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Ms. Jennifer Lind
Toxics Cleanup Program/CRO
State of Washington Department of Ecology
1250 W Alder Street
Union Gap, Washington 98903-0009

Facility Site ID# 91458995
Cleanup Site ID# 6845

Additional Site Assessment Report
Site No. 0700
100 East Wine Country Road
Grandview, Washington

Dear Ms. Lind:

On behalf of Eagle Canyon Capital, LLC (Eagle), ES Engineering Services, LLC (ES) is pleased to provide this *Additional Site Assessment Report* summarizing activities performed at the above referenced site (**Figure 1**). Site assessment activities were conducted from November 28 through December 1, 2016, and consisted of advancing ten (10) confirmation soil borings (identified as CB-1 through CB-10) to evaluate current soil conditions and fill data gaps in areas where high hydrocarbon concentrations were identified during previous site investigations. Soil samples were collected from each boring and analyzed for contaminants of concern (COCs). Additionally, a temporary well was installed west of Well MW-07 and a groundwater sample collected and analyzed for COCs. The activities were completed in response to the State of Washington Department of Ecology (DOE) opinion letter, dated September 9, 2016, stating that additional site characterization is required (**Appendix A**) and in general accordance with the *Additional Site Assessment Workplan*, dated August 31, 2016, with modification to include additional borings for site characterization based on discussion with the DOE.

Confirmation soil sample analytical results show a significant decrease in fuel hydrocarbon levels when compared to the historical soil sample results. However, samples collected at 17 and 22 feet below ground surface (bgs) in soil borings CB-3, CB-4 and CB-10 contained concentrations of fuel hydrocarbons that exceed the Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs). All remaining samples analyzed, including the groundwater sample, either did not contain detectible levels of petroleum hydrocarbon constituents or the concentrations of COCs detected were below the MTCA Method A CULs.

Based on the findings of the confirmation soil sampling, and prior site assessment results, the site appears to be sufficiently characterized laterally and vertically. However, laboratory analytical results show that hydrocarbon-affected soil is still present at the east (CB-4) and central (CB-3) portions of the site (north and west of the former tank cavity, respectively) at approximately 17 and 22 feet bgs. Soil borings CB-1, CB-2, CB-5, CB-6 and CB-9 define the lateral limits of the soil contamination plume to the North (CB-1), West (CB-2 and CB-6), South (CB-5) and East (CB-9). Soil boring CB-10 was reported to have a concentration of TPH-Gx above the CUL at approximately 17 feet bgs. Contamination in CB-10 is argued to be a derivative of contamination originating from the DeBocks Main Street Texaco station (Case #6910). Groundwater monitoring results from November 2016 (the most recent data) indicate that dissolved-phase hydrocarbons are below MTCA Method A CULs and have not exceeded CULs since ES began quarterly groundwater monitoring in January 2016.

Residual soil impacts at locations CB-3 and CB-4 exceed CULs and further remediation is needed to decrease remaining hydrocarbon levels to below CULs. ES will evaluate pertinent remedial options including conducting dual-phase extraction (DPE) in the area of these borings to reduce soil concentrations to levels that meet cleanup criteria. Additionally, continued quarterly groundwater monitoring is recommended to evaluate groundwater conditions during remediation and obtain the consecutive data necessary to support case closure.

A summary of the field observations, findings and results of the present study are presented in the following sections.

If there are questions regarding this report, or if additional information is required, please do not hesitate to contact the undersigned at (714) 919-6500.

Sincerely,
ES ENGINEERING SERVICES

Kris Kern, GIT
Project Geologist

Laura Skow, L.G. 2882
Project Manager

State of Washington
2882
Licensed Geologist
LAURA B. SKOW

SITE AND CONTRACTOR OVERVIEW

Site Location:	Site No. 0700 100 East Wine Country Road Grandview, Washington
Environmental Consultant:	ES Engineering Services, LLC 1036 West Taft Avenue Orange, California 92865
Drilling Contractor:	Environmental West Exploration (EWE) 1015 N. Yardley Street Spokane, WA 99212
Laboratory Contactor:	ESN Northwest, Inc. 1210 Eastside Street SE, Suite 200 Olympia, Washington 98501 WADOE Accreditation No. C574-11
Waste Transporter:	Able Clean-up Technologies, Inc. 4117 E Nebraska Avenue Spokane, WA 99217

SITE DESCRIPTION

Site No. 0700 is located at 100 East Wine Country Road in Grandview, Washington **(Figure 1).** The property is located on the southeast corner of the intersection of Wine Country Road and Division Street. The property is an active retail fueling station and consists of a convenience store building, a pump island canopy covering one product dispenser, and three USTs (one 6,000, one 8,000 and one 10,000 gallon all containing unleaded gasoline).

The active USTs are located in the southwestern portion of the property. Former USTs were located in the eastern portion of the property, in front and partially beneath the front of the convenience store building. The surface cover is primarily asphalt, concrete and landscaping.

Currently, a total of twenty-two (22) wells, including seven groundwater monitoring wells (MW-01 through MW-07), three vapor extraction wells (VW-01, VW-02 and VW-03), five recovery wells (RW-1 through RW-05) and seven sparge wells (SW-01 through SW-07) are located on the site. The current site configuration is shown on **Figure 2**.

SCOPE OF WORK

Ten confirmation soil borings (identified as CB-1 through CB-10) were advanced in the vicinity of the fuel dispenser island, the former UST cavity, the active UST cavity and near previously advanced soil boring locations to evaluate current soil conditions. In addition, a temporary well was installed at location CB-10 and a groundwater sampled collected to evaluate groundwater quality down-gradient of Well MW-07, which historically contained dissolved-phase hydrocarbons. The confirmation boring locations are shown on **Figure 2.** Soil analytical results are summarized in **Table 1** and shown on **Figure 3** along with historical soil boring analytical results. Historical soil boring analytical results are included as **Appendix B**. Historical analytical results indicate that soil samples collected from borings B-1, B-3, B-4, B-13, CP-3 and well MW-03, prior to remediation, contained total petroleum hydrocarbons quantified as gasoline (TPH-Gx), benzene, ethylbenzene, toluene and total xylenes (collectively BTEX) above MTCA Method A CULs.

Past remedial efforts at the site included groundwater pump and treat coupled with air sparging/soil vapor extraction. Operation of the remediation system was initiated in March 2002 and continued through November 2006 which resulted in decreased hydrocarbon concentrations across the site. Detailed site background information is included as **Appendix C**.

Groundwater monitoring and sampling was conducted from 2000 through 2007. Historical groundwater monitoring and analytical results are summarized in the table (prepared by Sound Environmental Strategies [SES]) included as **Appendix D.** The historical groundwater monitoring data through August 2007 indicated a general groundwater flow direction toward the southwest. ES resumed groundwater monitoring in January 2016 and has conducted four consecutive events to date. Hydrocarbon concentrations have been below the MTCA Method A CULs for all four recent groundwater monitoring events. Historical groundwater analytical results conducted by ES including the most recent groundwater analytical results are summarized in **Table 4**. Overall, hydrocarbon trend analyses for TPH-Gx and benzene show generally stable to decreasing concentrations in a majority of the site wells. Additional details regarding the groundwater monitoring results are presented in the *Fourth Quarter 2016 Groundwater Monitoring Report*, dated December 28, 2016.

The objective of this assessment was to collect additional soil and groundwater data to support site closure. The MTCA Method A CULs for Unrestricted Land Use are the primary criteria for determining whether soil and groundwater have been effectively remediated.

The following section provides a brief summary of the confirmation soil and groundwater sampling field activities and analytical results. Subsequent sections provide a more detailed

summary of the field activities, observations and findings and analytical results along with conclusions and recommendations.

SITE ASSESSMENT SUMMARY DATA

Field Activity Details

Drilling & Sampling Date(s):	November 28, 2016 through December 1, 2016
One-Call Ticket No.:	16374177
Number of Borings:	10
Drilling Method:	Geoprobe 5400DT – Direct Push
Depth to Groundwater:	~16-23 feet bgs(1)
Total Depth:	ranged from 26.0 to 30.5 feet bgs
Total Drums Generated:	2 (55-gallon, 1 soil and 1 decontamination water)

Soil Sampling Details

Sampling Method:	Continuous core barrel with EPA 5035 Preparation
Number of Samples:	31 soil samples; 1 groundwater sample
Highest PID Reading:	850.2 ppmv (CB-10-17')
Sample Analyses:	TPH-Gx by EPA 5035/NWTPH-Gx TPH-Dx/Ox by EPA 5035/NWTPH-Dx/Dx Extended B/T/E/X/MTBE/additional VOCs by EPA 5035/8260 EDB by EPA 5035/8011 Naphthalenes by EPA 5035/8260 and 8270 Total and dissolved Lead by 6020A/3050B

(1): Based on field data

Soil Analytical Results (see Tables 1 and 2)

TPH-Gx Detects:	4	Maximum: 400 mg/kg (CB-3-17)
TPH-Dx Detects:	0	Maximum: ND (<50 mg/kg)
TPH-Ox Detects:	0	Maximum: ND (<100 mg/kg)
B/T/E/X Detects:	0/0/3/3	Maximum: ND (<0.02 mg/kg)/ ND (<0.05 mg/kg)/ 0.61 mg/kg (CB-4-17)/ 2.6 mg/kg (CB-4-17)

Groundwater Analytical Results – CB-10W (see Table 3)

TPH-Gx Detects:	0	Maximum: ND (<100 µg/L)
B/T/E/X Detects:	0/0/0/0	Maximum: ND (<1.0 /<1.0 /<1.0/<3.0 µg/L)
MTBE Detects:	1	Maximum: 1.1 µg/L (CB-10W)
Naphthalenes Detects:	0	Maximum: ND (<1.0 µg/L)
EDB Detects:	0	Maximum: ND (<0.01 µg/L)
Lead Detects:	0	Maximum: ND (<2.0 µg/L)

FIELD ACTIVITIES

The following subsections provide a summary of the field activities conducted as part of the scope of work. Field activities were conducted in accordance with the Site Health and Safety Plan (HASP), dated April 2016. Before commencing field activities a daily "tailgate" health and safety meeting was conducted by ES personnel with contracted employees. The site safety briefing forms are included as **Appendix E**. Upon request, an electronic copy of the HASP will be forwarded to Eagle as a separate, stand-alone document.

Pre-marking, Permitting and Notifications

The proposed boring locations were pre-marked in white spray paint and cleared of potential subsurface utilities/structures using geophysical techniques. On November 22, 2016, a private utility locator, Geomarkout (a trade name of ULS Services Corporation), was contracted to identify onsite subsurface utilities/structures within the proposed work areas. The geophysical report is included as **Appendix F**.

In a letter dated October 5, 2016 the City of Grandview (City) gave ES permission to proceed with the proposed borings (**Appendix G**). A pre-construction meeting was held with the City to inspect the work areas and approve the proposed boring locations within the public right-of-way. A Notice of Intent to Construct permit was submitted to the DOE by the drilling contractor (EWE). The City and DOE were notified 72 hours before drilling in accordance with the permit requirements. In addition, the State of Washington's mandatory underground utility locator, One-Call, was notified 72 hours before initiating field activities and requested to mark and delineate underground utilities servicing the site.

Drilling and Soil Sampling Activities

From November 28 to December 1, 2016, drilling and soil and groundwater sampling activities were conducted at the site. Ten confirmation soil borings (CB-1 through CB-10) were advanced using a Geoprobe 5400DT direct push drill rig. Borings CB-1, CB-2, CB-3, CB-4, CB-5 and CB-9 were located onsite and soil borings CB-6, CB-7, CB-8 and CB-10 were advanced offsite. Soil boring CB-1 was located slightly northwest of the existing fuel dispenser island. Borings CB-2 and CB-3 were advanced west and east of the existing UST complex, respectively. CB-5 was advanced in the southern portion of the site near the previous remediation compound. Borings CB-4 and CB-9 were advanced within the former UST complex and along the eastern border of the property, respectively. Based on discussion with the DOE, Boring CB-9 was added to the original workplan as a step-out location to confirm lateral limits of soil contamination onsite and is located along the eastern limits of the property near boring CB-4. Soil borings CB-6 and CB-7 were advanced along the western and eastern borders of Division Street near previous borings B-9 and B-12, respectively.

boring B-13 and well MW-07. Boring CB-10 was also an addition to the original workplan for the purpose of delineating the groundwater contamination plume as well as confirming the western lateral limit of the soil contamination plume.

Each soil boring was cleared of potential subsurface utilities using a hand auger and hand tools to a depth of 5 feet bgs. Following the hole clearing, all borings were continuously cored using a direct-push drill rig and terminated at depths ranging from 26 feet bgs to 30.5 feet bgs. CB-1 and CB-2 were advanced to 26 feet bgs, CB-6, CB-8 and CB-10 were advanced to 27 feet bgs, and CB-3, CB-4, CB-5 and CB-7 were advanced to 28 feet bgs. CB-9 was advanced to 30.5 feet bgs, the deepest soil boring advanced.

During hole clearing and drilling, the retrieved soil was inspected and logged in accordance with the Unified Soil Classification System by a licensed Professional Geologist. Soil samples were field screened for volatile organic compounds (VOCs) using a photoionization detector (PID). Additionally, soil samples were collected from each boring for laboratory analysis. In general, PID field screening was performed at 3 foot intervals. Soil samples were collected at varying depths, generally at five foot intervals and were submitted for laboratory analysis. PID field screening was performed by placing a disaggregated portion of each soil sample in a sealed container and allowed for volatility followed by monitoring the head-space for hydrocarbon volatilization. PID readings ranged from non-detect (0.0 parts per million by volume [ppmv]) to a maximum of 850.2 ppmv (CB-10-17, see **Table 1**). Lithologic descriptions, PID readings and other visual and olfactory observations were recorded on boring logs and are presented as **Appendix H.** Subsurface soils described consisted of silty sand and well graded sand with silt to approximately 30.5 feet bgs, the maximum depth explored during this assessment. Soils encountered during previous assessments consist of medium-dense, damp to moist, fine grained sand with some silt to approximately 10 feet below ground surface (bgs), and damp to saturated, fine to medium grained sand with silt from 10 to 34 feet bgs, the maximum depth explored to date.

Following the advancement of soil boring CB-10, a temporary well (CB-10W) was installed to 25 feet bgs to collect a downgradient water sample in attempt to delineate the groundwater contamination plume. The well consisted of 0.75-inch diameter poly vinyl chloride (PVC). A peristaltic pump was used to pump groundwater from the temporary well. Groundwater was collected in three (3) VOA (volatile organic aromatics) vials and the samples were capped, labeled, immediately stored on ice in a cooler and delivered to an analytical laboratory under chain-of-custody protocol.

Soil samples submitted for laboratory analysis were collected in accordance with EPA Method 5035 using laboratory-prepared VOA vials. Each soil sample was comprised of two, 5-gram soil cores inserted into the vials and one 4-ounce glass soil jar. Sample containers were capped,

labeled, immediately stored on ice in a cooler and delivered to an analytical laboratory under chain-of-custody protocol.

Down-hole drilling and sampling equipment were cleaned using a decontamination process consisting of a non-phosphate, laboratory-grade detergent wash and triple-rinsed. Tools and drilling rods were allowed to dry prior to use.

Soil borings were backfilled with hydrated bentonite chips and capped at the surface to match surrounding surface conditions. Additional details regarding the general field procedures used during the assessment are provided in **Appendix I**.

Laboratory Analysis

Soil samples were submitted under chain-of-custody to ESN Northwest, Inc., of Olympia, Washington (ESN) for chemical analysis. Soil samples were analyzed for TPH-Gx by Method NWTPH-Gx, full scan VOCs, including BTEX, methyl tert-butyl ether (MTBE) and 1,2-dibromoethane (EDB), by Method 8260C. BTEX was analyzed in select samples by EPA Method 8260. EDB was also analyzed by Method 8260SIM for select samples to achieve a lower detection limit. Select soil samples were also analyzed for naphthalenes, including naphthalene, 2-methylnaphthalene (2-methyl) and 1-methylnaphthalene (1-methyl) using Method 8270. All soil samples were analyzed for total lead using Method 6020A/3050B. Sample CB-8-20 was analyzed for total diesel-range petroleum hydrocarbons (TPH-Dx) and total oil-range petroleum hydrocarbons (TPH-Ox) by Method NWTPH-DX/Dx Extended.

The groundwater sample, CB-10W, was submitted to ESN and was analyzed for TPH-Gx by Method NWTPH-Gx, full scan VOCs by Method 8260C, Dissolved Lead and Total Lead by EPA Method 6020, EDB by EPA Method 8011 and Polynuclear Aromatic Hydrocarbons including naphthalene, 2-methyl and 1-methyl using Method 8270.

A copy of the laboratory analytical report is provided as **Appendix J.** The soil analytical results are summarized in **Tables 1 and 2.** The groundwater analytical results are summarized in **Table 3**.

Waste Management

Soil cuttings and decontamination fluids generated during the field activities were placed into two Department of Transportation (DOT) approved drums. The drums were appropriately sealed, labeled and staged in a secure location onsite pending waste characterization. The drums have been removed by a certified waste hauler (Able Clean-up Technologies). A copy of the non-hazardous waste manifest documenting the transportation and disposal of the waste material will be provided upon request.

ASSESSMENT FINDINGS AND DISCUSSION

The results of the confirmation soil sampling are bulleted below. For discussion purposes, analytical results are evaluated based on the DOE's *MTCA Chapter 70.105D RCW and Cleanup Regulation Chapter 173-340 WAC* (Publication No. 94-06, revised 2013). Specifically, the soil analytical results from this assessment are compared to the respective MTCA Method A CULs for Unrestricted Land Use (Table 740-1). Historical soil analytical results are summarized in **Appendix B**. Historical groundwater monitoring data is included as **Appendix D**. Figures showing the groundwater gradient and distribution of dissolved-phase fuel hydrocarbons in groundwater on November 15, 2016 are included as **Figures 4 and 5,** respectively.

- Soil encountered during this assessment consists predominately of well graded sand and silt to approximately 30.5 feet bgs, the maximum depth explored.
- Groundwater was encountered between approximately 16 feet bgs and 23 feet bgs during drilling activities.
- As shown in the boring logs for CB-1, CB-2, CB-5, CB-6, CB-7 and CB-9 there was no evidence of petroleum hydrocarbon impact based on visual and olfactory observations. Additionally, VOCs were not detected in the field by the PID.

  Slight to heavy hydrocarbon odor was noted in borings CB-3, CB-4, CB-8 and CB-10 from 17 feet bgs to 20 feet bgs (soil becomes wet at approximately 16 to 19 feet bgs). Maximum field PID readings of each boring were recorded at 662.6 ppmv (CB-3-17), 738.4 ppmv (CB-4-17), 80.6 ppmv (CB-8-20) and 850.2 ppmv (CB-10-17). Soil boring CB-8 had a slight hydrocarbon odor and low PID detection at 20 feet bgs, however, analytical results of soil samples from CB-8 indicate no hydrocarbon concentrations were detected above the MDLs. Soil borings CB-3, CB-4 and CB-10 had no PID detections or hydrocarbon odors between the surface and 15 feet bgs as well as from 22 feet bgs to the total depth of each boring; PID detections were only recorded between 17 and 22 feet bgs.
- A total of thirty one (31) soil samples [thirty eight (38) samples including duplicates] were submitted for laboratory analysis of TPH-Gx, TPH-Dx, TPH-Ox, full scan VOCs, EDB, naphthalene's (including naphthalene, 1-methyl, 2-methyl) and lead. As shown in **Table 1**, TPH-Gx was detected in four (4) of the 31 soil samples at concentrations ranging from 170 mg/kg (CB-4-22) to 400 mg/kg (CB-3-17). The TPH-Gx detections in all four samples exceed the respective MTCA Method A CUL of 100 mg/kg. The deepest detection of TPHg-Gx was at 22 feet bgs in soil boring CB-4. All other hydrocarbon detections in soil were at 17 feet bgs. Further, TPH-Dx, TPH-Ox, benzene, toluene, MTBE and EDB were not detected at or above the laboratory detection limits in any of

the analyzed soil samples collected during this assessment. Ethylbenzene and total xylenes were detected in three soil samples CB-3-17, CB-4-17 and CB-4-20 at maximum concentrations of 0.61 mg/kg and 2.6 mg/kg, respectively. These concentrations did not exceed their respective MTCA Method A CULs of 6 mg/kg and 9 mg/kg, respectively. Naphthalene was detected in three samples with a maximum concentration of 0.28 mg/kg (CB-7-28). 1-Methyl was only detected in samples CB-3-17 and CB-7-28 at concentrations of 0.04 mg/kg and 0.18 mg/kg, respectively. 2-Methyl was detected in three samples at concentrations ranging from 0.04 mg/kg (CB-7-28) to 0.07 mg/kg (CB-3-28). All naphthalenes detected were below the MTCA Method A CUL of 5 mg/kg. TPHg-Gx was the only COC to exceed the MTCA Method A CULs.

- Total lead was detected in twenty (20) of the 31 soil samples at concentrations ranging from 6.7 mg/kg (CB-7-28 and CB-8-20, 6.6 mg/kg was detected in the CB-8-20 duplicate sample) to 13 mg/kg (CB-4-15 and CB-9-10, 15 mg/kg was detected in the CB-9-10 duplicate sample). Total lead was not detected in soil borings CB-6 or CB-10. The detected lead concentrations are all below the MTCA Method A CUL of 250 mg/kg.

- For comparison, the highest TPH-Gx and benzene results for this assessment and previous site assessments are presented on **Figure 3**. Historical soil borings GP-1 through GP-5 and SB-3 through SB-7, affiliated with the DeBocks Main Street Texaco station (Case #6910), are also included in **Figure 3** for reference. As shown in **Figure 3**, analytical results for the confirmation soil samples indicate that current adsorbed-phase petroleum hydrocarbon concentrations in soil are generally much lower than pre-remediation soil concentrations. For example, pre-remediation sample B-1, located slightly west of the fuel dispenser island, contained TPH-Gx at 1,800 mg/kg between 12 and 16 feet bgs (the highest concentration of TPH-Gx historically detected in soil); whereas, field PID readings in soil boring CB-1, adjacent to boring B-1, were non-detect (0.0 ppmv) and TPH-Gx as well as all other hydrocarbon constituents were not detected above the laboratory MDLs (see **Table 1**). Also pre-remediation samples B-4 and CP-3 (near the western limits of the active UST complex) contained TPH-Gx at 500 mg/kg and 578 mg/kg, respectively; whereas TPH-Gx was non-detect (<10 mg/kg) in the corresponding confirmation sample CB-2, located between the two historical borings. Additionally, pre-remediation borings B-9 and B-13, located offsite within Division Street and the alley, respectively, had TPH-Gx concentrations of 200 mg/kg (B-9) and 2,400 mg/kg (B-13) in January, 2000. Confirmation borings CB-6 and CB-8, adjacent to borings B-9 and B-13, respectively, did not have any detections of TPH-Gx during the November 2016 site assessment confirming a decrease in hydrocarbon concentrations.

All soil sample concentrations detected during this site assessment are lower than the concentrations of the corresponding pre-remediation soil borings. However, a few of the recent samples collected contained concentrations of TPH-Gx that still exceed MTCA Method A CULs. Specifically, TPH-Gx concentrations exceed the MTCA Method A CUL in borings CB-3 (400 mg/kg), CB-4 (350 mg/kg) and CB-10 (210 mg/kg). Borings CB-3 and CB-4 are both located onsite. Boring CB-3 is located near the southeast corner of the existing UST complex next to pre-remediation boring B-3. Pre-remediation boring B-3 had a TPH-Gx concentration of 1,080 mg/kg at approximately 10 to 11.5 feet bgs. Corresponding confirmation boring CB-3 had a concentration of TPH-Gx at 400 mg/kg, the highest detection of TPH-Gx during this site assessment. Soil boring CB-4 is located near well MW-03, near the northeast limit of the former UST complex. Prior to remediation, Well MW-03 had a TPH-Gx detection in soil at 10-12 feet bgs at a concentration of 1,510 mg/kg. The corresponding confirmation soil sample for CB-4 shows a decrease in TPH-Gx, with a maximum TPH-Gx concentration of 350 mg/kg at 17 feet bgs. TPH-Gx was also detected in CB-4 at 22 feet bgs at a concentration of 170 mg/kg (the deepest detection for this assessment). Soil boring CB-9, a step-out location located approximately 12 feet southeast of CB-4, did not contain any detections of TPH-Gx or any other hydrocarbons above the laboratory MDLs. Boring CB-9 was the deepest boring advanced during this assessment, approximately 30.5 feet bgs, for purposes of plume delineation. The non-detectable results of boring CB-9 confirm the vertical extent and the eastern lateral extent of the hydrocarbon plume in soil. Similarly, soil samples collected from borings CB-1, CB-2, CB-5, CB-6, CB-7 and CB-8 demonstrate COC concentrations in soil are below CULs in these areas and further confirm lateral extent of the hydrocarbon plume to the north, west and south. Boring CB-10, located offsite in the alleyway and west of well MW-07, was drilled for additional characterization purposes. The TPH-Gx detection in soil at CB-10-17 is a suspected by-product of the release at the DeBocks Main Street Texaco site, located west of the subject site.

- Adjacent to the subject site is a Department of Ecology cleanup site (#6910), DeBocks Main Street Texaco (Debocks Texaco). In March 1995, one 1,000 gallon unleaded gasoline tank, one 5,000 gallon leaded gasoline tank and one 8,000 gallon unleaded gasoline tank were removed during UST Closure site assessment activities. Following the UST closure activities, on February 19, 1998, Olympus Environmental, Inc. (Olympus) advanced four (4) soil borings (GP-1 through GP-4) within Division Street and Wine Country Road (previously West Main Street) and one (1) soil boring (GP-5) south of the Debocks Texaco facility within the previous location of the 5,000 gallon and 8,000 gallon

USTs (**see Figure 3**). The borings were advanced to 15 and 20 feet bgs. Soil and groundwater samples were collected at each location.

Soil analytical results for the Debocks Texaco borings confirmed hydrocarbon contamination in soil boring GP-5 at approximately 15 feet bgs with detections of TPH-Gx at 5,910 mg/kg, ethylbenzene at 14.3 mg/kg and total xylenes at 54.2 mg/kg. Soil sample GP-5-20, collected at 20 feet bgs contained no hydrocarbon detections. The groundwater sample collected at soil boring GP-5 also contained hydrocarbons; specifically, TPH-Gx at 2,930 µg/L, benzene at 7.94 µg/L, toluene at 4.87 µg/L, ethylbenzene at 80.7 µg/L and total xylenes at 113 µg/L. The Debocks Texaco assessment results are documented in the *Preliminary Site Investigation Report (PSIR)*, by Olympus dated April 13, 1998, and excerpts from the report, including a site plan and a table presenting the soil and groundwater sample results, are provided as **Appendix K**. Three groundwater wells were proposed to be installed to collect additional soil samples, implement cyclical groundwater monitoring and determine hydrogeological conditions. However, no records documenting further site assessment activities on the DeBocks Texaco property following the PSIR were available for review.

Historically, hydrogeological conditions on the subject site have been relatively consistent, with a groundwater gradient of approximately 0.01 feet per foot flowing towards the southwest (**Table 5**). The aforementioned data suggests that the TPH-Gx detection in soil sample CB-10-17 (210 mg/kg) may be related to the release at the DeBocks Texaco property. Soil boring GP-5 is located up gradient (north-northeast) of confirmation boring CB-10 and contains hydrocarbon contaminants at 15 feet bgs. The location of CB-10, the location of GP-5 (former UST complex), the soil and groundwater analytical results from GP-5, and the consistent southwest flow of groundwater suggest that the contamination in CB-10 may be related to contamination originating from the DeBocks Texaco property.

- Analytical results for borings CB-1 through CB-10, located throughout the subject site near the former UST cavity, the active UST cavity and fuel dispenser island as well as offsite within Division Street and the near-by alley, fill data gaps, further delineate the subject site contamination both vertically and laterally, and in general meet the MTCA Method A CULs with a few exceptions (CB-3, CB-4 and CB-10). Analytical results for borings CB-3, CB-4 and CB-10 are above the MTCA Method A CULs and confirm that remaining soil contamination is primarily contained in the central and eastern portions of the site at approximately 17 feet bgs. Boring CB-10 is located offsite and the hydrocarbons detected are suspected to be related to the DeBocks Texaco property.

- Groundwater was encountered during drilling between approximately 16 and 23 feet bgs. Soil boring CB-10 was converted into a temporary groundwater well, CB-10W, and a groundwater sample was collected to delineate groundwater contamination. TPH-Gx, BTEX, EDB, dissolved lead, total lead and naphthalenes were not detected above the laboratory MDLs in sample CB-10W. MTBE was the only hydrocarbon constituent detected in sample CB-10W at a concentration of 1.1 µg/L, which is below the MTCA Method A CUL. Residual groundwater impacts at CB-10 may also be related to the Debocks Texaco release.

CONCLUSIONS AND RECOMMENDATIONS

Confirmation borings CB-1 through CB-10 have further characterized the nature and extent of soil contamination beneath the site and demonstrate that soil CULs have been attained across most of the site. Historical site assessment data (pre-remediation, **Appendices B and D**) show the highest levels of fuel hydrocarbons were detected near the former USTs, product piping and pump islands. Based on the analytical results of the confirmation sampling, COC concentrations in soil are below the MTCA Method A CULs with the exception of TPH-Gx detected in soil borings CB-3, CB-4 and CB-10. Borings CB-3 and CB-4 are located on the southeast corner of the existing UST complex and the northeast corner of the former UST complex, respectively. Boring CB-10 is located within the alley, west of soil boring CB-8 and south of the former UST complex of the DeBocks Texaco station.

The remaining soil boring analytical results are all below the MTCA Method A CULs and the soil borings are in compliance with MTCA cleanup criteria and meet the standard points of compliance. These soil borings include the following:

- Soil boring CB-1 – located west of the fuel dispenser island, near boring B-1
- Soil boring CB-2 – located on the western limit of the active UST complex, near borings B-4 and CP-3
- Soil boring CB-5 – located in the southern portion of the site, near the remediation compound
- Soil boring CB-6 – located on the west side of Division Street, near boring B-9
- Soil boring CB-7 – located on the east side of Division Street, near boring B-12
- Soil boring CB-8 – located in the alley west of Division Street, slightly north of well MW-07
- Soil boring CB-9 – located along the eastern limit of the subject site, near boring CB-4

Residual source hydrocarbons are located within saturated soil at approximately 17 feet bgs in soil borings CB-3 and CB-4 (**Table 1**). Hydrocarbon concentrations in groundwater have either been non-detect or below the MTCA Method A CULs since January 2016 (**Table 4**).

ES recommends further remedial action, specifically targeting the locations of soil borings CB-3 and CB-4, in order to decrease the remaining source hydrocarbons to below MTCA Method A CULs and bring the site to closure. Conducting DPE in the area of these borings may be an effective remedial option to reduce soil concentrations. DPE systems are effective at removing hydrocarbon mass from the subsurface soil and groundwater simultaneously. Since groundwater at the site varies in depth from 16 to 23 feet, DPE can be utilized to lower the groundwater level to expose hydrocarbons in the submerged hydrocarbon impacted zone (between 17 and 22 feet bgs) for removal by vapor extraction. Existing wells can be utilized where possible and additional wells installed to provide adequate coverage of the treatment area. Prior to preparing a remedial workplan, ES recommends inspection of the existing onsite remediation system for potential use or reinstatement. Additionally, continued quarterly groundwater monitoring is recommended to evaluate groundwater conditions during remediation and obtain the consecutive data necessary to support case closure.

ES is pleased to be of service to Eagle. If there are questions regarding this report or if additional site information is required, please do not hesitate to contact ES at (714) 919-6500.

REFERENCES:

ES Engineering Services, LLC. (ES), 2016, *Additional Site Assessment Workplan, Site No. 0700, 100 East Wine Country Road, Grandview, Washington,* dated August 31, 2016.

ES Engineering Services, LLC (ES), 2016, *Fourth Quarter 2016 Groundwater Monitoring Report, Site No. 0700, 100 East Wine Country Road, Grandview, Washington,* dated January 27, 2017.

Olympus Environmental, Inc. (Olympus), 1998, *Preliminary Site Investigation Report, R.E. Powell Distributing, Inc., 100 West Main Street, Grandview, Washington, Olympus Work Order #7545,* dated April 13, 1998.

FIGURES

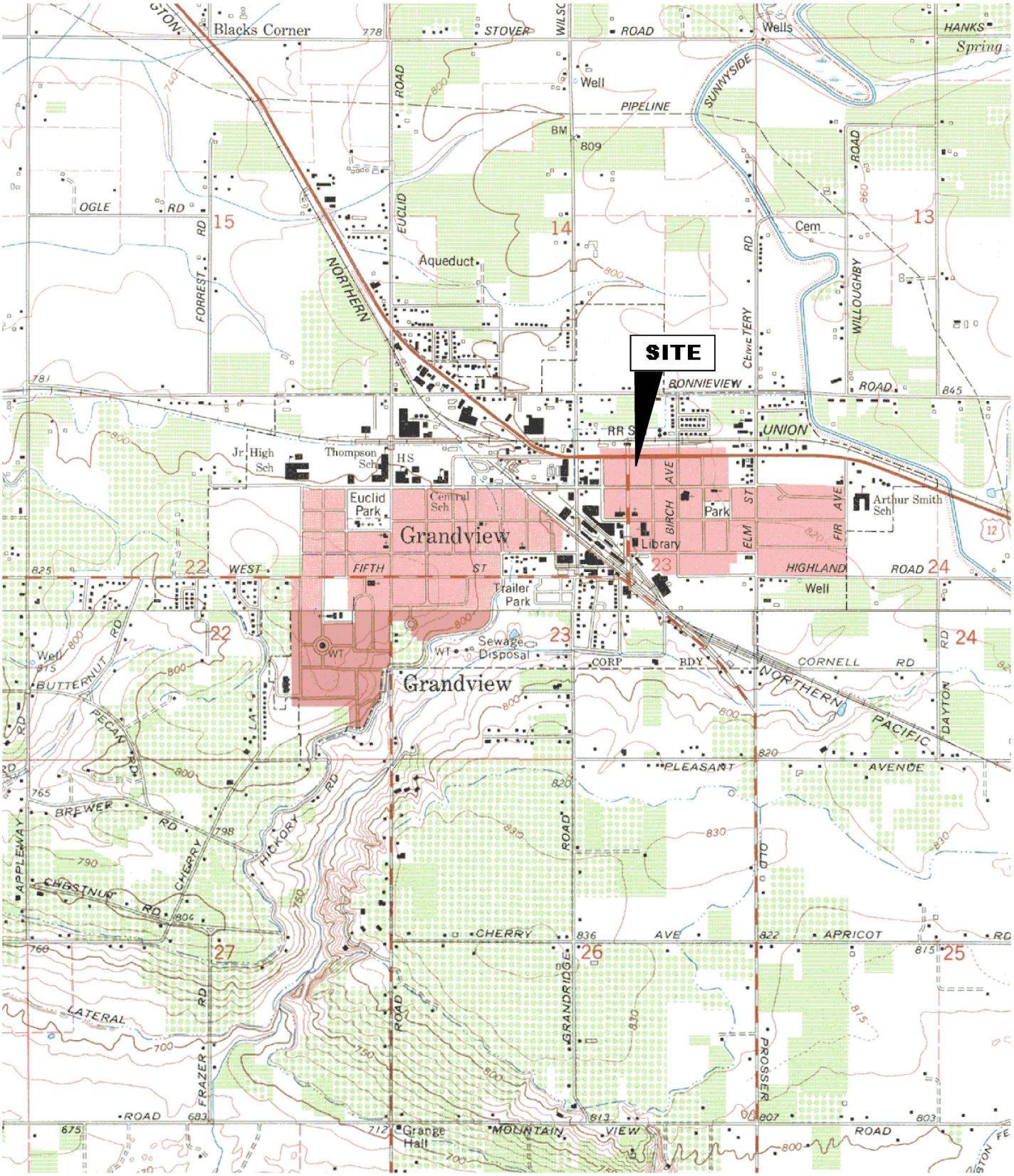
TABLES

APPENDICES

ACRONYMS

amsl:	above mean sea level
bgs:	below ground surface
BTEX:	benzene, toluene, ethylbenzene and total xylenes
btoc:	below top of casing
DIPE:	di-isopropyl ether
DO:	dissolved oxygen
DOE:	Department of Ecology
DOT:	Department of Transportation
EPA:	Environmental Protection Agency
ETBE:	ethyl tert-butyl ether
ft:	feet
ft/ft:	feet per foot
GW:	groundwater
µg/L:	micrograms per Liter
HASP:	health and safety plan
MDL:	Method detection limit
mg/kg:	milligrams per kilogram
mg/L	milligrams per Liter
MTBE:	methyl tert-butyl ether
MW:	monitoring well
nm:	not measured
na:	not applicable
ND:	not detected
ORC:	oxygen release compound
Pb:	lead
pH:	potential Hydrogen level
PID:	photo-ionization detector
ppb:	parts per billion
ppm:	parts per million
CB:	confirmation soil boring
TAME:	tert-amyl-methyl ether
TBA:	tert-butyl alcohol
TPH-Dx:	total diesel-range petroleum hydrocarbons
TPH-Gx:	total gasoline-range petroleum hydrocarbons
TPH-Ox:	total lube oil-range petroleum hydrocarbons
UST:	underground storage tank
VOA:	volatile organic analysis
VOCs:	volatile organic compounds

FIGURES



Map Information:
Maptech Terrain Navigator–Std. Ed.
Mt. Rainier/Moses Lake/Pasco (WA)
46°15'21"N 119°54'05"W

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N

0 2000

APPROX. SCALE: 1" = 2000'

FIGURE 1

SITE LOCATION MAP

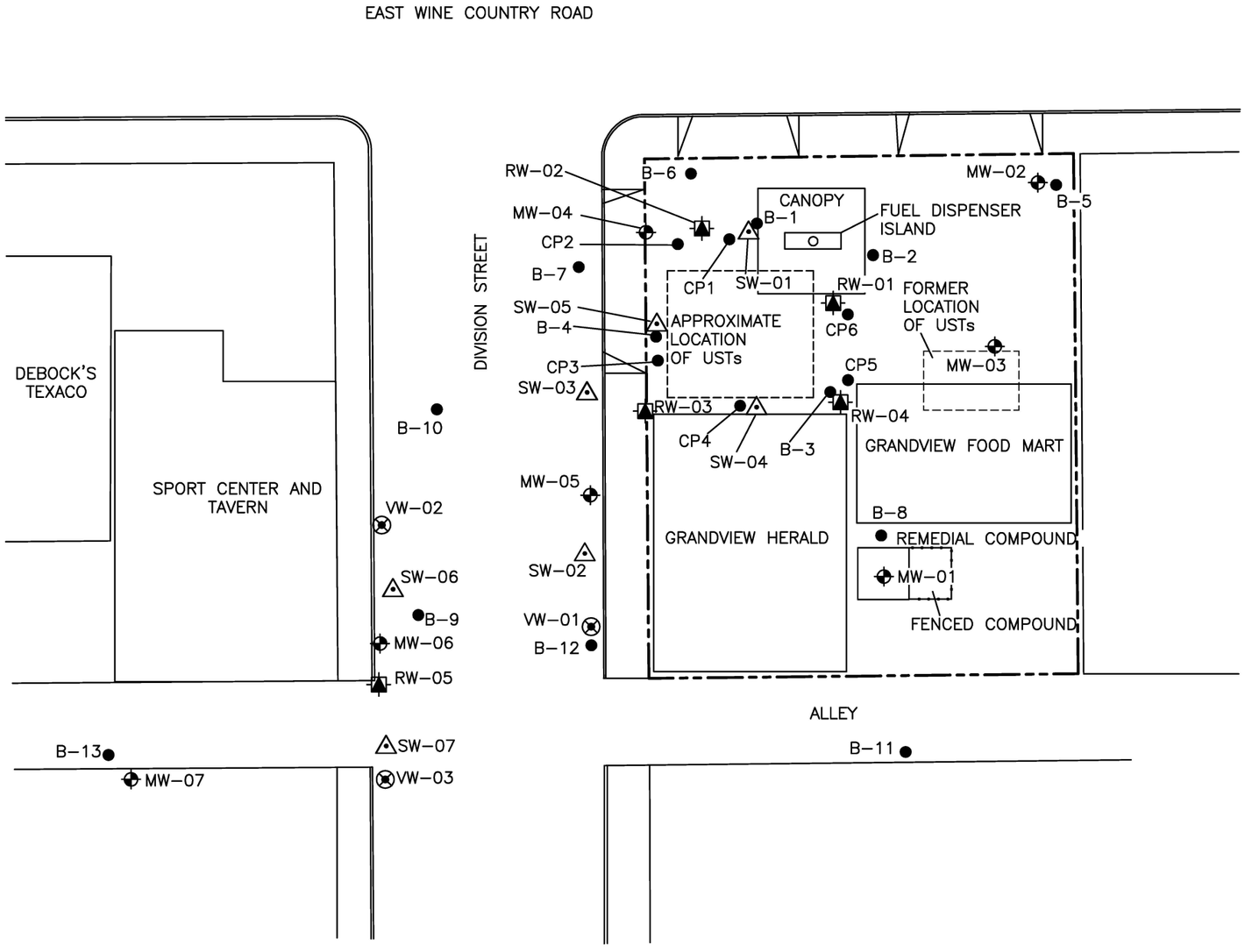
Site #0700
100 E. Wine Country Road
Grandview, Washington

DATE DRAWN
01/13/2017

PROJECT NO.
622

FILE NO.
622F1–SLM

W:\03_Site Assessment & Remediation\Eagle Canyon (PC&F)\01–0700 – East Wine Country Rd, Grandview WA (#622)\Topo, Terrain, Maps\CAD\622F1–SLM.dwg



BASE SOURCE: SOUND ENVIRONMENTAL STRATEGIES

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FIGURE 2

SITE PLAN

Site No. 0700
100 E. Wine Country Road
Grandview, Washington

DATE DRAWN 01/13/2017

PROJECT NO. 622

FILE NO. 622F2-SP

W:\03_Site Assessment & Remediation\Eagle Canyon (PC&F)\01-0700 - East Wine Country Rd, Grandview WA (#622)\Topo, Terrain, Maps\CAD\622F2-SP.dwg

WINE COUNTRY ROAD
(PREVIOUSLY WEST MAIN STREET)

EAST WINE COUNTRY ROAD

N

SB-3 (10/24/1995)	
1,800	15
<0.1	15

GP-4 (2/20/1998)	
299	15
<0.500**	15

GP-3 (2/20/1998)	
154	15
<0.250**	15

GP-2 (2/20/1998)	
<5.00	15
<0.0500	15

CP1 (9/10/1998)	
800	12–15*
<0.25**	12–15*

B-6 (1/27 & 1/28/2000)	
<10	15–17
<0.05	15–17

CB-1 (11/29/2016)	
<10	ALL
<0.02	ALL
<0.02	ALL

B-1 (1/27 & 1/28/2000)	
1,800	12–16
3.8	12–16

B-5 (1/27 & 1/28/2000)	
<10	15–17
<0.05	15–17

B-2 (1/27 & 1/28/2000)	
36	15–17
1.2	15–17

SB-4 (10/24/1995)	
225	10
<0.1	10

B-7 (1/27 & 1/28/2000)	
<10	12–15
<0.5	12–15

B-4 (1/27 & 1/28/2000)	
500	15–17
7.2	15–17

SB-6 (10/24/1995)	
<20.0	10
<0.1	10

SB-5 (10/24/1995)	
117	10
<0.1	10

GP-1 (2/20/1998)	
1,280	15
1.33	15

CB-4 (11/28/2016)	
350	17
<0.02	ALL
<0.02	ALL

CB-9 (11/28/2016)	
<10	ALL
<0.02	ALL
<0.02	ALL

MW-03 (1/28 & 1/29/2000)	
1,510	10–12
0.847	15–17

CB-3 (11/29/2016)	
400	17
<0.02	ALL
0.08	17+28

B-8 (1/27 & 1/28/2000)	
13	15–17
0.23	15–17

SB-7 (10/24/1995)	
426	12
<0.1	12

CB-2 (11/29/2016)	
<10	ALL
<0.02	ALL
<0.02	ALL

B-10 (1/27 & 1/28/2000)	
<10	14–16
<0.05	14–16

GP-5 (2/20/1998)	
5,910	15
<2.50**	15

CB-6 (11/30/2016)	
<10	ALL
<0.02	ALL
<0.02	ALL

CB-10 (12/1/2016)	
210	17
<0.02	ALL
<0.02	ALL

B-13 (1/27 & 1/28/2000)	
2,400	15–18
9.4	15–18

CB-8 (12/1/2016)	
<10	ALL
<0.02	ALL
<0.02	ALL

B-9 (1/27 & 1/28/2000)	
200	12–15
<0.05	12–15

B-12 (1/27 & 1/28/2000)	
25	15–18
0.41	15–18

CB-7 (12/1/2016)	
<10	ALL
<0.02	ALL
0.28	28

CP3 (9/10/1998)	
578	12–15*
<1.0**	12–15*

B-3 (1/27 & 1/28/2000)	
1,080	10–11.5
4.1	15–17

B-11 (1/27 & 1/28/2000)	
<10	12–15
<0.05	12–15

CB-5 (11/29/2016)	
<10	ALL
<0.02	ALL
<0.02	ALL

CANOPY
DEBOCK'S TEXACO
APPROXIMATE LIMITS OF FORMER DEBOCKS MAIN STREET TEXACO UST COMPLEX
SPORT CENTER AND TAVERN
GRANDVIEW HERALD
GRANDVIEW FOOD MART
FUEL DISPENSER ISLAND
APPROXIMATE LOCATION OF USTs
FORMER LOCATION OF USTs
REMEDIAL COMPOUND
FENCE
DIVISION STREET
ALLEY

SB-3, SB-4, SB-5, SB-6, SB-7, GP-1, GP-2, GP-3, GP-4, GP-5, B-1, B-2, B-3, B-4, B-5, B-6, B-7, B-8, B-9, B-10, B-11, B-12, B-13, CB-1, CB-2, CB-3, CB-4, CB-5, CB-6, CB-7, CB-8, CB-9, CB-10, CP1, CP2, CP3, CP4, CP5, CP6, MW-01, MW-02, MW-03, MW-04, MW-05, MW-06, MW-07

0 30 60
APPROXIMATE SCALE (FEET)

BASE SOURCE: SOUND ENVIRONMENTAL STRATEGIES

LEGEND

MW-01	MONITORING WELL
———	PROPERTY BOUNDARY
CB-1	BORING LOCATION
B-11	APPROXIMATE HISTORICAL SOIL BORING LOCATION
SB-7	APPROXIMATE DEBOCK MAIN STREET TEXACO HISTORICAL BORING LOCATION
TPH-Gx	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
mg/kg	MILLIGRAMS PER KILOGRAM
BOLD	CLEANUP LEVEL EXCEEDANCE
BGS	BELOW GROUND SURFACE
ND	NOT DETECTED
ALL	ALL SAMPLE DEPTHS
NA	NOT ANALYZED
<0.05	NOT DETECTED AT INDICATED REPORTING LIMIT
*	COMPOSITE SAMPLE
**	LABORATORY DETECTION LIMITS ARE GREATER THAN THE MTCA METHOD A CUL; THEREFORE, ACTUAL CONCENTRATIONS MAY POTENTIALLY EXCEED THE CUL
CUL	CLEANUP LEVEL

CB-7 (12/1/2016)	
<10	12–15
<0.05	12–15
ALL	0.28

WELL ID & DATE SAMPLED
HIGHEST TPH-Gx CONCENTRATION AT DEPTH IN FEET BGS
HIGHEST BENZENE CONCENTRATION AT DEPTH IN FEET BGS
HIGHEST NAPHTHALENE CONCENTRATION AT DEPTH IN FEET BGS (CB-1 THROUGH CB-10 BORINGS)

NOTES
GP-1 THROUGH GP-5 AND SB-3 THROUGH SB-7 BORINGS ARE A PART OF DEBOCKS MAIN STREET TEXACO (CASE #6910).
CONCENTRATIONS ARE MEASURED IN mg/kg.

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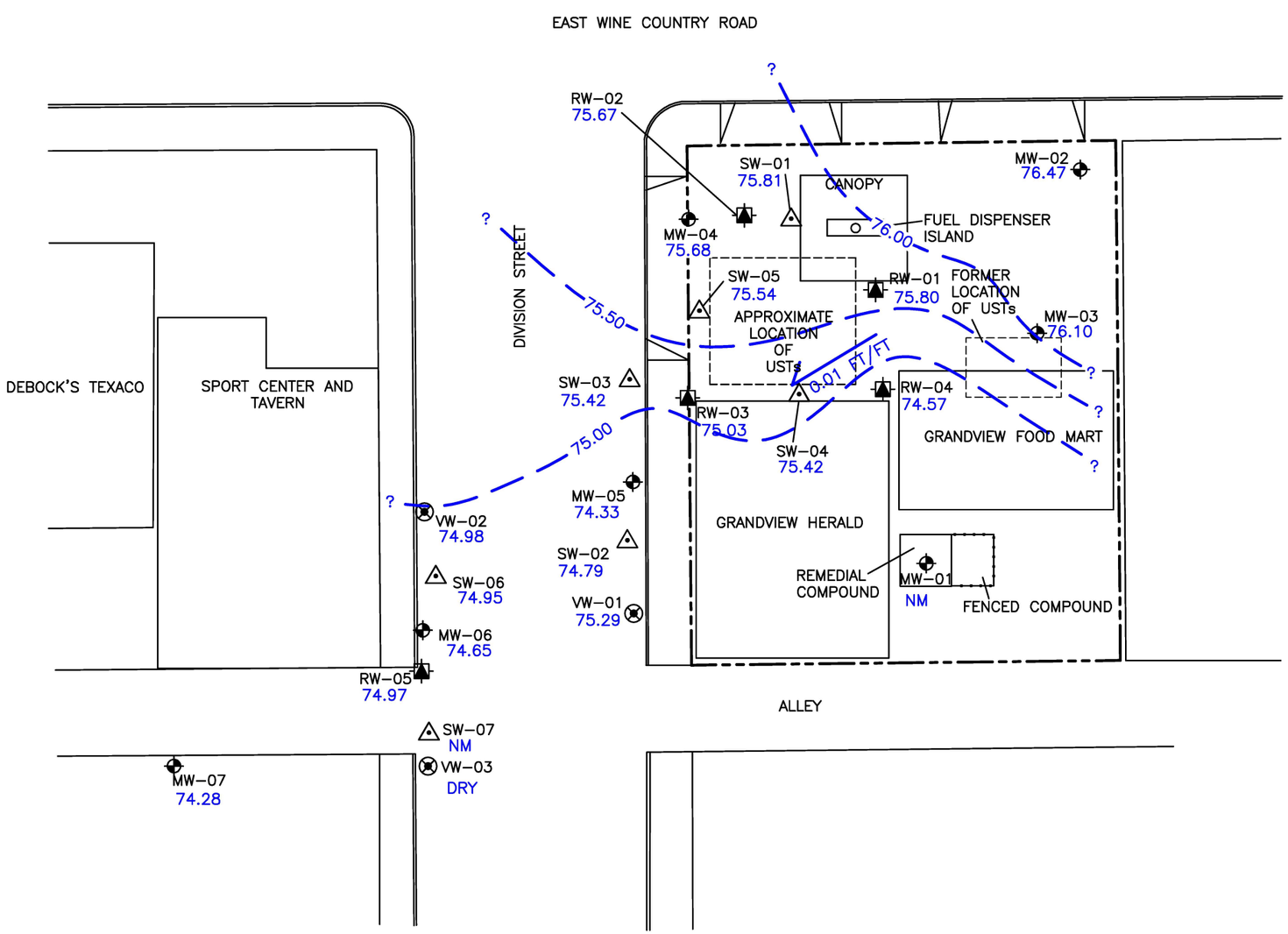
FIGURE 3

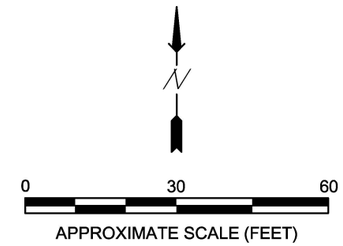
RECENT AND HISTORICAL SOIL ANALYTICAL RESULTS

Site No. 0700
100 E. Wine Country Road
Grandview, Washington

DATE DRAWN 06/27/2017
PROJECT NO. 622
FILE NO. 622F3-HSAR

W:\03_Site Assessment & Remediation\Eagle Canyon (PC&F)\01-0700 – East Wine Country Rd, Grandview WA (#622)\Reports\Confirmation Borings Report\DWGs\622F3-SAR.dwg





LEGEND

RW-02	RECOVERY WELL
VW-03	VAPOR WELL
SW-04	SPARGE WELL
MW-01	MONITORING WELL
— — —	PROPERTY BOUNDARY
UST	UNDERGROUND STORAGE TANKS
75.70	GROUNDWATER ELEVATION BASED ON A RELATIVE SITE DATUM OF 100.00 FEET
NM	NOT MEASURED
*	NOT USED IN CONTOURING
DRY	WELL DRY, NOT USED IN CONTOURING
	APPROXIMATE GROUNDWATER CONTOUR
0.01 FT/FT	APPROXIMATE DIRECTION OF SHALLOW GROUNDWATER FLOW AND GRADIENT IN FEET PER FOOT; CALCULATED USING WELLS MW-02, VW-02, AND MW-07

SOURCE: SOUND ENVIRONMENTAL STRATEGIES

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FIGURE 4

GROUNDWATER CONTOUR MAP
November 15, 2016

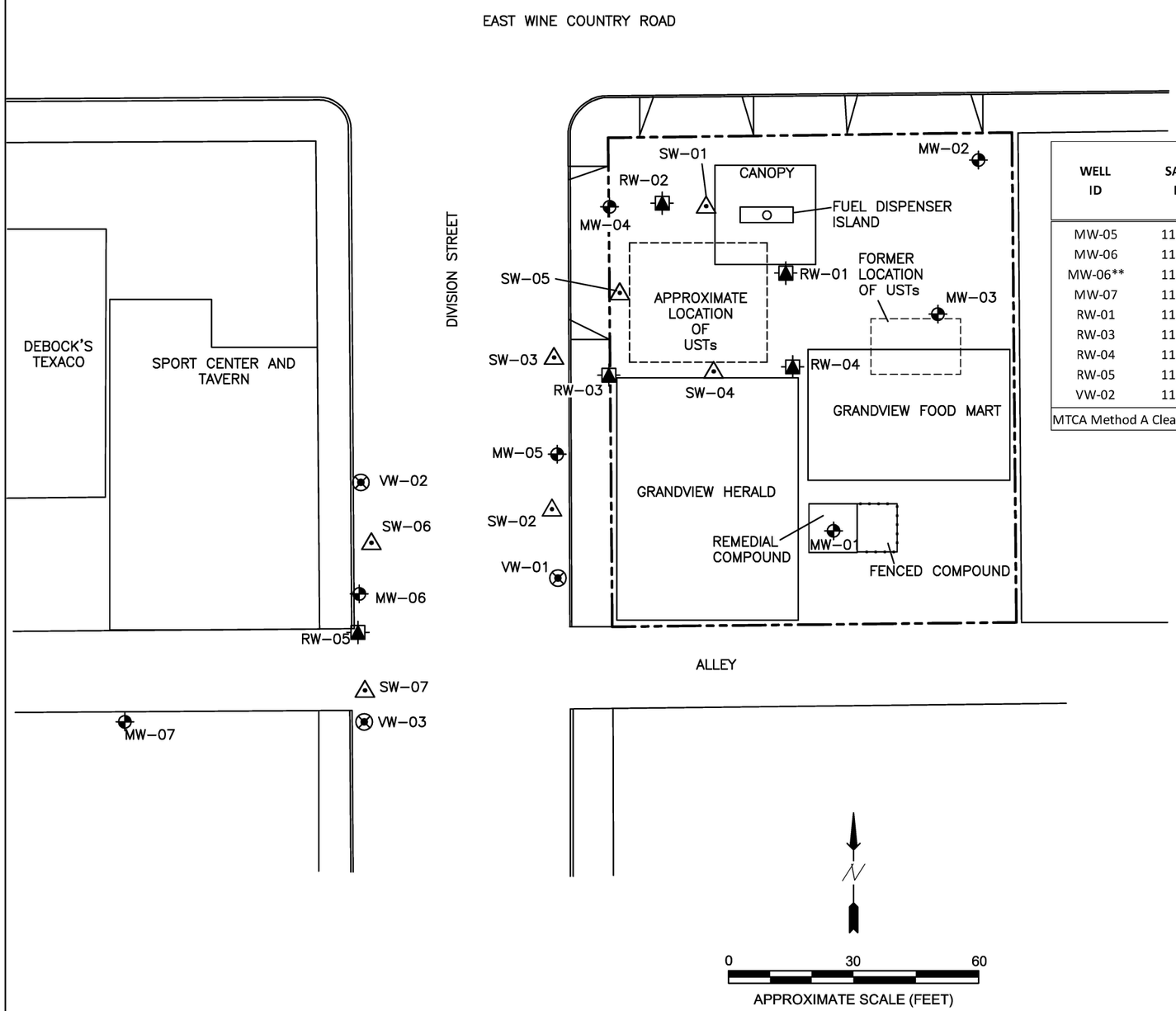
Site No. 0700
100 E. Wine Country Road
Grandview, Washington

DATE DRAWN 01/11/2017

PROJECT NO. 730

FILE NO. 622F4-GCM

W:\03_Site Assessment & Remediation\Eagle Canyon (PC&F)\01-0700 - East Wine Country Rd, Grandview WA (#622)\Reports\Groundwater Monitoring\4Q16 GWMR\Figures\622.dwg



WELL ID	SAMPLE DATE	ANALYTICAL PARAMETERS										
		TPH-Gx (µg/L)	Benzene (µg/L)	Toluene (µg/L)	E-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB (µg/L)	n-Hexane (µg/L)	Naphs* (µg/L)	Lead (µg/L)
MW-05	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	<2.0
MW-06	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	**30**
MW-06**	11/30/16	<100	<1.0	<1.0	<0.05	<3.0	<1.0	<1.0	<1.0	--	<0.3	<2.0
MW-07	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	<2.0
RW-01	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	<2.0
RW-03	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	<2.0
RW-04	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	<2.0
RW-05	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	3.2
VW-02	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.02	<1.0	<0.3	<2.0
MTCA Method A Cleanup Goals		1,000/800	5	1,000	700	1,000	20	5	0.01	--	160	15

LEGEND

RW-02	RECOVERY WELL
VW-03	VAPOR WELL
SW-04	SPARGE WELL
MW-01	MONITORING WELL
—— - - ——	PROPERTY BOUNDARY
ug/L	MICROGRAMS PER LITER
<	NOT DETECTED AT LISTED REPORTING LIMIT
58	REPORTED CONCENTRATIONS IN ug/L
EDC	1,2-DICHLOROETHANE
TPH-Gx	GASOLINE-RANGE PETROLEUM HYDROCARBONS
MTBE	METHYL TERTIARY-BUTYL ETHER
MTCA	MODEL TOXICS CONTROL ACT
USTs	UNDERGROUND STORAGE TANKS
EDB	ETHYLENE DIBROMIDE
NAPHS*	NAPHTHALENES INCLUDING NAPHTHALENE, 2-METHYL NAPHTHALENE, AND 1-METHYL NAPHTHALENE
E-BENZENE	ETHYLBENZENE
**	RE-SAMPLED ON 11/30/2016 DUE TO HIGH TURBIDITY OF WATER SAMPLE
BOLD	INDICATES MTCA METHOD A CLEANUP LEVEL EXCEEDANCE

SOURCE: SOUND ENVIRONMENTAL STRATEGIES

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FIGURE 5

GROUNDWATER ANALYTICAL RESULTS
November 15, 2016

Site No. 0700
100 E. Wine Country Road
Grandview, Washington

DATE DRAWN 01/27/2017

PROJECT NO. 622

FILE NO. 622F5-GAR

W:\03_Site Assessment & Remediation\Eagle Canyon (PC&F)\01-0700 - East Wine Country Rd, Grandview WA (#622)\Reports\Confirmation Borings Report\DWGs\622.dwg

TABLES

TABLE 1
Summary of Confirmation Soil Sample Analytical Results
Site No. 0700
Grandview, Washington
Page 1 of 2

	Sample ID	Date Sampled	Depth (ft bgs)	PID Reading (ppmv)	TPH-Dx (mg/kg)	TPH-Ox (mg/kg)	TPH-Gx (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	Naph (mg/kg)	2-Methyl (mg/kg)	1-Methyl (mg/kg)	Other VOCs (mg/kg)	Total Pb (mg/kg)
					NWTPH-Dx Ext		Method NWTPH-Gx/8260 & Method 8260C/5035						8260SIM	Method 8270			8260C/5035	6020A/3050B
CB-1	CB-1-10	11/29/16	10	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(4)	7.1
	CB-1-26	11/29/16	26	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	11
CB-2	CB-2-10	11/29/16	10	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	11
	CB-2-28	11/29/16	28	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	9.4
CB-3	CB-3-16	11/29/16	16	0.4	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	12
	CB-3-17	11/29/16	17	662.6	--	--	**400**	<0.02	<0.05	0.48	0.69	<0.05	<0.005	0.08	0.06	0.04	(4)	8.3
	CB-3-28	11/29/16	28	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	0.08	0.07	<0.02	(3)	8.6
	CB-3-28 (D)	11/29/16	28	--	--	--	<10	--	--	--	--	--	<0.005	--	--	--	--	--
CB-4	CB-4-15	11/28/16	15	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	13
	CB-4-15 (D)	11/28/16	15	--	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--
	CB-4-17	11/28/16	17	738.4	--	--	**350**	<0.02	<0.05	0.61	2.6	<0.05	<0.005	<0.02	<0.02	<0.02	(4)	7.1
	CB-4-22	11/28/16	22	0.0	--	--	**170**	<0.02	<0.05	0.39	0.53	<0.05	<0.005	<0.02	<0.02	<0.02	(4)	7.5
CB-5	CB-5-10	11/29/16	10	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	9.1
	CB-5-20	11/29/16	20	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	9.1
	CB-5-28	11/29/16	28	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	9.0
	CB-5-28 (D)	11/29/16	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.5
CB-6	CB-6-10	11/30/16	10	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-6-10 (D)	11/30/16	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.0
	CB-6-20	11/30/16	20	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	<5.0
	CB-6-27	11/30/16	27	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	<5.0
CB-7	CB-7-10	12/01/16	10	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-7-10 (D)	12/01/16	10	--	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--
	CB-7-20	12/01/16	20	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	<5.0
	CB-7-28	12/01/16	28	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	0.28	0.04	0.18	(3)	6.7

TABLE 1
Summary of Confirmation Soil Sample Analytical Results
Site No. 0700
Grandview, Washington
Page 2 of 2

	Sample ID	Date Sampled	Depth (ft bgs)	PID Reading (ppmv)	TPH-Dx (mg/kg)	TPH-Ox (mg/kg)	TPH-Gx (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	Naph (mg/kg)	2-Methyl (mg/kg)	1-Methyl (mg/kg)	Other VOCs (mg/kg)	Total Pb (mg/kg)
					NWTPH-Dx Ext		Method NWTPH-Gx/8260 & Method 8260C/5035						8260SIM	Method 8270			8260C/5035	6020A/3050B
CB-8	CB-8-10	12/01/16	10	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-8-18	12/01/16	18	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-8-20	12/01/16	20	80.6	<50	<100	--	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(4)	6.7
	CB-8-20 (D)	12/01/16	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.6
	CB-8-22	12/01/16	22	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-8-27	12/01/16	27	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	<5.0
CB-9	CB-9-10	11/28/16	10	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	13
	CB-9-10 (D)	11/28/16	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15
	CB-9-20	11/28/16	20	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-9-30	11/28/16	30	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	8.5
CB-10	CB-10-12	12/01/16	12	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-10-17	12/01/16	17	850.2	--	--	**210**	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(4)	<5.0
	CB-10-24	12/01/16	24	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	<5.0
	CB-10-27	12/01/16	27	0.0	--	--	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.02	<0.02	<0.02	(3)	<5.0
MTCA Method A Cleanup Levels[1]					2,000	2,000	100/30[2]	0.03	7	6	9	0.1	0.005	5[5]			ne	250

Notes:

[1] = MTCA Method A Table 740-1 for unrestricted land use, WAC 173-340-900 Tables
[2] = 100 mg/kg when benzene is absent and 30 mg/kg when benzene is present
[3] = No other VOCs detected
[4] = Other VOCs detected, refer to Table 2 or laboratory analytical report (Appendix J)
[5] = Total value for naphthalene, 2-methylnaphthalene, and 1-methylnaphthalene
< = not detected at or above stated reporting limit (RL)
-- = not analyzed/not applicable
1-Methyl = 1-methyl naphthalene
2-Methyl = 2-methyl naphthalene
BTEX = benzene, toluene, ethylbenzene, total xylenes
CB = confirmation boring
EDB = 1,2 dibromoethane
Ext = extended
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
MTBE = methyl tert-butyl ether
MTCA = Model Toxics Control Act
MW = monitoring well
Naph = naphthalene
ne = cleanup level not established in Table 740-1 for other VOCs detected in soil
Pb = lead
PID = photoionization detector
ppmv = parts per million by volume
TPH-Dx = total diesel-range petroleum hydrocarbons
TPH-Gx = total gasoline-range petroleum hydrocarbons
TPH-Ox = total oil-range petroleum hydrocarbons
VOCs = volatile organic compounds
(D) = duplicate sample

TABLE 2
Summary of Additional VOCs Detected in Soil
Site No. 0700
Grandview, Washington

Boring ID	Sample ID	Date Sampled	Depth (ft bgs)	PID Reading (ppmv)	IPB (mg/kg)	N-propyl-benzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	SBB (mg/kg)	IPT (mg/kg)
					Method 8260C/5035					
CB-1	CB-1-10	11/29/2016	10	0.0	<0.05	<0.05	<0.05	**0.074**	<0.05	<0.05
CB-3	CB-3-17	11/29/2016	17	662.6	**0.26**	**0.68**	**2.4**	**5.0**	<0.05	**0.41**
CB-4	CB-4-17	11/28/2016	17	738.4	**0.30**	**0.99**	**3.0**	**9.1**	<0.05	**0.57**
	CB-4-22	11/28/2016	22	0.0	**0.20**	**0.55**	**1.8**	**4.0**	<0.05	**0.32**
CB-8	CB-8-20	12/1/2016	20	80.6	<0.05	<0.05	<0.05	<0.05	**0.062**	<0.05
CB-10	CB-10-17	12/1/2016	17	850.2	<0.05	<0.05	**0.30**	**0.57**	<0.05	**0.78**

Notes:

Bold indicates concentrations detected over laboratory reporting limits
Cleanup levels not established for listed 'other' VOCs
For the complete list of VOCs analyzed see laboratory analytical report (Appendix J)
<: not detected at or above stated reporting limit
IPB = isopropylbenzene
IPT = isopropyltoluene
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
PID = photoionization detector
ppmv = parts per million by volume
SBB = sec-butylbenzene

TABLE 3
Temporary Well CB-10W Analytical Results
Site No. 0700
Grandview, Washington
Page 1 of 1

Well/Sample ID	Date Sampled	TPH-Dx (µg/L)	TPH-Ox (µg/L)	TPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	EDB (µg/L)	Naph (µg/L)	2-Methyl (µg/L)	1-Methyl (µg/L)	Dissolved Pb (µg/L)	Total Pb (µg/L)
		NWTPH-Dx Ext		NWTPH-Gx	Method 8260C/5030C					8011	Method 8270			EPA-6020	
CB-10W	12/01/16	--	--	<100	<1.0	<1.0	<1.0	<3.0	1.1	<0.01	<0.1	<0.1	<0.1	<2.0	<2.0
MTCA Method A Cleanup Goals[1]		500	500	1,000/800[2]	5	1,000	700	1,000	20	0.01	160[3]			ne	15

Notes:

(1): MTCA Method A Table 720-1 for groundwater, WAC 173-340-900 Tables

(2): 1,000 µg/L when benzene is absent and 800 µg/L when present

(3): total values for naphthalene, 2-methylnaphthalene, and 1-methylnaphthalene

< = not detected at or above stated reporting limit (RL)

-- = not analyzed/not applicable

TPH-Dx = total diesel-range petroleum hydrocarbons

TPH-Gx = total gasoline-range petroleum hydrocarbons

TPH-Ox = total oil-range petroleum hydrocarbons

BTEX = benzene, toluene, ethylbenzene, total xylenes

EDB = 1,2 dibromoethane

Ext = extended

µg/L = micograms per Liter

MTBE = methyl tert-butyl ether

MTCA = Model Toxics Control Act

MW = monitoring well

Naph = naphthalene

Pb = lead

2-Methyl = 2-Methylnaphthalene

1-Methyl = 1-Methylnaphthalene

TABLE 4
Historical Groundwater Monitoring Data
Site No. 0700
Grandview, Washington
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WELL ID	WELL STATUS	SAMPLE DATE	ANALYTICAL PARAMETERS													WELL ELEVATION			
			TPH-Gx (µg/L)	Benzene (µg/L)	Toluene (µg/L)	E-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB[3] (µg/L)	n-Hexane (µg/L)	Naph (µg/L)	2-Methyl (µg/L)	1-Methyl (µg/L)	Total Lead (µg/L)	Casing (ft amsl)	DTW (ft btoc)	GW[4] (ft amsl)	GW Δ (feet)
			NWTPH-Gx	VOCs by EPA Method 8260								EPA Method 8270			Method 6020				
MW-01*	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
MW-02	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	20.15	75.06	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	19.11	76.10	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	18.74	76.47	0.37
MW-03	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	20.61	74.98	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	21.52	74.07	-0.91
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	19.89	75.70	1.63
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	19.49	76.10	0.40
MW-04	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	19.75	74.43	
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	20.78	73.40	-1.03
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	19.04	75.14	1.74
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	18.50	75.68	0.54
MW-05	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.22	19.21	73.01	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.22	19.91	72.31	-0.70
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	3.0	92.22	18.31	73.91	1.60
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.22	17.89	74.33	0.42
MW-06	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.25	18.85	73.40	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	12	92.25	19.52	72.73	-0.67
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	5.4	92.25	18.12	74.13	1.40
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	**30**	92.25	17.60	74.65	0.52
	Active	11/30/16**	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.25	17.74	74.51	--
MW-07	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	21.03	73.00	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	21.41	72.62	-0.38
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	20.31	73.72	1.10
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	19.75	74.28	0.56
RW-01	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	20.40	74.60	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	21.27	73.73	-0.87
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	19.52	75.48	1.75
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	19.20	75.80	0.32
RW-02	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	20.20	74.48	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	21.24	73.44	-1.04
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	19.48	75.20	1.76
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	19.01	75.67	0.47

TABLE 4
Historical Groundwater Monitoring Data
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WELL ID	WELL STATUS	SAMPLE DATE	ANALYTICAL PARAMETERS													WELL ELEVATION			
			TPH-Gx (µg/L)	Benzene (µg/L)	Toluene (µg/L)	E-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB[3] (µg/L)	n-Hexane (µg/L)	Naph (µg/L)	2-Methyl (µg/L)	1-Methyl (µg/L)	Total Lead (µg/L)	Casing (ft amsl)	DTW (ft btoc)	GW[4] (ft amsl)	GW Δ (feet)
			NWTPH-Gx	VOCs by EPA Method 8260								EPA Method 8270			Method 6020				
RW-03	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	19.90	73.71	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	20.55	73.06	-0.65
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	19.04	74.57	1.51
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	18.58	75.03	0.46
RW-04	Active	01/06/16	110	<1.0	14	2.4	15	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	20.82	73.37	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	21.49	72.70	-0.67
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	20.06	74.13	1.43
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	19.62	74.57	0.44
RW-05	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.26	18.63	73.63	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	3.2	92.26	19.29	72.97	-0.66
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	2.4	92.26	17.88	74.38	1.41
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	3.2	92.26	17.29	74.97	0.59
VW-01	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	Dry	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	Dry	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	17.32	75.29	--
VW-02	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	18.81	73.72	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	19.42	73.11	-0.61
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	18.03	74.50	1.39
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	17.55	74.98	0.48
VW-03	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
SW-01	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	20.33	74.58	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	21.21	73.70	-0.88
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	19.62	75.29	1.59
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	19.10	75.81	0.52
SW-02	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	18.16	73.83	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	17.71	74.28	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	17.20	74.79	0.51
SW-03	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	18.21	74.13	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	19.31	73.03	-1.10
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	17.93	74.41	1.38
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	16.92	75.42	1.01

TABLE 4
Historical Groundwater Monitoring Data
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Page 3 of 3

WELL ID	WELL STATUS	SAMPLE DATE	ANALYTICAL PARAMETERS													WELL ELEVATION			
			TPH-Gx (µg/L)	Benzene (µg/L)	Toluene (µg/L)	E-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB[3] (µg/L)	n-Hexane (µg/L)	Naph (µg/L)	2-Methyl (µg/L)	1-Methyl (µg/L)	Total Lead (µg/L)	Casing (ft amsl)	DTW (ft btoc)	GW[4] (ft amsl)	GW Δ (feet)
			NWTPH-Gx	VOCs by EPA Method 8260								EPA Method 8270			Method 6020				
SW-04	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	19.85	74.36	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	20.62	73.59	-0.77
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	19.06	75.15	1.56
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	18.79	75.42	0.27
SW-05	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	18.55	74.31	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	19.24	73.62	-0.69
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	17.81	75.05	1.43
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	17.32	75.54	0.49
SW-06	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	18.56	73.67	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	19.29	72.94	-0.73
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	17.85	74.38	1.44
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	17.28	74.95	0.57
SW-07	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18.71	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20.82	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	19.99	--	--
MTCA Method A Cleanup Goals[1]			1,000/800[2]	5	1,000	700	1,000	20	5	0.01	--	--------160--------			15	--	--	--	--

Notes:

Results in **BOLD** indicate detections that exceed MTCA Method A cleanup levels for groundwater
(1): MTCA Method A Table 720-1 for groundwater, WAC 173-340-900 Tables
(2): 1,000 µg/L when benzene is absent and 800 µg/L when present
(3): analysis for EDB in Water by EPA Method 8011 to obtain low detection limit
(4): Groundwater elevations are realtive and referenced to a benchmark with assumed elevation of 100.00 feet
*: well inaccesible due to locked compound
**: resampled due to high turbidity of water sample
--: not sampled / not measured / not analyzed/ unknown
<: less than the stated laboratory reporting detection limit
°C: degree Celsius
µg/L: micrograms per Liter
µs/cm: microsiemens per centimeter
Active: groundwater well currently used for monitoring
amsl: above mean sea level
btoc: below top of casing
Cond: conductivity
DIA: casing diameter
DO: dissolved oxygen
DTP: depth to product
DTP: depth to product
E-benzene: ethylbenzene
EDB: 1,2-dibromoethane
EDC: 1,2-dichloroethane
Fe2+: ferrous iron
ft: feet
GWΔ: change (difference) in groundwater elevation since last measurement
GW: groundwater
mg/L: milligrams per Liter
MTBE: methyl tert-butyl ether
mV: millivolts
MW: monitoring well
Naph: naphthalene
NTU: nephelometric turbidity unit
ORP: oxygen reduction potential
Temp: temperature
TPH-Gx: total gasoline-range petroleum hydrocarbons, analyzed by Northwest Method NWTPH-Gx
Turb: turbidity
VOCs: volatile organic compounds

TABLE 5
Groundwater Flow Direction and Gradient Data
Site No. 0700
Grandview, Washington
1 of 1

Date	Groundwater Gradient (ft/ft)	Groundwater Flow Direction															
		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
01/06/16	0.01	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
04/27/16	0.02	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0
08/15/16	0.01	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
11/15/16	0.01	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
TOTAL		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**

Notes:

Groundwater gradient and flow direction based on review of available historic groundwater monitoring reports

ft/ft: feet per foot

APPENDIX A

AGENCY CORRESPONDENCE

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
1250 W Alder St • Union Gap, WA 98903-0009 • (509) 575-2490

September 9, 2016

Laura Skow
ES Engineering Services, LLC.
1036 W. Taft Avenue
Orange, CA 92865

Re: Further Action at the following Site:

Site Name:	Grandview Market Petrosun 1070
Site Address:	100 E. Wine Country Road, Grandview
Facility/Site ID No.:	91458995
Cleanup Site ID No.:	6845
VCP Project No.:	CE0442

Dear Ms. Skow:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Grandview Market Petrosun 1070 facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

YES. Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Gasoline range organics (GRO), benzene, ethyl benzene, toluene, total xylene, methyl tertiary-butyl ether (MTBE), 1, 2 dichloroethane (EDC), and lead into the soil and groundwater.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

- Time Oil Co. *Soil Sampling Results/Confirmation of Release at Grandview Market 100 East Wine Country Road Grandview, Washington (Property No. 01-070).* October 6, 1998.

- Maxim Technologies, Inc. *Preliminary Soil and Groundwater Screening Time Oil Property 01-070 100 East Wine Country Road Grandview, Washington.* February 17, 2000.

- Maxim Technologies, Inc. *Remedial Investigation/Feasibility Study Time Oil Property 01-070 100 East Wine Country Road Grandview, Washington.* April 7, 2000

- Brown and Caldwell. *Groundwater Monitoring.* June 2005 through 2002.

- Brown and Caldwell. *Corrective Action Report Time Oil Property 01-070 Grandview, Washington.* August 2001

- GeoEngineers, Inc. *Groundwater Monitoring/Operation & Maintenance Report.* 2003 through 2nd Quarter 2005.

- Sound Environmental Strategies. *Groundwater Monitoring Reports and Operation and Maintenance.* 2006 through 2007.

- Environ Strategy Consultants, Inc. *Transmittal: Voluntary Cleanup Program Application Site 01-070 100 East Wine Country Road Grandview, Washington.* June 15, 2010.

- Environ Strategy Consultants, Inc. *Voluntary Cleanup Program Terrestrial Ecological Evaluation Form.* Received by Ecology June 21, 2010.

- Grandview Market Petrosun 1070 Correspondence File, Ecology's Central Regional Office.

These documents are kept at the Central Regional Office (CRO) for review by appointment only. You can make an appointment by calling the CRO at 509-454-7658.

This opinion is void if any of the information contained in this document is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action.

Additional monitoring wells have been suggested to adequately characterize the contamination at the Site.

2. Establishment of cleanup standards.

Ecology has determined the use of MTCA Method A Cleanup Levels for soil and groundwater, WAC 173-340-704, is appropriate for this Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site does not meet the substantive requirements of MTCA.

This is the third occurrence of this Site entering the Voluntary Cleanup Program. The release has never been fully delineated, despite a previous opinion from Ecology for additional wells, dated September 27, 2010.

4. Cleanup.

Ecology has determined the cleanup you performed does not meet any cleanup standards at the Site.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www. ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (509) 454-7835 or e-mail at stephen.thomas@ecy.wa.gov.

Sincerely,

Stephen P. Thomas
Cleanup Project Manager
Toxics Cleanup Program/CRO

cc: Hamed Adib, Eagle Canyon Capital, LLC.
Cus Arteage, City of Grandview

APPENDIX B

HISTORICAL SOIL ANALYTICAL RESULTS

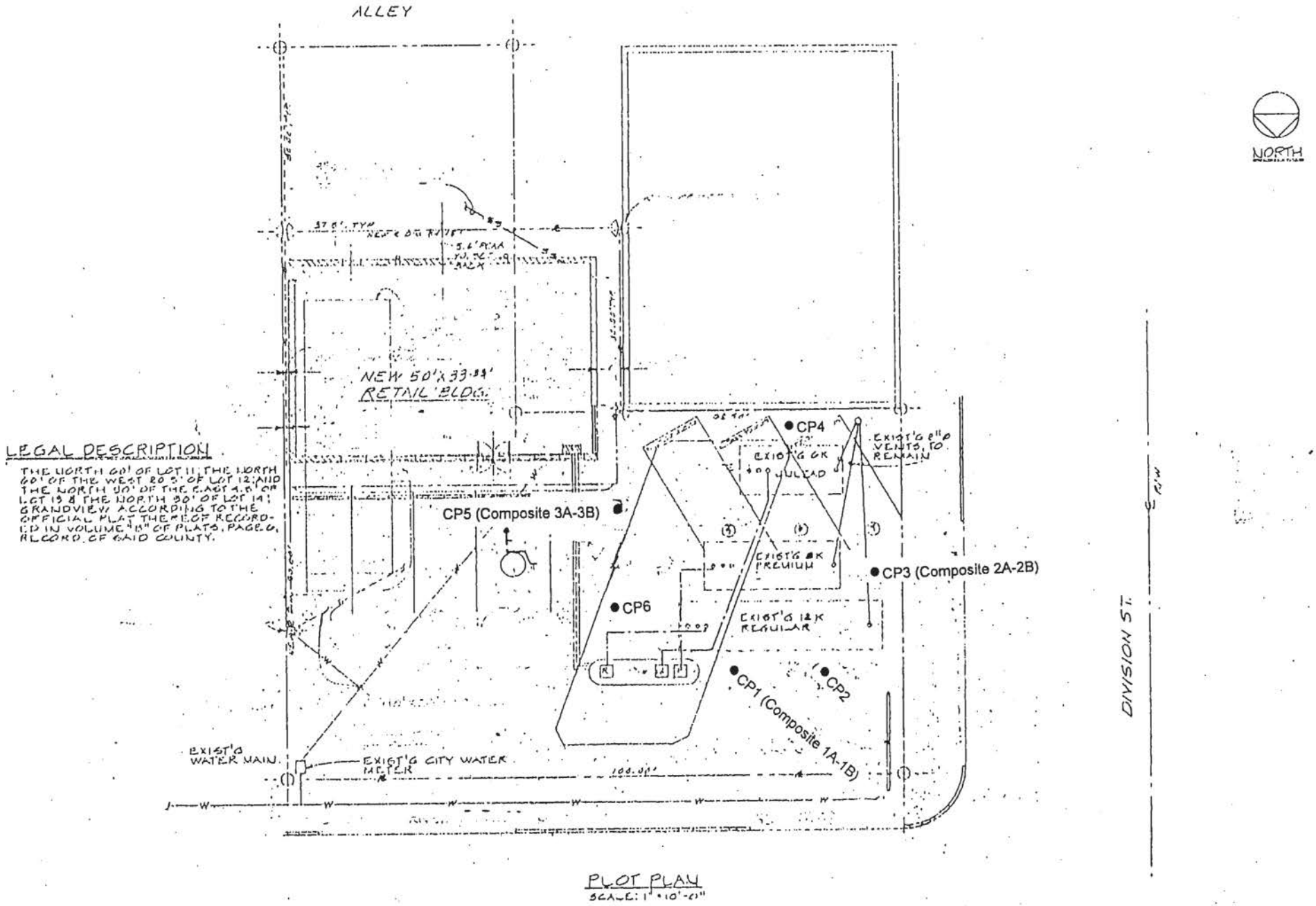
Table 1
Summary of Analytical Results from Soil Samples Collected During Installation of Cathodic Protection at Grandview Market, 100 East Wine Country Road, Grandview, Washington
Time Oil Property No. 01-070

Hydrocarbon Identification by WTPH-HCID

	heavy oil-range	diesel-range	gasoline-range
Composite 1A-1B	ND	detected	detected
Composite 2A-2B	ND	detected	detected
Composite 3A-3B	ND	detected	detected

Soil Samples analyzed by WTPH-d and WTPH-g with BTEX distinction (in ppm)

	TPH-heavy oil	TPH-diesel	TPH-gasoline	benzene	toluene	ethylbenzene	xylenes	total lead
Composite 1A-1B	**222**	58.4	**1,800**	ND	1.36	2.78	**23.2**	22.1
Composite 2A-2B	137	46.6	**748**	ND	1.94	3.9	**25.3**	13.5
Composite 3A-3B	103	60.1	**576**	ND	0.694	2.34	11.8	13.3
MTCA Method A	**200**	**200**	**100**	**0.5**	**20**	**40**	**20**	**250**



PLOT PLAN
SCALE: 1" = 10'-0"

● Anode Installation Location (Soil Sample Number)

Figure 1
Location of Cathodic Protection Anode Installation Points
Grandview Market, 100 E. Wine County Rd., Grandview, WA
Time Oil Co. Property No. 01-070

TABLE 1
Preliminary Screening Survey - Soil Sampling Summary
Corrective Action Plan
Time Oil Property 01-070
Grandview, Washington

Sample Number	Depth (feet)	PID (ppm)	Benezene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	TPH-G (mg/kg)	TPH-D (mg/kg)
MGB S1								
S1	0.5-3.0	6.8	---	---	---	---	---	---
S-2	4.0-8.0	6.5	<0.0500	<0.0500	<0.0500	<0.100	<10.0	---
S-3	9.0-12.0	560	<0.0500	<0.0500	<0.0500	<0.100	<10.0	---
S-4	12.0-16.0	1447	3.8	9.5	18	77	1800	<20
S-5	16.0-20.0	1285	---	---	---	---	---	---
MGB S2								
S-1	5.0-7.0	12.1	---	---	---	---	---	---
S-2	10.0-11.5	850	---	---	---	---	---	---
S-3	15.0-17.0	1133	1.2	0.43	1.1	0.5	36	---
MGB S3								
S-1	5.0-7.0	14	---	---	---	---	---	---
S-2	10.0-11.5	1456	<0.100	0.694	4.17	29.4	1080	---
S-3	15.0-17.0	2115	4.1	8.4	4	24	230	<20
S-4	17.0-20.0	1359	---	---	---	---	---	---
MGB S4								
S-1	5.0-7.0	10.7	---	---	---	---	---	---
S-2	10.0-12.0	765	<0.100	<0.100	<0.100	0.207	86.4	---
S-3	15.0-17.0	2133	7.2	12	10	56	500	---
MGB S5								
S-1	5.0-7.0	9.9	---	---	---	---	---	---
S-2	10.-12.0	10.7	---	---	---	---	---	---
S-3	15.-17.0	11	<0.05	<0.05	<0.05	<0.05	<10	---
MGB S6								
S-1	5.0-7.0	1.8	---	---	---	---	---	---
S-2	10.0-12.0	1.5	---	---	---	---	---	---
S-3	15.0-17.0	3.0	<0.05	<0.05	<0.05	0.15	<10	---
MGB S7								
S-1	5.0-7.0	0.9	---	---	---	---	---	---
S-2	10.0-12.0	2.6	---	---	---	---	---	---
S-3	12.0-15.0	6.1	<0.05	<0.05	<0.05	<0.05	<10	---
S-4	15.0-18.0	4.1	---	---	---	---	---	---
MGB S8								
S-1	5.0-7.0	1.5	---	---	---	---	---	---
S-2	10.0-12.0	176	---	---	---	---	---	---
S-3	15.0-17.0	178	0.23	<0.05	0.43	1.2	13	<20
MGB S9								
S-1	5.0-7.0	13.8	---	---	---	---	---	---
S-2	10.0-12.0	10.9	---	---	---	---	---	---
S-3	12.0-15.0	558	<0.05	0.05	1	1.5	200	---
S-4	15.0-18.0	1863	---	---	---	---	---	---
MGB S10								
S1	4.0-7.0	7.1	---	---	---	---	---	---
S-2	10.0-12.0	7.3	---	---	---	---	---	---
S-3	14.0-16.0	90.2	<0.05	<0.05	<0.05	<0.05	<10	---
S-4	16.0-19.0	7.6	---	---	---	---	---	---
MGB S11								
S-1	4.0-6.5	3.2	---	---	---	---	---	---
S-2	10.0-12.0	4.0	---	---	---	---	---	---
S-3	12.0-15.0	7.3	<0.05	<0.05	<0.05	<0.05	<10	---
S-4	15.0-18.0	5.2	---	---	---	---	---	---
MGB S12								
S-1	4.0-7.0	2.4	---	---	---	---	---	---
S-2	10.0-12.0	3.0	---	---	---	---	---	---
S-3	12.0-15.0	8.7	---	---	---	---	---	---
S-4	15.0-18.0	360	0.41	0.39	<0.05	0.85	25	---
MGB S13								
S-1	10.0-12.0	5.8	---	---	---	---	---	---
S-2	12.0-15.0	301	<0.0500	<0.0500	0.0508	0.188	42.0	---
S-3	15.0-18.0	1794	9.4	40	<0.05	105	2400	---
MTCA Method A CCL's:			0.5	40.0	20.0	20.0	100	200

NOTE:
--- Not Tested

TABLE 3
RI/FS - Soil Sampling Summary
Corrective Action Plan
Time Oil Property 01-070
Grandview, Washington

Sample Number	Depth (feet)	Benezene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline (mg/kg)
MW-3						
S-2	10.0-12.0	<0.10	0.34	8.9	47.6	1510
S-3	15.0-17.0	0.847	0.789	2.93	10.9	236
MTCA Method A CCL's:		**0.5**	**40.0**	**20.0**	**20.0**	**100**

APPENDIX C

SITE BACKGROUND INFORMATION

Site No. 0700
100 East Wine Country Road
Grandview, Washington

The Site has operated as a retail service station since 1965. In May 1991, the Grandview Fire Department contacted the previous property owner, Time Oil Co., concerning the presence of gasoline vapors in a building adjacent to the Site. At that time, the underground storage tank (UST) system was tested and determined to be tight. A soil vapor survey was conducted to determine if petroleum hydrocarbons were present in subsurface soil. Results of the survey identified elevated levels of total petroleum hydrocarbons quantified as gasoline (TPH-Gx), TPH quantified as diesel (TPH-Dx), benzene, toluene, ethylbenzene, and total xylenes (BTEX) in vapor samples collected in the vicinity of the former USTs (eastern area of property), existing USTs (southwestern area of property) and north of the convenience store. The existing UST system consists of one 6,000-gallon UST, one 8,000-gallon UST and one 12,000-gallon UST, all used to store gasoline.

In September 1998, a cathodic protection system was installed as part of site upgrade activities. Additionally, six borings were advanced to a depth of 15 feet below ground surface (bgs). Analytical results for soil grab samples collected at approximately 12 to 15 feet bgs indicated the presence of petroleum hydrocarbons at levels exceeding Washington State Model Toxics Control Act (MTCA) Model A cleanup levels (CULs) in soil immediately north, west and south of the existing USTs.

In February 2000, a preliminary soil and groundwater survey was performed where 13 geoprobe borings (B-1 through B-13) were advanced to depths ranging from 17 to 20 feet bgs. Groundwater was encountered at each of the locations and groundwater samples were collected. Analytical results indicated the presence of petroleum hydrocarbons in soil and groundwater on and off the Site; however, the hydrocarbon impacts were primarily related to groundwater. The groundwater plume was estimated to be 200-feet long by 80-feet wide, extending southwest from the existing USTs. The highest benzene detection [1,600 micrograms per liter (mg/L)] was observed within 20 feet of the existing USTs. Hydrocarbon levels in soil mimicked the groundwater plume, with benzene detected up to 7.2 milligrams per kilogram (mg/kg). The survey results are documented in Maxim Technologies, Inc.'s (Maxim) report titled *Preliminary Soil and Groundwater Screening Survey*, dated February 17, 2000.

In April 2000, a remedial investigation/feasibility study (RI/FS) was performed. Eleven soil borings were advanced, of which, six were completed as groundwater monitoring wells, four completed as groundwater recovery/vapor extraction wells, and one as an air sparge well. Several pilot tests, consisting of groundwater recovery, soil vapor extraction, and air sparging tests, were also performed to evaluate remedial alternatives. The RI/FS results concluded that hydrocarbon-affected soil and groundwater beneath the Site could be remediated with a combination of the above-referenced technologies. The results of the study are presented in Maxim's report titled *RI/FS*, dated April 7, 2000.

In June, September and December 2000, groundwater monitoring was conducted and the data used in the design of a remediation system. In March 2002, groundwater pump and treat coupled with air sparging/soil vapor extraction was initiated at the Site. From March 2002 through November 2006, operation of the remediation system resulted in decreases in hydrocarbon concentrations across the Site. Remediation system operation and maintenance reports document the remedial progress at the Site. The system was shut down in November 2006.

Quarterly groundwater monitoring and sampling was conducted at the Site. Historical groundwater monitoring and sample analytical results are summarized in the table [prepared by Sound Environmental Strategies (SES)] included as Appendix F. Groundwater monitoring conducted through August 2007 indicated that groundwater flow is directed to the southwest. As shown in the table (Appendix F), onsite groundwater monitoring wells MW-1 through MW-4 do not contain dissolved-phase hydrocarbons above the CULs, based on the most current sampling event for the respective well. Additionally, on August 20, 2007 groundwater samples were collected from three monitoring wells (Wells MW-05 through MW-07), two recovery wells (RW-03 and RW-05) and one vapor extraction well (VW-02), all of which are located southwest of the existing USTs. Note that Well MW-01 was inaccessible on August 20, 2007 and was not sampled. The remaining wells had been removed from the sampling program due to the historical absence of dissolved-phase contamination.

Analytical results for the August 20, 2007 event indicated that Wells MW-05, RW-03, and RW-05 did not contain detectable levels of TPH-Gx, BTEX, methyl tert-butyl ether (MTBE), ethylene dibromide (EDB), ethylene dichloride (EDC) or total lead. The analytes were not detected in the groundwater sample collected from Well VE-02, with the exception of total lead (1.08 mg/L). EDC was detected at concentrations exceeding CULs in Wells MW-06 and MW-07. MTBE was also detected at a concentration exceeding the CUL in Well MW-06. MTBE and benzene were detected at levels below their respective CULs in Well MW-07 and TPH-Gx was detected at concentrations below the CUL in Wells MW-06 and MW-07. Additional details regarding the groundwater monitoring activities are provided in SES's report titled *Groundwater Monitoring Report, Third Quarter 2007*, dated October 2, 2007.

Groundwater monitoring and sampling resumed in January 2016. Groundwater monitoring results for January 6, 2016 indicate that only one well (RW-04) contained detectible concentrations of dissolved-phase fuel constituents. The detected contaminants of concern (COCs; TPH-Gx, toluene ethylbenzene and total xylenes) in Well RW-04 are well below their respective CULs. RW-04 is located onsite and downgradient of the former UST cavity.

Groundwater monitoring results for April 27, 2016 indicate that only two wells (MW-06 and RW-05) contained detectible concentrations of lead; other COCs were not detected the site wells sampled. The detected concentrations of lead in Wells MW-06 and RW-05 are well below the respective CUL for lead in groundwater. MW-06 and RW-05 are located offsite and downgradient of the station property.

Groundwater monitoring results for August 15, 2016 (third consecutive quarter) indicate that three wells (MW-05, MW-06 and RW-05) contained detectible concentrations of lead; other COCs were not detected the site wells sampled. The detected concentrations of lead were all below the respective CUL for lead in groundwater. MW-05, MW-06 and RW-05 are located offsite and downgradient of the station property.

Groundwater monitoring results for November 15, 2016 (fourth consecutive quarter) indicate that one well (RW-05) contains detectible concentrations of lead; other COCs were not detected in the site wells sampled. The detected concentration of lead was below the respective CUL for lead in groundwater. MW-6 initially had lead above the CUL, but when resampled November 30, 2016 it was below the laboratory reporting limit. RW-05 and MW-06 are located offsite and downgradient of the station property.

APPENDIX D

HISTORICAL GROUNDWATER MONITORING DATA

TABLE 2
Historical Groundwater Monitoring Data
Site No. 0700
Grandview, Washington
Page 1 of 3

WELL ID	WELL STATUS	SAMPLE DATE	ANALYTICAL PARAMETERS													WELL ELEVATION			
			TPH-Gx (µg/L)	Benzene (µg/L)	Toluene (µg/L)	E-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB[3] (µg/L)	n-Hexane (µg/L)	Naph (µg/L)	2-Methyl (µg/L)	1-Methyl (µg/L)	Total Lead (µg/L)	Casing (ft amsl)	DTW (ft btoc)	GW[4] (ft amsl)	GW Δ (feet)
			NWTPH-Gx	VOCs by EPA Method 8260								EPA Method 8270			Method 6020				
MW-01*	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.80	--	--	--
MW-02	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	20.15	75.06	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	19.11	76.10	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.21	18.74	76.47	0.37
MW-03	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	20.61	74.98	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	21.52	74.07	-0.91
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	19.89	75.70	1.63
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	95.59	19.49	76.10	0.40
MW-04	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	19.75	74.43	
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	20.78	73.40	-1.03
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	19.04	75.14	1.74
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.18	18.50	75.68	0.54
MW-05	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.22	19.21	73.01	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.22	19.91	72.31	-0.70
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	3.0	92.22	18.31	73.91	1.60
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.22	17.89	74.33	0.42
MW-06	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.25	18.85	73.40	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	12	92.25	19.52	72.73	-0.67
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	5.4	92.25	18.12	74.13	1.40
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	**30**	92.25	17.60	74.65	0.52
	Active	11/30/16**	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.25	17.74	74.51	--
MW-07	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	21.03	73.00	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	21.41	72.62	-0.38
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	20.31	73.72	1.10
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.03	19.75	74.28	0.56
RW-01	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	20.40	74.60	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	21.27	73.73	-0.87
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	19.52	75.48	1.75
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	95.00	19.20	75.80	0.32
RW-02	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	20.20	74.48	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	21.24	73.44	-1.04
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	19.48	75.20	1.76
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.68	19.01	75.67	0.47

TABLE 2
Historical Groundwater Monitoring Data
Site No. 0700
Grandview, Washington
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WELL ID	WELL STATUS	SAMPLE DATE	ANALYTICAL PARAMETERS													WELL ELEVATION			
			TPH-Gx (µg/L)	Benzene (µg/L)	Toluene (µg/L)	E-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB[3] (µg/L)	n-Hexane (µg/L)	Naph (µg/L)	2-Methyl (µg/L)	1-Methyl (µg/L)	Total Lead (µg/L)	Casing (ft amsl)	DTW (ft btoc)	GW[4] (ft amsl)	GW Δ (feet)
			NWTPH-Gx	VOCs by EPA Method 8260								EPA Method 8270			Method 6020				
RW-03	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	19.90	73.71	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	20.55	73.06	-0.65
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	19.04	74.57	1.51
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	93.61	18.58	75.03	0.46
RW-04	Active	01/06/16	110	<1.0	14	2.4	15	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	20.82	73.37	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	21.49	72.70	-0.67
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	20.06	74.13	1.43
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	94.19	19.62	74.57	0.44
RW-05	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.26	18.63	73.63	--
	Active	04/27/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	3.2	92.26	19.29	72.97	-0.66
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	2.4	92.26	17.88	74.38	1.41
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	3.2	92.26	17.29	74.97	0.59
VW-01	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	Dry	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	Dry	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.61	17.32	75.29	--
VW-02	Active	01/06/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	18.81	73.72	--
	Active	04/28/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.006	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	19.42	73.11	-0.61
	Active	08/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	18.03	74.50	1.39
	Active	11/15/16	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.005	<1.0	<0.1	<0.1	<0.1	<2.0	92.53	17.55	74.98	0.48
VW-03	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.77	Dry	--	--
SW-01	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	20.33	74.58	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	21.21	73.70	-0.88
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	19.62	75.29	1.59
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.91	19.10	75.81	0.52
SW-02	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	18.16	73.83	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	Dry	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	17.71	74.28	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	91.99	17.20	74.79	0.51
SW-03	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	18.21	74.13	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	19.31	73.03	-1.10
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	17.93	74.41	1.38
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.34	16.92	75.42	1.01

TABLE 2
Historical Groundwater Monitoring Data
Site No. 0700
Grandview, Washington
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WELL ID	WELL STATUS	SAMPLE DATE	ANALYTICAL PARAMETERS													WELL ELEVATION			
			TPH-Gx (µg/L)	Benzene (µg/L)	Toluene (µg/L)	E-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	EDC (µg/L)	EDB[3] (µg/L)	n-Hexane (µg/L)	Naph (µg/L)	2-Methyl (µg/L)	1-Methyl (µg/L)	Total Lead (µg/L)	Casing (ft amsl)	DTW (ft btoc)	GW[4] (ft amsl)	GW Δ (feet)
			NWTPH-Gx	VOCs by EPA Method 8260								EPA Method 8270			Method 6020				
SW-04	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	19.85	74.36	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	20.62	73.59	-0.77
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	19.06	75.15	1.56
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	94.21	18.79	75.42	0.27
SW-05	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	18.55	74.31	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	19.24	73.62	-0.69
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	17.81	75.05	1.43
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.86	17.32	75.54	0.49
SW-06	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	18.56	73.67	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	19.29	72.94	-0.73
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	17.85	74.38	1.44
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	92.23	17.28	74.95	0.57
SW-07	Active	01/06/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18.71	--	--
	Active	04/27/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20.82	--	--
	Active	08/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Active	11/15/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	19.99	--	--
MTCA Method A Cleanup Goals[1]			1,000/800[2]	5	1,000	700	1,000	20	5	0.01	--	--------160--------			15	--	--	--	--

Notes:

Results in **BOLD** indicate detections that exceed MTCA Method A cleanup levels for groundwater
(1): MTCA Method A Table 720-1 for groundwater, WAC 173-340-900 Tables
(2): 1,000 µg/L when benzene is absent and 800 µg/L when present
(3): analysis for EDB in Water by EPA Method 8011 to obtain low detection limit
(4): Groundwater elevations are realtive and referenced to a benchmark with assumed elevation of 100.00 feet
*: well inaccesible due to locked compound
**: resampled due to high turbidity of water sample
--: not sampled / not measured / not analyzed/ unknown
<: less than the stated laboratory reporting detection limit
°C: degree Celsius
µg/L: micrograms per Liter
µs/cm: microsiemens per centimeter
Active: groundwater well currently used for monitoring
amsl: above mean sea level
btoc: below top of casing
Cond: conductivity
DIA: casing diameter
DO: dissolved oxygen
DTP: depth to product
DTP: depth to product

E-benzene: ethylbenzene
EDB: 1,2-dibromoethane
EDC: 1,2-dichloroethane
Fe2+: ferrous iron
ft: feet
GWΔ: change (difference) in groundwater elevation since last measurement

GW: groundwater
mg/L: milligrams per Liter
MTBE: methyl tert-butyl ether
mV: millivolts
MW: monitoring well
Naph: naphthalene
NTU: nephelometric turbidity unit
ORP: oxygen reduction potential
Temp: temperature
TPH-Gx: total gasoline-range petroleum hydrocarbons, analyzed by Northwest Method NWTPH-Gx
Turb: turbidity
VOCs: volatile organic compounds

SOUND ENVIRONMENTAL STRATEGIES
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Table 1
Historical Groundwater Data
Time Oil Co. Facility No. 01-070
100 East Wine Country Road
Grandview, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	GRPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[4]	EDC[4]	Total Lead[5]
MW-01	03/07/00	17.19	77.61	104	0.72	<0.500	<0.500	--	--	--	--	--
TOC Elevation	03/20/00	17.35	77.45	--	--	--	--	--	--	--	--	--
94.80	06/28/00	15.07	79.73	68.5	1.44	<0.500	<0.500	<1.25	--	--	--	--
	09/27/00	13.53	81.27	83.2	4.62	<0.500	<0.500	2.33	--	--	--	--
	12/19/00	14.63	80.17	108	5.70	<0.670	<0.800	<1.55	--	--	--	--
	04/04/01	15.97	78.83	78.4	1.04	0.678	<0.500	2.06	--	--	--	--
	07/05/01	14.36	80.44	75.6	1.24	0.678	<0.500	2.06	--	--	--	--
	10/24/01	14.01	80.79	220	8.37	<0.500	<0.500	3.29	--	--	--	--
	01/22/02	15.98	78.82	159	2.00	<2.00	<1.00	<1.50	--	--	--	--
	04/19/02	17.05	77.75	88.1	1.06	<0.500	<0.500	<1.00	--	--	--	--
	07/09/02	15.3	79.50	159	1.82	<0.500	<0.500	<1.00	--	--	--	--
	10/16/02	14.07	80.73	135	5.67	<0.500	<0.500	<1.00	--	--	--	--
	01/24/03	16.44	78.36	51.2	0.841	<0.500	<0.500	<1.00	--	--	--	--
	04/21/03	16.63	78.17	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/10/03	14.94	79.86	101	0.591	<0.500	<0.500	<1.00	--	--	--	--
	10/22/03	13.97	80.83	64.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	01/14/04	15.79	79.01	92.3	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/04/04	15.64	79.16	78.5	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/13/04	14.36	80.44	136	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	13.71	81.09	106	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/21/05	15.03	79.77	62.9	<0.500	<0.500	<0.500	<1.00	<5.00	<0.500	<0.500	<1.00
	10/26/05	14.79	80.01	<50.0	<0.500	<0.500	<0.500	<3.00	<1.00	<0.500	<0.500	<1.00
	02/07/06	16.00	78.80	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	<1.00
	05/11/06	16.04	78.76	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	<1.00
	08/04/06	14.28	80.52	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	<1.00
	11/15/06	14.43	80.37	<50	<1	<1	<1	<3	<1	<1	<1	<1
	02/20/07	16.26	78.54	<100	<1	<1	<1	<3	<1	<1	<1	<1
	05/03/07	16.27	78.53	<100	<1	<1	<1	<3	<1	<1	<1	<1
	08/20/07	--	--	--	--	--	--	--	--	--	--	--
MW-02	03/07/00	16.95	78.26	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
TOC Elevation	03/20/00	17.13	78.08	--	--	--	--	--	--	--	--	--
95.21	06/28/00	14.56	80.65	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	09/27/00	13.04	82.17	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	12/19/00	14.31	80.90	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/04/01	15.64	79.57	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/05/01	13.88	81.33	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/24/01	13.56	81.65	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	01/22/02	15.72	79.49	<100	<0.500	<2.000	<1.000	<1.50	--	--	--	--
	04/19/02	16.57	78.64	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/09/02	14.81	80.40	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/16/02	13.54	81.67	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	01/24/03	16.16	79.05	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/21/03	16.25	78.96	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/10/03	14.45	80.76	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/22/03	13.45	81.76	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	01/14/04	15.50	79.71	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/04/04	15.21	80.00	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/13/04	13.90	81.31	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	13.21	82.00	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/21/05	14.55	80.66	<50.0	<0.500	<0.500	<0.500	<1.00	<5.00	<0.500	<0.500	<1.00
	10/26/05	13.81	81.40	<50.0	<0.500	<0.500	<0.500	<3.00	<1.00	<0.500	<0.500	<1.00
	02/07/06	15.71	79.50	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	1.08
	05/11/06	15.55	79.66	--	--	--	--	--	--	--	--	--
	08/04/06	14.33	80.88	--	--	--	--	--	--	--	--	--
	11/15/06	14.04	81.17	--	--	--	--	--	--	--	--	--
	02/20/07	16.07	79.14	--	--	--	--	--	--	--	--	--
	05/02/07	15.81	79.40	<100	<1	<1	<1	<3	<1	<1	<1	<1
	08/20/07	13.88	81.33	--	--	--	--	--	--	--	--	--

SOUND ENVIRONMENTAL STRATEGIES
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Table 1
Historical Groundwater Data
Time Oil Co. Facility No. 01-070
100 East Wine Country Road
Grandview, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	GRPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[4]	EDC[4]	Total Lead[5]
MW-03	03/07/00	17.62	77.97	2,430	8.26	21.4	37.2	651	--	--	--	--
TOC Elevation	03/20/00	17.78	77.81	--	--	--	--	--	--	--	--	--
95.59	06/28/00	15.29	80.30	754	4.43	1.74	3.12	165	--	--	--	--
	09/27/00	13.78	81.81	303	2.28	0.737	0.844	68.8	--	--	--	--
	12/19/00	15.00	80.59	52.6	2.80	<0.500	2.13	13.1	--	--	--	--
	04/04/01	16.30	79.29	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/05/01	14.61	80.98	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/24/01	14.29	81.30	51.9	1.38	<0.500	1.25	11.1	--	--	--	--
	01/22/02	16.39	79.20	<100	<0.500	<2.000	<1.000	<1.50	--	--	--	--
	04/19/02	17.32	78.27	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/09/02	15.52	80.07	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/16/02	14.27	81.32	<50.0	<0.500	<0.500	<0.500	1.30	--	--	--	--
	01/24/03	16.84	78.75	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/21/03	16.95	78.64	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/10/03	15.19	80.40	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/22/03	14.22	81.37	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	01/14/04	16.20	79.39	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/04/04	15.95	79.64	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/13/04	14.65	80.94	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	13.95	81.64	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/21/05	15.28	80.31	<50.0	<0.500	<0.500	<0.500	<1.00	<5.00	<0.500	<0.500	<1.00
	10/26/05	14.55	81.04	<50.0	<0.500	<0.500	<0.500	<3.00	<1.00	<0.500	<0.500	<1.00
	02/07/06	16.40	79.19	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	<1.00
	05/11/06	15.32	80.27	--	--	--	--	--	--	--	--	--
	08/04/06	14.14	81.45	--	--	--	--	--	--	--	--	--
	11/15/06	14.74	80.85	--	--	--	--	--	--	--	--	--
	02/20/07	16.73	78.86	--	--	--	--	--	--	--	--	--
	05/02/07	16.57	79.02	<100	<1	<1	<1	<3	<1	<1	<1	<1
	08/20/07	14.61	80.98	--	--	--	--	--	--	--	--	--
MW-04	03/07/00	16.65	77.53	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
TOC Elevation	03/20/00	16.82	77.36	--	--	--	--	--	--	--	--	--
94.18	06/28/00	14.28	79.90	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	09/27/00	12.73	81.45	<50.0	<0.500	<0.500	<0.500	1.11	--	--	--	--
	12/19/00	13.98	80.20	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/04/01	15.29	78.89	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/05/01	13.55	80.63	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/24/01	13.26	80.92	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/19/02	16.35	77.83	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/09/02	14.51	79.67	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/16/02	13.29	80.89	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	01/24/03	15.90	78.28	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/21/03	16.02	78.16	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/10/03	14.26	79.92	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/22/03	13.31	80.87	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	01/14/04	15.32	78.86	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	04/04/04	15.01	79.17	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/13/04	13.71	80.47	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	13.03	81.15	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/21/05	14.25	79.93	<50.0	<0.500	<0.500	<0.500	<1.00	<5.00	<0.500	<0.500	<1.00
	10/26/05	13.52	80.66	<50.0	<0.500	<0.500	<0.500	<3.00	<1.00	<0.500	<0.500	<1.00
	02/07/06	15.49	78.69	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	<1.00
	05/11/06	15.36	78.82	--	--	--	--	--	--	--	--	--
	08/04/06	14.21	79.97	--	--	--	--	--	--	--	--	--
	11/15/06	13.74	80.44	--	--	--	--	--	--	--	--	--
	02/20/07	15.76	78.42	--	--	--	--	--	--	--	--	--
	05/03/07	15.54	78.64	<100	<1	<1	<1	<3	<1	<1	<1	<1
	08/20/07	13.61	80.57	--	--	--	--	--	--	--	--	--

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Table 1
Historical Groundwater Data
Time Oil Co. Facility No. 01-070
100 East Wine Country Road
Grandview, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	GRPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[4]	EDC[4]	Total Lead[5]
MW-05	03/07/00	16.47	75.75	22,700	4,540	1,610	823	3,580	--	--	--	--
TOC Elevation	03/20/00	16.63	75.59	--	--	--	--	--	--	--	--	--
92.22	06/28/00	14.28	77.94	3,890	1,290	137	132	827	--	--	--	--
	08/08/00	13.33	78.89	1,740	338	48.0	41.9	310	--	--	--	--
	09/27/00	12.74	79.48	3,740	750	144	109	564	--	--	--	--
	12/19/00	13.83	78.39	13,100	2,840	927	576	1,420	--	--	--	--
	04/04/01	15.17	77.05	3,740	1,720	218	196	542	--	--	--	--
	07/05/01	13.55	78.67	5,000	1,420	196	190	490	--	--	--	--
	10/24/01	13.22	79.00	7,250	1,760	222	273	568	--	--	--	--
	01/22/02	15.26	76.96	12,600	1,930	238	204	331	--	--	--	--
	04/19/02	12.50	79.72	8,950	1,870	114	220	593	--	--	--	--
	07/09/02	--	--	2,090	443	32.4	92.2	195	--	--	--	--
	10/16/02	--	--	6,790	1,620	139	163	1,410	--	--	--	--
	01/24/03	15.27	76.95	521	112	<2.50	5.21	39	--	--	--	--
	04/21/03	11.00	81.22	71.3	13.0	<0.500	<0.500	<1.00	--	--	--	--
	07/10/03	10.45	81.77	1,890	763	19.9	56.8	259	--	--	--	--
	10/22/03	12.85	79.37	<50.0	1.85	<0.500	<0.500	<1.00	--	--	--	--
	01/14/04	13.82	78.40	355	93.4	1.00	6.85	42.8	--	--	--	--
	04/04/04	14.70	77.52	52.0	18.1	<0.500	<0.500	<1.00	--	--	--	--
	07/13/04	13.35	78.87	<50.0	5.31	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	12.76	79.46	2,280	165	4.63	128	255	--	--	--	--
	07/21/05	13.90	78.32	<50.0	0.585	<0.500	<0.500	<1.00	<5.00	<5.00	0.81	<1.00
	10/26/05	13.19	79.03	94.3	3.88	0.570	4.86	22.7	<1.00	<0.500	3.46	1.88
	02/07/06	15.10	77.12	3,730	37.6	<2.00	76.0	405	<20.0	<2.00	9.62	1.24
	05/11/06	15.03	77.19	78.0	0.830	<0.500	<0.500	<3.00	<5.00	<0.500	3.73	1.30
	08/16/06	--	--	--	--	--	--	--	--	--	--	--
	11/15/06	13.39	78.83	100	25	<1	<1	<3.1	<1	<1	3.0	<1
	02/20/07	15.25	76.97	2,900	52	<1	210	41.9	<1	<1	4.8	<1
	05/03/07	15.15	77.07	<100	<1	<1	2.9	<3	<1	<1	1.4	<1
	08/20/07	13.26	78.96	<100	<1	<1	<1	<3	<1	<1	<1	<1
MW-06	03/07/00	17.06	75.19	22,600	4,390	175	1,190	3,520	--	--	--	--
TOC Elevation	03/20/00	17.21	75.04	--	--	--	--	--	--	--	--	--
92.25	06/28/00	14.91	77.34	7,140	2,050	71.8	370	1,600	--	--	--	--
	08/08/00	13.97	78.28	6,210	1,410	41.5	347	1,230	--	--	--	--
	09/27/00	13.35	78.90	7,810	1,740	47.5	332	1,300	--	--	--	--
	12/19/00	14.42	77.83	9,250	1,590	36.7	407	1,100	--	--	--	--
	04/04/01	15.74	76.51	7,840	2,570	45.8	568	1,260	--	--	--	--
	07/05/01	14.16	78.09	9,260	1,980	44.2	508	1,550	--	--	--	--
	10/24/01	13.85	78.40	10,300	1,820	36.6	465	1,180	--	--	--	--
	01/22/02	15.87	76.38	19,000	2,850	45.1	580	1,200	--	--	--	--
	04/29/02	--	--	496	79.0	0.76	19.9	27.5	--	--	--	--
	07/09/02	--	--	6,070	1,100	3.52	390	684	--	--	--	--
	10/16/02	--	--	7,170	994	<10.0	267	1,140	--	--	--	--
	01/24/03	15.17	77.08	66.0	3.70	<0.500	<0.500	2.27	--	--	--	--
	04/21/03	11.05	81.20	659	4.55	<0.500	16.3	24.0	--	--	--	--
	07/10/03	14.00	78.25	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/22/03	13.26	78.99	1,180	1.23	<0.500	14.7	7.01	--	--	--	--
	01/14/04	13.98	78.27	59.2	<0.500	<0.500	0.601	<1.00	--	--	--	--
	04/04/04	17.94	74.31	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	12.94	79.31	68.3	1.10	<0.500	<0.500	<1.00	--	--	--	--
	07/21/05	14.28	77.97	<50.0	<0.500	<0.500	<0.500	<1.00	12.6	<0.500	43.6	<1.00
	10/26/05	13.51	78.74	<50.0	0.820	<0.500	<0.500	<3.00	1.08	<0.500	5.74	7.93
	02/07/06	15.31	76.94	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	4.60	<1.00
	05/11/06	15.32	76.93	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	2.67	1.01
	08/04/06	14.23	78.02	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	3.21	2.57
	11/15/06	13.35	78.90	<50	<1	<1	<1	<3	1.5	<1	7.0	<1
	02/20/07	15.58	76.67	<100	<1	<1	<1	<3	14	<1	31.0	<1
	05/03/07	15.53	76.72	<100	<1	<1	<1	<3	19	<1	39	<1
	08/20/07	13.67	78.58	120	<1	<1	<1	<3	26	<1	58	<1

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Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	GRPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[4]	EDC[4]	Total Lead[5]
MW-07	10/24/01	15.13	78.90	1,400	81.2	2.44	1.62	6.93	--	--	--	--
TOC Elevation	01/22/02	17.08	76.95	252	18.1	<2.00	<1.00	<1.50	--	--	--	--
94.03	04/19/02	18.14	75.89	<50.0	3.13	<0.500	<0.500	<1.00	--	--	--	--
	07/09/02	16.41	77.62	148	6.38	<0.500	<0.500	<1.00	--	--	--	--
	10/16/02	15.24	78.79	398	23.0	0.519	0.653	1.67	--	--	--	--
	01/24/03	17.65	76.38	<50.0	0.916	<0.500	<0.500	<1.00	--	--	--	--
	04/21/03	17.73	76.30	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/10/03	16.05	77.98	223	12.5	<0.500	<0.500	<1.00	--	--	--	--
	10/22/03	15.11	78.92	275	3.84	0.530	0.507	1.36	--	--	--	--
	01/14/04	16.91	77.12	59.5	1.41	<0.500	<0.500	<1.00	--	--	--	--
	04/04/04	15.74	78.29	<50.0	0.92	<0.500	<0.500	<1.00	--	--	--	--
	07/13/04	15.49	78.54	222	2.74	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	14.75	79.28	654	5.57	0.727	0.744	2.63	--	--	--	--
	07/21/05	16.13	77.90	230	2.31	<0.500	<0.500	<1.00	<5.00	<0.500	43.7	<1.00
	10/26/05	15.33	78.70	427	3.09	<0.500	<0.500	<3.00	3.12	<0.500	50.8	<1.00
	02/07/06	17.03	77.00	1,020	6.11	<0.500	0.780	<3.00	<5.00	<0.500	71.6	<1.00
	05/11/06	17.03	77.00	85.7	1.04	<0.500	<0.500	<3.00	<5.00	<0.500	22.2	<1.00
	08/04/06	15.35	78.68	144	1.09	<0.500	<0.500	<3.00	<5.00	<0.500	17.5	<1.00
	11/15/06	15.45	78.58	490	2.2	<1	<1	<3	2.0	<1	27	<1
	02/20/07	17.35	76.68	620	4.3	<1	<1	<3	2.2	<1	37	<1
	05/03/07	17.35	76.68	<100	<1	<1	<1	<3	1.2	<1	21	<1
	08/20/07	15.49	78.54	170	1.1	<1	<1	<3	1.3	<1	11	<1
RW-01	03/07/00	17.38	77.62	2,100	18.7	15.7	54.6	328	--	--	--	--
TOC Elevation	03/20/00	17.57	77.43	--	--	--	--	--	--	--	--	--
95.00	06/28/00	14.98	80.02	1,010	17.4	12.0	28.0	193	--	--	--	--
	09/27/00	13.50	81.50	1,950	48.3	6.15	57.1	232	--	--	--	--
	12/19/00	14.75	80.25	1,100	29.2	4.09	26.0	84.7	--	--	--	--
	04/04/01	16.02	78.98	86.2	8.19	<0.500	3.47	8.00	--	--	--	--
	07/05/01	14.29	80.71	326	13.8	1.45	12.3	65.2	--	--	--	--
	10/24/01	14.05	80.95	7,360	115	51.9	695	1,290	--	--	--	--
	01/22/02	--	--	--	--	--	--	--	--	--	--	--
	04/19/02	17.25	77.75	--	--	--	--	--	--	--	--	--
	07/09/02	15.20	79.80	--	--	--	--	--	--	--	--	--
	04/21/03	16.66	78.34	--	--	--	--	--	--	--	--	--
	07/10/03	14.97	80.03	--	--	--	--	--	--	--	--	--
	10/22/03	14.06	80.94	--	--	--	--	--	--	--	--	--
	01/14/04	16.06	78.94	--	--	--	--	--	--	--	--	--
	04/04/04	15.75	79.25	--	--	--	--	--	--	--	--	--
	10/15/04	13.78	81.22	--	--	--	--	--	--	--	--	--
	05/03/07	16.27	78.73	<100	<1	<1	<1	<3	<1	<1	<1	<1
	08/20/07	14.31	80.69	--	--	--	--	--	--	--	--	--
RW-02	03/07/00	17.17	77.51	519	<0.900	<0.500	<1.10	<60.0	--	--	--	--
TOC Elevation	03/20/00	17.35	77.33	--	--	--	--	--	--	--	--	--
94.68	06/28/00	14.72	79.96	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	09/27/00	13.22	81.46	451	0.615	<0.910	<2.72	5.87	--	--	--	--
	12/19/00	14.49	80.19	66.4	0.923	<0.500	1.09	3.14	--	--	--	--
	04/04/01	15.75	78.93	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/05/01	14.02	80.66	108	<0.500	<0.500	0.525	1.21	--	--	--	--
	10/24/01	13.77	80.91	309	0.931	<0.500	4.23	8.66	--	--	--	--
	01/22/02	--	--	--	--	--	--	--	--	--	--	--
	04/19/02	16.85	77.83	--	--	--	--	--	--	--	--	--
	07/09/02	14.98	79.70	--	--	--	--	--	--	--	--	--
	05/03/07	16.01	78.67	<100	<1	<1	<1	<3	<1	<1	<1	<1
	08/20/07	14.02	80.66	--	--	--	--	--	--	--	--	--

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Table 1
Historical Groundwater Data
Time Oil Co. Facility No. 01-070
100 East Wine Country Road
Grandview, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	GRPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[4]	EDC[4]	Total Lead[5]
RW-03	03/07/00	17.59	76.02	4,070	609	125	166	567	--	--	--	--
TOC Elevation	03/20/00	17.76	75.85	--	--	--	--	--	--	--	--	--
93.61	06/28/00	15.25	78.36	16,200	512	739	357	2,850	--	--	--	--
	08/08/00	14.24	79.37	10,000	169	253	158	1,810	--	--	--	--
	09/27/00	13.72	79.89	5,640	58.2	36.9	25.7	578	--	--	--	--
	12/19/00	14.91	78.70	1,850	345	22.7	14.2	203	--	--	--	--
	04/04/01	16.20	77.41	1,560	455	17.9	10.3	175	--	--	--	--
	07/05/01	14.51	79.10	535	47.5	5.37	4.11	58.3	--	--	--	--
	10/24/01	14.27	79.34	1,990	596	11.6	31.3	161	--	--	--	--
	01/22/02	16.36	77.25	5,470	685	51.3	74.0	345	--	--	--	--
	04/19/02	--	--	1,610	292	85.7	10.7	259	--	--	--	--
	07/09/02	14.24	79.37	3,390	506	13.5	164	286	--	--	--	--
	10/16/02	14.24	79.37	468	23.6	4.29	4.44	79.6	--	--	--	--
	01/24/03	14.10	79.51	21,600	1,300	1,360	396	4,600	--	--	--	--
	04/21/03	13.55	80.06	3,180	7.85	20.7	11.1	960	--	--	--	--
	07/10/03	15.80	77.81	820	8.83	2.96	7.57	207	--	--	--	--
	10/22/03	16.50	77.11	4,150	57.0	10.9	58.9	795	--	--	--	--
	01/14/04	--	--	120	--	0.845	3.01	31.2	--	--	--	--
	04/04/04	17.80	75.81	<50.0	1.07	<0.500	<0.500	5.69	--	--	--	--
	07/13/04	17.03	76.58	2,220	30.0	1.82	44.0	215	--	--	--	--
	10/15/04	17.78	75.83	67.2	0.722	<0.500	1.19	5.67	--	--	--	--
	07/21/05	14.51	79.10	<50.0	<0.500	<0.500	<0.500	<1.00	<5.00	<0.500	<0.500	20.5
	10/26/05	13.85	79.76	<50.0	<0.500	<0.500	<0.500	<3.00	<1.00	<0.500	<0.500	1.54
	02/07/06	15.81	77.80	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	7.73
	05/11/06	15.57	78.04	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	24.3
	08/04/06	14.65	78.96	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	35.7
	11/15/06	14.07	79.54	<50	<1	<1	<1	<3	<1	<1	<1	6.91
	02/20/07	16.03	77.58	<100	<1	<1	<1	<3	<1	<1	<1	1.83
	05/03/07	15.81	77.80	<100	<1	<1	<1	<3	<1	<1	<1	2.05
	08/20/07	13.85	79.76	<100	<1	<1	<1	<3	<1	<1	<1	<1
RW-04	03/07/00	17.66	76.53	4,080	309	273	155	608	--	--	--	--
TOC Elevation	03/20/00	17.54	76.65	--	--	--	--	--	--	--	--	--
94.19	06/28/00	15.32	78.87	1,930	122	158	47.6	427	--	--	--	--
	09/27/00	13.82	80.37	4,690	228	139	90.6	666	--	--	--	--
	12/19/00	15.04	79.15	3,470	327	163	74.4	419	--	--	--	--
	04/04/01	16.32	77.87	818	199	25.0	35.5	172	--	--	--	--
	07/05/01	14.51	79.68	535	47.5	5.37	4.11	58.3	--	--	--	--
	10/24/01	14.37	79.82	2,060	333	58.2	89.5	391	--	--	--	--
	01/22/02	--	--	--	--	--	--	--	--	--	--	--
	07/09/02	14.52	79.67	--	--	--	--	--	--	--	--	--
	05/03/07	16.73	77.46	<100	<1	<1	<1	<3	<1	<1	<1	<1
	08/20/07	14.82	79.37	--	--	--	--	--	--	--	--	--

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Table 1
Historical Groundwater Data
Time Oil Co. Facility No. 01-070
100 East Wine Country Road
Grandview, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	GRPH[3]	Benzene[4]	Toluene[4]	Ethylbenzene[4]	Total Xylenes[4]	MTBE[4]	EDB[4]	EDC[4]	Total Lead[5]
RW-05	10/24/01	13.78	78.48	11,200	2,890	<5.00	857	298	--	--	--	--
TOC Elevation	01/22/02	15.78	76.48	4,490	1,080	<2.00	65.8	82.1	--	--	--	--
92.26	04/19/02	--	--	322	51.6	0.776	14.1	47.1	--	--	--	--
	07/09/02	13.85	78.41	1,140	438	<5.00	14.3	10.8	--	--	--	--
	10/16/02	13.85	78.41	<50.0	3.39	<0.500	0.672	2.36	--	--	--	--
	01/24/03	16.75	75.51	3,360	369	2.01	211	403	--	--	--	--
	04/21/03	14.03	78.23	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/10/03	13.40	78.86	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/22/03	13.45	78.81	117	12.4	<0.500	2.27	5.17	--	--	--	--
	01/14/04	17.55	74.71	<50.0	7.06	<0.500	<0.500	<1.00	--	--	--	--
	04/04/04	17.44	74.82	73.9	0.592	<0.500	2.46	<1.00	--	--	--	--
	07/13/04	14.92	77.34	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	10/15/04	12.37	79.89	<50.0	<0.500	<0.500	<0.500	<1.00	--	--	--	--
	07/21/05	13.52	78.74	<50.0	<0.500	<0.500	<0.500	<1.00	<5.00	<0.500	<0.500	3.05
	10/26/05	12.80	79.46	<50.0	<0.500	<0.500	<0.500	<3.00	<1.00	<0.500	<0.500	2.72
	02/07/06	14.58	77.68	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	1.77	1.85
	05/11/06	14.55	77.71	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	32.9
	08/04/06	13.21	79.05	<50.0	<0.500	<0.500	<0.500	<3.00	<5.00	<0.500	<0.500	7.81
	11/15/06	12.94	79.32	<50	<1	<1	<1	<3	<1	<1	<1	3.23
	02/20/07	14.88	77.38	<100	<1	<1	<1	<3	<1	<1	2.4	3.88
	05/03/07	14.82	77.44	<100	<1	<1	<1	<3	<1	<1	<1	2.22
	08/20/07	12.94	79.32	<100	<1	<1	<1	<3	<1	<1	<1	<10
VW-01	10/24/01	13.25	79.36	101	1.52	<0.500	<0.500	<1.00	--	--	--	--
TOC Elevation	05/07/07	14.64	77.97	<100	<1	<1	<1	<3	<1	<1	<1	<1
92.61	08/20/07	12.67	79.94	--	--	--	--	--	--	--	--	--
VW-02	10/24/01	13.20	79.33	10,200	53.3	<5.00	833	841	--	--	--	--
TOC Elevation	05/07/07	14.73	77.80	840	<1	<1	<1	<3	<1	<1	<1	<1
92.53	08/20/07	12.94	79.59	<100	<1	<1	<1	<3	<1	<1	<1	1.59
VW-03	10/24/01	13.80	78.97	<50.0	1.81	0.614	0.639	2.50	--	--	--	--
TOC Elevation	05/07/07	--	--	--	--	--	--	--	--	--	--	--
92.77	08/20/07	12.67	80.10	--	--	--	--	--	--	--	--	--
SW-01	05/02/07	16.14	78.77	<100	<1	<1	<1	<3	<1	<1	<1	<1
TOC Elevation	08/20/07	12.19	82.72	--	--	--	--	--	--	--	--	--
94.91												
SW-02	05/07/07	14.49	77.50	<100	<1	<1	<1	<3	<1	<1	<1	9.86
TOC Elevation	08/20/07	13.85	78.14	--	--	--	--	--	--	--	--	--
91.99												
SW-03	05/07/07	14.01	78.33	<100	<1	<1	<1	<3	<1	<1	<1	8.24
TOC Elevation	08/20/07	12.40	79.94	--	--	--	--	--	--	--	--	--
92.34												
SW-04	05/03/07	15.78	78.43	<100	<1	<1	<1	<3	<1	<1	<1	1.76
TOC Elevation	08/20/07	12.73	81.48	--	--	--	--	--	--	--	--	--
94.21												
SW-05	05/07/07	14.36	78.50	<100	<1	<1	<1	<3	<1	<1	<1	11.2
TOC Elevation	08/20/07	12.40	80.46	--	--	--	--	--	--	--	--	--
92.86												
SW-06	05/07/07	14.53	77.70	<100	<1	<1	<1	<3	<1	<1	<1	8.42
TOC Elevation	08/20/07	12.73	79.50	--	--	--	--	--	--	--	--	--
92.23												
SW-07	05/07/07	15.08	--	<100	<1	<1	<1	<3	<1	<1	<1	11.9
TOC Elevation	08/20/07	13.31	--	--	--	--	--	--	--	--	--	--
Not Surveyed												
MTCA Method A Cleanup Levels for Groundwater[6]				1,000/800[8]	5	1,000	700	1,000	20	0.01	5	15

NOTES:

Results measured in µg/L.
Red indicates concentrations exceeding the MTCA Method A Cleanup Level.
Data collected prior to July 2005 as reported in GeoEngineers Groundwater Monitoring Reports.
Analyzed by Friedman & Bruya, Inc. of Seattle, Washington.
[1]Depth to water as measured from a fixed spot on the well casing rim.
[2]Elevations are relative and referenced to a benchmark with an assumed elevation of 100.00 feet.
[3]Analyzed by Northwest Method NWTPH-Gx.
[4]Analyzed by EPA Method 8260B.
[5]Analyzed by EPA Method 6020 or 200.8.
[6]MTCA Method A Cleanup Levels, Table 720-1 of the WAC 173-340-900.
[8]1,000 µg/L when benzene is not present and 800 µg/L when benzene is present.

-- = not measured / not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
µg/L = micrograms per liter
EDB = ethylene dibromide (1,2-Dibromoethane)
EDC = ethylene dichloride (1,2-Dichloroethane)
EPA = United States Environmental Protection Agency
GRPH = gasoline-range petroleum hydrocarbons
MTBE = methyl tertiary-butyl ether
MTCA = Model Toxics Control Act
TOC = top of casing elevation (feet)
WAC = Washington Administrative Code

APPENDIX E

SITE SAFETY BRIEFING FORMS

14.0 ACKNOWLEDGMENT AND UNDERSTANDING OF PLAN

This health & safety plan was prepared by the undersigned, having successfully completed OSHA standard 29 CFR 1910.120 40-hour hazardous materials health & safety training.

VP, Training, Safety & Risk Mgmt: _____
Scott Churbock

Site Health & Safety Officer: Becky L Hawkins
Becky L. Hawkins

Program Manager: _____
Dane Nygaard

I UNDERSTAND AND AGREE TO THE ABOVE PLAN

	Name & Company	Date
Contractors:	KYLE MALONE	11/28/16
	Randy Wilder EWE	11/28/2016
	Josh Martin EWE	11/28/16
Geologist/Field Technicians:		11/28/2016
Other:		

SITE SAFETY BRIEFING FORM

Site: 11/28/2016

Date: Former Eagle # 0700 Time: 0945

Project No: PROJ100623.

Task: Site Assessment / temp. borings Health/Safety Officer: Nick Olivier

Person Providing Briefing: Nick Olivier

Topics:

- [x] Site HASP
- [x] Chemical Hazards
- [x] Equipment Hazards
- [x] Electrical Hazards
- [ ] Heat Stress
- [x] Personal Decontamination
- [x] Personal Hygiene
- [x] Employee Rights/Responsibilities
- [x] Hazard Evaluations
- [x] Emergency Response Procedures

Persons in Attendance: (Name/Organization)

Josh Martin EWE
Randy Wilder EWE
Terry Vajta CP+C
X Randy Vajta CP+C
KYLE MALONE EWE

Persons in Attendance: (Name/Organization)

Notes/Comments:

- Traffic is #1 safety concern. Look both ways x2 when crossing.
- Discussed STOP work Authority - Discussed Decontamination procedures.

environmental services

SITE SAFETY BRIEFING FORM

Site: Eagle # 0700

Date: 11/29/2016 Time: 0730

Project No: PROJ100623

Task: Soil Borings Health/Safety Officer: Nick Olivier

Person Providing Briefing: Nick Olivier

Topics:

- [x] Site HASP
- [x] Chemical Hazards
- [ ] Equipment Hazards
- [ ] Electrical Hazards
- [ ] Heat Stress
- [x] Personal Decontamination
- [x] Personal Hygiene
- [x] Employee Rights/Responsibilities
- [x] Hazard Evaluations
- [ ] Emergency Response Procedures

Persons in Attendance: (Name/Organization)		Persons in Attendance: (Name/Organization)
SHAWN SNELL	EWE	
Randy Wilder	EWE	
KYLE MALONE	EWE	
Josh Martin	EWE	

Notes/Comments:

- Discussed traffic & pedestrian hazards.
- Discussed hand safety and proper glove & PPE selection. Work gloves required for all tool handling & Nitrile/Chemical protective gloves for handling samples & impacted soil/water.

environmental services

SITE SAFETY BRIEFING FORM

Site: EAGLE # 0700

Date: 11/30/16 Time: 1400

Project No: PROJ100623

Task: CON Health/Safety Officer: Nick Olivier

Person Providing Briefing: Nick Olivier

Topics:

- [x] Site HASP
- [x] Chemical Hazards
- [x] Equipment Hazards
- [ ] Electrical Hazards
- [ ] Heat Stress
- [x] Personal Decontamination
- [x] Personal Hygiene
- [x] Employee Rights/Responsibilities
- [x] Hazard Evaluations
- [x] Emergency Response Procedures

Persons in Attendance: (Name/Organization)

KYLE MALONE
Randy W/ Ldr
Josh Martin EWE

Persons in Attendance: (Name/Organization)

Notes/Comments:

Traffic still # hazard - Maintain good exclusion zone — Take 5 before switching tasks / Moving locations.

environmental services

SITE SAFETY BRIEFING FORM

Site: Site No. 0700

Date: 12/1/16 Time: 0700

Project No: PROJ100623

Task: confirmation borings Health/Safety Officer: Nick Olivier

Person Providing Briefing: Nick Olivier

Topics:

- ☐ Site HASP
- ☒ Chemical Hazards
- ☒ Equipment Hazards
- ☐ Electrical Hazards
- ☐ Heat Stress
- ☒ Personal Decontamination
- ☒ Personal Hygiene
- ☐ Employee Rights/Responsibilities
- ☒ Hazard Evaluations
- ☐ Emergency Response Procedures

Persons in Attendance: (Name/Organization)

Kyle Malone

Rady Wilder

Josh Martin EWE

Persons in Attendance: (Name/Organization)

Notes/Comments:

- Discussed cold weather and proper hand protection.
- Reviewed Take 5 mins befor switching tasks.
- Discussed using the right tool for the job.

environmental services

APPENDIX F

GEOPHYSICAL REPORT

WWW.ULSSERVICESCORP.COM
WWW.1ULS.COM
WWW.GEOMARKOUT.COM

CORPORATE ADDRESS
P.O. Box 724, Pocatello, ID 83204 (Mail only)
6742 West Buckskin Rd., Pocatello, Id 83204

FIELD SERVICES:
SEATTLE/ SAC / AK / HAW-PACIFIC RIM
15151 52nd Ave. South, Site 2 Tukwila, WA 98188
1 866 804-5734
SOCAL 1 800 528-8206
EXLORE SAFELY

GEOMARKOUT
a trade name of ULS

Work Order Agreement

Job Site Location. 100 **WINE COUNTRY RD**	Job W.A.	
City, State. GRANDVEW, WA	Job Date 22 NOV 16	
CLIENT ES ENGINEERING	FIELD TIME 1000-330. (5.5) REPORT (2)	LABOR HOURS W/REPORT/ HRS 7.5
ADDRESS		FAXED
CITY, STATE, ZIP		TELEPHONED
E-MAIL		E-MAILED

WORK REQUESTED: UTILITY CLEARANCES AT 5 PROPOSED ON SITE LOCATIONS. AND 5 OFFSITE.

WORK PERFORMED	PRELIMINARY REVIEW OF CLIENT PROVIDED UTILITY DRAWINGS/AS-BUILTS: LIMMITED
VISUAL SITE INSPECTION (MANHOLES, DRAINS): SURFACE ONLY	EMPCL CONDUCTIVE UTILITY SURVEY: CHECKED YES GAS: X ELECTRIC: COMM.: WATER:
EMIMD METAL DETECTION SURVEY : AMBIENT NOISE AND SETTINGS LOW NOISE | GAIN 7.5 | LOW ELV NON FEASIBLE OVER CONCRETE	EM INSERTION : NF - INSERTION METHODS DO NOT PROVIDE MECHANICAL OR DRAIN "SNAKE" OR. PROBE SERVICE.
GPR NON-CONDUCTIVE SURVEY: FAIR TO GOOD RESPONSE OVER KNOWN UTILITIES AND EM. ANOMALLIES.	CLIENT ON-SITE REVIEW OF FINDINGS: YES

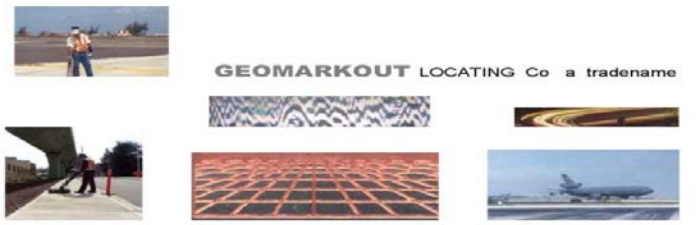
GENERAL LIMITATIONS

NOTE: The work described herein is performed to industry standards (or higher) using multiple methodology and QA/QC protocol. ULS cannot guarantee the accuracy or the ability to detect all underground facilities and potential interferences. Non-conductive or conductive utilities/facilities may not be detected due to variables and constraints beyond ULS control. Where known, constraints and limitations will be brought to the client's attention. Excavation work may result in injury to persons and/or damage to facilities. Client and/or excavator are advised to take all steps necessary to avoid contact with underground facilities. This includes, but is not limited to, safe digging practices, hand tooling in congested areas and within two feet on side of marked utilities (distance may vary by law), utility drawing review, site facilities representative review, and "one-call" utilities notification. ULS and its representatives are not responsible for injury to persons or damage to facilities. This document and accompanying pages will be delivered to the client before commencement of intrusive work for the client's review. If any questions arise, please notify our office immediately.

NOTE: Specific comments/limitations/constraints, known and recognized will be recorded on attached pages (field notes). Caution – some facilities (conductive or non- conductive) may not be detected. Not all limitations and constraints may be recognized.

SIGNATURE OF ULS REPRESENTATIVE ON-SITE MWB		PAGE 1 OF

ULS SERVICES CORPORATION



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ULS / GEOMARKOUT
a trade name of ULS Services Corp
EXPLORE SAFELY

100
WINE COUNTRY RD
21 NOV 16

METHODS AND GENERAL OBSERVATIONS:

METHODS:

ARRIVED SITE ATTENDED HS TAIL GATE -
SITE WALK TO REVIEW SURVEY AREAS (PROPOSED ZONES). CHECKED FOR SURFACE UTILITY MANIFESTATIONS SUCH AS VALVES, METERS, CONDUITS, TRENCHING SEAMS, VAULT LIDS AND EXISTING ONE CALL MARKINGS. BEGAN MARKOUT WORK.

METHODS UTILIZED INCLUDE: EM PIPE AND CABLE LOCATOR USING AMBIENT, GROUND INDUCTION AND CONNNECTION MODE SWEEPS. EM INDUCTION METAL DETECTOR, MAG, AND GPR. EVERYTHING UTILIZED AT EACH PROPOSED ZONE AND GENERAL AREA. OBSERVATIONS ARE MARKED WITH. WHITE/. HI VIS RED PAINT AND SURVEY ZONE IN WHITE.

SITE CALIBRATION - GENERAL OBSERVATIONS

EM PIPE AND CABLE TRANSMITTER TO RECIEVER (GROUND INDUCTION AND CONNECTION) BROADCASTING IS FAIR. EMIMD METAL DETECTOR BACKGROUND EM NOISE IS LOW -MED OVER ASPHALT ONLY. NON-EFFECTIVE OVER. CONCCRETE. GPR PENETRATION AND RESOLUTION IS POOR TO FAIR. PARABOLIC DATA IS OBSERVED OVER SOME EM / UTILITY OBSERVATIONS AND EM ANOMALIES. VERY SPOTTY.
SEE QA / QC OBSERVATION COMMENTS TO RIGHT SIDE / ABOVE AND COMMENTS BELOW ……>

X	QA / QC Follows
X	VISUALS
X	ONECALL /DIG ALERT YES
X	UTILITY MAINS
X	ELECTRIC – OVERHEAD
X	TELEPHONE – SAME AS E
X	NAT GAS CAUUTION IN ALLEY. NEED TO VERIFY. ACTIVE AND OTHER ABANDONED LINES.
X	WATER CAUTION ONSITE SIGNAL FROM METER AT SE CORNER SITE TO BLDG.
X	SEWER/STORM ONNSITE REPORTED OUT TO BACK IN ALLEY. OFFSITE VERIFFY WITH CITY.
X	STORMDRAIN: CAUTION OFF. REPORTED SHALLOW DRAINS FROM BLDG SHOWN ON YOUR FIGURES. INLETS IN ROAD CHECKED.
X	SECONNDARY ELECTRIC CAUTION OF AIR ELECTRIC. E TO DISPENSORS AND LIGHT POLE AWAY.
X	**FUEL SYSTEM**
	CAUTION OFF THREE USTS. NOT DETECTED UNDER REINFORCEED SEECTION. TANKS APPEAR TOO BEE METAL.
	. CAUTION OF VENTS. RISERS NEAR NWW CORNER USTS.
	CAUTION OF PRODUCT LINES BETWEEN DISPENSORS AND TANKS.

ULS / GEOMARKOUT
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EXPLORE SAFELY

100
WINE COUNTRY RD
21 NOV 16

SPECIFIC OBSERVATIONS AND COMMENTS OR CONCERNS:

UTILITY CLEARANCE

ONSITE

SW SITE

CAUTION OF UNKNOWN CONDUCTIVVE ANOMALY AND GENERAL GPR DISTURBANCE TOWARDS BLDG. (REPORTED. ABANDONED USTS THIS AREA). ALSO, CAUTION OF. AIR. ELECTRIC AND WATER IN THIS AREA.

SW ACTIVE USTS

CAUTION OF EXACT LOCATION OF END OF TANKS ESPECIALLY ON SOUTH END UNDER CONCRETE WHERE TANKS NOT DETECTED. CAUTION OF E TO PUMPS, LITES, CATHODIC PROTECTION, AND RW PIPING IN AREA.

NW ACTIVE USTS

CAUTION OF END OF TANKS TO SOUTH SIDE. CAUTION OF VENT RISERS AT WALL TO. SW SIDE. PIPING MAY TREND EAST OUT OVER TOP UST NEAR NORTH END. AIRKNIFE CAREFULLY. CAUTION OF RW PIPING TO NW SIDE.

NORTH CANOPY

E TO LITE. POLE AT NE CORNER SITE TRENDS SW WWEST OF LOCATION. CAUTION OF UNKOWN CAP SOUTH OF LOCATION ON VONCRETE UNDER CANOPY.

LIMITATION S. ON. SITE: WEAK SIGNAL AT WATER.METER DETECTED WITH BOTH EM AND GPR. *ACTIVE USTS NOT DETECTED UNDER CONCRETE. CAUTION OF TANKS, VENTS AND PRODUCT LINES. AIRKNIFE CAREFULLY WATCH FOR PPGRAVEL.*

SEWER LATERAL FROM RESTROOM IN BLDG NW CORNER NOT KNWNN. INFERRED TO TREND INTO ALLEY. CHEK WITH CITY.

ULS / GEOMARKOUT
a trade name of ULS Services Corp
EXPLORE SAFELY

100
WINE COUNTRY RD
21 NOV 16

SPECIFIC OBSERVATIONS AND COMMENTS OR CONCERNS:

UTILITY CLEARANCE

OFFSITE

DIVISION ST. SOUTH SIDE

CAUTION OF UNKNOWN CONDUCTIVE ELECTRIC UTILITY TO NORTH. SIDE MAY BE. CITY WATER. RW BUNDLE PIPING UNDER CURB TO SOUTH AND WEST SIDE. UNKNOWN DRAIN FROM BLDG ON MAP NOT DETECTED. NAT GAS IN AREA AWAY FRO POINT.

DIVISION ST. NORTH SIDE

CAUTION OF RW PIPING RUNS EW. THRU ZONE. CAUTION OF WATER LATERAL TO. EAST SIDE.

ALLEY - NORTH SIDE (2 EACH)

CAUTION OF NATURAL GAS PIPES IN THIS AREA VERY CLOSE TO PROPOSED. A GAS MAIN EXISTS TO EAST SIDE AGAINST BLDG AND HAS SEVERAL PIPES THAT ARE NOT IN USE AND CAPPED. PIPING MAY BE IN COMMON TRENCH. NEED TO VERIFY.
DIRECT CONNECT INDICATES ONE TO TWO PIPES. VERIFY WITH. ONE CALL (GAS COMPANY)
HAND TOOL MAY BE HIGHLY ADVISABLE. SEWER MAY EXIST CENTER OF ALLEY. OVERHEAD WIRES ABOVE LOCATION.

ALLEY - NORTH SIDE (2 EACH)

CAUTION OF UNKNOWN SHALLOW GPR LINEATION SOUTH OF LOCATION. RW PIPING BUNDLE. EXISTS NORTH OF LOCAATION. OVERHEAD WIRES EXIST.

END REPORT / REFER TO PHOTOS

LOCATE ENERGY ISOLATION INCLUDING NG AND WATER AT THIS SITE AND SAWCUT, JACKHAMMER, AIRKNIFE DIG CAREFULLY IN EACH LOCATION. CAREFULL WHEN DIGGING OR DRILLING NEAR OR INTO ANOMALIES IN THE EVENT VAPORS ARE PRESENT. *********HANDIG NEARNATURAL GAS LINES****


UTILITY CLEARANCES 100 WINE COUNTRY RD.
MNDS GEOMARKOUT 2/NOV/16
Grandview FOOD MART
OPEN
AIR
FORMER TANK PIT? WITH POTENTIAL ABANDONED UST OR DEBRIS

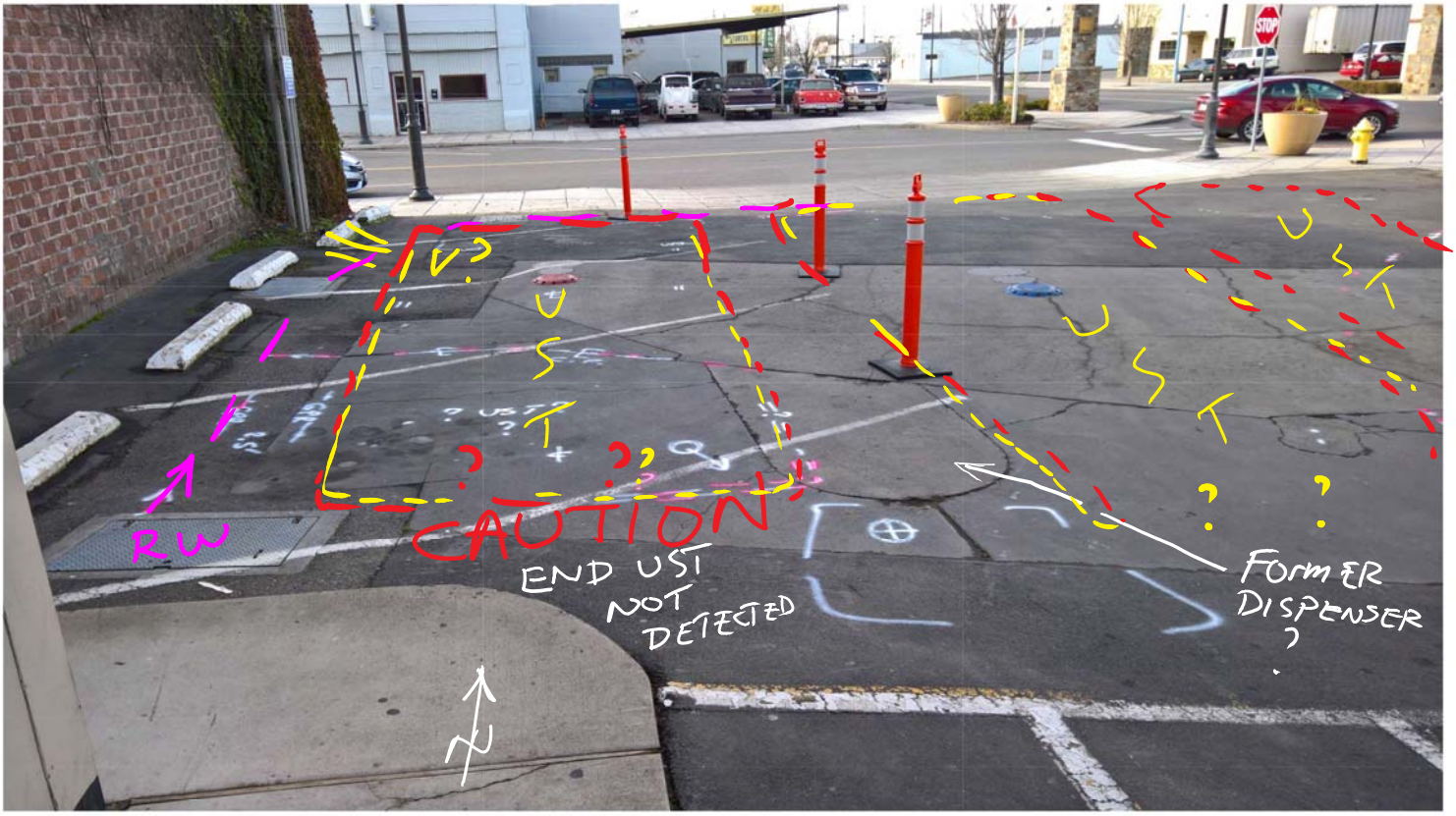

OPEN
UNKNOWN
COLLAR
WATER
VALVE??
CONDUCTIVE
ANOMALIE

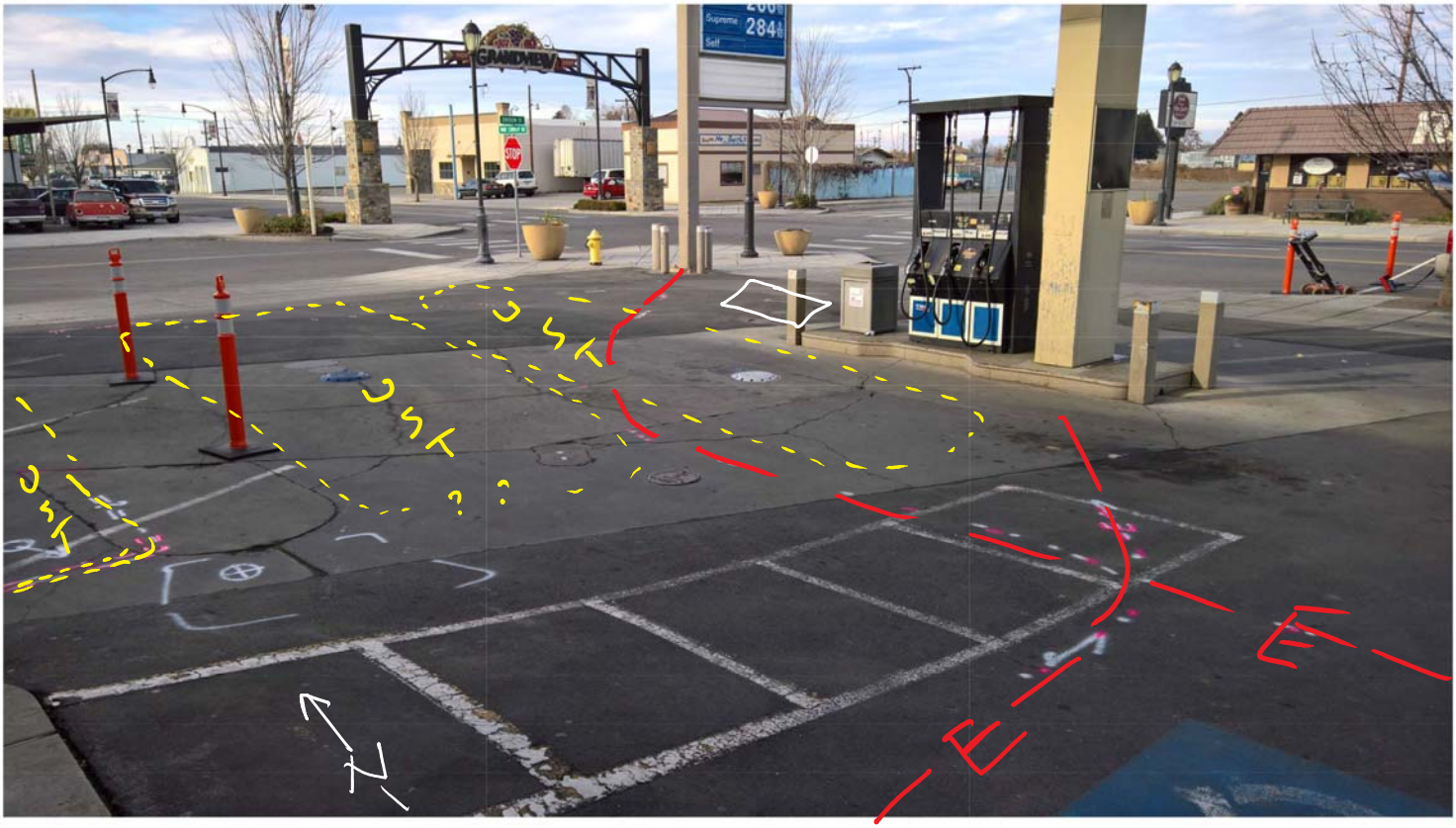

TANK
PIT?
GPR
GPR


PIT

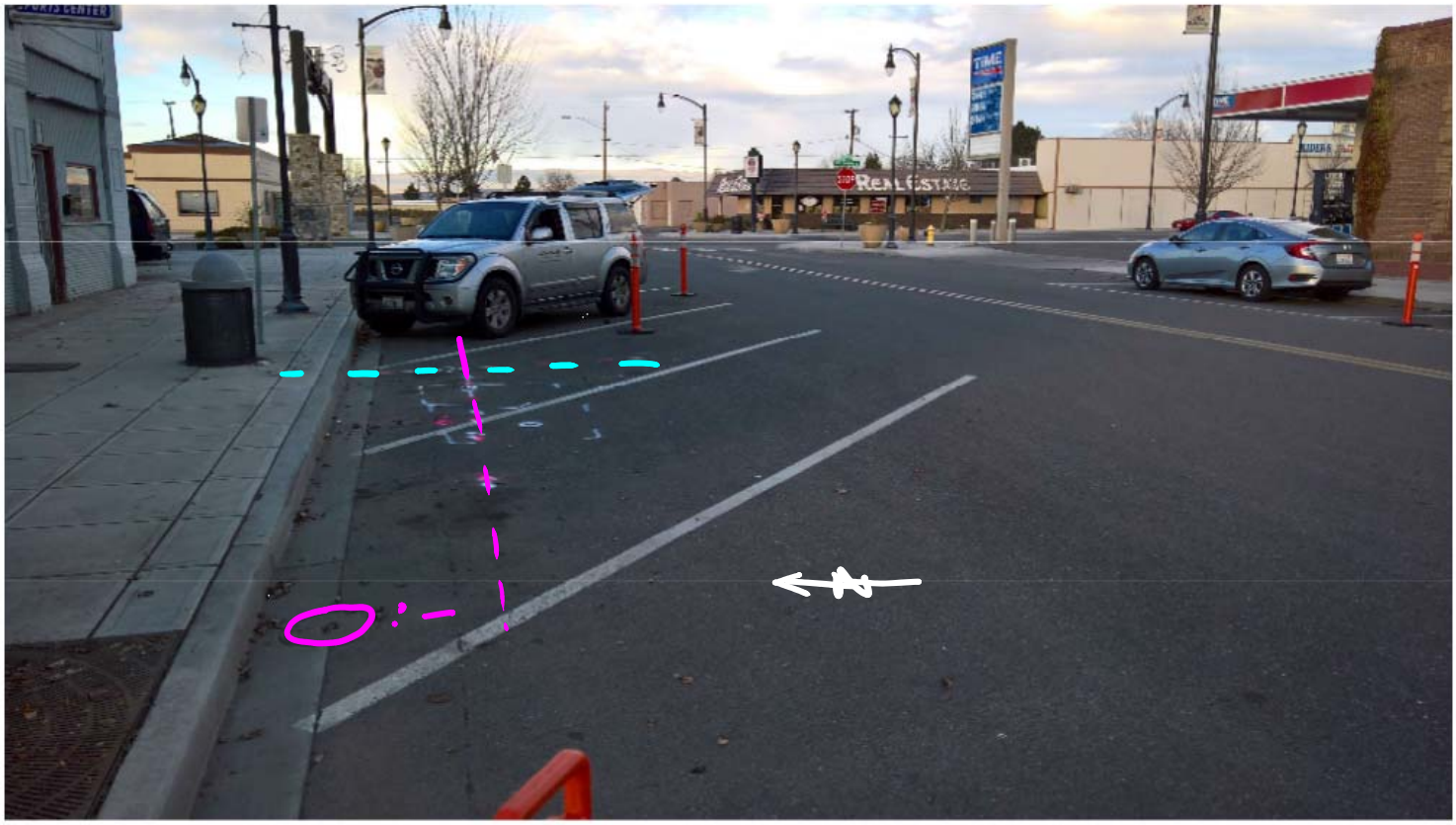

U S T S

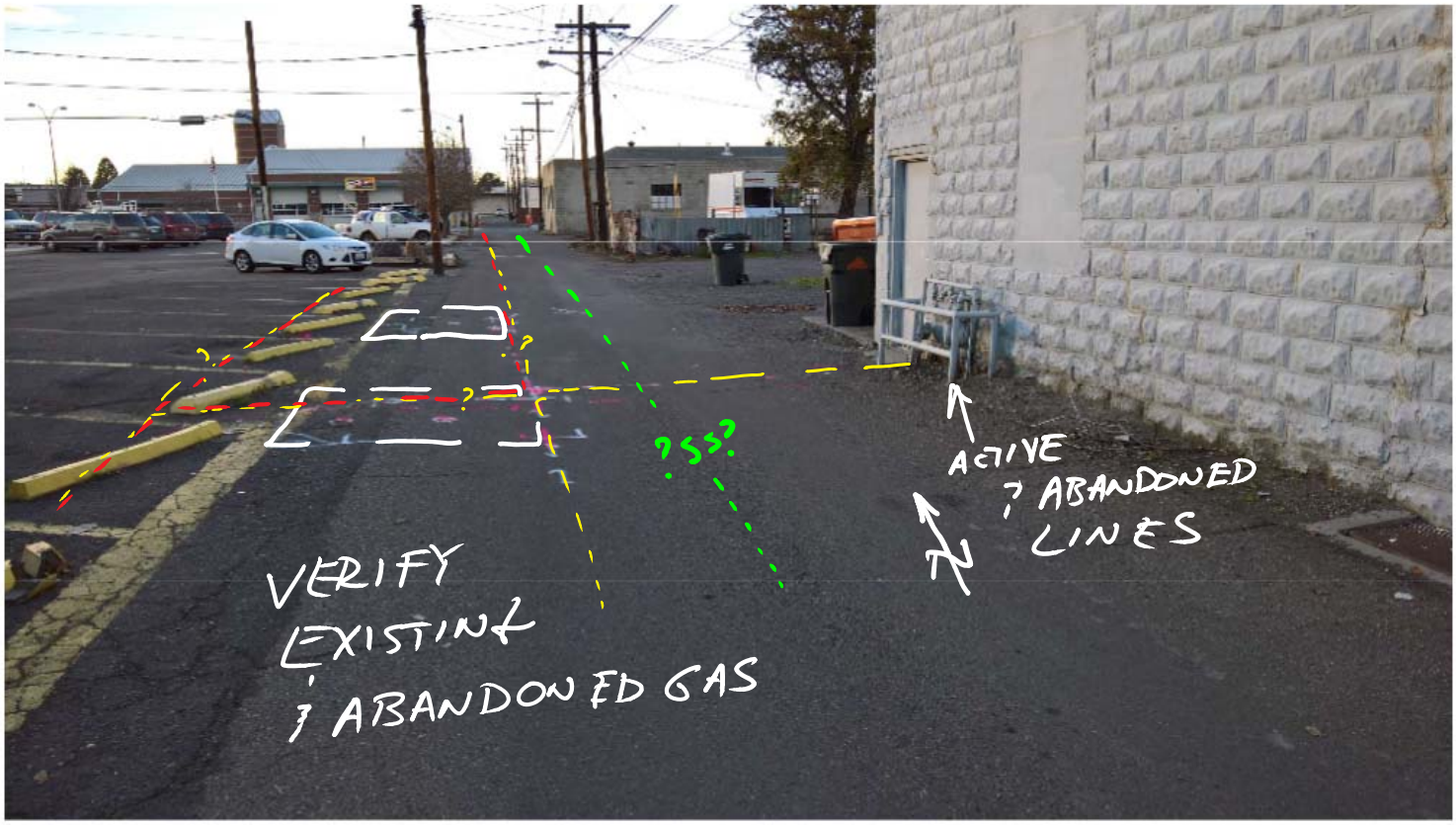

UST
UST
UST
UST
UST
UST
CAUTION
RW

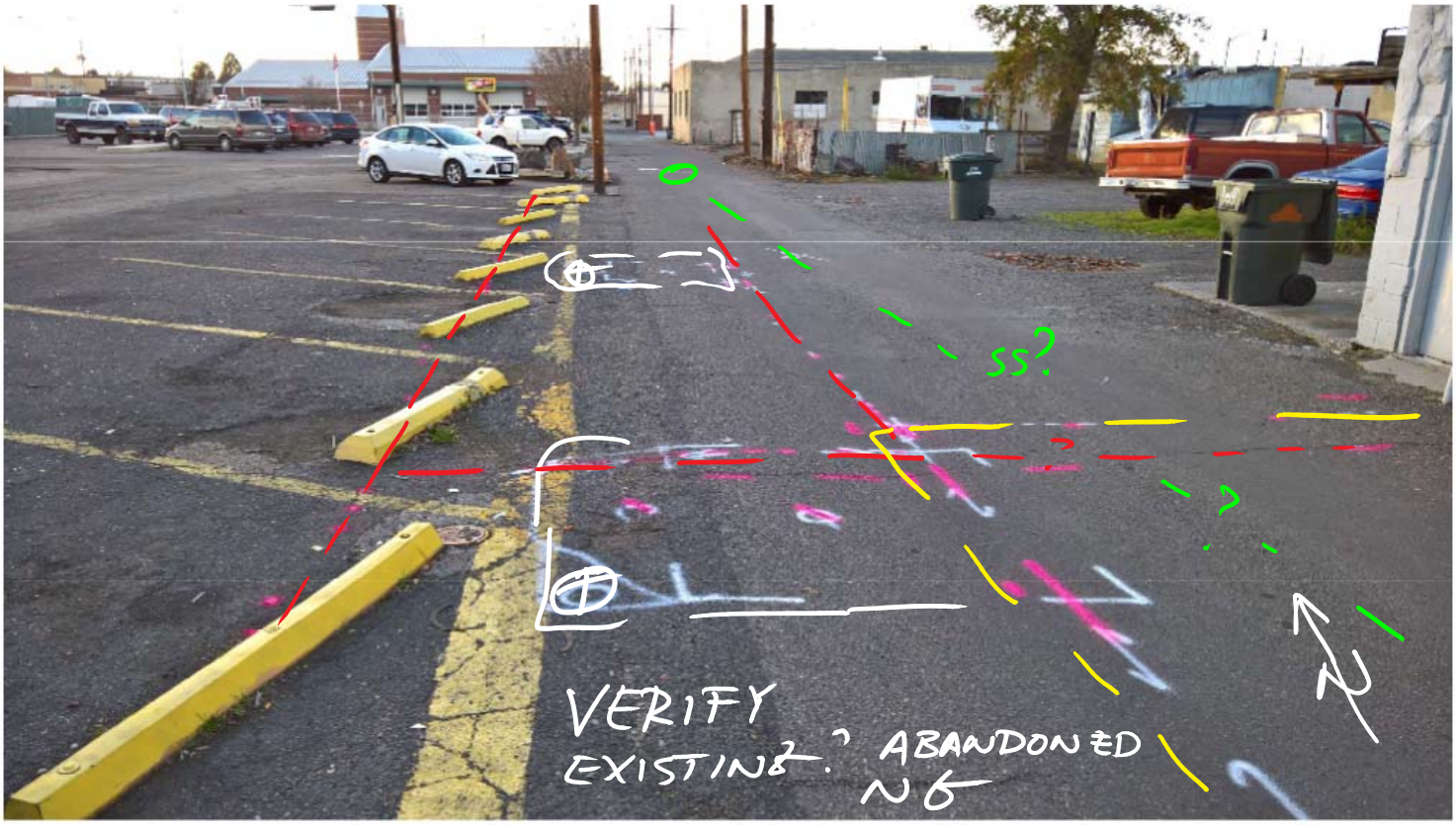

RW
CAUTION
END UST
NOT
DETECTED
FORMER
DISPENSER
?
N

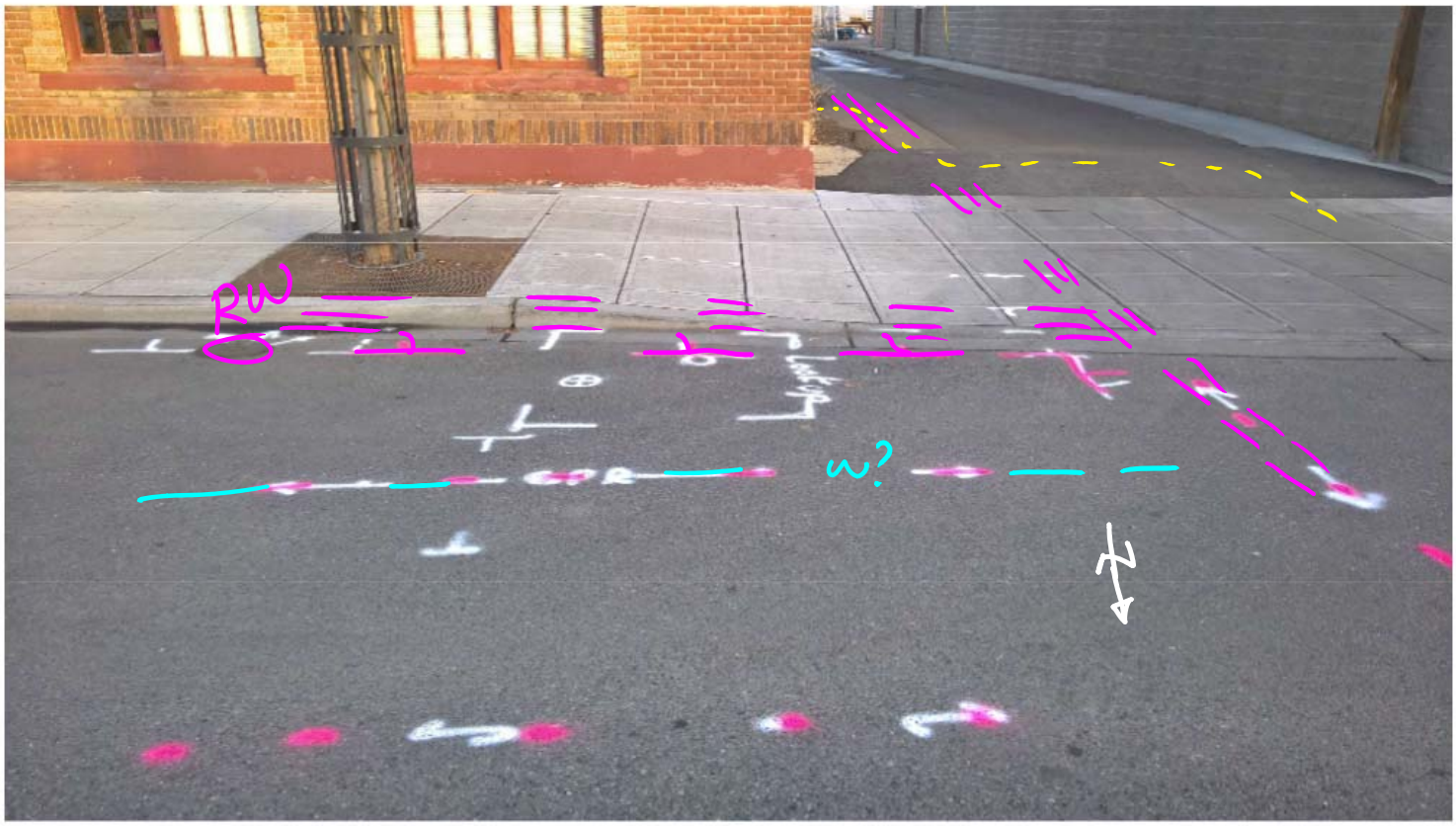

GRANDVIEW
STOP
Supreme
284
Self

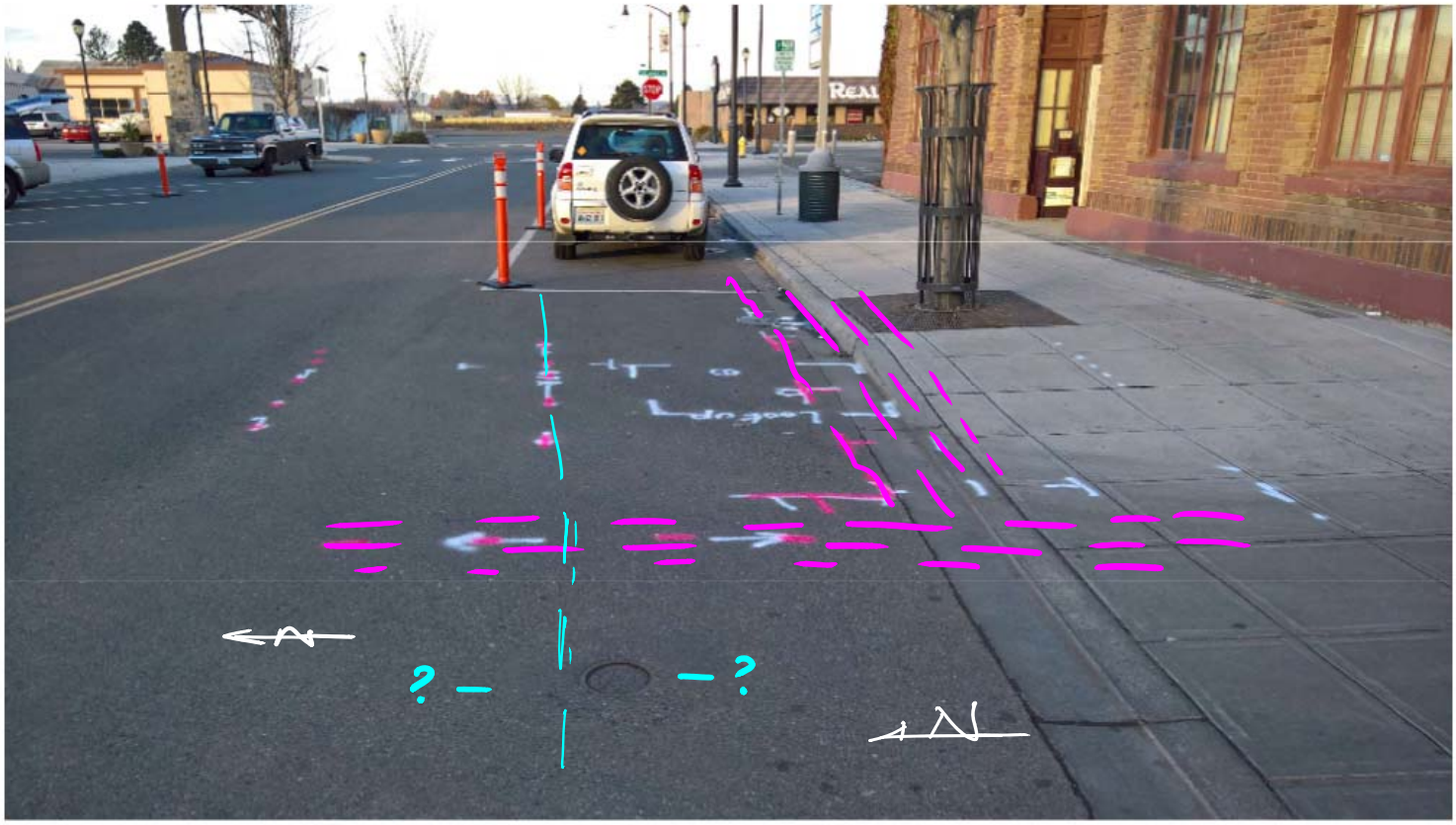

REAL ESTATE
EAST

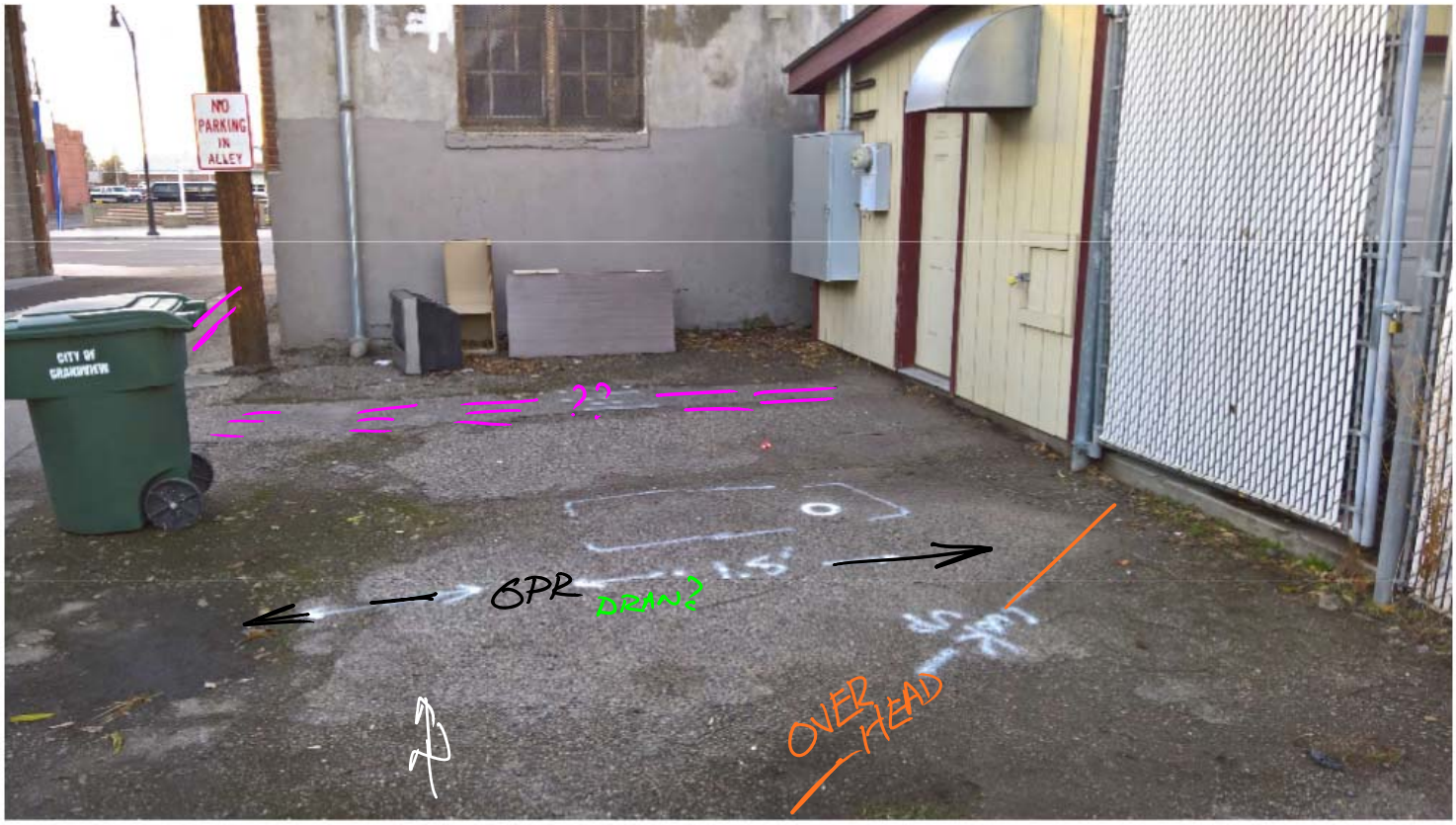

REAL ESTATE


?
?
?
?SS?
ACTIVE
? ABANDONED
LINES
VERIFY
EXISTING
? ABANDONED GAS


SS?
VERIFY
EXISTING? ABANDONED
NG


RW
w?
N




NO PARKING IN ALLEY
CITY OF
??
GPR
DRAIN?
OVER HEAD

APPENDIX G

ENCROACHMENT PERMIT

CITY OF GRANDVIEW

207 W. 2nd Street • Grandview, Washington 98930 • Tel: (509) 882-9200 • Fax: (509) 882-3099 • www.grandview.wa.us

October 5, 2016

Ms. Laura Skow, Project Manager
ES Engineering Services, LLC
1036 W. Taft Avenue
Orange, CA 92866

RE: Request for Encroachment Permit – Geoprobe Borings
Site No. 0700
100 East Wine Country Road, Grandview, WA

I have reviewed your September 26, 2016, letter in which you are requesting approval of an Encroachment Permit for Geoprobe Boring for the business located at 100 East Wine Country Road. This business was the former Time Gas Station which is now owned by Convenience Retailer, LLC. We are aware of the testing requirements that have taken place at this location for a number of years and as I understand, you are required to complete additional testing.

The City of Grandview doesn't have an official permit application, however, please consider this letter as the City's formal approval for you to proceed with the boring process once you have completed the following:

- You have contacted the one-call number for all utility locates 1-800-424-555 (or 811).
- You have met with Santos Trevino, Assistant Public Works Director to complete a preconstruction meeting. His contact information is (509) 882-9211 or email santost@grandview.wa.us.
- You will provide him with a construction schedule for him to monitor when the boring is taking place.

If you need any additional information, please don't hesitate to contact either Santos or myself.

Sincerely,

Cus Arteaga
City Administrator/Public Works Director

APPENDIX H

BORING LOGS

SOIL BORING LOG **Boring/Well Number: CB-1** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date:	11/29/2016	Completion date:	11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration		
	Grandview, Washington	Drilling Foreman:	Randy Wilder		
Project No.	623	Rig Type:	Geoprobe 5400DT		
Logged by:	Nick Olivier	Drilling Method:	direct push	Hole diameter (inches):	2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	26	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a — riser diameter: n/a

screen material: n/a — screen diameter: n/a — screen slot size: n/a

screened interval (ft): n/a — total depth of boring: 26.0

depth to GW during drilling: 20

depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					1	FILL	0 - 0.5 asphalt surface underlain by medium brown, moist, medium dense FILL. No hydrocarbon odor or staining.	0.0
						2			
						3			
						4	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						5			
						6			
						7			
						8			
						9			
		n/a	11:45	CB-1-10		10	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						11			
						12			
						13			
						14			
						15	SW/ML	Same as above, penetration rate slows significantly. No hydrocarbon odor or staining.	0.0
						16			
						17			
						18			
						19			
						20	SW/ML	Same as above, becomes wet.	0.0

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-1** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/29/2016	Completion date: 11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	26	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a

screen material: n/a screen diameter: n/a screen slot size: n/a

screened interval (ft): n/a total depth of boring: 26.0

depth to GW during drilling: 20

Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery	n/a	12:00	CB-1-26	bentonite chips	22–26	SW/ML	Olive green to medium brown, wet, dense, fine to medium well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						27–41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 26.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-2** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date:	11/29/2016	Completion date:	11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration		
	Grandview, Washington	Drilling Foreman:	Randy Wilder		
Project No.	623	Rig Type:	Geoprobe 5400DT		
Logged by:	Nick Olivier	Drilling Method:	direct push	Hole diameter (inches):	2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material:	n/a	riser diameter:	n/a
screen material:	n/a	screen diameter:	n/a
screen slot size:	n/a		
screened interval (ft):	n/a	total depth of boring:	26.0
depth to GW during drilling:	18		
depth to GW after stabilization:	n/a		

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery				concrete / bentonite chips	1	FILL	0 - 0.5 asphalt surface underlain by medium brown, moist, medium dense FILL. No hydrocarbon odor or staining.	0.0
						2			
						3			
						4	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						5			
						6			
						7			
						8			
						9			
		n/a	13:50	CB-2-10		10	SW/ML	Same as above, significant decrease in penetration rate. No hydrocarbon odor or staining.	0.0
						11			
						12			
						13			
						14			
						15	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						16			
						17			
						18		Same as above, becomes wet. No hydrocarbon odor or staining.	
						19			
						20	SW/ML		0.0

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-2** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/29/2016	Completion date: 11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	26	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a

screen material: n/a screen diameter: n/a screen slot size: n/a

screened interval (ft): n/a total depth of boring: 26.0

depth to GW during drilling: 20

Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					22	SW/ML	Olive green to medium brown, wet, dense, fine to medium well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						23			
						24			
						25			
						26			
						27			
		n/a	14:00	CB-2-28		28			0.0
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 28.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-3** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/29/2016	Completion date: 11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a

screen material: n/a screen diameter: n/a screen slot size: n/a

screened interval (ft): n/a total depth of boring: 28.0

depth to GW during drilling: 22

depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (2.0 inch diameter)	100% continuous recovery					1	FILL	0 - 0.5 asphalt surface underlain by medium brown, moist, medium dense FILL. No hydrocarbon odor or staining.	0.0
						2			
						3			
						4	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						5			
						6			
						7			0.0
						8			
						9			
						10	SW/ML	Same as above, significant decrease in penetration rate. No hydrocarbon odor or staining.	0.0
						11			
						12			
						13			0.0
						14			
						15			0.0
		n/a	8:40	CB-3-16		16			0.4
			8:50	CB-3-17		17	SM	16.5 to 19.0 zone of dark grey to black, wet, dense SILTY SAND. Moderate to heavey hydrocarbon odor, some mild staining.	662.6
						18			
						19	SW/ML	Olive green to medium brown, wet, dense, fine to medium well graded SAND and SILT. Mild hydrocarbon odor, no staining.	74.2
						20			

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-3** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/29/2016	Completion date: 11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 28.0
depth to GW during drilling: 22
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (2.0 inch diameter)	100% continuous recovery					22			
						23	SW/ML		0.0
						24			
						25	SW/ML	Olive green to medium brown, wet, dense, fine to medium well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						26			
						27			
continuous core (1.125 inch diameter)			10:00	CB-3-28		28			0.0
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 28.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-4** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/28/2016	Completion date: 11/28/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push — Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a — riser diameter: n/a

screen material: n/a — screen diameter: n/a — screen slot size: n/a

screened interval (ft): n/a — total depth of boring: 28.0

depth to GW during drilling: 19

depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (2.0 inch diameter)	100% continuous recovery					1		0 - 0.5 asphalt surface.	
						2			
						3	FILL		0.0
						4		0.5 - 12.0 feet medium to dark brown, medium dense, moist FILL (previous tank pit backfill). Woody debris, concrete and ashphalt rubble present. No hydrocarbon odor or staining.	
						5			0.0
						6			
						7			
						8			0.0
						9			
						10	FILL	Same as above (previous tank pit backfill).	0.0
						11			
						12			
						13			0.0
						14	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	
		n/a	18:00	CB-4-15		15			0.0
						16			
		n/a	18:10	CB-4-17		17			0.0
						18		Same as above. Moderate to heavy hydrocarbon odor noted beginning at 16.0 feet, none to mild staining of soil.	738.4
						19		Becomes wet at 19.0 feet.	
						20		Same as above. Decreasing hydrocarbon odor, no staining.	11.8

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-4** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/28/2016	Completion date: 11/28/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 28.0
depth to GW during drilling: 19
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (2.0 inch diameter)	100% continuous recovery	n/a	18:20	CB-4-22		22	SW/ML	Olive green to medium brown, wet, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						23			
						24			
						25	SW/ML		0.0
						26			
						27			
						28			0.0
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated at 28.0 feet below ground surface due to caving conditions at base of boring. Boring unable to be advanced with available technique. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-5** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/29/2016	Completion date: 11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push — Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a — riser diameter: n/a

screen material: n/a — screen diameter: n/a — screen slot size: n/a

screened interval (ft): n/a — total depth of boring: 28.0

depth to GW during drilling: 16

depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					1	FILL	0 - 0.5 asphalt surface. 0.5 - 1.5 feet medium brown, moist, loose FILL	0.0
						2	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						3			0.0
						4			
						5			0.0
						6			
						7			
						8			0.0
						9			
		n/a	15:00	CB-5-10		10	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						11			
						12			
						13			0.0
						14			
						15			0.0
						16	SW/ML	Same as above. Becomes wet at 16.0 feet. No hydrocarbon odor or staining.	
						17			
						18			0.0
						19			
		n/a	15:15	CB-5-20		20	SW/ML	Olive green, wet, dense, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-5** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/29/2016	Completion date: 11/29/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 28.0
depth to GW during drilling: 16
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					22			0.0
						23	SW/ML	Olive green to medium brown, wet, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	
						24			
						25	SW/ML		0.0
						26			
						27			
		n/a	16:00	CB-5-28		28	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 28.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-6** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/30/2016	Completion date: 11/30/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push — Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	27	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a — riser diameter: n/a
screen material: n/a — screen diameter: n/a — screen slot size: n/a
screened interval (ft): n/a — total depth of boring: 27.0
depth to GW during drilling: 16
depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (2.0 inch diameter)	100% continuous recovery				concrete	1	FILL	0 - 0.5 feet asphalt surface. 0 .5- 1.5 feet medium brown, moist, loose FILL.	0.0
					bentonite chips	2	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						3			0.0
						4			
						5			0.0
						6			
						7			
						8			0.0
						9			
		n/a	14:30	CB-6-10		10	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						11			
						12			
						13			0.0
						14			
						15			0.0
						16	SW/ML	Same as above. Becomes wet at 16.0 feet. No hydrocarbon odor or staining.	
						17			
						18			0.0
						19			
		n/a	15:15	CB-6-20		20	SW/ML	Olive green, wet, dense, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-6** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/30/2016	Completion date: 11/30/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	27	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 27.0
depth to GW during drilling: 16
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
1.125 in. core	100% continuous recovery					22			0.0
continuous 2.0 inch core						23	SW/ML	Olive green to medium brown, wet, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	
						24			
						25	SW/ML		0.0
						26			
		n/a	15:40	CB-6-27		27			0.0
						28			
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 27.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-7** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 12/1/2016	Completion date: 12/1/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push — Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a — riser diameter: n/a

screen material: n/a — screen diameter: n/a — screen slot size: n/a

screened interval (ft): n/a — total depth of boring: 28.0

depth to GW during drilling: 20

depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					1	FILL	0 - 0.5 feet asphalt surface. 0.5 - 1.5 feet medium brown, moist, loose FILL.	0.0
						2	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						3			0.0
						4			
						5			0.0
						6			
						7			
						8			0.0
						9			
		n/a	7:45	CB-7-10		10	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						11			
						12			
						13			0.0
						14			
						15			0.0
						16	SW/ML	Same as above. No hydrocarbon odor or staining.	
						17			
						18			0.0
						19			
						20			
		n/a	8:00	CB-7-20			SW/ML	Olive green, wet, dense, well graded SAND and SILT. No hydrocarbon odor or staining. Becomes wet at 20.0 feet.	0.0

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-7** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 12/1/2016	Completion date: 12/1/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	28	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 28.0
depth to GW during drilling: 20
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					22			0.0
						23	SW/ML	Olive green to medium brown, wet, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	
						24			
						25	SW/ML		0.0
						26			
						27			
		n/a	8:20	CB-7-28		28	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 28.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-8** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 12/1/2016	Completion date: 12/1/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	27	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 27.0
depth to GW during drilling: 17
depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					1	FILL	0 - 0.5 feet asphalt surface. 0 - 1.5 feet medium brown, moist, loose FILL.	0.0
						2			
						3			0.0
						4			
						5	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						6			
						7			
						8			0.0
						9			
		n/a	9:00	CB-8-10		10	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						11			
						12			
						13			0.0
						14			
						15			0.0
						16	SW/ML	Same as above. Becomes wet at 17.0 feet. No hydrocarbon odor or staining.	
						17			
						18			0.0
		n/a	9:20	CB-8-18		19			
						20	SW/ML	Olive green, wet, dense, well graded SAND and SILT. Slight hydrocarbon odor from 17.5 to 18.5 feet. No staining on soil.	80.6
		n/a	9:40	CB-8-20					

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-8** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 12/1/2016	Completion date: 12/1/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	27	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 27.0
depth to GW during drilling: 17
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					22			
		n/a	9:30	CB-8-22		23	SW/ML	Olive green to medium brown, wet, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						24			
						25	SW/ML		0.0
						26			
		n/a	9:45	CB-8-27		27			0.0
						28			
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 27.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-9** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/28/2016	Completion date: 11/28/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	30.5	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a

screen material: n/a screen diameter: n/a screen slot size: n/a

screened interval (ft): n/a total depth of boring: 30.5

depth to GW during drilling: 23

depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (2.0 inch diameter)	100% continuous recovery					1	FILL	0 - 0.5 feet ashpalt surface. 0.5 - 9.0 feet medium brown, moist, loose FILL. No hydrocarbon odor or staining.	0.0
						2			
						3			0.0
						4	FILL	Asphalt and concrete rubble present. Likely old UST pit backfill. No hydrocarbon odor or staining.	
						5			0.0
						6			
						7	FILL		
						8			0.0
						9			
		n/a	14:40	CB-9-10		10	SW/ML	Olive green to medium brown, moist, dense, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						11			
						12			0.0
						13			
						14			
						15			0.0
						16	SW/ML	Same as above. No hydrocarbon odor or staining.	
						17			
						18			0.0
						19			
						20		Olive green to medium brown, moist, dense, well graded SAND and SILT. No hydrocarbon odor or staining.	
		n/a	15:00	CB-9-20			SW/ML		0.0

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-9** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 11/28/2016	Completion date: 11/28/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	30.5	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 30.5
depth to GW during drilling: 23
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (2.0 inch diameter)	100% continuous recovery					22		Olive green to medium brown, wet, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						23	SW/ML		
						24		Significant decrease in rate of penetration.	
						25	SW/ML		0.0
						26			
						27			
						28			0.0
						29			
						30	SW/ML	Same as above. No evidence of hydrocarbon impacts in boring.	
		n/a	15:15	CB-9-30					0.0
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 30.5 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

SOIL BORING LOG **Boring/Well Number: CB-10** **Sheet 1 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 12/1/2016	Completion date: 12/1/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	27.5	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 27.0
depth to GW during drilling: 19
depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					1	FILL	0 - 0.5 asphalt surface. 0.5 - 1.5 feet medium brown, moist, loose FILL.	0.0
						2			0.0
						3			
						4			
						5	SW/ML	Olive green to medium brown, moist, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	0.0
						6			
						7			
						8			0.0
						9			
						10	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						11			
		n/a	10:20	CB-10-12		12			
						13			0.0
						14			
						15			
						16	SW/ML		0.0
		n/a	10:45	CB-10-17		17		Same as above. Moderate to heavy hydrocarbon odor starting at 17.0 feet.	850.2
						18			
						19		Becomes wet.	20.1
						20	SW/ML	Olive green, wet, dense, well graded SAND and SILT. Moderate hydrocarbon odor, no staining.	610.7

concrete

bentonite chips

water level at time of drilling

notes:

SOIL BORING LOG **Boring/Well Number: CB-10** **Sheet 2 of 2**

Client/Site:	Eagle Canyon Capital, LLC - Site No. 0700	Start date: 12/1/2016	Completion date: 12/1/2016
Address:	100 E. Wine Country Road	Drilling Contractor:	Environmental West Exploration
	Grandview, Washington	Drilling Foreman:	Randy Wilder
Project No.	623	Rig Type:	Geoprobe 5400DT
Logged by:	Nick Olivier	Drilling Method:	direct push

Hole diameter (inches): 2.25

WELL FILTER PACK AND BACKFILL

sand (#10/20):	from (ft.)	n/a	to	n/a
bentonite chips:	from (ft.)	27.5	to	2
bentonite chips:	from (ft.)	n/a	to	n/a
bentonite grout:	from (ft.)	n/a	to	n/a
concrete:	from (ft.)	2	to	0

WELL CONSTRUCTION

riser material: n/a riser diameter: n/a
screen material: n/a screen diameter: n/a screen slot size: n/a
screened interval (ft): n/a total depth of boring: 27.0
depth to GW during drilling: 19
Depth to GW after stabilization: n/a

Drilling Sample Type	Drilling Sample Recovery	Blow Count	Analytical Sample Time	Analytical Sample ID	Soil Boring Backfill	Depth Scale (feet)	USCS Symbol	Descriptions of Materials and Conditions	PID (PPM)
continuous core (1.125 inch diameter)	100% continuous recovery					22	SW/ML	Olive green to medium brown, wet, medium dense, fine to medium, well graded SAND and SILT. No hydrocarbon odor or staining.	1.4
						23			0.0
		n/a	10:55	CB-10-24		24	SW/ML		
						25			0.0
		n/a	11:05	CB-10-27		26	SW/ML	Same as above. No hydrocarbon odor or staining.	0.0
						27			
						28			
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			

concrete

bentonite chips

water level at time of drilling

Notes: Boring terminated with refusal at 27.0 feet below ground surface. Boring backfilled with hydrated 3/8 inch sodium bentonite chips.

APPENDIX I

GENERAL FIELD PROCEDURES

GENERAL FIELD PROCEDURES

General procedures used by ES Engineering Services, LLC (ES) in site assessments for drilling exploratory borings and collecting samples are described herein. The general procedures may be modified as appropriate based on site conditions. A Professional state-registered geologist supervises the following procedures.

PRE-FIELD WORK ACTIVITIES

Health and Safety Plan

Field work performed by ES at the site is conducted according to guidelines established in a Site Health and Safety Plan (HASP). The HASP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the HASP is at the site and available for reference by appropriate parties during field work.

Locating Underground Utilities

Before commencement of subsurface work, the location of the excavation, boring, etc., is marked with white spray paint as required by law. An underground locating service such as One-Call is contacted 72-hours before initiating field work. The locating company contacts the owners of the various utilities in the vicinity of the site to mark the locations of their underground utilities. Invasive work is preceded by hand augering to a minimum depth of five feet below surface grade to avoid contacting potential underground utilities or structures.

FIELD METHODS AND PROCEDURES

Exploratory Soil Borings

Soil borings will be drilled using a truck-mounted, hollow stem auger (HSA) drill rig or using hydraulically actuated “direct-push” and percussion equipment, e.g. Geoprobe®. If HSA drilling techniques are utilized, soil samples for logging will be obtained from auger-return materials and by advancing a modified split-spoon sampler equipped with stainless steel liners or equivalent into undisturbed soil beyond the tip of the auger. Similarly, if direct-push technology (DPT) is used, soil samples will be retrieved from the borings using a 3-foot-long, 2-inch diameter continuous-core split-barrel sampler lined with six stainless steel/brass sleeves or a 4-foot-long acetate liner. Soils will be logged by a geologist according to the Unified Soil Classification System using standard geological techniques. Drill cuttings will be screened using a portable photoionization detector (PID) or a flame ionization detector (FID). Exploratory soil borings not used for monitoring well installation will be backfilled to the surface with bentonite-cement slurry and/or hydrated bentonite chips and capped at the surface to match surrounding conditions.

Soil Sample Collection

Auger Sampling: During drilling, soil samples will be collected in clean steel/brass, two by six inch tubes. The tubes will be set in an 18-inch-long split-barrel sampler. The sampler will be conveyed to the bottom of the borehole attached to a wire-line hammer device on the drill rig. When possible, the split-barrel sampler will be driven its entire length, either hydraulically or by repeatedly pounding a 140-pound hammer using a 30-inch drop. The number of drops (blows) used to drive the sampler will be recorded on the boring log. The sampler will be extracted from the borehole, and the tubes containing the soil samples will be removed. Upon removal, the ends of the lowermost tube will be sealed with Teflon sheets and plastic caps. Soil samples for chemical analysis will be labeled, placed on ice, and delivered to a state-certified analytical laboratory, along with the appropriate chain-of-custody documentation.

Geoprobe Sampling: The push-probe system is driven by a hydraulic hammer or vibrator. Each boring will be sampled at a minimum of 5-foot intervals. Shorter sampling intervals or continuous core sampling techniques may be employed to provide subsurface definition. As the core barrel is advanced, soil is driven into an inner 1¾-inch diameter core barrel, which is either lined with steel/brass or acetate sleeves. After being driven 5 feet, the rods are removed from the borehole. Upon removal, the ends of the lowermost sleeve will be sealed with Teflon sheets and plastic caps. Soil samples for chemical analysis will be labeled, placed on ice, and delivered to a state-certified analytical laboratory, along with the appropriate chain-of-custody documentation.

Soil Classification

As the samples are obtained in the field, they will be classified by the field geologist in accordance with the Unified Soil Classification System. Representative portions of the samples will be retained for further examination and for verification of the field classification. Logs of the borings indicating the depth and identification of the various strata and pertinent information regarding the method of maintaining and advancing the borehole will be prepared. Specifically, for each sampling interval, field estimates of soil type, density/consistency, plasticity, grading, moisture, color, and any other pertinent information will be recorded on the boring log.

Soil Sample Screening and Sampling

Soil samples selected for chemical analysis will be determined from a headspace analysis using a PID or an FID. The soil will be placed in a Ziploc® bag or equivalent, sealed, and allowed to reach ambient temperature, at which time the PID probe will be inserted into the Ziploc bag. The total volatile hydrocarbons present are detected in parts per million (ppm). The PID will be calibrated daily to an isobutylene standard. Additionally, a water trap will be fixed to the end of the PID sampling wand to minimize potential interference from entrained soil moisture.

Generally two soil samples from each soil boring will be submitted for chemical analysis unless otherwise specified in the scope of work (See applicable workplan or the client's specified scope of work). Soil samples selected for analysis typically represent the boring bottom sample or the sample just above the first-occurrence of groundwater and sample that exhibits the highest PID reading.

Important: Environmental Protection Agency 5035 sampling methodology will be followed for the collection of samples involving the analysis of volatile organic compounds.

HydroPunch® Sampling

A grab groundwater sample is collected using a Hydropunch® sampling device or equivalent. The hydropunch can be used with either a HSA drill or DPT rig. The hydropunch consists of a stainless steel probe, which is advanced in to the water-yielding zone then withdrawn to expose an internal screen. Once the probe is opened, groundwater enters while soil particles larger than silt are prevented from entering by a screen. A decontaminated stainless steel bailer or equivalent is inserted down the center of the well screen to obtain a "grab-type" groundwater sample for analysis. The samples are carefully transferred from the bailer to zero headspace, 40 milliliter glass vials fitted with Teflon-lined caps. The groundwater sample is labeled, placed on ice (i.e. chilled at approximately 4 degrees Celsius), and delivered to a state-certified analytical laboratory, along with the appropriate chain-of-custody documentation. The boring is backfilled with a cement/bentonite slurry and capped at the surface to match surface conditions.

Chain-of-Custody Protocol

Chain-of-Custody protocol is followed for all soil and groundwater samples selected for laboratory analysis. The Chain-of-Custody form(s) accompanies the samples to the laboratory and provides a continuous record of possession at all times.

Decontamination

Drill cuttings generated during the drilling procedure will be contained in labeled and marked, DOT-approved 55-gallon drums and placed in a secured onsite location. Drilling equipment is decontaminated by steam cleaning before being brought onsite. The augers are also steam cleaned before proceeding with each new boring/well. Before use, the sampler and sampling sleeves are brushed-scrubbed in a Liqui-nox and potable water solution and rinsed twice in clean potable water. Sampling equipment and sleeves are also decontaminated before each sample is collected to avoid cross-contamination between borings.

Waste Management

Soil cuttings, decontamination and/or development water will be contained in DOT-approved, 55-gallon drums. Each drum will be appropriately labeled, marked and temporarily stored in a

secured onsite location pending waste characterization. Upon receipt of analytical results, contained waste will be transported offsite to an appropriate disposal/recycling facility.

Exceptions

Additional tasks or non-standard practices/procedures, if any, that may be requested or required for a particular site will be documented in the field notes on the following pages.

APPENDIX J

LABORATORY ANALYTICAL REPORT

ESN NORTHWEST
Environmental
Services Network

December 21, 2016

Laura Skow
ES Engineering
1036 West Taft Avenue
Orange, CA 92865

Dear Ms. Skow:

Please find enclosed the analytical data report for the Site #0700 Project in Grandview, Washington. Soil and water samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended, Gasoline by NWTPH-Gx, VOC's by Method 8260, EDB by Method 8011, Naphthalene's by Method 8270, and Total & Dissolved Pb by Method 6020 on December 2 - 9, 2016.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

ESN Northwest appreciates the opportunity to have provided analytical services to ES Engineering for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A Korosec

Michael A. Korosec
President

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Web Site: *www.esnnw.com* E-Mail: *info@esnnw.com*

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Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	12/2/2016	12/2/2016	115	nd	nd
LCS	12/2/2016	12/2/2016	108	95%	---
CB-8-20	12/2/2016	12/2/2016	108	nd	nd
Reporting Limits				50	100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

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Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	Surrogate Recovery (%)
Method Blank	12/5/2016	12/5/2016	nd	nd	nd	nd	nd	109
LCS	12/5/2016	12/5/2016	110%	104%	110%	108%	83%	106
LCSD	12/5/2016	12/5/2016	107%	102%	107%	106%	—	105
CB-9-10	11/28/2016	12/5/2016	nd	nd	nd	nd	nd	109
CB-9-20	11/28/2016	12/5/2016	nd	nd	nd	nd	nd	110
CB-4-15	11/28/2016	12/5/2016	nd	nd	nd	nd	nd	111
CB-4-15 Duplicate	11/28/2016	12/5/2016	nd	nd	nd	nd	nd	113
CB-3-16	11/29/2016	12/5/2016	nd	nd	nd	nd	nd	112
CB-5-10	11/29/2016	12/5/2016	nd	nd	nd	nd	nd	113
CB-8-10	12/1/2016	12/5/2016	nd	nd	nd	nd	nd	117
CB-8-18	12/1/2016	12/5/2016	nd	nd	nd	nd	nd	115
CB-8-22	12/1/2016	12/5/2016	nd	nd	nd	nd	nd	116
CB-10-12	12/1/2016	12/6/2016	nd	nd	nd	nd	nd	117
CB-10-24	12/1/2016	12/6/2016	nd	nd	nd	nd	nd	110
CB-6-10	11/30/2016	12/6/2016	nd	nd	nd	nd	nd	114
CB-7-10	12/1/2016	12/6/2016	nd	nd	nd	nd	nd	114
CB-7-10 Duplicate	12/1/2016	12/6/2016	nd	nd	nd	nd	nd	115
Reporting Limits			0.02	0.05	0.05	0.15	10	

"—" Indicates not tested for component.
"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Bromoflurorbenzene) & LCS : 65% TO 135%

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Analysis of Gasoline Range Organics in Soil
by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	12/6/2016	12/6/2016	112	nd
LCS	12/6/2016	12/6/2016	111	70%
CB-9-30	11/28/2016	12/6/2016	115	nd
CB-4-17	11/28/2016	12/6/2016	114	**350**
CB-4-22	11/28/2016	12/7/2016	112	**170**
CB-3-17	11/29/2016	12/9/2016	115	**400**
CB-3-28	11/29/2016	12/6/2016	110	nd
CB-3-28 Duplicate	11/29/2016	12/6/2016	112	nd
CB-1-10	11/29/2016	12/7/2016	117	nd
CB-1-26	11/29/2016	12/7/2016	112	nd
CB-2-10	11/29/2016	12/7/2016	117	nd
CB-2-28	11/29/2016	12/7/2016	117	nd
CB-5-20	11/29/2016	12/7/2016	115	nd
CB-5-28	11/29/2016	12/7/2016	113	nd
CB-8-27	12/1/2016	12/7/2016	112	nd
CB-10-17	12/1/2016	12/9/2016	114	**210**
CB-10-27	12/1/2016	12/8/2016	114	nd
CB-6-20	11/30/2016	12/9/2016	112	nd
CB-6-27	11/30/2016	12/9/2016	113	nd
CB-7-20	12/1/2016	12/9/2016	117	nd
CB-7-28	12/1/2016	12/9/2016	113	nd
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

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Analysis of Gasoline Range Organics in Water
by Method NWTPH-Gx

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (ug/L)
Method Blank	12/5/2016	109	nd
LCS	12/5/2016	114	108%
MW-6	12/5/2016	112	nd
CB-10W	12/5/2016	114	nd
Reporting Limits			100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	CB-9-30	CB-4-17	CB-4-22	CB-3-17
Date extracted		12/06/16	12/06/16	12/06/16	11/28/16	11/28/16	11/28/16	11/29/16
Date analyzed	(mg/Kg)	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/07/16	12/06/16
% Moisture					15%	15%	17%	24%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.02	nd	69%	68%	nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
Acetone	0.25	nd			nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	77%	77%	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	102%	101%	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd
Benzene	0.02	nd	110%	109%	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	106%	109%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	108%	109%	nd	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
Toluene	0.05	nd	104%	99%	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	107%	102%	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd
Chlorobenzene	0.05	nd	106%	103%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Ethylbenzene	0.05	nd	116%	99%	nd	**0.61**	**0.39**	**0.48**
Xylenes	0.15	nd	104%	101%	nd	**2.6**	**0.53**	**0.69**
Styrene	0.05	nd			nd	nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Isopropylbenzene	0.05	nd			nd	**0.30**	**0.20**	**0.26**
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd
Bromobenzene	0.05	nd			nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	CB-9-30	CB-4-17	CB-4-22	CB-3-17
Date extracted		12/06/16	12/06/16	12/06/16	11/28/16	11/28/16	11/28/16	11/29/16
Date analyzed	(mg/Kg)	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/07/16	12/06/16
% Moisture					15%	15%	17%	24%
n-Propylbenzene	0.05	nd			nd	**0.99**	**0.55**	**0.68**
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			nd	**3.0**	**1.8**	**2.4**
tert-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			nd	**9.1**	**4.0**	**5.0**
sec-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
Isopropyltoluene	0.05	nd			nd	**0.57**	**0.32**	**0.41**
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		105%	115%	105%	107%	107%	110%	107%
Toluene-d8		106%	101%	99%	109%	106%	107%	107%
4-Bromofluorobenzene		112%	100%	103%	115%	114%	112%	112%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	CB-3-28	CB-1-10	CB-1-26	CB-2-10	CB-2-28	CB-5-20	CB-5-28
Date extracted		11/29/16	11/29/16	11/29/16	11/29/16	11/29/16	11/29/16	11/29/16
Date analyzed	(mg/Kg)	12/06/16	12/07/16	12/07/16	12/07/16	12/07/16	12/07/16	12/07/16
% Moisture		19%	13%	21%	17%	18%	22%	16%
Dichlorodifluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd	nd	nd	nd
Bromomethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd
Acetone	0.25	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	0.25	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Xylenes	0.15	nd	nd	nd	nd	nd	nd	nd
Styrene	0.05	nd	nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	0.05	nd	nd	nd	nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	CB-3-28	CB-1-10	CB-1-26	CB-2-10	CB-2-28	CB-5-20	CB-5-28
Date extracted		11/29/16	11/29/16	11/29/16	11/29/16	11/29/16	11/29/16	11/29/16
Date analyzed	(mg/Kg)	12/06/16	12/07/16	12/07/16	12/07/16	12/07/16	12/07/16	12/07/16
% Moisture		19%	13%	21%	17%	18%	22%	16%
n-Propylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	0.074	nd	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.05	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		110%	112%	112%	110%	113%	108%	110%
Toluene-d8		109%	103%	105%	106%	107%	105%	108%
4-Bromofluorobenzene		110%	117%	112%	117%	117%	115%	113%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	CB-8-27	CB-10-17	CB-10-27	CB-6-20	CB-6-27	CB-7-20	CB-7-28	CB-8-20
Date extracted		12/01/16	12/01/16	12/01/16	11/30/16	11/30/16	12/01/16	12/01/16	12/01/16
Date analyzed	(mg/Kg)	12/07/16	12/07/16	12/08/16	12/09/16	12/09/16	12/09/16	12/09/16	12/09/16
% Moisture		23%	16%	16%	19%	21%	21%	18%	19%
Dichlorodifluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Acetone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Xylenes	0.15	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	CB-8-27	CB-10-17	CB-10-27	CB-6-20	CB-6-27	CB-7-20	CB-7-28	CB-8-20
Date extracted		12/01/16	12/01/16	12/01/16	11/30/16	11/30/16	12/01/16	12/01/16	12/01/16
Date analyzed	(mg/Kg)	12/07/16	12/07/16	12/08/16	12/09/16	12/09/16	12/09/16	12/09/16	12/09/16
% Moisture		23%	16%	16%	19%	21%	21%	18%	19%
n-Propylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd	**0.30**	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	**0.57**	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	**0.062**
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.05	nd	**0.78**	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries									
Dibromofluoromethane		108%	108%	108%	113%	107%	109%	104%	104%
Toluene-d8		108%	112%	107%	108%	105%	105%	108%	106%
4-Bromofluorobenzene		112%	109%	114%	112%	113%	117%	113%	110%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C

Analytical Results

	RL	MB	LCS	LCSD	MW-6	CB-10W
Date analyzed	(ug/L)	12/05/16	12/05/16	12/05/16	12/05/16	12/05/16
Dichlorodifluoromethane	1.0	nd			nd	nd
Chloromethane	1.0	nd			nd	nd
Vinyl chloride	0.2	nd	80%	83%	nd	nd
Bromomethane	1.0	nd			nd	nd
Chloroethane	1.0	nd			nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd
Acetone	10.0	nd			nd	nd
1,1-Dichloroethene	1.0	nd	88%	94%	nd	nd
Methylene chloride	1.0	nd			nd	nd
Methyl-t-butyl ether (MTBE)	1.0	nd			nd	1.1
trans-1,2-Dichloroethene	1.0	nd			nd	nd
1,1-Dichloroethane	1.0	nd			nd	nd
2-Butanone (MEK)	10.0	nd			nd	nd
cis-1,2-Dichloroethene	1.0	nd			nd	nd
2,2-Dichloropropane	1.0	nd			nd	nd
Chloroform	1.0	nd	97%	101%	nd	nd
Bromochloromethane	1.0	nd			nd	nd
1,1,1-Trichloroethane	1.0	nd			nd	nd
1,2-Dichloroethane (EDC)	1.0	nd			nd	nd
1,1-Dichloropropene	1.0	nd			nd	nd
Carbon tetrachloride	1.0	nd			nd	nd
Benzene	1.0	nd	99%	101%	nd	nd
Trichloroethene (TCE)	1.0	nd	101%	104%	nd	nd
1,2-Dichloropropane	1.0	nd	95%	104%	nd	nd
Dibromomethane	1.0	nd			nd	nd
Bromodichloromethane	1.0	nd			nd	nd
4-Methyl-2-pentanone (MIBK)	1.0	nd			nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd
Toluene	1.0	nd	90%	94%	nd	nd
trans-1,3-Dichloropropene	1.0	nd			nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd
2-Hexanone	1.0	nd			nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd
Dibromochloromethane	1.0	nd			nd	nd
Tetrachloroethene (PCE)	1.0	nd	96%	100%	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd			nd	nd
Chlorobenzene	1.0	nd	95%	99%	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd
Ethylbenzene	1.0	nd	98%	100%	nd	nd
Xylenes	3.0	nd	97%	102%	nd	nd
Styrene	1.0	nd			nd	nd
Bromoform	1.0	nd			nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd
Isopropylbenzene	1.0	nd			nd	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd
Bromobenzene	1.0	nd			nd	nd

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Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C

Analytical Results

	RL	MB	LCS	LCSD	MW-6	CB-10W
Date analyzed	(ug/L)	12/05/16	12/05/16	12/05/16	12/05/16	12/05/16
n-Propylbenzene	1.0	nd			nd	nd
2-Chlorotoluene	1.0	nd			nd	nd
4-Chlorotoluene	1.0	nd			nd	nd
1,3,5-Trimethylbenzene	1.0	nd			nd	nd
tert-Butylbenzene	1.0	nd			nd	nd
1,2,4-Trimethylbenzene	1.0	nd			nd	nd
sec-Butylbenzene	1.0	nd			nd	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd
Isopropyltoluene	1.0	nd			nd	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd
n-Butylbenzene	1.0	nd			nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd
Hexachloro-1,3-butadiene	1.0	nd			nd	nd
1,2,3-Trichlorobenzene	1.0	nd			nd	nd
Surrogate recoveries						
Dibromofluoromethane		112%	103%	104%	108%	108%
Toluene-d8		107%	98%	98%	107%	107%
4-Bromofluorobenzene		109%	105%	107%	112%	114%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Total Lead in Soil by Method 6020A/3050B

Sample Number	Date Prepared	Date Analyzed	Lead (Pb) (mg/kg)
Method Blank	12/6/2016	12/8/2016	nd
CB-9-10	12/6/2016	12/8/2016	13
CB-9-10 Duplicate	12/6/2016	12/8/2016	15
CB-9-20	12/6/2016	12/13/2016	nd
CB-9-30	12/6/2016	12/13/2016	8.5
CB-4-15	12/6/2016	12/8/2016	13
CB-4-17	12/6/2016	12/8/2016	7.1
CB-4-22	12/6/2016	12/8/2016	7.5
CB-3-16	12/6/2016	12/8/2016	12
CB-3-17	12/6/2016	12/8/2016	8.3
CB-3-28	12/6/2016	12/8/2016	8.6
CB-1-10	12/6/2016	12/8/2016	7.1
CB-1-26	12/6/2016	12/8/2016	11
CB-2-10	12/6/2016	12/8/2016	11
CB-2-28	12/6/2016	12/8/2016	9.4
CB-5-10	12/6/2016	12/8/2016	9.1
CB-5-20	12/6/2016	12/8/2016	9.1
CB-5-28	12/6/2016	12/8/2016	9.0
CB-5-28 Duplicate	12/6/2016	12/8/2016	8.5
CB-8-10	12/6/2016	12/8/2016	nd
CB-8-18	12/6/2016	12/8/2016	nd
CB-8-22	12/6/2016	12/8/2016	nd
CB-8-27	12/6/2016	12/8/2016	nd
CB-10-12	12/6/2016	12/8/2016	nd
CB-10-17	12/6/2016	12/8/2016	nd
CB-10-24	12/6/2016	12/8/2016	nd
CB-10-27	12/6/2016	12/8/2016	nd
CB-6-10	12/6/2016	12/8/2016	nd
CB-6-10 Duplicate	12/6/2016	12/8/2016	nd
CB-6-20	12/6/2016	12/8/2016	nd
CB-6-27	12/6/2016	12/8/2016	nd
CB-7-10	12/6/2016	12/8/2016	nd
CB-7-20	12/6/2016	12/8/2016	nd
CB-7-28	12/6/2016	12/8/2016	6.7
CB-8-20	12/6/2016	12/8/2016	6.7
CB-8-20 Duplicate	12/6/2016	12/8/2016	6.6
Reporting Limit			5.0

"nd" Indicates not detected at listed detection limits.

ESN NORTHWEST CHEMISTRY LABORATORY

ES Engineering
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PROJECT #622
Grandview, Washington

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lab@esnnw.com

QA/QC Data - Analysis of Total Metals in Soil by Method 6020A/3050B

Sample Number: CB-9-10

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	67.8	58.1	85.7	83.3	74.4	89.3	4.14

Sample Number: CB-8-20

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	97.6	84.9	87.0	79.4	69.1	87.0	0.05

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead (Pb)	100	106	106

ACCEPTABLE RECOVERY LIMITS FOR LABORATORY CONTROL SAMPLES: 80%-120%
ACCEPTABLE RPD IS 20%

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Total Lead in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)
Method Blank	12/5/2016	nd
MW-6	12/5/2016	nd
CB-10W	12/5/2016	nd
Reporting Limits		2.0

"nd" Indicates not detected at listed detection limits.

QA/QC Data - Total Metals EPA-6020

	Laboratory Control Sample			Laboratory Control Sample Duplicate			RPD
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	(%)
Lead	20.0	19.3	96.5	20	23.8	119	20.9

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%
ACCEPTABLE RPD IS 35%

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Dissolved Lead in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)
Method Blank	12/5/2016	nd
MW-6	12/5/2016	nd
CB-10W	12/5/2016	nd
Reporting Limits		2.0

"nd" Indicates not detected at listed detection limits.

QA/QC Data - Dissolved Metals EPA-6020

	Laboratory Control Sample			Laboratory Control Sample Duplicate			RPD
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	(%)
Lead	20	19.3	96.5	20	23.8	119	20.9

ACCEPTABLE RECOVERY LIMITS FOR LABORATORY CONTROL SAMPLES: 80%-120%
ACCEPTABLE RPD IS 20%

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Analysis of Naphthalenes in Soil by Method 8270

Analytical Results

		MTH BLK	LCS	CB-9-30	CB-4-17	CB-4-22	CB-3-17	CB-3-28
Date extracted	Reporting	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16
Date analyzed	Limits	12/06/16	12/06/16	12/07/16	12/07/16	12/07/16	12/06/16	12/07/16
Moisture, %	(mg/kg)			15%	25%	17%	24%	19%
Naphthalene	0.02	nd	113%	nd	nd	nd	**0.08**	**0.08**
2-Methylnaphthalene	0.02	nd	114%	nd	nd	nd	**0.06**	**0.07**
1-Methylnaphthalene	0.02	nd	ns	nd	nd	nd	**0.04**	nd
Surrogate recoveries:								
2-Fluorobiphenyl		92%	113%	95%	99%	97%	57%	83%
p-Terphenyl-d14		97%	120%	105%	111%	108%	60%	90%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
ns - not spiked
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

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Analysis of Naphthalenes in Soil by Method 8270

Analytical Results

		CB-1-10	CB-1-26	CB-2-10	CB-2-28	CB-5-20	CB-5-28	CB-8-27
Date extracted	Reporting	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16
Date analyzed	Limits	12/06/16	12/06/16	12/06/16	12/06/16	12/07/16	12/07/16	12/07/16
Moisture, %	(mg/kg)	13%	21%	17%	18%	22%	16%	23%
Naphthalene	0.02	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene	0.02	nd	nd	nd	nd	nd	nd	nd
1-Methylnaphthalene	0.02	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:								
2-Fluorobiphenyl		110%	80%	59%	69%	101%	94%	114%
p-Terphenyl-d14		122%	89%	62%	71%	110%	102%	119%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
ns - not spiked
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

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Analysis of Naphthalenes in Soil by Method 8270

Analytical Results

		CB-10-17	CB-10-27	CB-6-20	CB-6-27	CB-7-20	CB-7-28	CB-8-20
Date extracted	Reporting	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16	12/06/16
Date analyzed	Limits	12/07/16	12/07/16	12/07/16	12/07/16	12/07/16	12/07/16	12/07/16
Moisture, %	(mg/kg)	22%	16%	19%	21%	21%	18%	19%
Naphthalene	0.02	nd	nd	nd	nd	nd	**0.28**	nd
2-Methylnaphthalene	0.02	nd	nd	nd	nd	nd	**0.04**	nd
1-Methylnaphthalene	0.02	nd	nd	nd	nd	nd	**0.18**	nd
Surrogate recoveries:								
2-Fluorobiphenyl		96%	99%	110%	103%	61%	57%	114%
p-Terphenyl-d14		101%	92%	117%	112%	70%	61%	119%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
ns - not spiked
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

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PROJECT #622
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Analysis of Polynuclear Aromatic Hydrocarbons in Water by Method 8270

Analytical Results

	Reporting	MB	LCS	MW-6	CB-10W
Date extracted	Limits	12/06/16	12/06/16	12/06/16	12/06/16
Date analyzed	(ug/L)	12/06/16	12/06/16	12/06/16	12/06/16
Naphthalene	0.1	nd	61%	nd	nd
2-Methylnaphthalene	0.1	nd	61%	nd	nd
1-Methylnaphthalene	0.1	nd	ns	nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		90%	61%	87%	70%
p-Terphenyl-d14		96%	62%	89%	73%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
ns - not spiked
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

ES Engineering Services
PROJECT SITE NO 290
PROJECT #PROJ100200
Burlington, Washington

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Analysis of EDB in Soil
by Method 8260SIM

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Ethylene Dibromide (mg/kg)
Method Blank	12/6/2016	12/6/2016	112	nd
LCS	12/6/2016	12/6/2016	100	109%
CB-9-30	11/28/2016	12/6/2016	115	nd
CB-4-17	11/28/2016	12/6/2016	114	nd
CB-4-22	11/28/2016	12/7/2016	112	nd
CB-3-17	11/29/2016	12/9/2016	115	nd
CB-3-28	11/29/2016	12/6/2016	110	nd
CB-3-28 Duplicate	11/29/2016	12/6/2016	112	nd
CB-1-10	11/29/2016	12/7/2016	117	nd
CB-1-26	11/29/2016	12/7/2016	112	nd
CB-2-10	11/29/2016	12/7/2016	117	nd
CB-2-28	11/29/2016	12/7/2016	117	nd
CB-5-20	11/29/2016	12/7/2016	115	nd
CB-5-28	11/29/2016	12/7/2016	113	nd
CB-8-27	12/1/2016	12/7/2016	112	nd
CB-10-17	12/1/2016	12/9/2016	114	nd
CB-10-27	12/1/2016	12/8/2016	114	nd
CB-6-20	11/30/2016	12/9/2016	112	nd
CB-6-27	11/30/2016	12/9/2016	113	nd
CB-7-20	12/1/2016	12/9/2016	117	nd
CB-7-28	12/1/2016	12/9/2016	113	nd
CB-8-20	12/1/2016	12/9/2016	110	nd
Reporting Limits				0.005

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ACCU LABORATORY

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Bellevue ,WA 98007

Tel: (425) 214-5858
Cell: (206)779-3758
Email: lisa@accu-lab.com
Website: www.accu-lab.com

Analytical Report

Client	ESN NW, Inc 1210 Eastside Street SE, Suite #200 Olympia, WA 98501	Acculab WO#	16-AL1206-6
		Date Sampled	11/30, 12/1/2016
Project Manager	Steve Loague	Date Received	12/6/2016
Project Name	SITE NO 0700	Date Reported	12/8/2016
Project#	622		

1,2-Dibromoethane (EDB) in Water by EPA 8011

Accu Lab Analytical Batch# AL120716-1

Client sample ID					Dup	RPD	MW-6	CB-10W
Lab ID	MRL	Unit	MTH BLK	LCS	LCS	LCS	16-AL1206-6-1	16-AL1206-6-2
Matrix			Water	Water	Water	Water	Water	Water
Date Extracted			12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016
Date Analyzed			12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016
1,2-Dibromoethane (EDB)	0.01	ug/L	nd	129%	104%	22%	nd	nd

Acceptable Recovery Limits:
LCS/ MS/MSD 60-140%
Acceptable RPD limit: 30%

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Website: www.accu-lab.com

Analytical Report

Client	ESN NW, Inc	Acculab WO#	16-AL1206-6
	1210 Eastside Street SE, Suite #200		
	Olympia, WA 98501	Date Sampled	11/30, 12/1/2016
Project Manager	Steve Loague	Date Received	12/6/2016
Project Name	SITE NO 0700	Date Reported	12/8/2016
Project#	622		

Data Qualifiers and Comments:

MRL- Method Reporting Limit
nd- Indicates the analyte is not detected at the listing reporting limit.
C- Coelution with other compounds.
M- % recoverY of surrogate, matrix spike or matrix spike duplicate is out of the acceptable limit due to matrix effect.
B- Indicates the analyte is detected in the method blank associated with the sample.
J- The analyte is detected at below the reporting limit.
E- The result reported exceeds the calibration range, and is an estimate.
D- Sample required dilution due to matrix. Method Reporting Limits were elevated due to dilutions.
H- Sample was received or analyzed past holding time
Q- Sample was received with head space, improper preserved or above recommended temperature.

ESN NORTHWEST, INC. | Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: ES Engineering Services
ADDRESS:
PHONE: FAX:
CLIENT PROJECT #: 622 PROJECT MANAGER:

DATE: 12/1/16 PAGE 2 OF 2
PROJECT NAME: SITE NO. 0700
LOCATION: GRANDVIEW
COLLECTOR: Nick Olivier (WAPHL) DATE OF COLLECTION:

Sample Number	Depth	Time	Sample Type	Container Type	TPH - HCID	TPH - Diesel & Oil	TPH - Gasoline	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb TOTAL	Asbestos - PLM	GRO Suite	DRO Suite	WO Suite	Pb DISS	PAH 8270 SOIL	EDB SOIL	NOTES	Total Number of Containers	Laboratory Note Number
1. CB-8-10	10	900	SOIL	VOA/JAR			X	X								X									12/1/16		
2. CB-8-18	18	920					X	X								X											
3. CB-8-22	22	~~940~~ 930					X	X								X											
4. CB-8-27	27	~~930~~ 945					X			X						X							X	X			
5. CB-10-12	12	1020					(X)	(X)		~~X~~ NO						(X)							~~X~~	~~X~~	NO		
6. CB-10-17	17	1045					X			X						X							X	X			
7. CB-10-24	24	1055					X	X								X											
8. CB-10-27	27	1105					X			X						X							X	X			
9. CB-6-10	10	1430					X	X								X									11/30/16		
10. CB-6-20	20	1515					X			X						X							X	X			
11. CB-6-27	27	1540					X			X						X							X	X			
12. CB-7-10	10	745					X	X								X									12/1/16		
13. CB-7-20	20	800					X			X						X							X	X			
14. CB-7-28	28	820	↓	↓			X			X						X							X	X			
15. CB-8-20	20	940	↓	↓		X				X						X							X	X	↓		
16.																											
17.																											
18.																											

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
	12/2/16 1300		12-2-16 1320
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR 5 DAY

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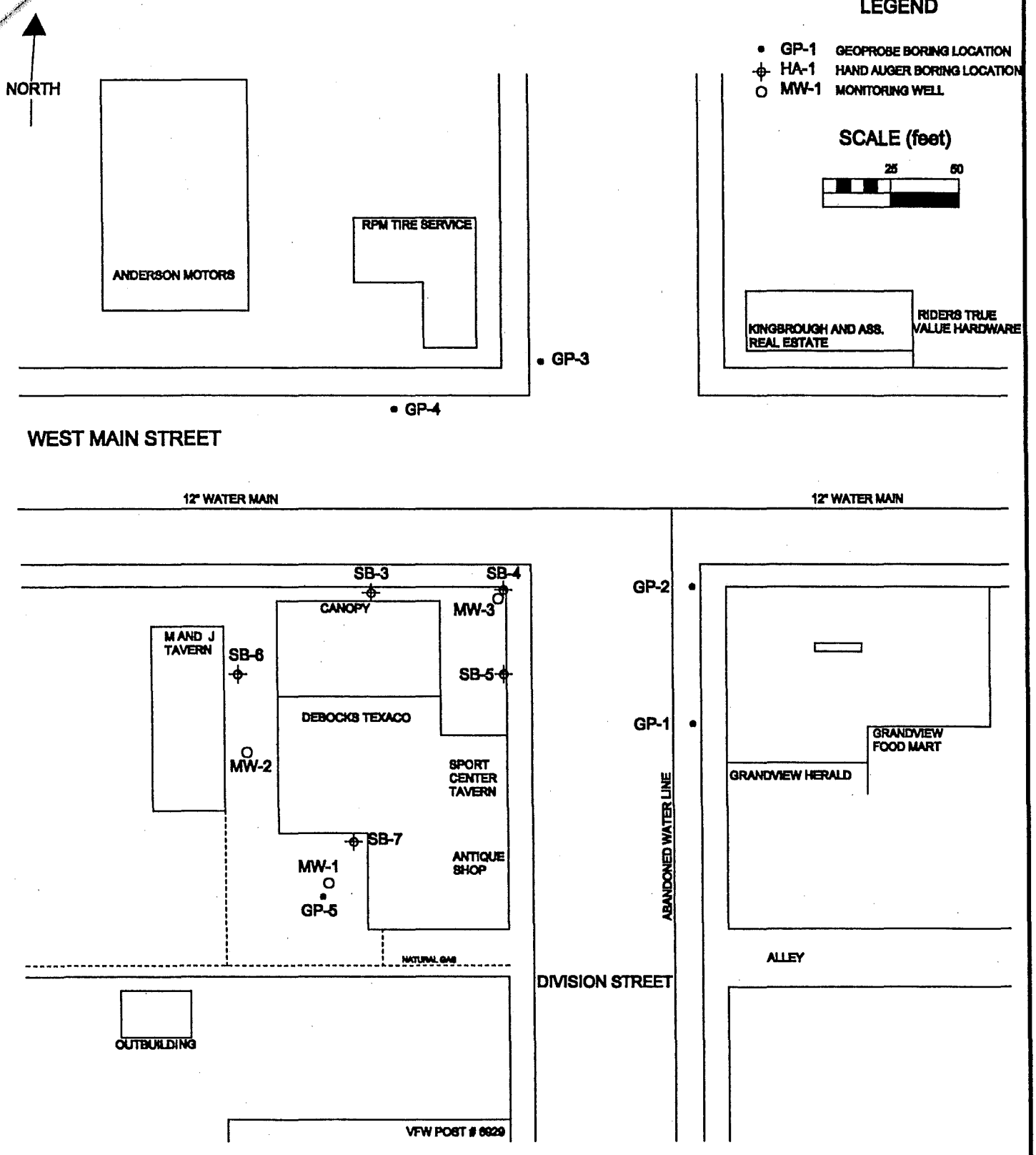
E-Mail: info@esnnw.com

APPENDIX K

DEBOCKS TEXACO – SITE ASSESSMENT INFORMATION
FEBRUARY 19, 1998



OLYMPUS ENVIRONMENTAL, INC.	FACILITY SITE MAP R.E. POWELL DEBOCKS TEXACO 100 WEST MAIN GRANDVIEW, WASHINGTON	Design: Checked: Approved: Job No: 7545 CAD File: FED Scale:	Drawn: FED Date: 3/24/98 Revision / By / Date	FIGURE 1

TABLE 1 - GROUNDWATER AND SOIL SAMPLE ANALYSES
R.E. Powell Distributing, Inc.
Grandview, Washington

Field Information			Aromatic Volatile Organics: BTEX (SW-846 Method 8021B) and TPH-G (8015M)					
Sample Identification	Depth (feet)	Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	TPH-G (Total Gasoline Range Hydrocarbons) (µg/l)	Comments
Geoprobe Ground Water Analyses								
GP-1-15W	15	20-Feb-98	**1,910**	ND<12.5	**527**	**1,160**	**8,400**	
GP-2-15W	15	20-Feb-98	**5.26**	**2.49**	**1.76**	**6.63**	**77.7**	
GP-3-15W	15	20-Feb-98	**22.1**	**1.57**	**16.6**	**22.3**	**594**	
GP-4-15W	15	20-Feb-98	**92.0**	**3.88**	**72.0**	**13.7**	**1,220**	
GP-5-15W	15	20-Feb-98	**7.94**	**4.87**	**80.7**	**113**	**2,930**	
TB	-	20-Feb-98	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<50.0	
Department of Ecology Model Toxics Control Act : Method A Compliance Cleanup Levels								
Ground Water Cleanup Levels (µg/l)			5	30	40	20	1,000	

Sample Identification	Depth (feet)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	WTPH-G (Gasoline Range Hydrocarbons) (mg/kg)	Comments
Geoprobe Soil Analyses								
GP-1-15	15	20-Feb-98	**1.33**	**1.03**	**8.66**	**40.2**	**1,280**	
GP-2-15	15	20-Feb-98	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.100	ND<5.00	
GP-3-15	15	20-Feb-98	ND<.250	ND<.250	**0.584**	**0.803**	**154**	
GP-4-15	15	20-Feb-98	ND<0.500	ND<0.500	**0.973**	**1.13**	**299**	
GP-5-15	15	20-Feb-98	ND<2.50	ND<2.50	**14.3**	**54.2**	**5,910**	
GP-5-20	20	20-Feb-98	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.100	ND<5.00	
Sage Earth Sciences Hand Auger Soil Analyses								
(SB3) 0395-S3	10	24-Oct-95	ND<0.1	ND<0.1	ND<0.3	ND<0.1	ND<20.0	
(SB3) 0395-S4	15	24-Oct-95	ND<0.1	ND<0.1	**1.7**	**4.1**	**1800**	
(SB4) 0395-S7	10	24-Oct-95	ND<0.1	ND<0.1	ND<0.3	ND<0.1	**255**	
(SB5) 0395-S10	10	24-Oct-95	ND<0.1	ND<0.1	ND<0.3	ND<0.1	**117**	
(SB6) 0395-S13	10	24-Oct-95	ND<0.1	ND<0.1	ND<0.3	ND<0.1	ND<20.0	
(SB7) 0395-S16	10	24-Oct-95	ND<0.1	ND<0.1	ND<0.3	ND<0.1	ND<20.0	
(SB7) 0395-S17	12	24-Oct-95	ND<0.1	ND<0.1	ND<0.3	ND<0.1	**426**	
Department of Ecology Model Toxics Control Act : Method A Compliance Cleanup Levels								
Soil Cleanup Levels (mg/kg)			0.5	20.0	40.0	20.0	100	

Notes:
µg/l = micrograms per liter
mg/kg = milligrams per kilogram
ND = Not Detected at laboratory reporting limits
- = not analyzed or reported
Underlined values exceed DOE Method A Compliance Cleanup Levels