



SoundEarth Strategies, Inc.  
2811 Fairview Avenue East, Suite 2000  
Seattle, Washington 98102

September 10, 2012

Mr. Ed Easley  
Lennar Multifamily Investors, LLC  
25 Enterprise, #100  
Aliso Viejo, California 92656

**SUBJECT:   SUBSURFACE ENVIRONMENTAL CONDITIONS  
          WEST SEATTLE PROJECT  
          Alaska Street and Fauntleroy Way  
          Seattle, Washington  
          Project Number: 0914-003**

Dear Mr. Easley:

SoundEarth Strategies, Inc. (SoundEarth) has prepared this letter report to summarize subsurface environmental conditions previously identified for the proposed West Seattle development site (the Property; Figure 1). The Property consists of six tax parcels constituting approximately three-quarters of a city block. The Property is occupied by a vacant car dealership and service garage, a vacant auto body shop, a funeral home, and a gasoline station/convenience store. Previous Phase II environmental assessments have identified petroleum-contaminated soil at the Huling Chevrolet auto dealership (Huling Chevrolet), and gasoline and diesel-impacted soil and groundwater at the SKS Shell gasoline station (SKS Shell, also known as Alaska Street Texaco and Alaska Street Shell). Additional subsurface characterization is ongoing and will be summarized in a remedial investigation report later this year.

#### **SITE BACKGROUND**

The Property is a 2.5-acre assemblage of parcels located in the West Seattle Triangle urban neighborhood. The Property has been commercially developed for nearly 70 years. Commercial land use bounds the Property to the north, south, east, and west. Four main commercial areas exist on the Property as follows (Figure 2).

**SKS Shell at 3901 SW Alaska Street.** This site was developed as a gasoline station in 1934. Oil companies retailing at the site include Gilmore Red Lion in the 1930s, Mobil in the 1940s, Texaco in the 1950s, Richfield in the 1960s, Arco from 1975 to 1995, Texaco from approximately 1998 to 2004, and Shell from 2004 to present. In 1950, the original equipment was removed and two 4,000-gallon underground storage tanks (USTs) were installed. An additional 8,000-gallon UST was installed in 1974. The 1950-vintage tanks were removed in 1984 and replaced with one 10,000-gallon tank and two 12,000 gallon tanks. The 1984-vintage tank is still active. The tanks have contained leaded and unleaded gasoline and diesel fuel. SKS Shell has been listed as a leaking underground storage tank site since 1995 and has a history of subsurface assessments and past in situ remediation efforts (discussed in the Subsurface Environmental Conditions section below).

**Huling Chevrolet at 4755 Fauntleroy Way SW.** In the 1930s and 1940s, the site was undeveloped except for a small residential structure near the southeast corner, and a small office or retail building at the north end. The current automotive dealership and service garage was constructed on the southern half of the site in 1952. The northern half was occupied by a coffee shop, a real estate office, and a small auto repair shop in the late 1950s and early 1960s. The dealership and service facility was occupied by Westside Ford from the early 1950s to the early 1970s, Jim Houston Ford in the late 1970s, Goodyear Tire and Hart Chevrolet in the 1980s, and Huling Chevrolet from 1989 to 2008.

The service garage equipment included 14 underground hydraulic hoists (one was removed in the 1990s) and a trench drain outletting to an oil-water separator. Three USTs were removed by Lee Morse Contractors in September 1989. The tanks were a 2,500-gallon tank (gasoline), a 1,000-gallon tank (heating oil), and a 500-gallon tank (waste oil). Subsurface assessments were conducted at the site in 1994 (Geotech Consultants, Inc. [Geotech]), 1997 (Environmental Partners, Inc. [EPI]), and 2008 (The Riley Group, Inc. [The Riley Group]). SoundEarth collected groundwater samples at the site in August 2012. The results of the assessments are summarized in the Subsurface Environmental Conditions section below.

**Huling Body Shop at 4724 40<sup>th</sup> Avenue SW.** The body shop was constructed in 1964 and operated until 2008. The shop includes an auto frame/body repair area equipped with a trench floor drain, a paint shop including a paint storage room and a floor drain, a car wash pad, and gravel parking areas. A 1994 Phase I Environmental Assessment conducted by Environmental Associates, Inc (EAI) indicated that waste solvents were stored in drums located on the east side of the body shop building. SoundEarth is currently conducting a subsurface assessment for the body shop property.

**Kennedy Funeral Home at 3909 SW Alaska Street.** The funeral home has been present since 1941. A heating oil UST is located on the south side of the building. Sewer lines outlet the building on the west side. SoundEarth is currently conducting a subsurface assessment for the funeral home property.

#### **SITE GEOLOGY AND HYDROGEOLOGY**

A geotechnical study for the Huling and Kennedy properties by PanGEO Inc. in 2012 indicated the property is underlain by recessional outwash deposits. Historical grading profiles also indicate that as much as 12 feet fill was placed in the area during street development in the early 1900s. Existing test borings for the Huling site (EPI in 1997, The Riley Group in 2008) confirmed that the site is underlain by 7 to 13 feet of fill consisting of loose sand with variable amounts of silt and gravel. Below the fill is a 8 to 12 foot layer of medium dense sand and stiff silt (recessional ice-contact deposits), underlain by a glaciolacustrine deposit of very stiff to hard silt and clay.

Borings conducted at the SKS Shell site (Environmental Associates in 1995, The Riley Group in 2007, and G-Logics, Inc. [G-Logics] in 2011) encountered fill to a depth of 5 feet, underlain by silty fine sand and occasional layers of fine sandy silt to 40 feet. A soil boring conducted by SoundEarth in 2012 (boring MW101) east of the SKS Shell on the east side of Fauntleroy Way (off-Property) encountered approximately 5 feet of fill underlain by brown silty fine sand to a depth of approximately 35 feet, grading to a gray fine sandy silt to a depth of 55 feet, the maximum depth of boring. SoundEarth's interpretation of soil conditions is presented in cross-sections A-A' and B-B'.

Groundwater depth in all of the borings and wells was approximately 22 to 24 feet below grade, except for two wells at the Huling Chevrolet site (MW-1 and MW-3), with groundwater reported at 16 feet. SoundEarth boring MW101 encountered continuously saturated conditions from approximately 22 feet to the maximum depth of exploration at 55 feet. No aquitard layers were encountered in MW101.

Groundwater flow direction calculated by EPI for the south end of the Huling property was north-northwest. Groundwater elevations measured at SKS Shell by G-Logics in 2011 and SoundEarth in 2012 indicated a flow direction to the northeast.

### **SUBSURFACE ENVIRONMENTAL CONDITIONS**

Phase II environmental assessments investigating soil and groundwater quality have been conducted for Huling Chevrolet and SKS Shell at various times over the past 20 years. SoundEarth has recently conducted an assessment of groundwater conditions for the Fautleroy Way and Alaska Street right-of-ways (ROWs) downgradient to SKS Shell. SoundEarth is currently conducting a Phase II subsurface assessment at the body shop and funeral home properties. The following summarizes the soil and groundwater conditions identified through August 2012. Soil analysis data is summarized in Tables 1A and 1B, and groundwater analysis data is summarized in Tables 2S and 2B (for SKS Shell and Huling Chevrolet, respectively). The information was primarily obtained from the following reports:

- Phase 2 Environmental Soil Exploration, Huling Chevrolet, 4755 Fautleroy Way Southwest; Geotech Consultants, Inc., job number 94227E, dated November 2, 1994.
- Groundwater Investigation, Huling Brothers Chevrolet, 4755 Fautleroy Way Southwest, Environmental Partners, Inc. project 15201.0, dated July 11, 1997.
- Supplemental Phase II Subsurface Investigation, Proposed West Seattle Mixed Use Redevelopment, Former Huling Brothers Chevrolet Property, The Riley Group, Inc., project number 2008-106B, dated April 24, 2008.
- Remedial Investigation and Feasibility Study, Shell Station, 3901 SW Alaska Street, G-Logics, Inc., project number 01-0714-A, dated November 10, 2011.

#### **Huling Chevrolet**

Geotech conducted a Phase 2 Environmental Soil Exploration at the service garage in 1994. The soil exploration included 15 direct-push probe borings advanced near the vehicle hoists and former UST areas (Borings B-1 through B-15). The probes were advanced to depths of 7.5 to 20 feet. Concentrations of petroleum hydrocarbons in soil exceeding Washington State Model Toxics Control Act (MTCA) cleanup levels was identified at depths ranging from 5.5 feet to "just beyond 15 feet" in an area of approximately 40 feet by 100 feet in the hoist and waste oil UST area (approximate area shown on Figure 3). The contamination extended to the western wall of the garage. Groundwater was not encountered in any of the borings.

In 1997, EPI installed three monitoring wells (MW-1 through MW-3) near each of the former UST areas. Monitoring well MW-3, installed near the former waste oil UST, was also located in the impacted hydraulic hoist area. The wells were installed to depths of 25 to 30 feet, and screened from 10 to 25, or 10 to 30 feet. Groundwater was measured in the wells at depths of 16 to 24 feet, flowing to the north-northwest. Oil-range petroleum hydrocarbons (ORPH) were detected in groundwater collected from

MW-1, located near the heating oil tank at a concentration of 760 micrograms per liter ( $\mu\text{g/L}$ ) (exceeding the current MTCA cleanup level of 500  $\mu\text{g/L}$ ). Diesel-range petroleum hydrocarbons (DRPH) were detected in all three wells at concentrations ranging from 260 to 370  $\mu\text{g/L}$  (concentrations below the current MTCA cleanup level of 500  $\mu\text{g/L}$ ). Gasoline-range petroleum hydrocarbons (GRPH), volatile organic compounds (Volatile organic compounds [VOCs] by Method 8260B), and polychlorinated biphenyls (PCBs) were not detected in groundwater.

The Riley Group conducted a Supplemental Phase II Subsurface Investigation at the property in 2008. The Riley Group advanced 15 probe borings (B1 to B15) to depths of 7 to 32 feet in the garage and UST areas. One hollow-stem auger boring was drilled to a depth of 21.5 feet at the north end of the property (boring B16). The Riley Group collected groundwater samples from boring B11 near an oil-water separator at the north end of the garage.

For the waste oil UST area, petroleum-impacted soil was encountered in borings B3 and B4 at depths of 6 to 17 feet. Concentrations of ORPH (2,300 mg/kg) at 8 feet and PCBs (1.6 mg/kg) at 11 feet exceeded the MTCA Method A cleanup levels of 2,000 mg/kg and 1 mg/kg, respectively. In general, the field observations and laboratory analysis confirmed the area of petroleum impacts identified by Geotech in 1994. The reconnaissance groundwater sample collected from boring B11 did not contain detectable VOCs (petroleum hydrocarbons were not analyzed). For a proposed development involving property-wide soil excavation to a depth of 20 feet, The Riley Group estimated the volume of petroleum-impacted soil requiring handling and disposal a Class 1 through Class 4 material (as defined by Washington State Department of Ecology's [Ecology] Guidance for Remediation of Petroleum Contaminated Sites [Publication No. 10-09-057, September 2011]) as 3,240 cubic yards.

Monitoring wells MW-1 through MW-3 were developed and sampled by SoundEarth on August 22 and 23, 2012. The depth to groundwater ranged from approximately 19 feet in MW-1 to 26 feet in MW-2. Groundwater collected from MW-2 near the former gasoline UST contained 310  $\mu\text{g/L}$  DRPH. Groundwater collected from MW-3 near the former waste oil UST and hoist area contained 51  $\mu\text{g/L}$  DRPH. Both results are below the MTCA Method A cleanup level. GRPH, ORPH, benzene, toluene, ethylbenzene (BTEX), VOCs, and PCBs were not detected in the groundwater samples.

#### **Huling Chevrolet Summary**

Subsurface investigations conducted at the Property in the 1994 and 2008 identified petroleum-impacted soil beneath most of the service garage, primarily around former UST and hoist locations. PCBs were also detected in one soil sample collected near the waste oil UST. The soil contamination at Huling Chevrolet is primarily located 5 to 15 feet below surface grade, with a maximum approximately 17 feet near the former waste oil UST. The Riley Group estimated that approximately 3,240 cubic yards of petroleum-impacted soil was present at Huling Chevrolet. Approximately 7 to 13 feet of fill soils are present on the property. Recent groundwater sampling indicated that detected concentrations of DRPH are below MTCA Method A cleanup levels. Gasoline, BTEX, VOCs, ORPH, and PCBs were not detected.

#### **SKS Shell**

A subsurface assessment conducted by EAI in 1995 identified GRPH, DRPH, and BTEX contamination in soil and groundwater. Three borings (B-1 through B-3) conducted near the USTs and dispenser islands

identified GRPH and DRPH contamination at 17.5 to 22.5 feet (shallower and deeper samples were not submitted for analysis). Groundwater was not encountered during this initial investigation. To evaluate groundwater conditions, EAI installed three monitoring wells (MW-1 through MW-3) in July 1995 to depths ranging from 36 to 49 feet. Groundwater collected from each of the wells contained GRPH concentrations exceeding Method A cleanup levels. The highest concentrations were detected in MW-2 (67,000 µg/L GRPH, and 64.3 µg/L benzene). The concentrations exceeded the current MTCA Method A cleanup level of 800 µg/L and 5 µg/L, respectively.

Alisto Engineering began installation of an air-sparging and soil vapor extraction system (AS/SVE) in 1997. The system included extraction wells DW-1 through DW-4 along the eastern edge of the property. The AS/SVE system operated from May 1999 to December 2002. Biannual groundwater samples collected by Alisto during this period indicated petroleum concentrations generally decreased in MW-2, but remained stable in MW-1 and MW-3 during the treatment period. Throughout the sampling period Alisto calculated groundwater flow directions that varied, flowing to the southeast, east, northeast, north, and northwest.

Associated Environmental Group LLC entered the site into Ecology's Voluntary Cleanup Program (VCP).

In 2004. Groundwater monitoring conducted in April 2004 indicated that GRPH, DRPH, and BTEX concentrations were similar to those detected by EAI in 1995 (before the Alisto Engineering AS/SVE system had operated).

The Riley Group conducted a subsurface assessment in 2007 that included six borings (B-1 through B-6) around the perimeters of the fueling area to depths of 8 to 30 feet. GRPH impacted soil was detected at depths of 12 to 19 feet near the southeast corner of the fueling area (boring B-1), at 18 feet near the northwest corner of the property (boring B-3), and at 24 feet near the northeast corner of the property (boring B-6).

Free-phase product was encountered in wells MW-1 and DW-2 in 2008 (both wells are located near the northeast corner of the property). Environmental Claims Consulting, Horizon (ECC Horizon) conducted forensic testing of the product, reporting that it was of pre-1970 origin. However, ECC Horizon also reviewed tank inventory records from 2003 through 2008, determining that a release had occurred during the period of March 2004 to October 2008.

In June 2011, G-Logics installed three monitoring wells (GLMW-1 through GLMW-3) to further define the vertical and horizontal extent of contamination. The monitoring well borings were drilled to 30 feet, and completed as wells screened from 10 to 30 feet. Field screening identified petroleum-impacted soil at approximately 16 to 25 feet in GLMW-1 (northeast corner), approximately 10 to 30 feet in GLMW-2 (north of the pump islands), and 15 to 25 feet in GLMW-3 (south of the pump islands).

Groundwater was measured at 22 to 23 feet below grade, flowing toward the northeast. Concentrations of GRPH in groundwater samples ranged from 10,500 µg/L in GLMW-3 to 22,500 µg/L in GLMW-2. DRPH and BTEX also significantly exceeded MTCA levels in GLMW-1 and GLMW-2.

In August 2012, SoundEarth encountered free-phase petroleum product in two wells on the north side of the pump island canopy (MW-3 and GLMW-2). The product encountered in MW-3 had a green tint,

and was forensically indentified by Friedman & Bruya, Inc. laboratory as "antique gasoline," typical of pre-1970s origin. Groundwater samples were collected from MW-2 and GLMW-1. Both samples contained concentrations of GRPH, DRPH, and BTEX exceeding MTCA Method A levels.

To evaluate downgradient groundwater conditions to the east and northeast, SoundEarth installed a monitoring well on the east side of the Fauntleroy Way Southwest (MW101). The well was drilled to a depth of 55 feet (with a reconnaissance groundwater sample collected at 55 feet), backfilled with bentonite to 30 feet and screened from 20 to 30 feet. Groundwater was sampled from the completed well and from a monitoring well located on the northeast corner of the intersection (referred to as MW-X). Well MW-X was installed by Arcadis in 2012 for characterization of the neighboring BP Arco gas station (free-phase product and elevated GRPH/BTEX have been indentified at BP Arco from releases at that site). Groundwater collected by SoundEarth from MW101 at 55 feet, from the completed MW101 well, and from BP Arco MW-X (screened at approximately 20 to 35 feet) did not contain detectable concentrations of GRPH or BTEX.

Monitoring wells sampled at the adjoining property to the north across Southwest Alaska Street in 2005 by LSI Adapt Inc. also did not contain concentrations of GRPH, DRPH, and BTEX exceeding MTCA levels (*Phase II Environmental Site Assessment, Proposed Mixed-Use Development 3922 SW Alaska Street*, LSI Adapt Inc. dated August 4, 2005).

A summary of groundwater concentrations reported by G-Logics, SoundEarth, and LSI Adapt Inc. are presented on Figure 5. Groundwater elevations, contours, and flow direction for the August 2012 sampling period are shown on Figure 6.

#### **SKS Shell Summary**

Soil at the Shell property is impacted by GRPH, DRPH, and BTEX at depths generally ranging from 12 to 25 feet below grade throughout much of the northern and eastern two-thirds of the property. An estimate of the vertical and horizontal extent of subsurface contamination is present on cross sections A-A' and B-B' in Figures 7 and 8.

Groundwater sampled from monitoring wells located around the perimeter of the USTs and pump islands (wells MW-1 through MW-3, and GLMW-1 through GLMW-3) contains concentrations of GRPH, DRPH, and BTEX exceeding MTCA standards. Free-phase petroleum product has intermittently been observed in several wells on the property (MW-1, MW-3, DW-2, and GLMW-2). Based on the general groundwater flow direction, the contaminant plume likely extends in the Fauntleroy Way and Alaska Street intersection. However, samples collected from downgradient wells to the east northeast (MW101 and MW-X) indicate that the plume does not extend beyond the ROW.

#### **LIMITATIONS**

The findings and conclusions documented in this report were prepared for the specific application to this project and were developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. A potential always remains for the presence of unknown, unidentified, or

unforeseen subsurface contamination on portions of the Site not sampled. No warranty, expressed or implied, is made.

#### CLOSING

We appreciate the opportunity to provide environmental services on this project. If you have any questions, please contact the undersigned at (206) 306-1900.

Respectfully,

SoundEarth Strategies, Inc.



Rob Roberts  
Associate Scientist



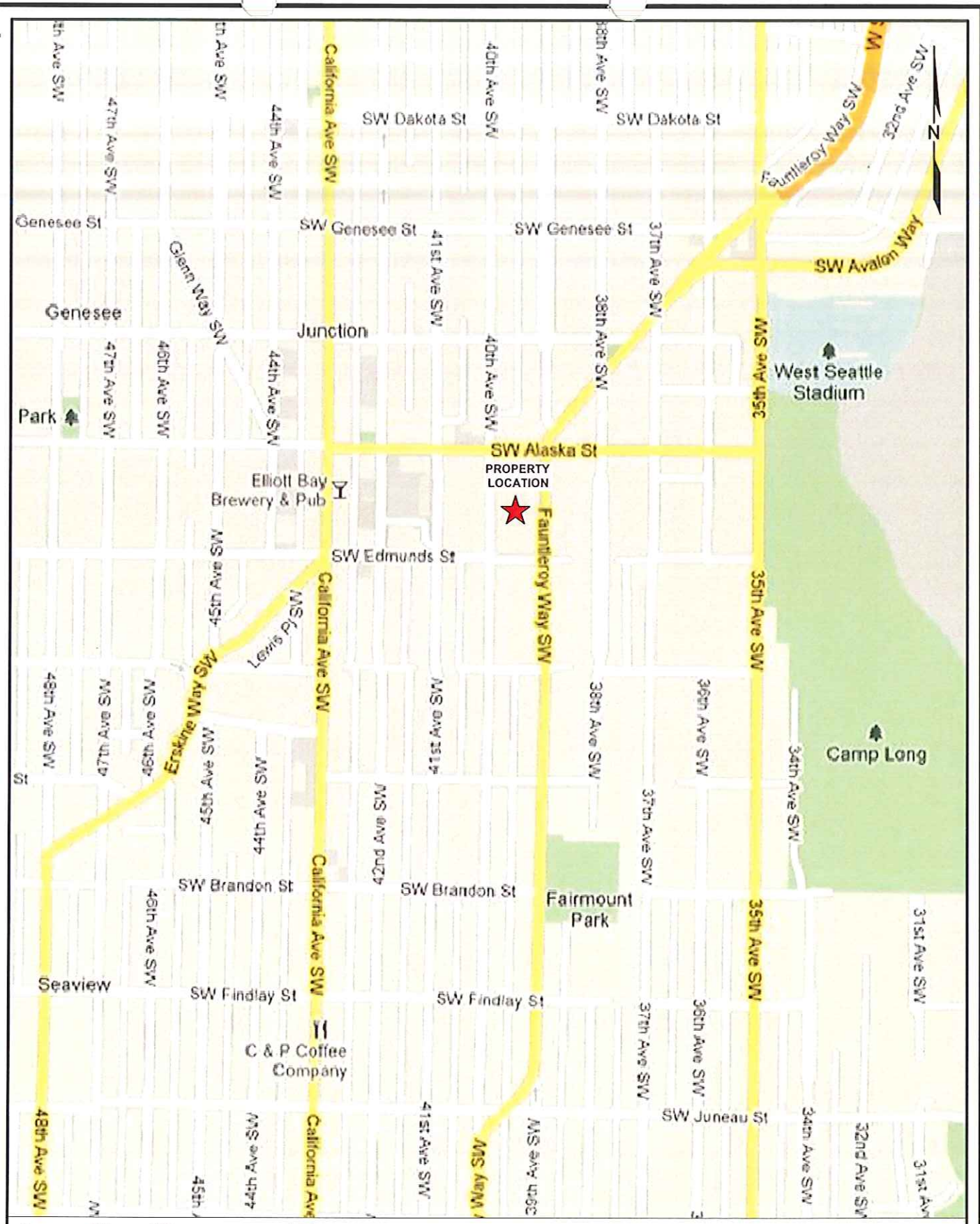
John R. Funderburk, MSPH  
Principal

Attachments: Figure 1, Property Location Map  
Figure 2, West Seattle Project Plan  
Figure 3, Huling Kennedy Site Plan  
Figure 4, Huling Kennedy Geologic Cross-Section C-C'  
Figure 5, SKS Shell Groundwater Concentrations  
Figure 6, SKS Shell Groundwater Elevations (August 7, 2012)  
Figure 7, SKS Shell Geologic Cross-Section A-A'  
Figure 8, SKS Shell Geologic Cross-Section B-B'  
Table 1A, Soil Analysis Summary, Huling Chevrolet  
Table 1B, Soil Analysis Summary, SKS Shell  
Table 2A, Groundwater Analysis Summary, Huling Chevrolet  
Table 2B, Groundwater Analysis Summary 2008–2012, SKS Shell  
A, Boring Logs  
B, Laboratory Analytical Reports

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## FIGURES





0 400 800 1,600  
 APPROXIMATE SCALE IN FEET

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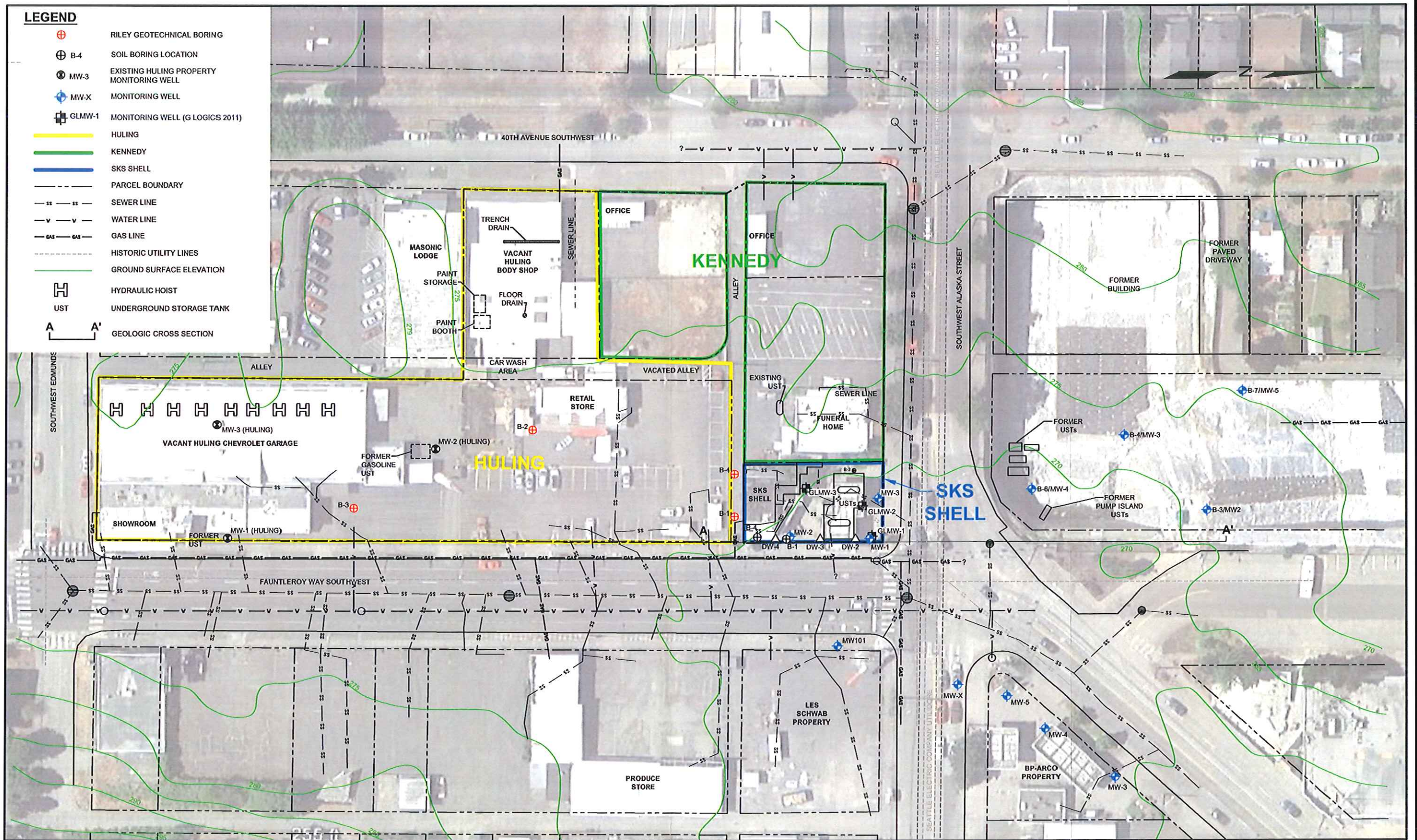


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 PROJECT NUMBER: \_\_\_\_\_ 0914-003  
 STREET ADDRESS: \_\_\_\_\_ 4755 FAUNTLEROY WAY SOUTHWEST  
 CITY, STATE: \_\_\_\_\_ SEATTLE, WASHINGTON

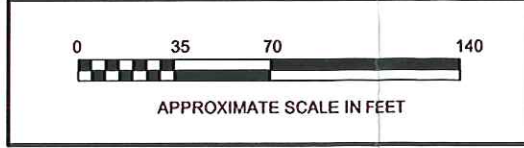
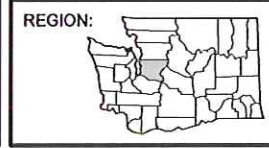
**FIGURE 1**  
 PROPERTY LOCATION MAP

- LEGEND**
- RILEY GEOTECHNICAL BORING
  - B-4 SOIL BORING LOCATION
  - EXISTING HULING PROPERTY MONITORING WELL
  - MONITORING WELL
  - MONITORING WELL (G LOGICS 2011)
  - HULING
  - KENNEDY
  - SKS SHELL
  - PARCEL BOUNDARY
  - SEWER LINE
  - WATER LINE
  - GAS LINE
  - HISTORIC UTILITY LINES
  - GROUND SURFACE ELEVATION
  - HYDRAULIC HOIST
  - UNDERGROUND STORAGE TANK
  - GEOLOGIC CROSS SECTION



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 PROJECT NUMBER: 0914-003  
 STREET ADDRESS: 4755 FAUNTLEROY WAY SOUTHWEST  
 CITY, STATE: SEATTLE, WASHINGTON

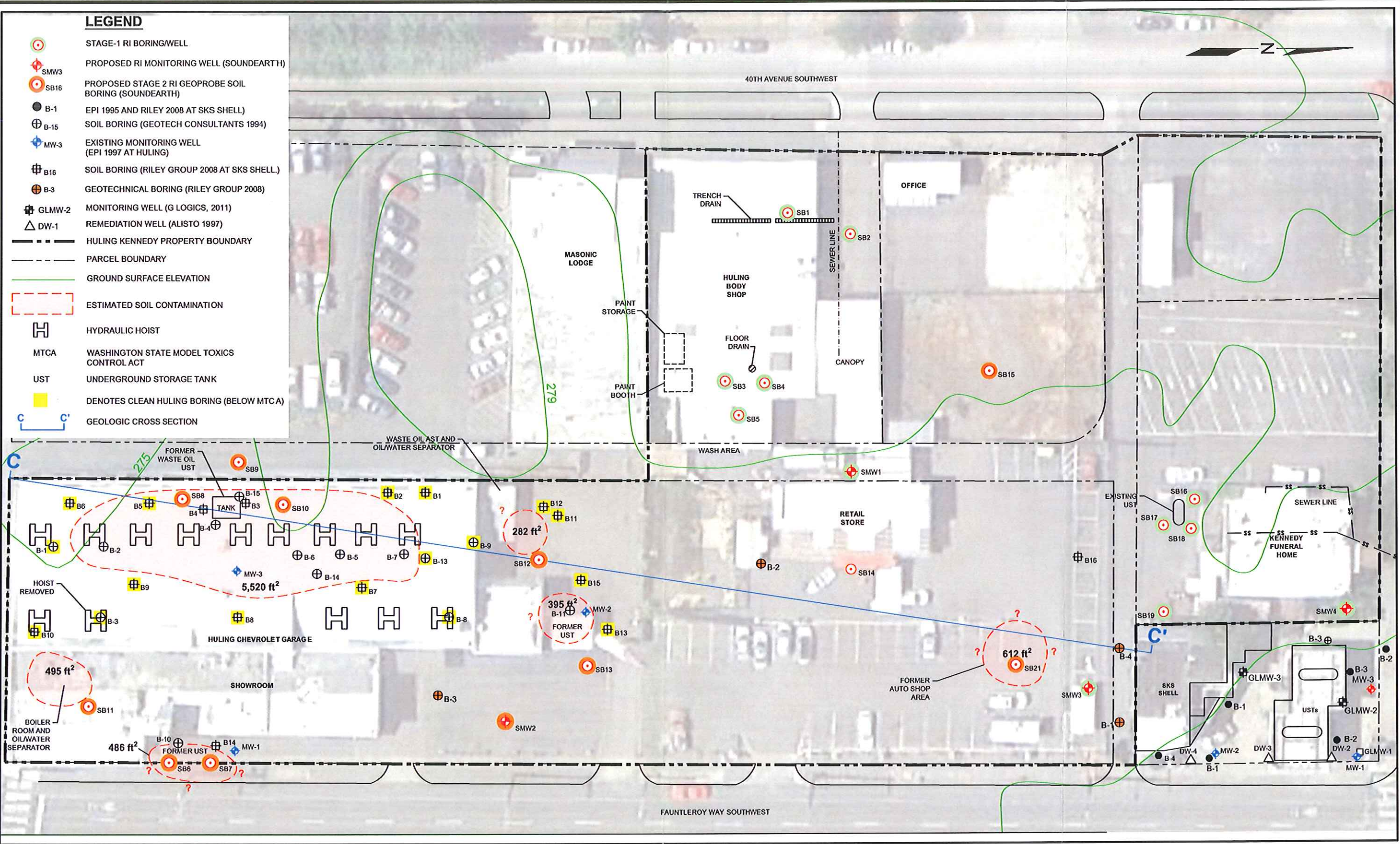


**FIGURE 2**  
 WEST SEATTLE PROJECT PLAN

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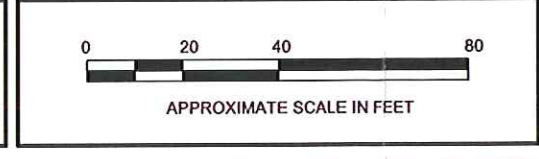
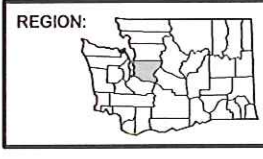
### LEGEND

- STAGE-1 RI BORING WELL
- PROPOSED RI MONITORING WELL (SOUNDEARTH)
- PROPOSED STAGE 2 RI GEOPROBE SOIL BORING (SOUNDEARTH)
- EPI 1995 AND RILEY 2008 AT SKS SHELL
- SOIL BORING (GEOTECH CONSULTANTS 1994)
- EXISTING MONITORING WELL (EPI 1997 AT HULING)
- SOIL BORING (RILEY GROUP 2008 AT SKS SHELL)
- GEOTECHNICAL BORING (RILEY GROUP 2008)
- MONITORING WELL (G LOGICS, 2011)
- REMEDIATION WELL (ALISTO 1997)
- HULING KENNEDY PROPERTY BOUNDARY
- PARCEL BOUNDARY
- GROUND SURFACE ELEVATION
- ESTIMATED SOIL CONTAMINATION
- HYDRAULIC HOIST
- WASHINGTON STATE MODEL TOXICS CONTROL ACT
- UNDERGROUND STORAGE TANK
- DENOTES CLEAN HULING BORING (BELOW MTCA)
- GEOLOGIC CROSS SECTION



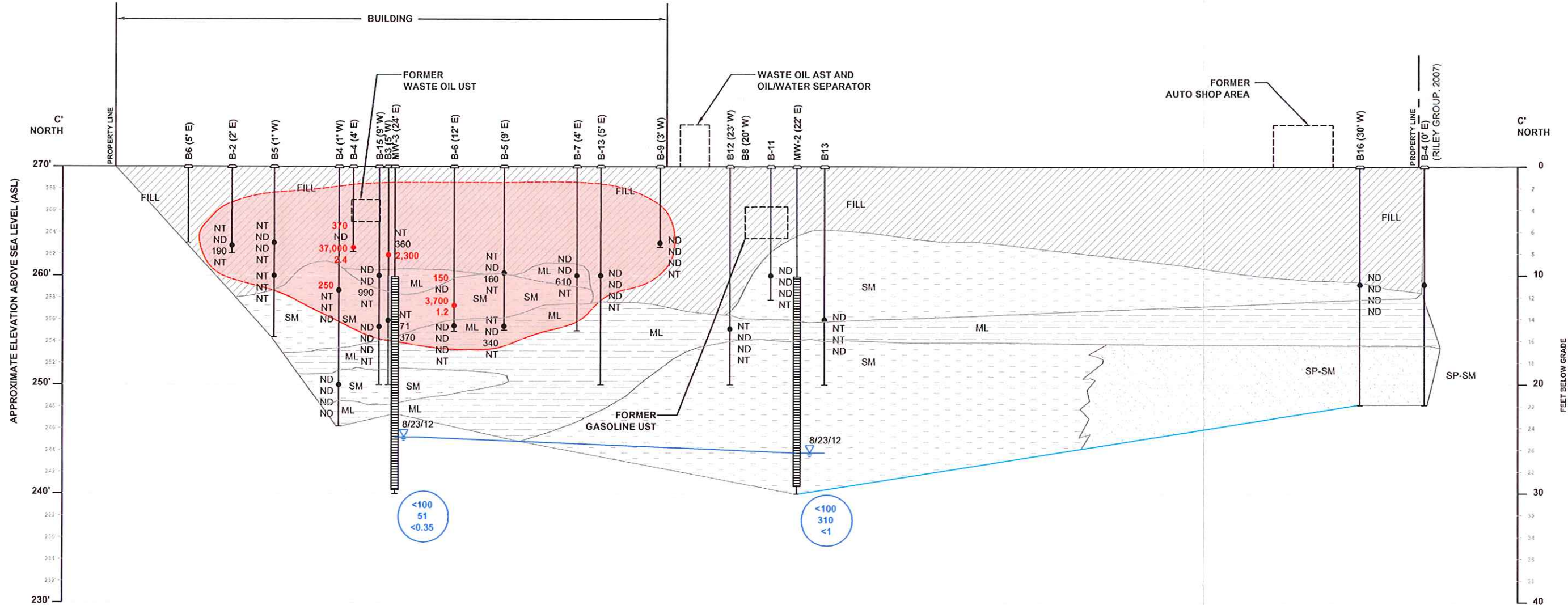
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 PROJECT NUMBER: 0914-003  
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 CITY, STATE: SEATTLE, WASHINGTON



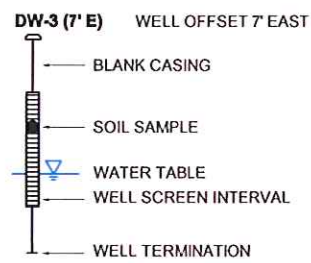
**FIGURE 3**  
 HULING KENNEDY SITE PLAN

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**LEGEND**

- SM**  
SILTY SANDS, SAND - CLAY MIXTURES
- ML**  
INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS
- SP-SM**  
SAND AND SILTY SAND
- FILL**  
SILTY SANDS WITH GRAVEL
- APPROXIMATE EXTENT OF SOIL CONTAMINATION**



**<100 51 <0.35** GRPH GROUNDWATER SAMPLE (AUGUST 23, 2012)  
 DRPH  
 BENZENE

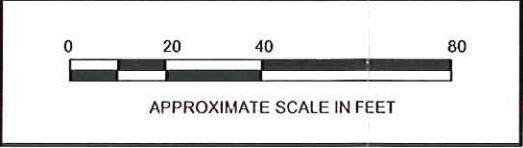
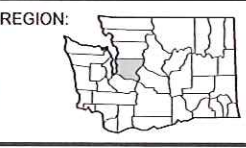
NT GRPH SOIL SAMPLE  
 ND DRPH  
 190 ORPH  
 NT BENZENE

- GROUNDWATER LEVEL
- RED INDICATES CONCENTRATION EXCEEDING MTCA METHOD A CLEANUP LEVEL
- CONCENTRATION BELOW MTCA METHOD A CLEANUP LEVEL
- RESULT BELOW LABORATORY REPORTING LIMITS
- AST ABOVE GROUND STORAGE TANK
- UST UNDERGROUND STORAGE TANK
- MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT
- GRPH GASOLINE-RANGE PETROLEUM HYDROCARBONS
- DRPH DIESEL-RANGE PETROLEUM HYDROCARBONS
- ORPH OIL-RANGE PETROLEUM HYDROCARBONS
- ND NOT DETECTED
- NT NOT TESTED

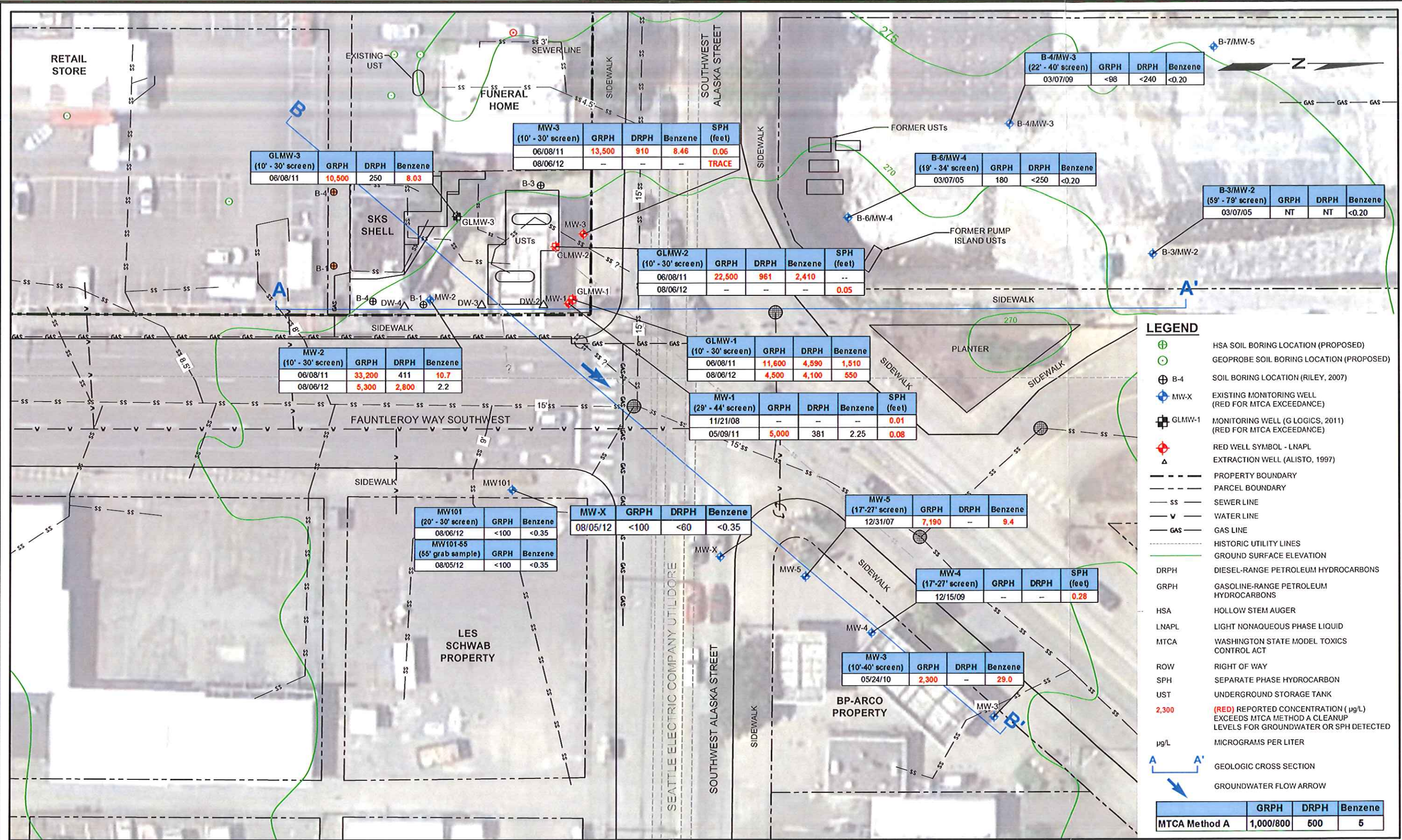


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 CITY, STATE: SEATTLE, WASHINGTON



**FIGURE 4**  
 HULING KENNEDY  
 GEOLOGIC CROSS SECTION C-C'



**LEGEND**

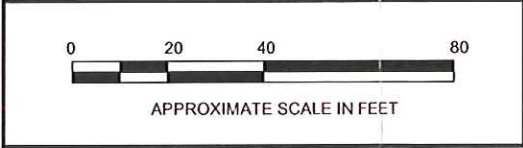
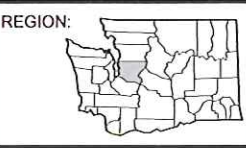
- ⊕ HSA SOIL BORING LOCATION (PROPOSED)
- ⊙ GEOPROBE SOIL BORING LOCATION (PROPOSED)
- ⊕ B-4 SOIL BORING LOCATION (RILEY, 2007)
- ⊕ MW-X EXISTING MONITORING WELL (RED FOR MTCA EXCEEDANCE)
- ⊕ GLMW-1 MONITORING WELL (G LOGICS, 2011) (RED FOR MTCA EXCEEDANCE)
- ⊕ RED WELL SYMBOL - LNAPL
- ⊕ EXTRACTION WELL (ALISTO, 1997)
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SS SEWER LINE
- ~ WATER LINE
- GAS LINE
- HISTORIC UTILITY LINES
- GROUND SURFACE ELEVATION
- DRPH DIESEL-RANGE PETROLEUM HYDROCARBONS
- GRPH GASOLINE-RANGE PETROLEUM HYDROCARBONS
- HSA HOLLOW STEM AUGER
- LNAPL LIGHT NONAQUEOUS PHASE LIQUID
- MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT
- ROW RIGHT OF WAY
- SPH SEPARATE PHASE HYDROCARBON
- UST UNDERGROUND STORAGE TANK
- 2,300 (RED) REPORTED CONCENTRATION (µg/L) EXCEEDS MTCA METHOD A CLEANUP LEVELS FOR GROUNDWATER OR SPH DETECTED
- µg/L MICROGRAMS PER LITER
- A-A' GEOLOGIC CROSS SECTION
- GROUNDWATER FLOW ARROW

	GRPH	DRPH	Benzene
MTCA Method A	1,000/800	500	5



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 CHECKED BY: CER  
 CAD FILE: 0914-003\_GD

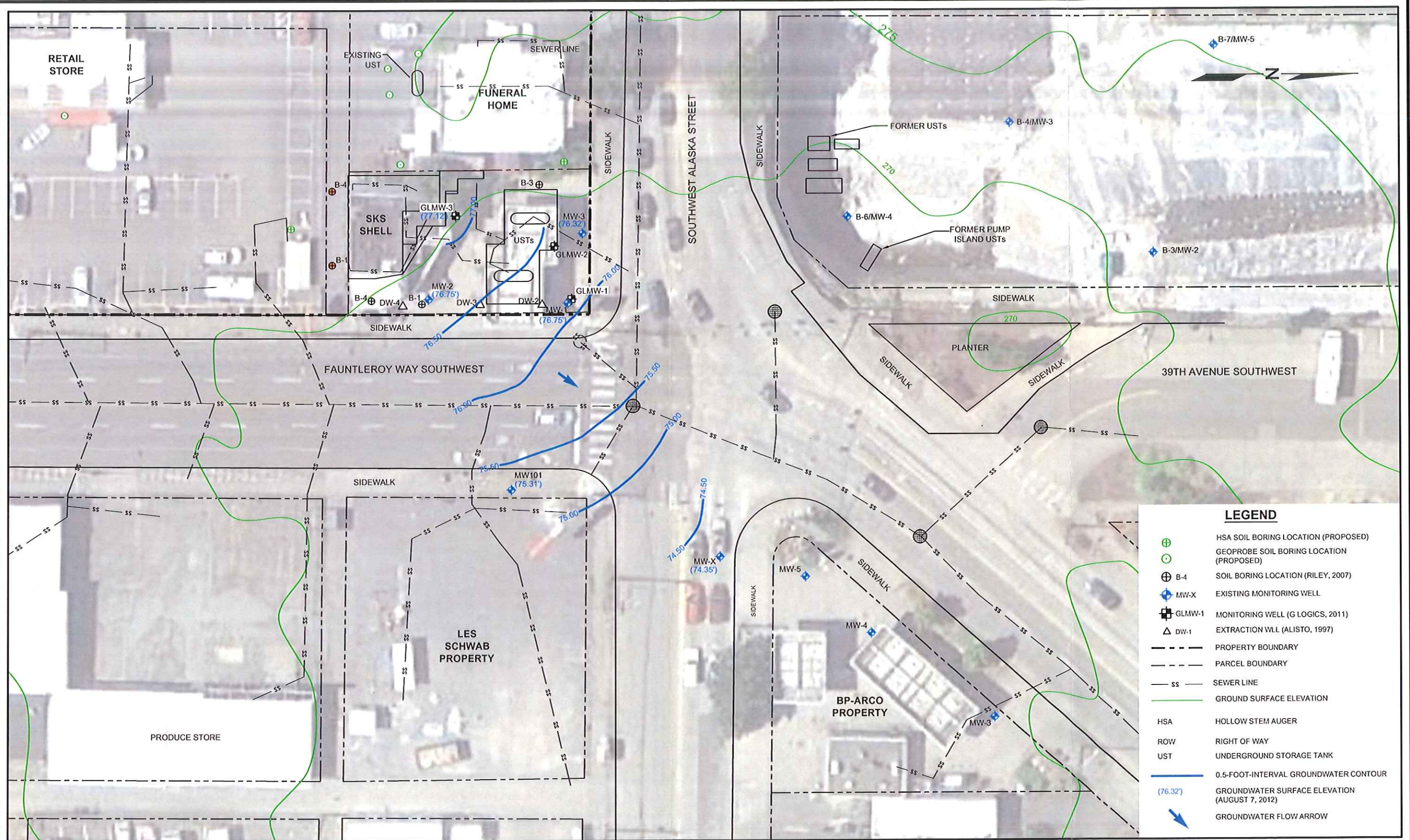
PROJECT NAME: WEST SEATTLE  
 PROJECT NUMBER: 0914-003  
 STREET ADDRESS: 4755 FAUNTLEROY WAY SOUTHWEST  
 CITY, STATE: SEATTLE, WASHINGTON



**FIGURE 5**  
 SKS SHELL  
 GROUNDWATER CONCENTRATIONS

9/7/2012

P:0914 LENNAR SHELL\0914-003 CONSENT DECREE\TECHNICAL\CAD\ECR RPT\0914-003\_CM\_BLR.DWG



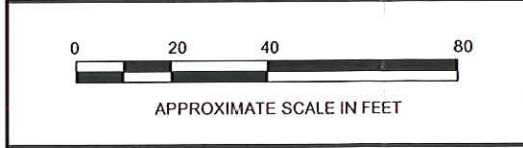
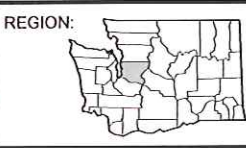
**LEGEND**

- HSA SOIL BORING LOCATION (PROPOSED)
- GEOPROBE SOIL BORING LOCATION (PROPOSED)
- B-4 SOIL BORING LOCATION (RILEY, 2007)
- MW-X EXISTING MONITORING WELL
- GLMW-1 MONITORING WELL (G LOGICS, 2011)
- DW-1 EXTRACTION WELL (ALISTO, 1997)
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SEWER LINE
- GROUND SURFACE ELEVATION
- HSA HOLLOW STEM AUGER
- ROW RIGHT OF WAY
- UST UNDERGROUND STORAGE TANK
- 0.5-FOOT-INTERVAL GROUNDWATER CONTOUR
- (76.32') GROUNDWATER SURFACE ELEVATION (AUGUST 7, 2012)
- GROUNDWATER FLOW ARROW



DATE: 08/29/12  
 DRAWN BY: BLR  
 CHECKED BY: CER  
 CAD FILE: 0914-003\_CM

PROJECT NAME: WEST SEATTLE  
 PROJECT NUMBER: 0914-003  
 STREET ADDRESS: 4755 FAUNTLEROY WAY SOUTHWEST  
 CITY, STATE: SEATTLE, WASHINGTON

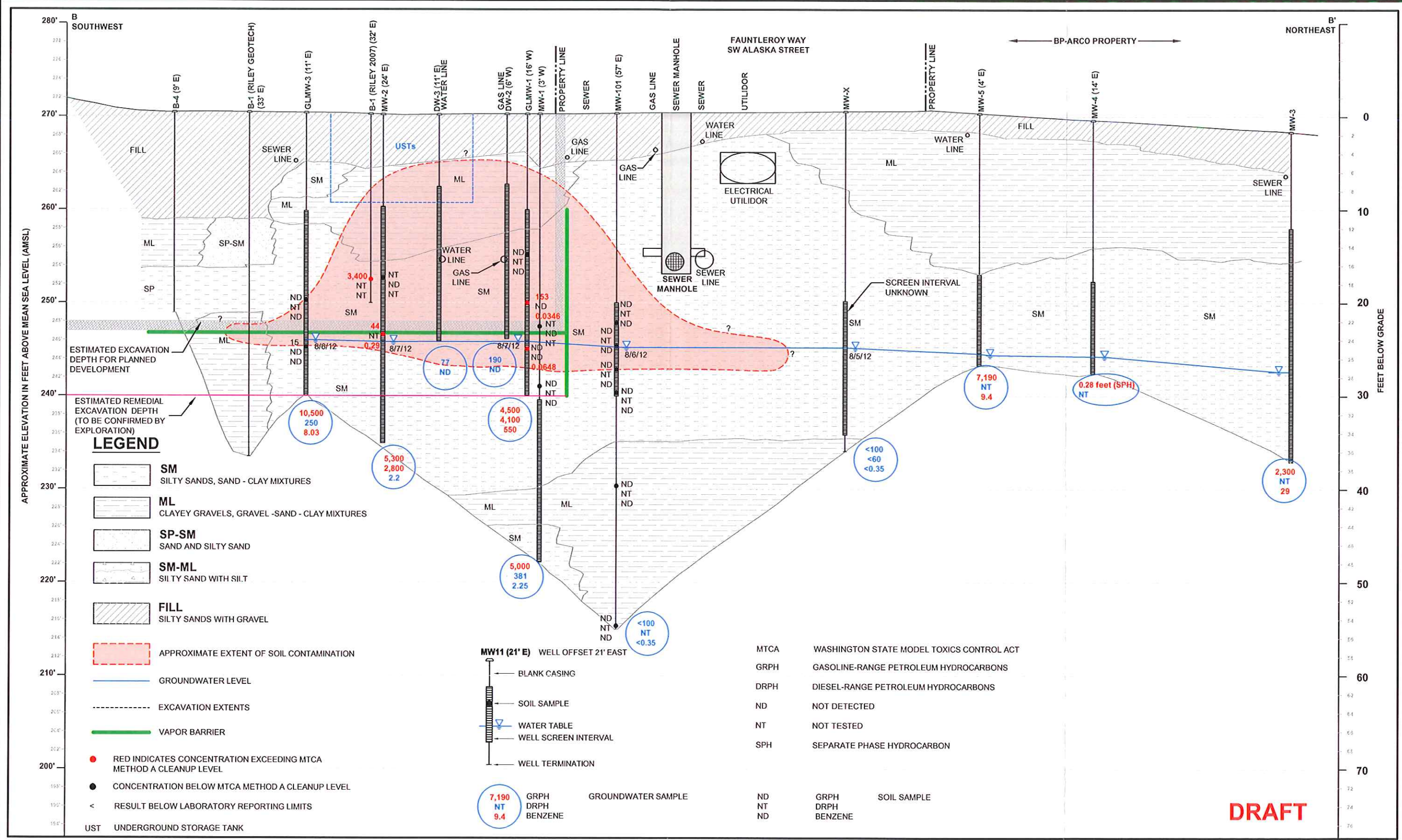


**FIGURE 6**  
 SKS SHELL GROUNDWATER ELEVATIONS  
 (AUGUST 7, 2012)

WWW.SOUNDEARTHINC.COM



10/11/2012  
P:\0914 LENNAR SHELL\0914-003 CONSENT DECREE\TECHNICAL\CAD\CR RPT\0914-003\_XBB\_BLR\JOC.DWG

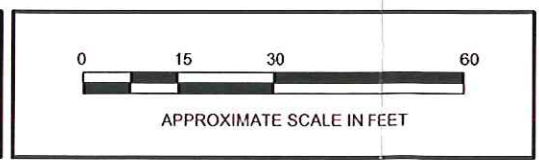
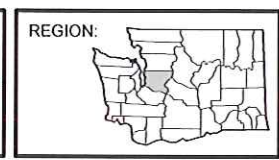


**DRAFT**



DATE: 08/29/12  
 DRAWN BY: BLR  
 CHECKED BY: CER  
 CAD FILE: 0914-003\_XBB

PROJECT NAME: WEST SEATTLE  
 PROJECT NUMBER: 0914-003  
 STREET ADDRESS: 4755 FAUNTLEROY WAY SOUTHWEST  
 CITY, STATE: SEATTLE, WASHINGTON



**FIGURE 8**  
 SKS SHELL GEOLOGIC CROSS SECTION  
 B-B'



## TABLES

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (mg/kg)								
					GRPH <sup>1</sup>	DRPH <sup>2</sup>	ORPH <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Total Xylenes <sup>3</sup>	Napthalene <sup>3</sup>	PCBs <sup>4</sup>
B-1	B-1-10	10/03/94	Geotech	10	--	ND	ND	--	--	--	--	--	--
B-2	B-2-7.5	10/03/94	Geotech	7.5	--	ND	190	--	--	--	--	--	--
B-3	B-3-10	10/03/94	Geotech	10	--	ND	ND	--	--	--	--	--	--
B-4	B-4-7.5	10/03/94	Geotech	7.5	370	ND	37,000	2.4	--	--	--	--	--
B-5	B-5-10	10/03/94	Geotech	10	--	ND	160	--	--	--	--	--	--
	B-5-15	10/03/94	Geotech	15	--	ND	340	--	--	--	--	--	--
B-6	B-6-12.5	10/03/94	Geotech	12.5	150	ND	3,700	1.2	--	--	--	--	--
	B-6-15	10/03/94	Geotech	15	ND	ND	ND	--	--	--	--	--	--
B-7	B-7-10	10/03/94	Geotech	10	ND	ND	610	--	--	--	--	--	--
B-8	B-8-8.5	10/03/94	Geotech	8.5	ND	ND	ND	--	--	--	--	--	--
B-9	B-9-7.5	10/03/94	Geotech	7.5	ND	ND	ND	--	--	--	--	--	--
B-10	B-10-10	10/03/94	Geotech	10	--	ND	220	--	--	--	--	--	--
B-11	B-11-10	10/03/94	Geotech	10	ND	ND	ND	--	--	--	--	--	--
B-13	B-13-10	10/18/94	Geotech	10	<20	<50	<100	--	--	--	--	--	--
	B-13-15	10/18/94	Geotech	15	<20	<50	<100	--	--	--	--	--	--
B-14	B-14-7.5	10/18/94	Geotech	7.5	<20	<50	260	--	--	--	--	--	--
	B-14-11	10/18/94	Geotech	11	<20	<50	<100	--	--	--	--	--	--
	B-14-15	10/18/94	Geotech	15	<20	<50	<100	--	--	--	--	--	--
B-15	B-15-10	10/18/94	Geotech	10	<20	<50	990	--	--	--	--	--	--
	B-15-15	10/18/94	Geotech	15	<20	<50	<100	--	--	--	--	--	--
B3	B3-8.0	04/01/08	Riley Group	8	--	360 <sup>b, x</sup>	2300 <sup>b</sup>	--	--	--	--	--	--
	B3-14.0	04/01/08	Riley Group	14	--	71 <sup>b, x</sup>	370 <sup>b</sup>	--	--	--	--	--	--
	B3-19.5	04/01/08	Riley Group	19.5	--	--	--	--	--	--	--	--	--
B4	B4-11.3	04/01/08	Riley Group	11.3	250	--	--	<0.03	0.37	0.44	3.4	4.1	1.6
	B4-20.0	04/01/08	Riley Group	20	<2	<50 <sup>b</sup>	<250 <sup>b</sup>	<0.03	<0.05	<0.05	<0.1	0.05	--
B4	B4-21.5	04/01/08	Riley Group	21.5	--	--	--	--	--	--	--	--	--
B5	B5-7.0 & B5-10.0	04/01/08	Riley Group	7 & 10	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B5-14.0	04/01/08	Riley Group	14	--	--	--	--	--	--	--	--	--
B7	B7-11.5	04/01/08	Riley Group	11.5	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	<0.1
	B7-18.5	04/01/08	Riley Group	18.5	--	--	--	--	--	--	--	--	--
B8	B8-10.0 & B8-12.5	04/01/08	Riley Group	10 & 12.5	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B8-18.5	04/01/08	Riley Group	18	--	--	--	--	--	--	--	--	--
B9	B9-10.5	04/01/08	Riley Group	10.5	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B9-18.5	04/01/08	Riley Group	18.5	--	--	--	--	--	--	--	--	--
B10	B10-10.5	04/01/08	Riley Group	10.5	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B10-19.0	04/01/08	Riley Group	19	--	--	--	--	--	--	--	--	--
B11	B11-13.0	03/31/08	Riley Group	13	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B11-31.5	03/31/08	Riley Group	31.5	--	--	--	--	--	--	--	--	--
B12	B12-15.0	03/31/08	Riley Group	15	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B12-19.5	03/31/08	Riley Group	19.5	--	--	--	--	--	--	--	--	--
B13	B13-13.5	03/31/08	Riley Group	13.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--
	B13-19.5	03/31/08	Riley Group	19.5	--	--	--	--	--	--	--	--	--
B14	B14-10.5	03/31/08	Riley Group	10.5	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B14-19.5	03/31/08	Riley Group	19.5	--	--	--	--	--	--	--	--	--
B15	B15-12.0	04/02/08	Riley Group	12	--	<50 <sup>b</sup>	<250 <sup>b</sup>	--	--	--	--	--	--
	B15-18.5	04/02/08	Riley Group	18.5	--	--	--	--	--	--	--	--	--
B16	B16-10-11.5	04/01/08	Riley Group	10 to 11.5	<2	<50 <sup>b</sup>	<250 <sup>b</sup>	<0.02	<0.02	<0.02	<0.06	--	--
	B16-20-21.5	04/01/08	Riley Group	20 to 21.5	--	--	--	--	--	--	--	--	--
	<b>MTCA Method A Cleanup Level for Soil<sup>5</sup></b>					<b>100/30<sup>3</sup></b>	<b>2,000</b>	<b>2,000</b>	<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>5</b>

**NOTES:**

Red denotes concentration exceeds MTCA Method A cleanup level.

Sample B4-11.3 BTEX and haphthalene results are from Riley Group Table 1 (no lab report to confirm).

All 1994 Geotech results are from Riley Group Figure 4 (no lab reports to confirm).

<sup>1</sup>100 mg/kg when benzene is not present and 30 mg/kg when benzene is present.

<sup>2</sup>Samples collected in 2008 analyzed by Method NWTFH-Gx. 1994 samples analyzed by Method NWTFH-HCID.

<sup>3</sup>Samples collected in 2008 analyzed by Method NWTFH-Dx. 1994 samples analyzed by Method NWTFH-HCID.

<sup>4</sup>Analyzed by EPA Method 8021B or 8260B.

<sup>5</sup>Analyzed by EPA Method 8082.

<sup>6</sup>MTCA Method A Cleanup Levels, Table 740-1 of Section 500 of Chapter 173-340 WAC, revised November 2007.

**Laboratory Notes:**

<sup>1</sup>Sample extracts passed through a silica gel column prior to analysis.

<sup>2</sup>The pattern of peaks present is not indicative of diesel.

-- = not analyzed

< = not detected at a concentration exceeding the laboratory reporting limit.

bgs = below ground surface

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRPH = diesel-range petroleum hydrocarbons

EPA = U.S. Environmental Protection Agency

Geotech = Geotech Consultants Inc.

GRPH = gasoline-range petroleum hydrocarbons

mg/kg = milligrams per kilogram

MTCA = Washington State Model Toxics Control Act

ND = not detected

NWTFH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbons



Table 1B  
Soil Analysis Summary  
SKS Shell  
3901 SW Alaska Street  
Seattle, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (mg/kg)								
					GRPH <sup>1</sup>	DRPH <sup>2</sup>	ORPH <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Total Xylenes <sup>3</sup>	MTBE <sup>3</sup>	Lead <sup>4</sup>
B-1	B-1 @ 17.5	05/25/95	Envir. Assoc.	17.5	3,400	--	--	--	--	--	--	--	--
B-2	B-2 @ 22.5	05/25/95	Envir. Assoc.	22.5	5,600	--	--	--	--	--	--	--	--
B-3	B-3 @ 17.5	05/26/95	Envir. Assoc.	17.5	9,000	--	--	--	--	--	--	--	--
MW-1	MW-1 @ 22.5-24.0	07/06/95	Envir. Assoc.	22.5-24.0	--	ND	--	--	--	--	--	--	--
	MW-1 @ 27.5-29.0	07/06/95	Envir. Assoc.	27.5-29.0	ND	--	--	ND	ND	ND	ND	--	--
MW-2	MW-2 @ 17.5-19.0	07/07/95	Envir. Assoc.	17.5-19.0	--	ND	--	--	--	--	--	--	--
	MW-2 @ 22.5--24.0	07/07/95	Envir. Assoc.	22.5-24.0	44	--	--	0.29	2.9	0.46	2.64	--	--
MW-3	MW-3 @ 12.5-14.0	07/07/95	Envir. Assoc.	12.5-14.0	--	ND	--	--	--	--	--	--	--
	MW-3 @ 22.5-24.0	07/07/95	Envir. Assoc.	22.5-24.0	ND	--	--	ND	ND	ND	ND	--	--
B-1	B-1-12	02/05/07	Riley Group	12	790 <sup>d</sup>	220 <sup>a</sup>	ND	ND	1.1 <sup>d</sup>	2.7 <sup>d</sup>	8.3 <sup>d</sup>	--	--
	B-1-19	02/05/07	Riley Group	19	1,200 <sup>d</sup>	1,900 <sup>a</sup>	ND	0.47 <sup>d</sup>	2.9 <sup>d</sup>	5.2 <sup>d</sup>	18 <sup>d</sup>	--	--
	B-1-26	02/05/07	Riley Group	26	ND	ND	ND	ND	ND	ND	ND	--	--
	B-1-30	02/05/07	Riley Group	30	ND	ND	ND	ND	ND	ND	ND	--	--
B-2	B-2-8	02/05/07	Riley Group	8	--	--	--	--	--	--	--	--	--
	B-2-16	02/05/07	Riley Group	16	77	ND	ND	ND	0.03	0.14	0.67	--	--
	B-2-19	02/05/07	Riley Group	19	--	--	--	--	--	--	--	--	--
B-3	B-3-6	02/05/07	Riley Group	6	--	--	--	--	--	--	--	--	--
	B-3-18	02/05/07	Riley Group	18	130	ND	ND	ND	0.07	0.18	0.83	--	--
	B-3-21	02/05/07	Riley Group	21	--	--	--	--	--	--	--	--	--
	B-3-25	02/05/07	Riley Group	22	ND	ND	ND	ND	0.04	0.17	0.80	--	--
B-4	B-4-8	02/05/07	Riley Group	8	--	--	--	--	--	--	--	--	--
	B-4-24	02/05/07	Riley Group	24	ND	ND	ND	ND	ND	ND	ND	--	--
B-5	B-5-8	02/05/07	Riley Group	8	--	--	--	--	--	--	--	--	--
	B-5-20	02/05/07	Riley Group	20	27	ND	ND	ND	ND	ND	ND	--	--
	B-5-23	02/05/07	Riley Group	23	25	ND	ND	ND	ND	ND	0.08	--	--
B-6	B-6-21	02/05/07	Riley Group	21	ND	ND	ND	ND	ND	ND	ND	--	--
	B-6-24	02/05/07	Riley Group	24	350 <sup>d</sup>	2,600 <sup>a</sup>	ND	0.49 <sup>d</sup>	1.7 <sup>d</sup>	5.8 <sup>d</sup>	ND	--	--
GLMW-1	GLMW-1-15	06/07/11	G-Logics	15	ND	--	--	ND	ND	ND	ND	--	--
	GLMW-1-20	06/07/11	G-Logics	20	153	ND	ND	0.0346	ND	0.116	0.375	ND	2.10
	GLMW-1-25	06/07/11	G-Logics	25	ND	ND	ND	0.0648	ND	0.0715	0.122	--	--
GLMW-2	GLMW-2-15	06/07/11	G-Logics	15	>3,200 <sup>d</sup>	ND	ND	3.42	0.409	6.50 <sup>d</sup>	18.39 <sup>d</sup>	ND	2.90
	GLMW-2-20	06/07/11	G-Logics	20	>4,400 <sup>d</sup>	--	--	6.73 <sup>d</sup>	7.88 <sup>d</sup>	14.5 <sup>d</sup>	85.2 <sup>d</sup>	--	--
	GLMW-2-25	06/07/11	G-Logics	25	ND	--	--	0.677	0.121	0.274	0.515	--	--
GLMW-3	GLMW-3-20	06/07/11	G-Logics	20	ND	--	--	ND	ND	ND	ND	--	--
	GLMW-3-25	06/07/11	G-Logics	25	15	ND	ND	ND	ND	0.537	1.856	--	--
MW101	MW101-22.5	08/05/12	SoundEarth	22.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--
	MW101-25	08/05/12	SoundEarth	25	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--
	MW101-27.5	08/05/12	SoundEarth	27.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--
	MW101-30	08/05/12	SoundEarth	30	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--
	MW101-40	08/05/12	SoundEarth	40	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--
	MW101-55	08/05/12	SoundEarth	55	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--
MTCA Method A Cleanup Level for Soils					100/30 <sup>b</sup>	2,000	2,000	0.03	7	6	9	0.1	250

NOTES:

- Red denotes concentration exceeds MTCA Method A cleanup level.
- <sup>1</sup>100 mg/kg when benzene is not present and 30 mg/kg when benzene is present.
- <sup>2</sup>Samples analyzed by Method NWTPH-Gx.
- <sup>3</sup>Samples analyzed by Method NWTPH-Dx.
- <sup>4</sup>Analyzed by EPA Method 8021B or 8260B.
- <sup>5</sup>Analyzed by EPA Method 6010B or 200.8.
- <sup>6</sup>MTCA Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

Laboratory Notes:

- <sup>d</sup>Denotes the samples was diluted. Detection limits are raised due to dilution.
- <sup>e</sup>The pattern of peaks present is not indicative of diesel. The result is due to overlap from gasoline range.

- = not analyzed
- < = not detected at a concentration exceeding the laboratory reporting limit
- bgs = below ground surface
- DRPH = diesel-range petroleum hydrocarbons
- Envir. Assoc. = Environmental Associates, Inc.
- EPA = Environmental Protection Agency
- GRPH = gasoline-range petroleum hydrocarbons
- mg/kg = milligrams per kilogram
- MTBE = methyl tertiary-butyl ether
- MTCA = Washington State Model Toxics Control Act
- ND = not detected, concentration less than the laboratory method detection limit
- NWTPH = Northwest Total Petroleum Hydrocarbon
- ORPH = oil-range petroleum hydrocarbons
- SoundEarth = SoundEarth Strategies, Inc.



**Table 2A**  
**Groundwater Analysis Summary**  
**Huling Chevrolet**  
**4755 Fauntleroy Way Southwest**  
**Seattle, Washington**

Well ID	Sample ID	Sample Date	Sampled By	Depth to Groundwater (feet)	Relative Groundwater Elevation <sup>1</sup>	Analytical Results (µg/L)								
						Gasoline - GRPH <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethyl-benzene <sup>3</sup>	Total Xylenes <sup>3</sup>	Other 8260 VOCs <sup>3</sup>	PCBs <sup>4</sup>	Diesel - DRPH <sup>5</sup>	Oil - DRPH <sup>5</sup>
MW-1	MW-1	06/11/97	EPI	16.66	81.57	<250	<1.0	<1.0	<1.0	<2.0	ND	<1.0	260	760
	MW-1	08/23/12	SoundEarth	18.73	79.50	<100	<1	<1	<1	<3	--	--	<55	<280
MW-2	MW-2	06/11/97	EPI	24.77	73.73	<250	<1.0	<1.0	<1.0	<2.0	ND	<1.0	350	<500
	MW-2	08/23/12	SoundEarth	26.17	72.33	<100	<1	<1	<1	<3	--	--	310	<280
MW-3	MW-3	06/11/97	EPI	18.35	80.69	<250	<1.0	<1.0	<1.0	<2.0	ND	<1.0	370	<500
	MW-3	08/23/12	SoundEarth	23.34	75.70	<100	<0.35	<1	<1	<3	--	<0.1	51 <sup>x</sup>	<250
MTCA Method A Cleanup Levels for Groundwater <sup>5</sup>						1,000/800 <sup>6</sup>	5	1,000	700	1,000	varies	0.1	500	500

**NOTES:**

Red indicates concentrations exceeding MTCA Method A cleanup levels for groundwater.

2012 Samples analyzed by Friedman & Bruja, Inc., of Seattle, Washington.

1997 Samples analyzed for Environmental Partners ARI, Inc., of Seattle, Washington.

<sup>1</sup>Elevations are based on a survey conducted by INCA Engineers for EPI in 1997, referenced to an arbitrary 100.00 on site location.

<sup>2</sup>Analyzed by Northwest Total Petroleum Hydrocarbon Method NWTFH-Gx (gasoline) and NWTFH-Dx (diesel and oil).

<sup>3</sup>Analyzed by EPA Method 8260B or 8021B. Trace levels of acetone and chlorobenzene detected in 1997 were attributed to lab contaminants.

<sup>4</sup>Analyzed by EPA Method 8080 or 8082.

<sup>5</sup>MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

<sup>6</sup>1,000 µg/L when benzene is not present and 800 µg/L when benzene is present.

**Laboratory Notes:**

<sup>x</sup>The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

-- = not analyzed, not measured

< = not detected above the laboratory reporting limit

µg/L = micrograms per liter

DRPH = diesel-range petroleum hydrocarbons

EPA = U.S. Environmental Protection Agency

EPI = Environmental Partners, Inc.

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Washington State Model Toxics Control Act

ND = not detected (variable detection limits)

NWTFH = Northwest Total Petroleum Hydrocarbon

PCB = polychlorinated biphenyl

SoundEarth = SoundEarth Strategies, Inc.

VOC = volatile organic compound



Table 2B  
Groundwater Analysis Summary 2008-2012  
SKS Shell  
3901 SW Alaska Street  
Seattle, Washington

	Sample Date	Sampled By	Depth to Groundwater	Groundwater Elevation <sup>1</sup>	Analytical Results (micrograms per liter)									
					Gasoline - GRPH <sup>2</sup>	Benzene <sup>1</sup>	Toluene <sup>1</sup>	Ethyl-benzene <sup>1</sup>	Total Xylenes <sup>1</sup>	MTBE <sup>1</sup>	EDC <sup>1</sup>	EDB <sup>1</sup>	Diesel - DRPH <sup>1</sup>	Tetraethyl Lead <sup>1</sup>
MW101 TOC: 99.70 feet Screen at 20-30 feet bgs	08/06/12 -- --	SoundEarth -- --	24.39 -- --	75.31 -- --	<100 -- --	<0.35 -- --	<1 -- --	<1 -- --	<3 -- --	<1 -- --	<1 -- --	<1 -- --	-- -- --	-- -- --
MW101-55 Temp Reconnaissance sample at 55'	08/05/12 --	SoundEarth --	Approx. 55' --	-- --	<100 --	<0.35 --	<1 --	<1 --	<3 --	<1 --	<1 --	<1 --	-- --	-- --
MW-X TOC: 98.61 feet Total depth 35 feet bgs	08/05/12 -- --	SoundEarth -- --	24.26 -- --	74.35 -- --	<100 -- --	<0.35 -- --	<1 -- --	<1 -- --	<3 -- --	<1 -- --	<1 -- --	<1 -- --	<60 <sup>b</sup> -- --	-- -- --
GLMW-1 TOC: 99.60 feet Screen at 10-30 feet bgs	06/08/11 08/06/12 08/07/12 --	G-Logics SoundEarth SoundEarth --	22.76 -- 23.52 --	76.84 -- 76.08 --	11,600 6,000 4,500 --	1,510 640 550 <sup>vm</sup> --	41.8 15 16 --	349 190 150 <sup>vm</sup> --	884 233 242 --	-- <10 <1 --	-- <10 <1 --	-- <10 <1 --	4,590 -- 4,100 <sup>x</sup> --	-- -- -- --
GLMW-2 TOC: 99.58 Screen at 10-30 feet bgs	06/08/11 08/06/12 --	G-Logics SoundEarth --	22.72 23.34 --	76.86 76.24 --	22,500 0.05' SPH --	2,410 -- --	467 -- --	825 -- --	3,340 -- --	-- -- --	-- -- --	-- -- --	961 6,000 <sup>x</sup> --	-- 480000 mg/kg --
GLMW-3 TOC: 100.54 feet Screen at 10-30 feet bgs	06/08/11 08/06/12 --	G-Logics SoundEarth --	23.32 23.42 --	77.22 77.12 --	10,500 -- --	8.03 -- --	46.6 -- --	998 -- --	2,787 -- --	-- -- --	-- -- --	-- -- --	250 -- --	-- -- --
MW-1 TOC: 99.70 feet Screen at 20-44 feet bgs	11/21/08 05/09/11 08/06/12 --	Riley Group G-Logics SoundEarth --	-- 23.26 23.95 --	-- 76.44 75.75 --	0.01' SPH 5,000 --	-- 2.25 --	-- <1.00 --	-- 22.5 --	-- 82.7 --	-- -- --	-- <1.00 --	-- <0.0100 --	-- 381 --	-- -- --
MW-2 TOC: 99.99 feet Screen at 10-30 feet bgs	11/21/08 05/09/11 06/08/11 08/06/12 08/07/12	Riley Group G-Logics G-Logics SoundEarth SoundEarth	-- -- 22.35 -- 23.24	-- -- 77.64 -- 76.75	-- 67,000 33,200 32,000 5,300	-- 64.3 29.9 11 2.2	-- 56.4 27.7 23 4.0	-- 3,670 2,720 1,900 400 <sup>vm</sup>	-- 21,890 9,970 10,100 1,710	-- <1.00 <10 <1 <1	-- <1.00 <10 <1 <1	-- <0.0100 <10 <1 <1	-- 1,950 411 -- 2,800	-- -- -- -- --
MW-3 TOC: 100.43 feet Screen at 10-30 feet bgs	05/09/11 06/08/11 08/06/12 --	G-Logics G-Logics SoundEarth --	-- 23.25 24.11 --	-- 74.86 76.32 --	160,000 13,500 trace SPH --	<1.00 8.46 -- --	11 12.5 -- --	690 362 -- --	2,886 1,501 -- --	<1.00 -- -- --	<1.00 -- -- --	<0.0100 -- -- --	13,300 910 -- --	-- -- -- --
MTCA Method A Cleanup Levels for Groundwater <sup>3</sup>					1,000/800 <sup>a</sup>	5	1,000	700	1,000	20	5	0.01	500	na

NOTES:

Red indicates concentrations exceeding MTCA Method A cleanup levels for groundwater.  
 2012 Samples analyzed by Friedman & Bruya, Inc. of Seattle, Washington.  
 2011 Samples analyzed for G-Logics by Fremont Analytical of Seattle, Washington.  
<sup>1</sup>Elevations are referenced to a survey mark ("1009) on the Alaska Street sidewalk; Reference elevation 100.00 feet.  
<sup>2</sup>Analyzed by Northwest Total Petroleum Hydrocarbon Method NWTPH-Gx (gasoline) and NWTPH-Dx (diesel and oil).  
<sup>3</sup>Analyzed by EPA Method 8260B or 8260C.  
<sup>4</sup>Analyzed by EPA Method 8082 (result is for product sample).  
<sup>5</sup>MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.  
<sup>6</sup>1,000 µg/L when benzene is not present and 800 µg/L when benzene is present.  
 August 7, 2012 results for wells MW-2 and GLMW-1 reflect 10x casing volume redevelopment conducted August 6.  
 Laboratory Notes:  
<sup>a</sup>Sample extracts passed through a silica gel column prior to analysis.  
<sup>vm</sup>Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.  
<sup>x</sup>The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

-- = not analyzed, not measured  
 < = not detected above the laboratory reporting limit  
 µg/L = micrograms per liter  
 bgs = below ground surface  
 DRPH diesel-range petroleum hydrocarbons  
 EDB = 1,2 dibromoethane  
 EDC = 1,2 dichloroethane  
 EPA U.S. Environmental Protection Agency  
 GRPH = gasoline-range petroleum hydrocarbons  
 mg/kg = milligrams per kilogram  
 MTBE = methyl tertiary-butyl ether  
 MTCA = Washington State Model Toxics Control Act  
 na = not available  
 NWTPH Northwest Total Petroleum Hydrocarbon  
 SoundEarth = SoundEarth Strategies, Inc.  
 SPH = separate-phase hydrocarbon  
 TOC = top of casing elevation