI Job No: RC97

Dear Pam:

Please find enclosed the original Chain-of-Custody (COC) records, sample receipt documentation, and the final results for samples from the project referenced above. Analytical Resources Inc. (ARI) accepted ten water samples and a trip blank on July 2, 2010, under ARI job RC97. 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 RC97

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: CDM Project Name: Avenue D PCE Source Indent.

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: RC97 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)	3.1	

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: AV Date: 7/2/10 Time: 1650

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs Baggies (Foam Block) Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	NA	(YES)	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	NA	6/22/10	

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

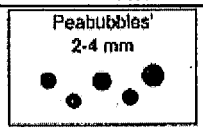
Samples Logged by: MM Date: 7/3/10 Time: 1130

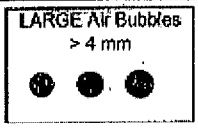
***** Notify Project Manager of discrepancies or concerns *****

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"

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: RC97	Turn-around Requested: Std	Page: 1	of 2
ARI Client Company: CDM	Phone:	Date: 7/2/10	Ice Present?
Client Contact: Ben Morrill		No. of Coolers:	Cooler Temps:
Client Project Name: Avenue D PCE Source Identification			
Client Project #: 19947-71366	Samplers:		

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

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Chlorinated VOAs by 8260B	Notes/Comments
GW11-07/10	7/1/10	1350	Water	3	✓	
GW10-07/10	7/1/10	1215		3	✓	
GW4-07/10	7/1/10	1510		3	✓	
GW3-07/10	7/1/10	1600		3	✓	
GW0-07/10	7/1/10	1705		3	✓	
GW6-07/10	7/2/10	0855		3	✓	
GW5-07/10	7/2/10	0950		3	✓	
GW9-07/10	7/2/10	1050		3	✓	
GW8-07/10	7/2/10	1145		3	✓	
GW7-07/10	7/2/10	1235		3	✓	

Comments/Special Instructions: 16 mL purge volume for lower reporting limits.

Relinquished by: (Signature) Mary Lou Fox	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
Printed Name: Mary Lou Fox	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
Company: CDM	Company: ARI	Company:	Company:
Date & Time: 7/2/10 1650	Date & Time: 7/2/10 1650	Date & Time:	Date & Time:

RC97 : 7/6/2010

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

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

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: RC97	Turn-around Requested: Std	Page: 2 of 2	
ARI Client Company: COM	Phone:	Date: 7/2/10	Ice Present?
Client Contact: Ben Morrill		No. of Coolers:	Cooler Temps:
Client Project Name: Avenue D PCE Source Identification			
Client Project #:	Samplers:		

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

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Hold	Notes/Comments
Trip Blank	7/2/10	—	Water	2	✓	

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Mary Lou Fox	Printed Name: A. Valgardsen	Printed Name:	Printed Name:
	Company: COM	Company: ARI	Company:	Company:
	Date & Time: 7/2/10 1650	Date & Time: 7/2/10 1650	Date & Time:	Date & Time:

RC97:00003

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

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

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW3-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97D
LIMS ID: 10-15893
Matrix: Water
Data Release Authorized: VT
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/01/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/12/10 19:52

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**	**3.0**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	84.7%
Bromofluorobenzene	88.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW4-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97C
LIMS ID: 10-15892
Matrix: Water
Data Release Authorized: VJ
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/01/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/12/10 19:26

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**	**0.7**	
127-18-4	**Tetrachloroethene**	**0.2**	**18**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	85.4%
Bromofluorobenzene	88.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW5-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97G
LIMS ID: 10-15896
Matrix: Water
Data Release Authorized: VTS
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/02/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/13/10 14:27

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	**cis-1,2-Dichloroethene**	**0.2**	**0.5**	
79-01-6	**Trichloroethene**	**0.2**	**0.5**	
127-18-4	**Tetrachloroethene**	**0.2**	**6.6**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	83.5%
Bromofluorobenzene	88.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW6-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97F
LIMS ID: 10-15895
Matrix: Water
Data Release Authorized: VTS
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/02/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/13/10 14:02

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**	**0.6**	
127-18-4	**Tetrachloroethene**	**0.2**	**16**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	82.1%
Bromofluorobenzene	88.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW7-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97J
LIMS ID: 10-15899
Matrix: Water
Data Release Authorized: VRS
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification
19947-71366
Date Sampled: 07/02/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/13/10 15:44

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**	**2.4**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	82.8%
Bromofluorobenzene	87.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW8-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97I
LIMS ID: 10-15898
Matrix: Water
Data Release Authorized: VTS
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/02/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/13/10 15:19

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**	**0.4**	
79-01-6	**Trichloroethene**	**0.2**	**0.8**	
127-18-4	**Tetrachloroethene**	**0.2**	**50**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	83.0%
Bromofluorobenzene	88.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW9-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97H
LIMS ID: 10-15897
Matrix: Water
Data Release Authorized: VB
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/02/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/13/10 14:53

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**	**2.3**	
79-01-6	**Trichloroethene**	**0.2**	**0.6**	
127-18-4	**Tetrachloroethene**	**0.2**	**0.4**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	83.8%
Bromofluorobenzene	89.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW10-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97B
LIMS ID: 10-15891
Matrix: Water
Data Release Authorized: VD
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/01/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/12/10 19:01

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**	**0.4**	
79-01-6	**Trichloroethene**	**0.2**	**2.2**	
127-18-4	**Tetrachloroethene**	**0.2**	**39**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	83.0%
Bromofluorobenzene	87.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW0-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97E
LIMS ID: 10-15894
Matrix: Water
Data Release Authorized: VTS
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/01/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/12/10 20:18

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**	**0.4**	
79-01-6	**Trichloroethene**	**0.2**	**2.2**	
127-18-4	**Tetrachloroethene**	**0.2**	**37**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	84.0%
Bromofluorobenzene	87.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: GW11-07/10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RC97A
LIMS ID: 10-15890
Matrix: Water
Data Release Authorized: VG
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: 07/01/10
Date Received: 07/02/10

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/12/10 18:35

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**	**0.3**	
79-01-6	**Trichloroethene**	**0.2**	**0.6**	
127-18-4	**Tetrachloroethene**	**0.2**	**40**	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	85.2%
Bromofluorobenzene	87.9%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification
19947-71366

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-071210	Method Blank	10	84.0%	NA	91.1%	NA	0
LCS-071210	Lab Control	10	81.1%	NA	94.0%	NA	0
LCSD-071210	Lab Control Dup	10	82.5%	NA	94.5%	NA	0
RC97A	GW11-07/10	10	85.2%	NA	87.9%	NA	0
RC97B	GW10-07/10	10	83.0%	NA	87.8%	NA	0
RC97C	GW4-07/10	10	85.4%	NA	88.2%	NA	0
RC97D	GW3-07/10	10	84.7%	NA	88.8%	NA	0
RC97E	GW0-07/10	10	84.0%	NA	87.0%	NA	0
MB-071310	Method Blank	10	84.6%	NA	90.5%	NA	0
LCS-071310	Lab Control	10	84.6%	NA	95.5%	NA	0
LCSD-071310	Lab Control Dup	10	84.9%	NA	97.2%	NA	0
RC97F	GW6-07/10	10	82.1%	NA	88.8%	NA	0
RC97G	GW5-07/10	10	83.5%	NA	88.0%	NA	0
RC97H	GW9-07/10	10	83.8%	NA	89.1%	NA	0
RC97I	GW8-07/10	10	83.0%	NA	88.4%	NA	0
RC97J	GW7-07/10	10	82.8%	NA	87.9%	NA	0

SW8260C	LCS/MB LIMITS	QC LIMITS
(DCE) = d4-1,2-Dichloroethane	70-132	80-143
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 10-15890 to 10-15899

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-071210**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-071210
LIMS ID: 10-15890
Matrix: Water
Data Release Authorized: VJS
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/PKC
LCSD: NT5/PKC
Date Analyzed LCS: 07/12/10 10:20
LCSD: 07/12/10 10:46

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	9.2	10.0	92.0%	9.5	10.0	95.0%	3.2%
1,1-Dichloroethene	8.8	10.0	88.0%	8.8	10.0	88.0%	0.0%
trans-1,2-Dichloroethene	8.5	10.0	85.0%	8.6	10.0	86.0%	1.2%
cis-1,2-Dichloroethene	8.7	10.0	87.0%	8.8	10.0	88.0%	1.1%
Trichloroethene	10.0	10.0	100%	10.1	10.0	101%	1.0%
Tetrachloroethene	10.6	10.0	106%	10.5	10.0	105%	0.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	81.1%	82.5%
Bromofluorobenzene	94.0%	94.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-071310**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-071310
LIMS ID: 10-15895
Matrix: Water
Data Release Authorized: VTS
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification
19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/PKC
LCSD: NT5/PKC
Date Analyzed LCS: 07/13/10 10:29
LCSD: 07/13/10 10:55

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	9.8	10.0	98.0%	10.0	10.0	100%	2.0%
1,1-Dichloroethene	9.4	10.0	94.0%	9.4	10.0	94.0%	0.0%
trans-1,2-Dichloroethene	9.0	10.0	90.0%	9.1	10.0	91.0%	1.1%
cis-1,2-Dichloroethene	9.3	10.0	93.0%	9.3	10.0	93.0%	0.0%
Trichloroethene	10.2	10.0	102%	10.3	10.0	103%	1.0%
Tetrachloroethene	10.3	10.0	103%	10.4	10.0	104%	1.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	84.6%	84.9%
Bromofluorobenzene	95.5%	97.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-071210**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-071210
LIMS ID: 10-15890
Matrix: Water
Data Release Authorized: VTB
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/12/10 11:11

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

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

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	84.0%
Bromofluorobenzene	91.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-071310**
Page 1 of 1 METHOD BLANK

Lab Sample ID: MB-071310
LIMS ID: 10-15895
Matrix: Water
Data Release Authorized: VJ
Reported: 07/14/10

QC Report No: RC97-CDM, Inc.
Project: Avenue D PCE Source Identification 19947-71366
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PKC
Date Analyzed: 07/13/10 11:21

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

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

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	84.6%
Bromofluorobenzene	90.5%

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
14432 SE Eastgate Way
Suite 100
Bellevue, WA 98007-6493

DATE: 9/22/2010
ALS JOB#: 1009127
DATE RECEIVED: 9/20/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583
CLIENT SAMPLE ID: 9/20/2010 Ditch 1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/22/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/22/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP

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ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
14432 SE Eastgate Way
Suite 100
Bellevue, WA 98007-6493

DATE: 9/22/2010
ALS JOB#: 1009127
DATE RECEIVED: 9/20/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583
CLIENT SAMPLE ID: 9/20/2010 Ditch 1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/22/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
14432 SE Eastgate Way
Suite 100
Bellevue, WA 98007-6493

DATE: 9/22/2010
ALS JOB#: 1009127
DATE RECEIVED: 9/20/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583
CLIENT SAMPLE ID: 9/20/2010 Ditch 2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/22/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/22/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
14432 SE Eastgate Way
Suite 100
Bellevue, WA 98007-6493

DATE: 9/22/2010
ALS JOB#: 1009127
DATE RECEIVED: 9/20/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583
CLIENT SAMPLE ID: 9/20/2010 Ditch 2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/22/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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ALS Environmental

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DATE: 9/22/2010
ALS JOB#: 1009127
DATE RECEIVED: 9/20/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583
CLIENT SAMPLE ID: 9/20/2010 Ditch 3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/22/2010	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/22/2010	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: Camp Dresser & McKee, Inc.
14432 SE Eastgate Way
Suite 100
Bellevue, WA 98007-6493

DATE: 9/22/2010
ALS JOB#: 1009127
DATE RECEIVED: 9/20/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583
CLIENT SAMPLE ID: 9/20/2010 Ditch 3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/22/2010	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/22/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1009127-01	EPA-8260	1,2-Dichloroethane-d4	103%
1009127-01	EPA-8260	4-Bromofluorobenzene	99%
1009127-02	EPA-8260	1,2-Dichloroethane-d4	104%
1009127-02	EPA-8260	4-Bromofluorobenzene	100%
1009127-03	EPA-8260	1,2-Dichloroethane-d4	104%
1009127-03	EPA-8260	4-Bromofluorobenzene	100%

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ALS Environmental

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-092110W	Water	EPA-8260	Dichlorodifluoromethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Chloromethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Vinyl Chloride	ND(<0.20)	UG/L
MB-092110W	Water	EPA-8260	Bromomethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Chloroethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Trichlorofluoromethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Carbon Tetrachloride	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,1-Dichloroethene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Methylene Chloride	ND(<5.0)	UG/L
MB-092110W	Water	EPA-8260	Trans-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,1-Dichloroethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Cis-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	2,2-Dichloropropane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Bromochloromethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Chloroform	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,1,1-Trichloroethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,1-Dichloropropene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,2-Dichloroethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Trichloroethene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,2-Dichloropropane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Dibromomethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Bromodichloromethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Trans-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Toluene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Cis-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,1,2-Trichloroethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,3-Dichloropropane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Tetrachloroethylene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Dibromochloromethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,2-Dibromoethane	ND(<0.010)	UG/L
MB-092110W	Water	EPA-8260	Chlorobenzene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,1,1,2-Tetrachloroethane	ND(<2.0)	UG/L

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DATE: 9/22/2010
ALS JOB#: 1009127
DATE RECEIVED: 9/20/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-092110W	Water	EPA-8260	Bromoform	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,1,2,2-Tetrachloroethane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,2,3-Trichloropropane	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Bromobenzene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	2-Chlorotoluene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	4-Chlorotoluene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,3 Dichlorobenzene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,4-Dichlorobenzene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,2-Dichlorobenzene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,2-Dibromo 3-Chloropropane	ND(<10)	UG/L
MB-092110W	Water	EPA-8260	1,2,4-Trichlorobenzene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	Hexachlorobutadiene	ND(<2.0)	UG/L
MB-092110W	Water	EPA-8260	1,2,3-Trichlorobenzene	ND(<2.0)	UG/L

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CLIENT CONTACT: Pam Morrill
CLIENT PROJECT ID: Sno Co Shops / #1994773583

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
1075	Water	EPA-8260	1,1-Dichloroethene	10	96%	93%	3
1075	Water	EPA-8260	Trichloroethene	10	93%	92%	2
1075	Water	EPA-8260	Toluene	10	116%	114%	2
1075	Water	EPA-8260	Chlorobenzene	10	109%	106%	3

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1009127

CDM

CHAIN-OF-CUSTODY

Date 9/20/2010 Page 1 of 1

PROJECT INFORMATION

Project Manager: Pam Morrill
Project Name: Sno Co Shops
Project Number: 19947 73583
Site Location: Snohomish Sampled By: RTM

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

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS: TPH-HCID State:	TPH-G State:	TPH-D State:	TPH-418.1 State:	8015M Fuel Hydrocarbon	TPH-Special Instructions	ORGANIC COMPOUNDS: 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	PESTS/PCBs: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	METALS: Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER	NUMBER OF CONTAINERS
Ditch 1	9/20/2010	1210	H_2O	1							X																							5
Ditch 2	9/20/2010	1230	"	2							X																							3
Ditch 3	9/20/2010	1245	"	3							X																							3

LAB INFORMATION

Lab Name: ALS
Lab Address: Everett
Via:

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold::

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1330	Signature: Time:	Signature: Time:
Printed Name: Pamela J Morrill Date: 9/20/2010	Printed Name: Date:	Printed Name: Date:
Company: CDM	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 3:45	Signature: Time:	Signature: Time:
Printed Name: Shawn Robinson Date: 9/20/10	Printed Name: Date:	Printed Name: Date:
Company: ALS	Company:	Company:

CDM Offices: Bellevue: (425) 519-8300
Seattle: (206) 336-4900

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to CDM Project Files; Gold to CDM Disposal Files

September 29, 2011

Ms. Pam Morrill
Camp Dresser & McKee, Inc.
14432 SE Eastgate Way, Suite 100
Bellevue, WA 98007-6493

Dear Ms. Morrill,

On September 28th, 1 sample was received by our laboratory and assigned our laboratory project number 1109142. The project was identified as your Snohomish Co Shops - Ave D / #19947-71366. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE: ALS JOB#: ALS SAMPLE#:	9/29/2011 1109142 -01
CLIENT CONTACT:	Pam Morrill	DATE RECEIVED:	9/28/2011
CLIENT PROJECT:	Snohomish Co Shops - Ave D / #19947-71366	COLLECTION DATE:	9/28/2011 15:00
CLIENT SAMPLE ID	EX10-2'	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/28/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/28/2011	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**64.1**	09/28/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE:	9/29/2011
		ALS SDG#:	1109142
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Pam Morrill		
CLIENT PROJECT:	Snohomish Co Shops - Ave D / #19947-71366		

LABORATORY BLANK RESULTS

MB-092811S - Batch 2139 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/28/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/28/2011	EBS

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE:	9/29/2011
		ALS SDG#:	1109142
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Pam Morrill		
CLIENT PROJECT:	Snohomish Co Shops - Ave D / #19947-71366		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2139 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**88.0**			09/28/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**89.2**	**1**		09/28/2011	EBS

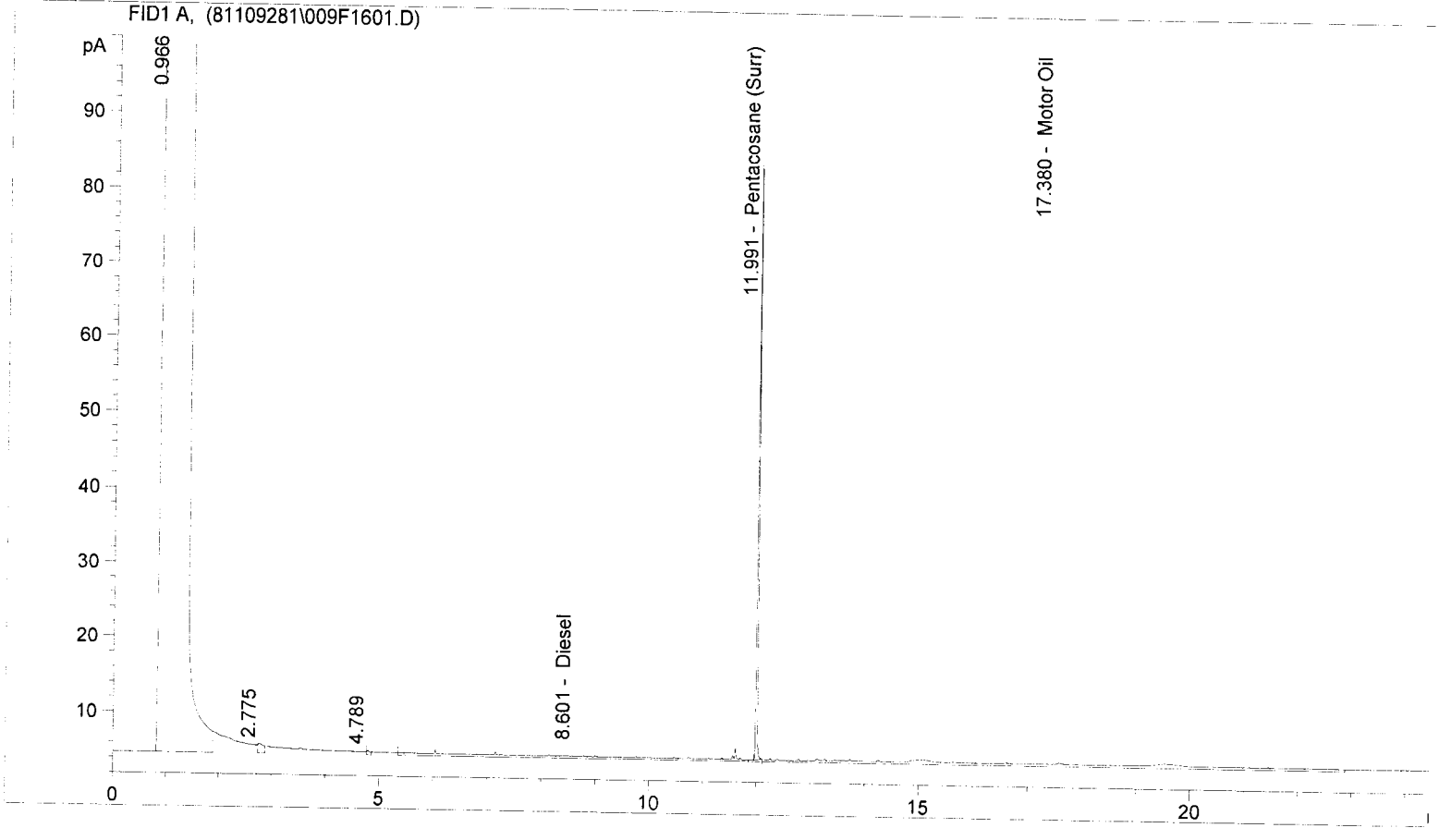
APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

Instrument #98 Data File: C:\HPCHEM\1\DATA\81109281\009F1601.D
Operator:
Method: C:\HPCHEM\1\METHODS\FDMO0311.M
Injection Date & Time: 9/28/2011 4:30:11 PM 9/28/2011 4:30:11 PM
Report Creation: 9/28/2011 5:08:26 PM

Sample Name: 1109142-01A



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.601	FID1 A,	Diesel	107.318	7.978
11.991		Pentacosane (Surr)	108.998	6.413
17.380		Motor Oil	205.934	18.055

64/.

28.488

D < 25 mg/kg

O < 50 mg/kg

REVIEWED BY & DATE 9/29/11

09.28.11 ©

1109142

CDM

CHAIN-OF-CUSTODY

Date 9/28/11 Page 1 of 1

PROJECT INFORMATION

Project Manager: Pam Morrill

Project Name: SnoCo Stops - Ave D

Project Number: 19947-71366

Site Location: Snohomish Sampled By: PJM

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

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS: TPH-HCID State:	TPH-G State:	TPH-D State:	TPH-418.1 State:	8015M Fuel Hydrocarbon	TPH-Special Instructions	ORGANIC COMPOUNDS: 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	PESTS/PCBs: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	METALS: Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER	NUMBER OF CONTAINERS
EX10-2'	9/28/11	1500	soil	1			X																											2

LAB INFORMATION

Lab Name: ALS

Lab Address: Everett

Via: Sampler

SAMPLE RECEIPT

Total Number of Containers:

Chain of Custody Seals: Y/N/NA

Intact?: Y/N/NA

Received in Good Condition/Cold::

Turn Around Time: ☐ Standard ☑ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1545	Signature: Time:	Signature: Time:
Printed Name: Pamela J. Morrill Date: 9/28/11	Printed Name: Date:	Printed Name: Date:
Company: CDM	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 1545	Signature: Time:	Signature: Time:
Printed Name: Halle Kunst Date: 9/28/11	Printed Name: Date:	Printed Name: Date:
Company: ALS	Company:	Company:

November 1, 2011

Ms. Pam Morrill
Camp Dresser & McKee, Inc.
14432 SE Eastgate Way, Suite 100
Bellevue, WA 98007-6493

Dear Ms. Morrill,

On October 25th, 4 samples were received by our laboratory and assigned our laboratory project number 1110147. The project was identified as your Snohomish County Shops. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE: ALS JOB#: ALS SAMPLE#:	11/1/2011 1110147 -01
CLIENT CONTACT:	Pam Morrill	DATE RECEIVED:	10/25/2011
CLIENT PROJECT:	Snohomish County Shops	COLLECTION DATE:	10/25/2011 11:40
CLIENT SAMPLE ID	TP28trench-W-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	10/26/2011	EBS
TPH-Oil Range	NWTPH-DX	**54**	50	1	MG/KG	10/26/2011	EBS
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	130	1	UG/KG	10/27/2011	LAP
Lead	EPA-6020	**24**	0.58	5	MG/KG	10/28/2011	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**106**	10/26/2011	EBS
Phenol-d5	EPA-8270	**87.2**	10/27/2011	LAP
Nitrobenzene-d5	EPA-8270	**83.8**	10/27/2011	LAP
Terphenyl-d14	EPA-8270	**76.9**	10/27/2011	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE: ALS JOB#: ALS SAMPLE#:	11/1/2011 1110147 -02
CLIENT CONTACT:	Pam Morrill	DATE RECEIVED:	10/25/2011
CLIENT PROJECT:	Snohomish County Shops	COLLECTION DATE:	10/25/2011 11:45
CLIENT SAMPLE ID	TP28trench-N-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	10/26/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	10/26/2011	EBS
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	130	1	UG/KG	10/27/2011	LAP
Lead	EPA-6020	**9.2**	0.58	5	MG/KG	10/28/2011	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**93.8**	10/26/2011	EBS
Phenol-d5	EPA-8270	**88.4**	10/27/2011	LAP
Nitrobenzene-d5	EPA-8270	**81.2**	10/27/2011	LAP
Terphenyl-d14	EPA-8270	**83.4**	10/27/2011	LAP

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE: ALS JOB#: ALS SAMPLE#:	11/1/2011 1110147 -03
CLIENT CONTACT:	Pam Morrill	DATE RECEIVED:	10/25/2011
CLIENT PROJECT:	Snohomish County Shops	COLLECTION DATE:	10/25/2011 11:48
CLIENT SAMPLE ID	TP28trench-S-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	120	5	MG/KG	10/26/2011	EBS
TPH-Oil Range	NWTPH-DX	**1900**	250	5	MG/KG	10/26/2011	EBS
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	130	1	UG/KG	10/27/2011	LAP
Lead	EPA-6020	**210**	0.58	5	MG/KG	10/28/2011	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25 5X Dilution	NWTPH-DX	**122**	10/26/2011	EBS
Phenol-d5	EPA-8270	**90.6**	10/27/2011	LAP
Nitrobenzene-d5	EPA-8270	**83.2**	10/27/2011	LAP
Terphenyl-d14	EPA-8270	**86.3**	10/27/2011	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE: ALS JOB#: ALS SAMPLE#:	11/1/2011 1110147 -04
CLIENT CONTACT:	Pam Morrill	DATE RECEIVED:	10/25/2011
CLIENT PROJECT:	Snohomish County Shops	COLLECTION DATE:	10/25/2011 11:50
CLIENT SAMPLE ID	TP28trench-E-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	10/26/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	10/26/2011	EBS
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	130	1	UG/KG	10/27/2011	LAP
Lead	EPA-6020	**4.8**	0.58	5	MG/KG	10/28/2011	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**112**	10/26/2011	EBS
Phenol-d5	EPA-8270	**90.0**	10/27/2011	LAP
Nitrobenzene-d5	EPA-8270	**87.7**	10/27/2011	LAP
Terphenyl-d14	EPA-8270	**96.9**	10/27/2011	LAP

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE:	11/1/2011
		ALS SDG#:	1110147
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Pam Morrill		
CLIENT PROJECT:	Snohomish County Shops		

LABORATORY BLANK RESULTS

MB-102511S2 - Batch 2228 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	10/26/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	10/26/2011	EBS

MB-102711S - Batch 2249 - Soil by EPA-8270

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phenol	EPA-8270	U	100	1	UG/KG	10/27/2011	LAP
Pyrene	EPA-8270	U	100	1	UG/KG	10/27/2011	LAP
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	130	1	UG/KG	10/27/2011	LAP

MB-102611S - Batch 2236 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U	0.12	1	MG/KG	10/27/2011	RAL

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

CERTIFICATE OF ANALYSIS

CLIENT:	Camp Dresser & McKee, Inc. 14432 SE Eastgate Way, Suite 100 Bellevue, WA 98007-6493	DATE:	11/1/2011
		ALS SDG#:	1110147
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Pam Morrill		
CLIENT PROJECT:	Snohomish County Shops		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2228 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**99.1**			10/25/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**99.4**	**0**		10/25/2011	EBS

ALS Test Batch ID: 2249 - Soil by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phenol - BS	EPA-8270	**90.8**			10/27/2011	LAP
Phenol - BSD	EPA-8270	**94.2**	**4**		10/27/2011	LAP
Pyrene - BS	EPA-8270	**108**			10/27/2011	LAP
Pyrene - BSD	EPA-8270	**109**	**0**		10/27/2011	LAP

ALS Test Batch ID: 2236 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	**90.9**			10/27/2011	RAL
Lead - BSD	EPA-6020	**90.6**	**0**		10/27/2011	RAL

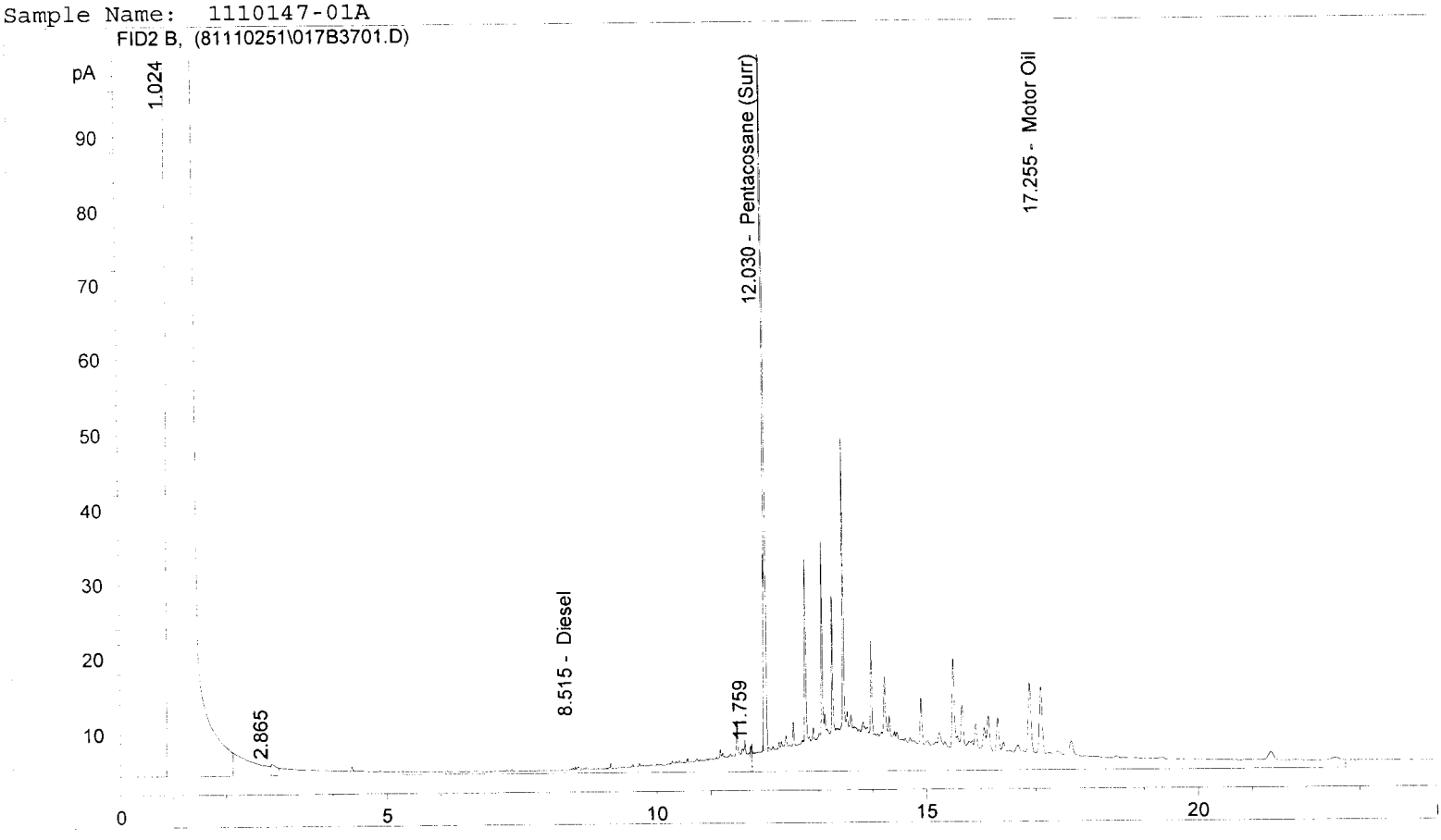
APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

Instrument #98 Data File: C:\HPCHEM\1\DATA\81110251\017B3701.D
Operator:
Method: C:\HPCHEM\1\METHODS\BDMO0311.M
Injection Date & Time: 10/26/2011 2:15:48 AM 10/26/2011 2:15:48 AM
Report Creation: 10/26/2011 8:51:41 AM

Sample Name: 1110147-01A



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.515	FID2 B,	Diesel	326.380	24.699
12.030		Pentacosane (Surr)	217.498	10.580
17.255		Motor Oil	2085.657	162.809
				30.218

106%

D < 25 mg/kg

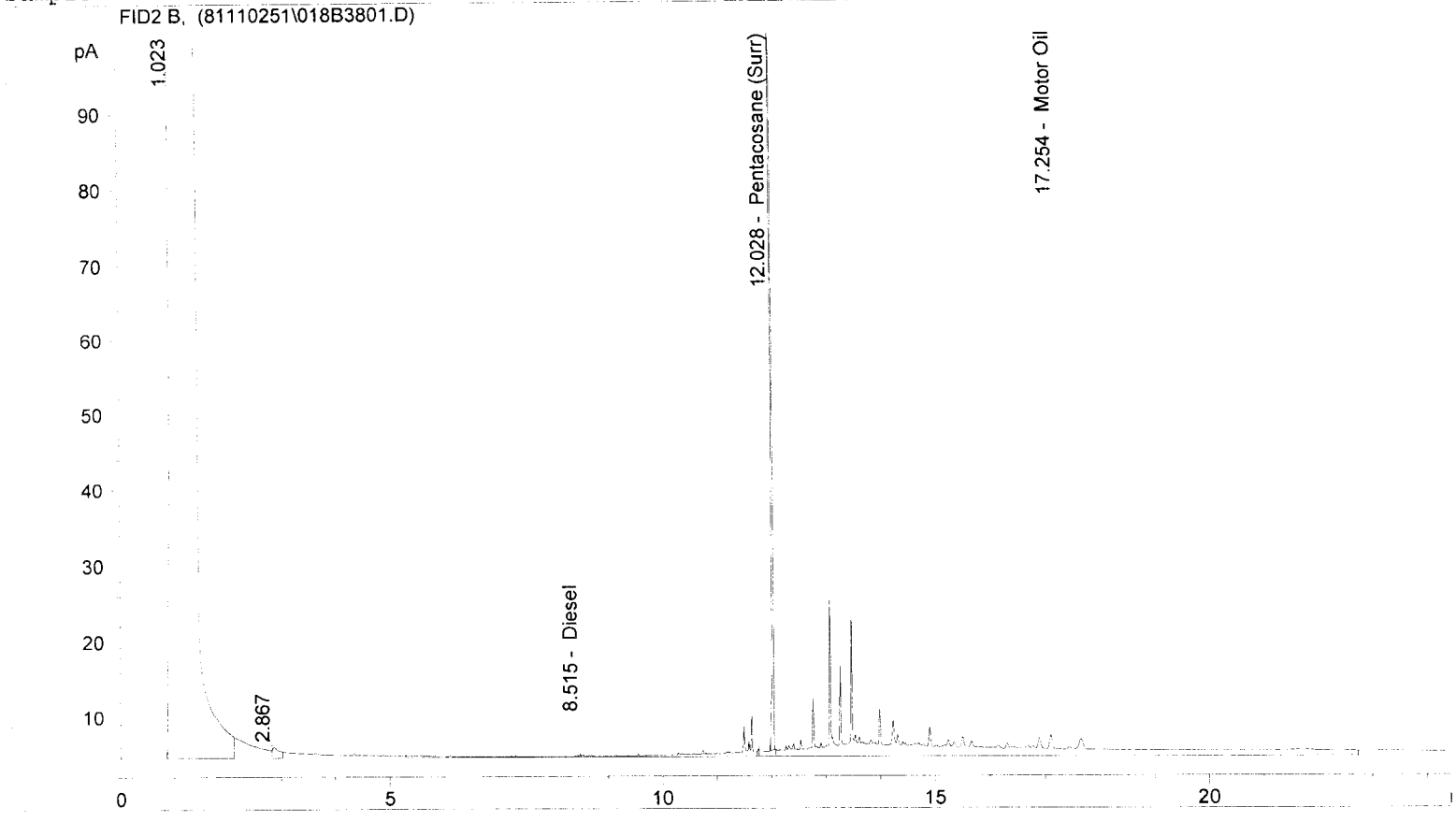
$D = 162.809\ mg/mL \times \frac{10mL}{30.21g} = 54\ mg/kg$ Lube Oil

REVIEWED BY & DATE 11/1/11

10.28 11ET

Instrument #98 Data File: C:\HPCHEM\1\DATA\81110251\018B3801.D
Operator:
Method: C:\HPCHEM\1\METHODS\BDMO0311.M
Injection Date & Time: 10/26/2011 2:45:50 AM 10/26/2011 2:45:50 AM
Report Creation: 10/26/2011 8:51:16 AM

Sample Name: 1110147-02A



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.515	FID2 B,	Diesel	82.319	6.230
12.028		Pentacosane (Surr)	192.874	9.383
17.254		Motor Oil	793.746	61.961

94%

28.21%

D < 25 mg/kg

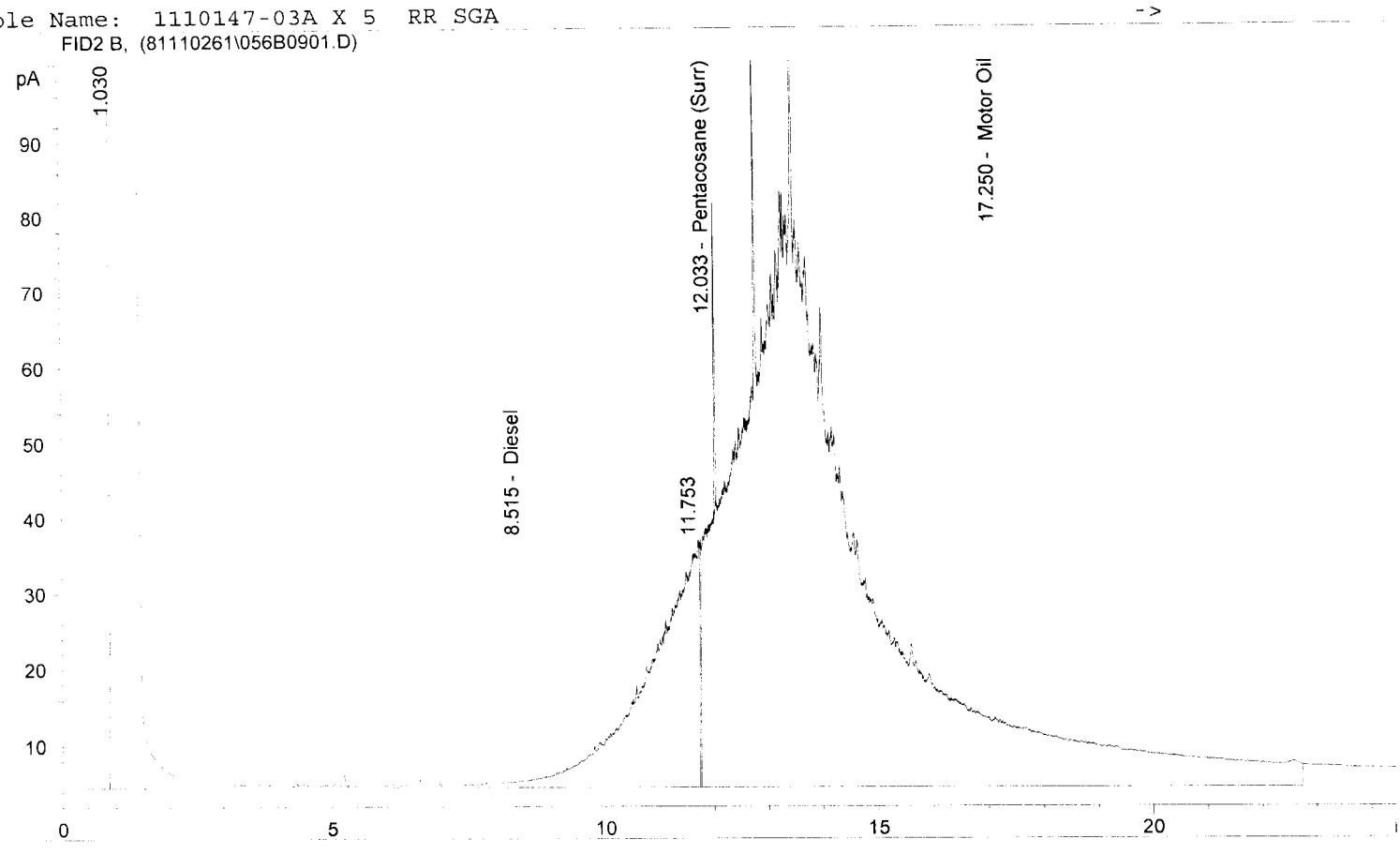
D < 50 mg/kg

REVIEWED BY & DATE

10.26.11 ES

Instrument #98 Data File: C:\HPCHEM\1\DATA\81110261\056B0901.D
Operator:
Method: C:\HPCHEM\1\METHODS\BDMO0311.M
Injection Date & Time: 10/26/2011 12:10:31 PM 10/26/2011 12:10:31 PM
Report Creation: 10/26/2011 1:22:40 PM

Sample Name: 1110147-03A X 5 RR SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.515	FID2 B,	Diesel	2097.364	158.720
12.033		Pentacosane (Surr)	49.961	2.430
17.250		Motor Oil	12744.711	994.869

x5 = 120 %.

26.529

D < 130 mg/kg

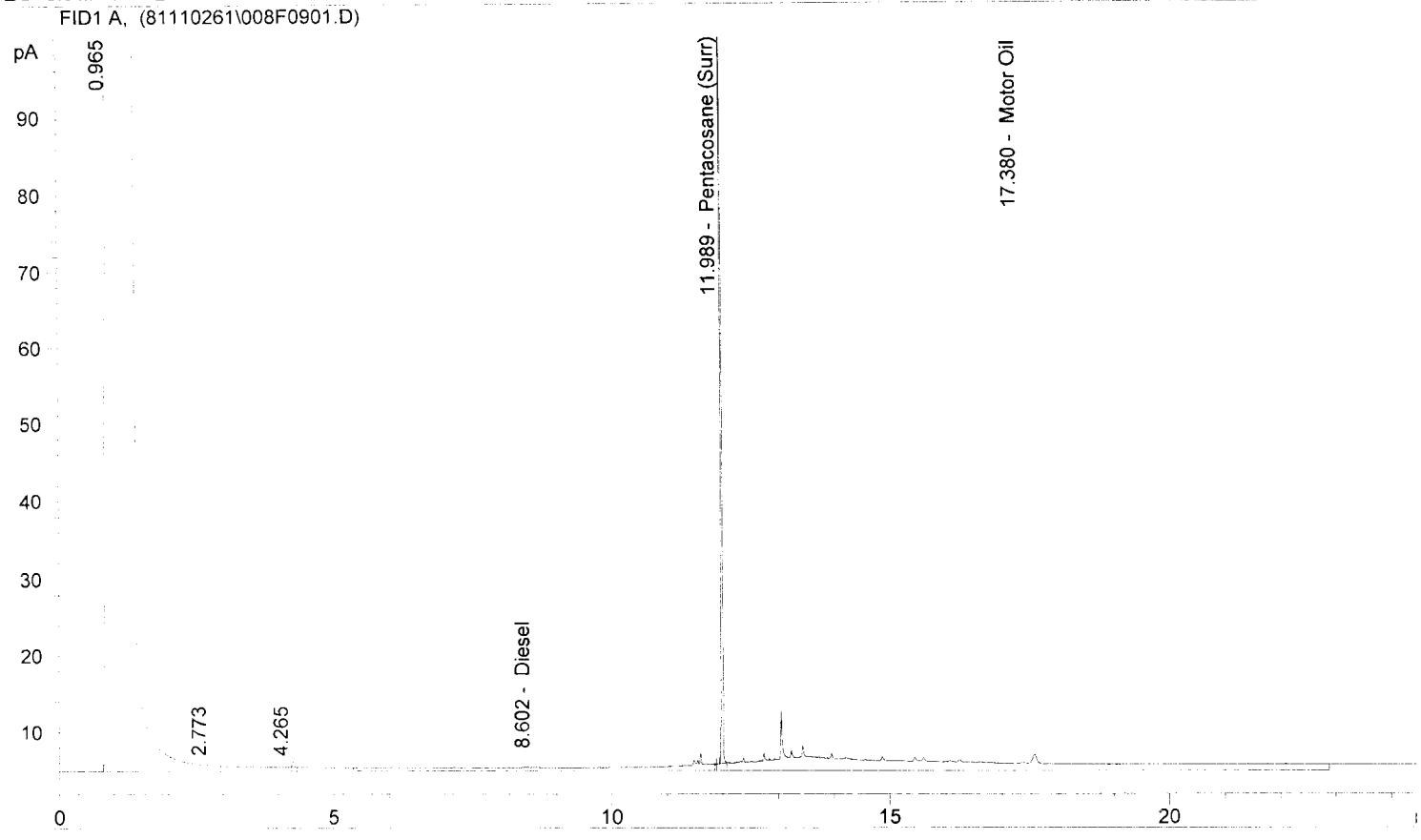
$D = 994.869\ g/mL \times \frac{10\ mL}{26.529\ g} \times 5 = 1900\ mg/kg$ Lube Oil

REVIEWED BY & DATE 11/1/11

10.26.11 EJ

Instrument #98 Data File: C:\HPCHEM\1\DATA\81110261\008F0901.D
Operator:
Method: C:\HPCHEM\1\METHODS\FDMO0311.M
Injection Date & Time: 10/26/2011 12:10:31 PM 10/26/2011 12:10:31 PM
Report Creation: 10/26/2011 1:21:26 PM

Sample Name: 1110147-04A RR



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.602	FID1 A,	Diesel	180.223	13.398
11.989		Pentacosane (Surr)	190.087	11.185
17.380		Motor Oil	723.111	63.399
				28.03g

112 %

D < 25 mg/kg

O < 50 mg/kg

REVIEWED BY & DATE 11/1/11

10.26.11 EJ

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only) 11 10147

Date 10/25/11 Page 1 Of 1

PROJECT ID: Snohomish County Shops
REPORT TO COMPANY: CDM
PROJECT MANAGER: Pam Merrill
ADDRESS: —
PHONE: — FAX: —
P.O. NUMBER: — E-MAIL: —

INVOICE TO COMPANY: as above
ATTENTION: —
ADDRESS: —

LABORATORY COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 EPA-8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM	PCB Pesticides by EPA 8081/8082	Metals-MTCA-5 RCRA-8 Pri Pol TAL	Metals Other (Specify) Pb only	TCLP-Metals VOA Semi-Vol Pest Herbs	B2EHP by 8270	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. TP28trench-W-2	10/25/11	1140	Soil	1		X												X		X	1	
2. TP28trench-N-2	↓	1145	↓	2		X												X		X	1	
3. TP28trench-S-2		1148		3		X												X		X	1	
4. TP28trench-E-2		1150		4		X												X		X	1	
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: CDM, 10/25/11, 1430
   Received By: ALS, 10/25/11, 1430
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

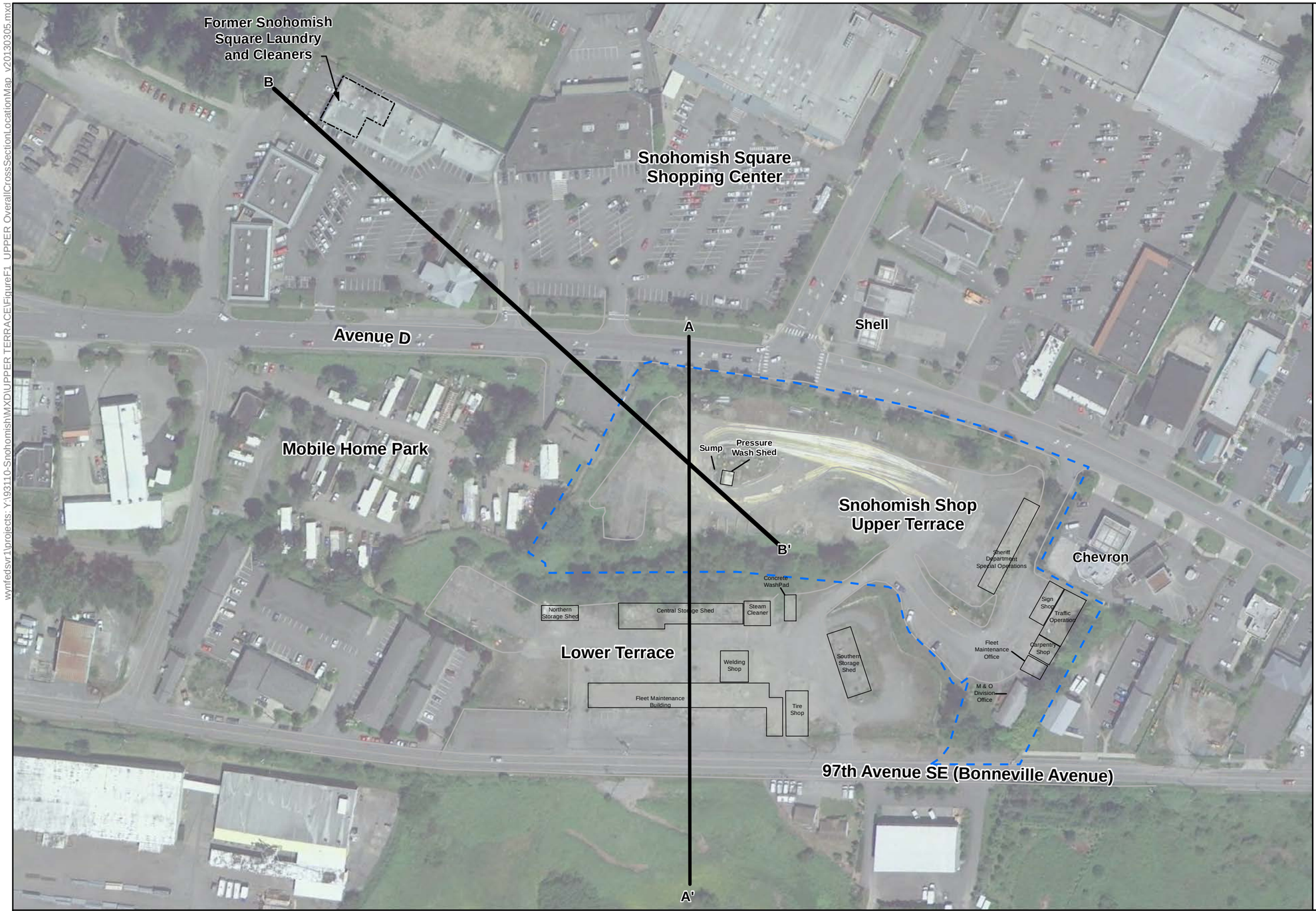
Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Appendix F
Geologic Cross Section Maps



Legend

- Property Boundary
- Former Buildings
- Edge of Asphalt
- A——A' Cross-Section Location

Source: Google Earth Pro™
(June 21, 2010)

N

150 0 150

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure F1
Overall Cross Section Location Map

Path: w:\fedsvr1\projects: X:\93110-Snohomish\MXD\UPPER TERRACE\Figuref2 UPPER Cross-Section Location_v20130305.mxd

A

A'

Avenue D

97th Avenue SE (Bonneville Ave)

Upper Terrace

Lower Terrace

Shell

MW8

Sump

Pressure WashShed

VP2

B1

B6

Northern StorageShed

B2

VP1

Central Storage Shed

Steam Cleaner

Concrete Wash Pad

Welding Shop

Southern Storage Shed

Sheriff Department Special Operations

Chevron

Sign Shop

Traffic Operation

Fleet Maintenance Office

Carpentry Shop

M & O Division Office (Not Demolished)

B5

B3

SVE System Enclosure (not demolished)

B4

MW15

VEW1

MW6

Fleet Maintenance Building

Tire Shop

VP3

MW14

MW13

MW12

MW3

MW2

VP4

MW1

VEW-2

MW19

MW16

MW17

MW18

MW20

MW4B

MW4A

MW5B

MW5A

160

150

140

130

120

110

100

90

80

Legend

- Boring
- Perched Zone Monitoring Well
- Lower Aquifer Monitoring Well
- Vapor Extraction Well
- Vapor Probe
- Edge of Asphalt
- 120 Lines of Equal Ground Surface Elevation
- A — A' Cross Section
- Former Buildings
- Snohomish Shop Upper Terrace Boundary (Property)
- Snohomish Shop Boundary

Note: All site structures and facilities were demolished in 2009, except as noted.

Elevations are in feet above mean sea level.

N

0 100 200 Feet

CDM Smith

Snohomish County Shop Upper Terrace
Snohomish, WA

Figure F2
Cross Section Location Map
Line A-A'

LEGEND

Hf – FILL

Qvrc – COARSE GRAINED RECESSIONAL OUTWASH: BROWN SAND & GRAVEL

Qvi – ICE CONTACT DEPOSITS

Qvt – VASHON TILL: GRAY SILTY SAND, SANDY SILT W/ GRAVEL

GLACIO FLUVIAL – SAND, SILTY SAND & GRAVEL

Qva – ADVANCE OUTWASH: GRAY SAND & GRAVEL

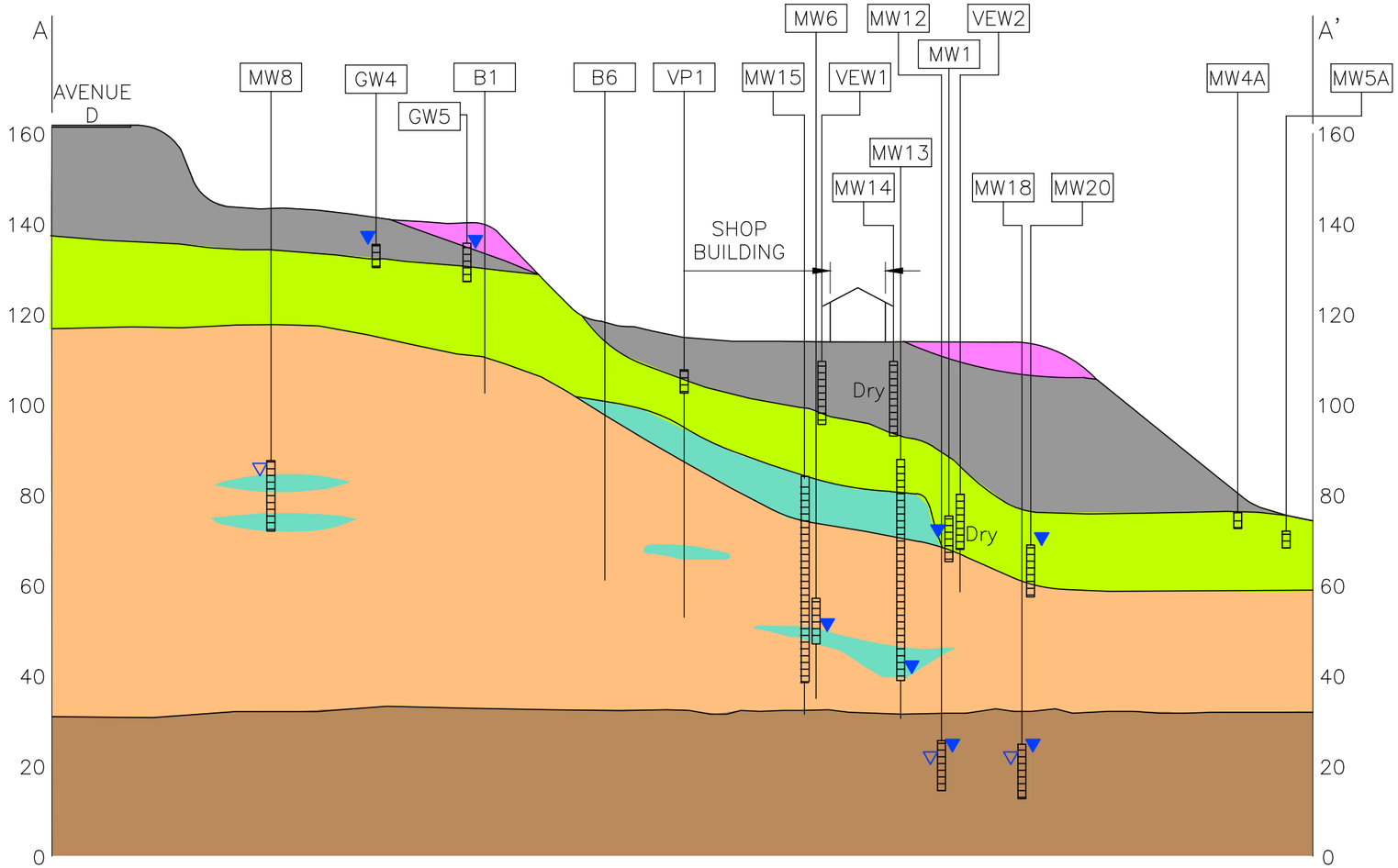
NOTES:

1. VERTICAL ELEVATIONS ARE IN FEET ABOVE MEAN SEA LEVEL

▽ GROUNDWATER ELEVATION ENCOUNTERED AT TIME OF DRILLING

▼ GROUNDWATER ELEVATION ON 11/24/09

REFERENCE: CDM. 2010. MONITORING REPORT NO.20, SOIL VAPOR EXTRACTION AND GROUNDWATER MONITORING, SNOHOMISH COUNTY SHOP, 7615 BONNEVILLE AVENUE, SNOHOMISH, WA. ECOLOGY SITE ID 2784. FEB. 17, 2010.



1" = 100'

50 0 100

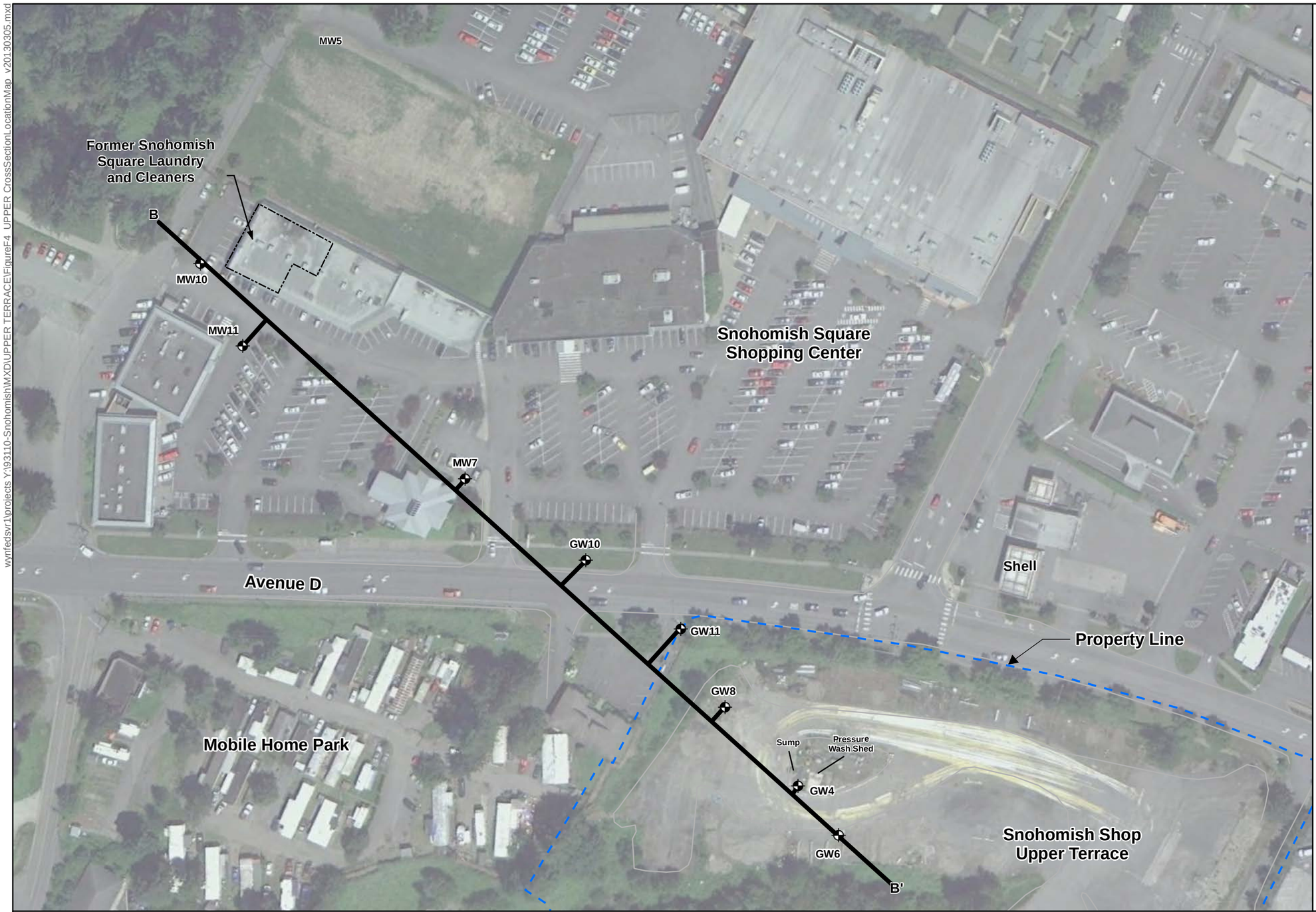
HORIZONTAL SCALE

P:\19947\96756\ Figure F3 03/05/13 08:48 riehlepj XREFS: 11X17BDR

CDM Smith

SNOHOMISH COUNTY SHOP UPPER TERRACE
SNOHOMISH, WASHINGTON

Figure No. F3
Geological Cross–Section A–A'



Legend

- Property Boundary
- GW8 Monitoring Well Location
- B——B' Cross-Section Location

Source: Google Earth Pro™
(June 21, 2010)

N

100 0 100
Feet

wynfedsvr1\projects Y:\93110-SnohomishMXD\UPPER TERRACE\FigureF4_UPPER CrossSectionLocationMap_v20130305.mxd

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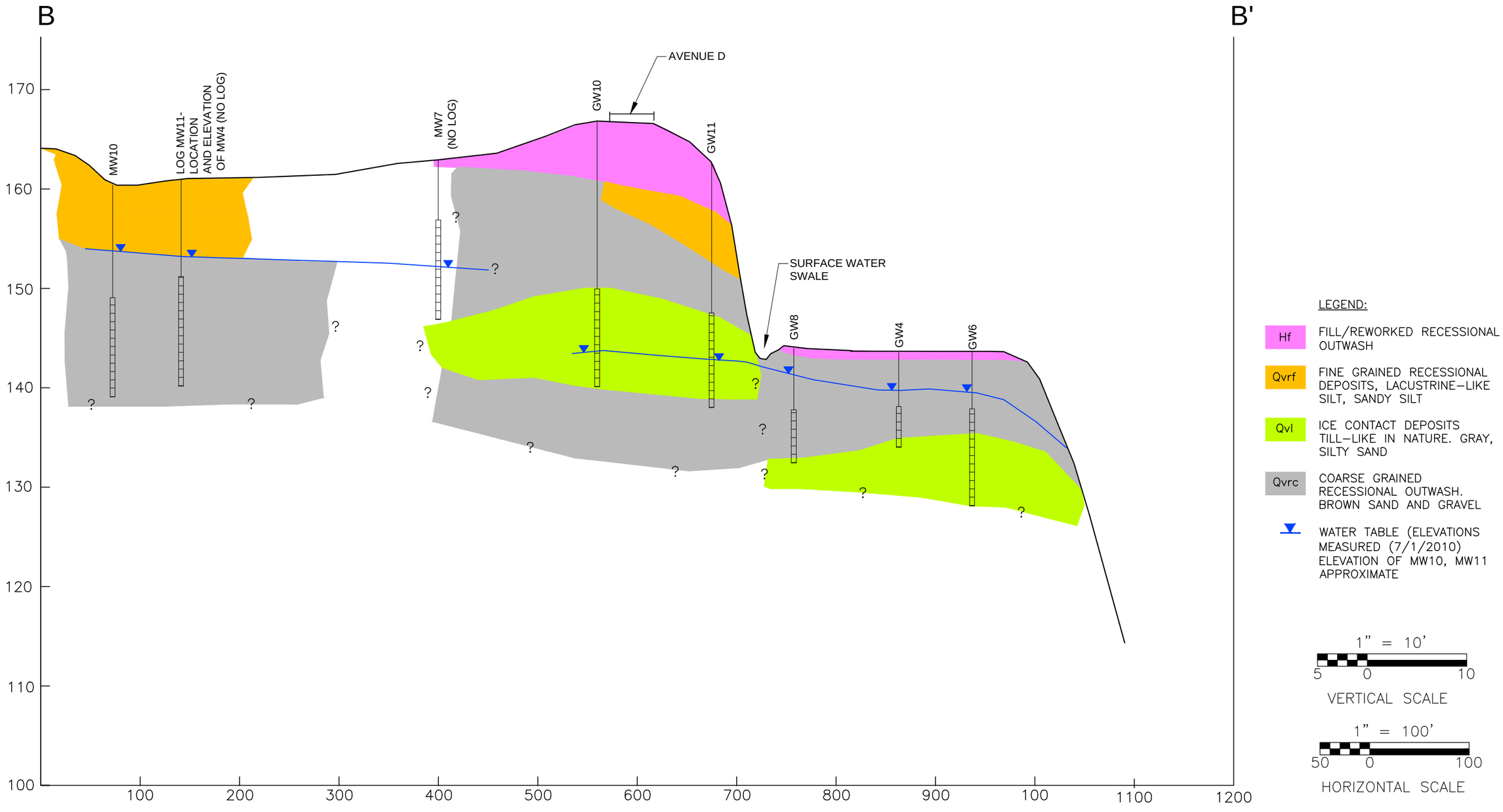
Snohomish County Shop Upper Terrace
Snohomish, Washington

Figure F4
Cross Section Location Map
Line B-B'



P:\19947\96756\ Figure F5 03/05/13 08:27 riehlepj XREFS: 11X17BDR

CDM Smith

SNOHOMISH COUNTY SHOP UPPER TERRACE
SNOHOMISH, WASHINGTON

Figure No. F5
Geological Cross–Section B–B'

Appendix G
Alternative 3 Remediation Cost Estimate

CDM Constructors, Inc

Snohomish County Shops Upper Terrace

Construction Estimate

Alternative 3 Cost Estimate Summary

OWNER: Snohomish County
PROJECT: Shops Upper Terrace
LOCATION: 1200 Block Avenue D
ADDENDA: NA

Date: 2/1/2011
Rev: 4
Rev Date: 4/2/2013

Item Description					Total
Alternative 3 Roll Up Summary					
Design			$ 588,245		
Construction			$ 1,644,645		
Operations and Monitoring			$ 637,210		
		Subtotal	$ 2,870,100	$	2,870,100
	Contingency	20.0%	$ 574,020		
	Sales Tax	8.9%	$ 254,173		
		Subtotal	$ 828,193	$	828,193
			Project Total	**$**	**3,698,292**

Snohomish County Shops Upper Terrace

Construction Estimate

OWNER: Snohomish County
PROJECT: Shops Upper Terrace
LOCATION: 1200 Block Avenue D
ADDENDA: NA

Date: 2/1/2011
Rev: 4
Rev Date: 4/2/2013

Task #	Item Description	Quantity	Unit	Unit Price	Total
	Design				
1	RI/FS	1	LS	$ 123,800	$ 123,800
2	CAP	1	LS	$ 20,000	$ 20,000
3	Engineering Design Report	1	LS	$ 46,830	$ 46,830
4	Ecology VCP	1	LS	$ 6,200	$ 6,200
5	Permitting	1	LS	$ 16,440	$ 16,440
6	PRB/Chemox/Bio Pilot Studies & Pump Test	1	LS	$ 227,900	$ 227,900
7	Project Management	1	LS	$ 58,200	$ 58,200
8	Engineering During Construction	1	LS	$ 88,875	$ 88,875
					$ 588,245
	Construction				
6	General Conditions	1	LS	$ 164,018	$ 164,018
7	MOB	1	LS	$ 3,530	$ 3,530
8	TESC	1	LS	$ 13,106	$ 13,106
10	Asphalt/Misc	1	LS	$ 73,015	$ 73,015
11	Abandon Wells	1	LS	$ 4,500	$ 4,500
12	Reroute/Abandon UTILITIES	1	LS	$ 30,916	$ 30,916
13	SHORING	7,500	FT2	$ 59.09	$ 443,205
14	DEWATERING/TREATMENT	1,250,000	GAL	$ 0.10	$ 119,730
15	EXCAVATION	30,000	TN	$ 3.48	$ 104,290
17	BACKFILL	30,000	TN	$ 3.09	$ 92,704
19	INSTALL PERMEABLE REACTIVE BARRIER SYSTEM	1	LS	$ 595,631	$ 595,631
					$ 1,644,645
	O&M/MONITORING				
37	Yearly Monitoring of PRB System	5	YR	$ 25,442	$ 127,210
38	Compliance and Confirmation Groundwater Monitoring	20	YR	$ 25,000	$ 500,000
39	Closeout documentation	1	LS	$ 10,000	$ 10,000
					$ 637,210
	Total				**$ 2,870,100**

Does not include escalation

CDM Constructors, Inc

Snohomish County Shops Upper Terrace

Construction Estimate

Assumptions

OWNER: Snohomish County
PROJECT: Shops Upper Terrace
LOCATION: 1200 Block Avenue D
ADDENDA: NA

Date: 2/1/2011
Rev: 4
Rev Date: 4/2/2013

ASSUMPTIONS:

1 Contamination has migrated under Avenue D across the Snohomish Shops upper terrace from an offsite source
2 Chlorinated solvents are the only contaminant
3 The contamination is limited to the upper terrace
4 Contamination has not migrated from beyond the upper terrace to the lower yard
5 The contamination off of the County property will be treated by others
6 Water will be treated onsite during the remediation and discharged offsite
7 A semipermiable reactive wall will be installed to mitigate contamination coming from the offsite property
8 Utilities will be temporarily bypassed during construction
9 Contamination extends to 10 feet below ground surface across most of the upper terrace
10 The excavation material will be stockpiled on site while the water is being treated, no soil will be hauled offsite because it is not believed to be contaminated above cleanup levels
11 The contaminated area is approximately 800 foot by 300 foot by 10 foot deep based on the boring/test pit logs and water testing.
12 Total Volume of material is 30,000 cubic yards
13 Construction Estimate is in current dollars and does not account for cost escalation
14 We believe that a 20% contingency is appropriate given the level of design and is included on the Summary Spreadsheet.
15 Estimate assumes that the work is done in the summer/fall during the lowest water levels
16 A shoring system will need to be installed on the upgradient area of the site
17 The semipermeable reactive barrier wall will remove contaminants entering the site from the upgradient source. Estimate allows for 20 years of monitoring.
18 The excavated material can be backfilled
19 Iron Filings will be mixed at 15% with sand and slurried to build the semipermiable reactive wall