STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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August 8, 2013

First & Utah Street Associates
2401 Utah Ave S #3056
Seattle, WA 98134

Re: SITE HAZARD ASSESSMENT: Facility Site ID 31119824
Sears Roebuck & Co
76 S Lander Street
Seattle, WA 98134
Property Tax # 7666207220
Cleanup Site ID 5845

Dear Sir or Madam:

The Washington State Department of Ecology (Ecology) is writing to inform you that the above referenced property was subject to a site hazard assessment (SHA) as required under the Model Toxics Control Act, on 6/28/2013. The site was determined to be contaminated with diesel and benzo(a)pyrene. The site's hazard ranking, an estimation of the potential threat to human health and/or the environment relative to all other Washington state sites assessed at this time, has been determined by Ecology to be a 3, where a 1 represents the highest relative risk and 5 the lowest.

For your information, Ecology will be publishing ranking of this, and other recently assessed sites, in the August 2013 Special Issue of the Site Register. The hazard ranking will be used in conjunction with other considerations in determining Ecology's priority for future action at this site.

For inquiries regarding what may occur with your site now that it is on Ecology's Hazardous Sites List please contact Donna Musa at (425) 649-7136 or donna.musa@ecy.wa.gov.

Sincerely,

Donna Musa
Site Hazard Assessments
Toxics Cleanup Program

cc: Ted Benson, Ecology (ted.benson@ecy.wa.gov)

SITE HAZARD ASSESSMENT
Worksheet 1
Summary Score Sheet

SITE INFORMATION:

Cleanup Site ID: 5845

Sears Roebuck & Co

Facility/Site ID: 31119824

76 S Lander Street

Seattle, King County, WA 98134

Section:	7	Latitude:	47.58019
Township:	24N	Longitude:	-122.33629
Range:	4E	Tax/Parcel ID:	7666207220

Site Scored/ranked for the August 2013 Hazardous Sites List Publication

SITE DESCRIPTION:

The Sears Roebuck & Co site is a former retail / warehouse facility located in Seattle, King County, Washington. The 5.38-acre property is located approximately 1200 feet from Duwamish Waterway, and zoned for general industrial (IG1 U/85) use.

BNSF Railroad tracks are located west of the site, a Home Depot retail outlet is located south of the site, and various parking lots/garages are located north and east of the site.

The site is currently operated as a retail / office / warehouse facility (Starbuck's SODO Center) by First and Utah Street Associates.

The area immediately around the site appears to be used for parking and loading/unloading of trucks (main loading dock for the main site building).

The site is located in the southwestern portion of the Starbuck's SODO Center property in the vicinity of a loading dock located near the southwestern corner of the main building. The loading dock is located the northeast corner of the intersection of Colorado Avenue S and S Lander Street.

The Puget Sound Initiative was established by the Governor's office in 2007 with the goal of restoring the health of Puget Sound by 2020. A leading source of pollution to Puget Sound is contaminated sites around its shorelines. Ecology's Toxics Cleanup Program has identified contaminated sites within one-half mile of the Sound. This site is a Puget Sound Initiative site.

SITE BACKGROUND:

A summary of prior operations/tenants at the subject property is presented below.

From	To	Operator/Tenant	Activity
1910	1993	Sears Roebuck and Company	Retail / Warehouse
1993	2013	First and Utah Street Associates LLP	Retail / Warehouse / Office (Starbuck's SODO Center)

SITE CONTAMINATION:

In 1985 the Sears Roebuck & Co site was reported to Washington Department of Ecology and placed on the LUST list with ID number 2691.

A release of an estimated 2,000-3,000 gallons of diesel fuel from a concrete 3-cell UST occurred in 1985. The release was to subsurface soil and groundwater. The UST stored fuel for boilers located in the main building to the north.

Each of the three cells had a capacity of 12,000 gallons. The diesel release occurred in the easternmost cell of the UST. The other two cells contained Bunker C oil. The release was identified when diesel migrated into a floor drain and sump located in the basement of the SODO Center building to the north of the UST. The remaining diesel fuel in the UST (9,100 gallons) was removed from the eastern cell in 1985. Bunker C was removed from the other two cells and the UST was closed in-place in 1993.

SITE HAZARD ASSESSMENT
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Following discovery of the release in 1985, a total of five soil borings were advanced, and monitoring wells installed, to evaluate the extent of impacts from the diesel release. Affected soil was indentified in an approximately 1,100 square foot area around the UST, primarily in the soil located within a few feet above the water table. TPH was identified in water samples, but free product was not identified.

One test boring was advanced to the south of the UST in 1988 and soil/groundwater samples were analyzed for BTEX. BTEX compounds were detected in soil at concentrations below MTCA Method A soil cleanup levels, and were not detected in groundwater.

An environmental evaluation conducted in 1994 showed diesel concentrations in soil up to 13,000 mg/kg. Gasoline-range TPH was also detected at concentrations up to 820 mg/kg although there are no documented gasoline releases. Gasoline-range TPH was detected only in the soil samples with elevated diesel concentrations. Ethylbenzene and xylenes were detected at low concentrations (up to 2.1 mg/kg) but benzene and toluene were not detected. Lead was not detected in any of the soil samples. Carcinogenic PAHs were detected in soil samples associated with elevated diesel-range TPH concentrations at concentrations above the MTCA Method A soil cleanup level of 0.1 mg/kg for unrestricted land uses but below the cleanup level of 2 mg/kg for industial site uses. The soil material associated with these samples was subsequently excavated and removed from the site.

The most recent groundwater monitoring event was performed in 1993. At well MW-2 (south of UST) diesel-range TPH (by NWTPH-D) was detected at 11 mg/l and total TPH (by EPA 418.1) was 6 mg/l, above MTCA Method A cleanup levels.

PAST REMEDIATION ACTIVITIES:

Approximately 1,700 cubic yards of soil was excavated from around the UST location in 1995. The available information suggests that the UST remains onsite--it was closed in-place in 1993 by filling with slurry/sand and there is no indication that it was later removed. Soil removal in 1995 was performed on all sides of the UST and confirmation soil samples were collected from the floor and sidewalls. The maximum excavation depth was approximately eight feet bgs (to the top of the saturated zone). Following excavation, diesel-range TPH was detected at maximum concentration of 48 mg/kg, below the MTCA Method A soil cleanup level. Gasoline-range TPH, BTEX, and PAHs were not detected.

However, confirmation sampling to the north of the UST was limited to just one sample collected from the excavation floor, and sampling was not performed beneath the loading dock and SODO Center building to the north of the UST location (excavation was stopped at the southern edge of the loading dock). Also, soil sampling was not performed beneath the UST.

CURRENT SITE CONDITIONS:

No additional work has been performed at the site since the 1995 remediation. A review of the soil cleanup action was submitted to Ecology in November 2002 for review as an independent remedial action. Ecology issued a response in July 2003 indicating "further action" was required at the site. Ecology cited the lack of current groundwater data (most recent was 1993) and inadequate characterization of soil to the north of the UST location as rationale for its "further action required" opinion. A proposal for additional investigation work dated 19 January 2007 was included in Ecology's files, but no information regarding implementation of the proposal was identified.

Other Ecology LUST sites are located in the vicinity of the subject site including a former gasoline station to the east (former Sears Gasoline Station), former Sears Auto Center to the south (current Home Depot) and a former gasoline station / current Sears Auto center to the southeast. These sites are all located either cross-gradient or down-gradient from the subject site and do not appear to present a potential for impacts to the subject site.

The approximate depth to groundwater is 8 feet below ground surface, with groundwater flowing to the west. Subsurface soils are sand and silt, miscellaneous fill and debris.

SPECIAL CONSIDERATIONS:

Checked boxes indicate routes applicable for WARM scoring

SITE HAZARD ASSESSMENT
Worksheet 1
Summary Score Sheet

☐ **Surface Water**

Release was to subsurface.

☐ **Air**

Area is paved; VOCs not present.

☑ **Groundwater**

The most recent groundwater data is from 1993, prior to the remedial action performed in 1995. Soil samling to the north of the former UST is limited and does not include any areas beneath the loading dock or SODO Center building to the north of the UST.

ROUTE SCORES:

Surface Water/ Human Health:		Surface Water/ Environment:	
Air/ Human Health:		Air/ Environment:	
Groundwater/ Human Health:	35.8		

Overall Rank: 3

REFERENCES:

WARM Toxicological Database

WARM Scoring Manual

Washington Department of Transportation 24-hour Isopluvial Maps, January 2006 update. http://www.wsdot.wa.gov/publications/fulltext/Hydraulics/Wa24hrIspoluvials.pdf

King County GIS Center iMAP application, Property Information, Groundwater Program, and Sensitive Areas mapsets. Accessed January 2013. http://www.kingcounty.gov/operations/GIS/Maps/iMAP.aspx

National Climatic Data Center 2011 Local Climatological Data for Seattle, Seattle Tacoma Airport. http://www1.ncdc.noaa.gov/pub/orders/IPS-90B1F39F-6CFA-4A6B-AA82-5ED1FF897CCC.pdf

Washington State Department of Health Source Water Assessment Maps. March 2011 update. https://fortress.wa.gov/doh/eh/dw/swap/maps/

Ecology Water Resources Explorer, accessed January 2013. https://fortress.wa.gov/ecy/waterresources/map/WaterResourcesExplorer.aspx

FEMA Map Service Center, accessed January 2013. https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

Subsurface Soil Remediation, South Loading Dock, Sodo Center Building, 76 South Lander Street, Seattle, Washington, Earth Consultants Inc., 19 June 1995.

January 8, 1993 Groundwater Monitoring, Results for Wells MW-2 and MW-4, Sodo Center, Seattle, Washington, Earth Consultants Inc., 24 February 1993.

Proposal for Groundwater Monitoring Well Installation and Monitoring & Supplemental Subsurface Sampling and Testing, Sodo Center South Loading Dock, 76 South Lander Street, Seattle, Washington, Environmental Associates, Inc., 19 January 2007.

Environmental Evaluation, South Loading Dock, Sodo Center Building, 76 South Lander Stree, Seattle, Washington, Earth Consultants Inc., 25 August 1994.

Propery Transfer Investigation, Sears Roebuck and Company Property, 76 S Lander St, Seattle, Washington, Chemical Processors, Inc., 9 December 1988.

Sears Retail Property Site Assessment, 1st Ave. & S. Lander, Seattle, Washington, Sweet-Edwards/EMCON, 16 December 1988.

SITE HAZARD ASSESSMENT
Worksheet 1
Summary Score Sheet

Phase I Environmental Site Assessment, Update of the Starbucks Center, 2401 Utah Avenue South, Seattle, Washington, ENSR Corporation, August 2006.

Missouri Census Data Center, Circular Area Profiles - 2010 census data around a point location. http://mcdc.missouri.edu/websas/caps10c.html. Accessed February 2013

SITE HAZARD ASSESSMENT
Worksheet 2
Route Documentation

Cleanup Site ID: 5845 Sears Roebuck & Co

Facility/Site ID: 31119824

1. SURFACE WATER ROUTE

List those substances to be considered for scoring:

Not applicable

Explain the basis for choice of substances to be used in scoring:

List those management units to be considered for scoring:

Explain basis for choice of unit to be used in scoring:

2. AIR ROUTE

List those substances to be considered for scoring:

Not applicable

Explain the basis for choice of substances to be used in scoring:

List those management units to be considered for scoring:

Explain basis for choice of unit to be used in scoring:

3. GROUNDWATER ROUTE

List those substances to be considered for scoring:

Diesel; benzo(a)pyrene

Explain the basis for choice of substances to be used in scoring:

Known diesel release, cPAHs detected in soil samples associated with diesel.

List those management units to be considered for scoring:

Groundwater in former UST area

Explain basis for choice of unit to be used in scoring:

Confirmed release

Worksheet 6

Groundwater Route

CSID: 5845 **Site Name:** Sears Roebuck & Co

1.0 Substance Characteristics

1.1 Human Toxicity

Substance	Drinking Water Standard Value	Acute Toxicity Value	Chronic Toxicity Value	Carcinogenicity Value
Diesel	6	5	3	X
benzo(a)pyrene	10	10	X	7

Highest Value 10

Bonus Points? +2

Toxicity Value 12

1.2 Mobility

Cations/Anions Max Value:

Solubility Max Value: 1 Mobility Value 1

1.3 Substance Quantity

Amount: 1000 gallons

Basis: Estimated residual quantity in soil based on original release volume and remediation performed Substance Quantity Value 3

2.0 Migration Potential

2.1 Containment Containment Value 10

Explain Basis: Contaminated soil

2.2 Net Precipitation 10-20 inches Net Precipitation Value 2

2.3 Subsurface Hydraulic Conductivity Conductivity Value 3

silt/sand

2.4 Vertical Depth to Groundwater Depth to Aquifer Value 8

confirmed release to groundwater

3.0 Targets

3.1 Groundwater Usage Aquifer Use Value 3

Used for irrigation (non food), industrial uses, fish propagation, and domestic irrigation.

3.2 Distance to Nearest Drinking Water Well Well Distance Value 0

> 2 miles

3.3 Population Served within 2 Miles Population Served Value 0.00

0 population

Worksheet 6

Groundwater Route

CSID: 5845 **Site Name:** Sears Roebuck & Co

3.4 Area Irrigated by GW Wells within 2 miles Area Irrigated Value 1.50

4 acres

4.0 Release Release to Groundwater Value 5

Explain basis for scoring a release to groundwater:

confirmed release above cleanup levels

Pathway Scoring - Groundwater Route, Human Health Pathway

$GW_H = (SUB_{GH}*40/208)*[(MIG_G*25/17)+REL_G+(TAR_{GH}*30/165)]/24$

Where:

SUB_{GH} =(Human toxicity + mobility + 3) * (Containment + 1) + Substance Qty	SUB_{GH}	179
MIG_G=Depth to Aquifer+Net Precip + Hydraulic Conductivity	MIG_G	13
REL_G = Release to Groundwater	REL_G	5
TAR_{GH} = Aquifer Use + Well Distance + Population Served + Area Irrigated	TAR_{GH}	4.5
	GW_H	35.8

Legend:

- Property location (approximate)
- Former location of monitoring well with diesel concentration above MTCA Cleanup Level (11 mg/l; 1993)

Notes:

1. All locations are approximate, and not to scale.

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Sears Roebuck & Co
76 South Lander St
Seattle, WA 98134

DEPARTMENT OF ECOLOGY
State of Washington

Site Overview Map

CSID 5845

CSID5845.vsd

Washington Ranking Method
Route Scores Summary and Ranking Calculation Sheet

Site Name: Sears Roebuck & Co **CSID:** 5845

Site Address: 76 S Lander St/ 2401 Utah Ave S, Seattle, 98134 **FSID:** 31119824

HUMAN HEALTH ROUTE SCORES

Enter Human Health Route Scores for all Applicable Routes:

Pathway	Route Score	Quintile Group
Surface Water	ns	0
Air	ns	0
Groundwater	35.8	3

H=	3
M=	0
L=	0

$$\frac{H^2 + 2M + L}{8} = \frac{9 + 0 + 0}{8}$$

Human Health Priority Bin Score: **2**

rounded up to next whole number

ENVIRONMENT ROUTE SCORES

Enter Environment Route Scores for all Applicable Routes:

Pathway	Route Score	Quintile Group
Surface Water	ns	0
Air	ns	0

H=	0
L=	0

$$\frac{H^2 + 2L}{7} = \frac{0 + 0}{7}$$

Environment Priority Bin Score: **N/A**

rounded up to next whole number

Comments/Notes:

FINAL MATRIX RANKING **3**

FOR REFERENCE:

Final WARM Bin Ranking Matrix

Human Health Priority	Environment Priority 5	4	3	2	1	N/A
5	1	1	1	1	1	1
4	1	2	2	2	3	2
3	1	2	3	4	4	3
2	2	3	4	4	5	3
1	2	3	4	5	5	5
N/A	3	4	5	5	5	NFA

Quintile Values for Route Scores - February 2013 Values

Quintile	Human Health: Surface Water	Human Health: Air	Human Health: Ground Water	Environment: Surface Water	Environment: Air
5	>= **27.0**	>= **32.0**	>= **50.1**	>= **47.0**	>= **32.0**
4	>= **18.5**	>= **21.1**	>= **40.4**	>= **30.3**	>= **26.1**
3	>= **12.4**	>= **13.1**	>= **31.6**	>= **21.4**	>= **21.1**
2	>= **7.5**	>= **7.1**	>= **22.4**	>= **11.0**	>= **14.6**
1	< **7.5**	< **7.1**	< **22.4**	< **11.0**	< **14.6**

Quintile value associated with each route score entered above