SITE HAZARD ASSESSMENT
Worksheet 1
Summary Score Sheet

SITE INFORMATION:

Cleanup Site ID: 8267

Qwest Communications International

Facility/Site ID: 21154698

6315 Rainier Avenue S

Seattle, King County, WA 98118

Section:	27	Latitude:	47.54560
Township:	24N	Longitude:	-122.27591
Range:	4E	Tax/Parcel ID:	3812400023

Site Scored/ranked for the August 2014 Hazardous Sites List Publication

SITE DESCRIPTION:

The Qwest Communications International site (Site) is a former telephone exchange building located in Seattle, King County, Washington. The 0.88-acre property is located approximately 3,800 feet from Lake Washington, and zoned for neighborhood commercial (NC2-40) use.

Adjacent properties include Rainier Avenue South to the northeast, South Eddy Street to the south, and single family residences to the south and west. To the north are several retail establishments. Northeast, across Rainier Avenue South, are two apartment buildings.

The Site is currently operated as a warehouse by Centurylink Real Estate.

The Site is located one building south of the southwest corner of the intersection of South Graham Street and Rainier Avenue South, and on the northwest corner of the intersection of Rainier Avenue South and South Eddy Street. Two former gas stations were located to the north of the Site, across South Graham Street.

Other state cleanup sites located in the vicinity include Rainier 76 (Cleanup Site ID (CSID) 10034) northeast of the Site across the intersection of Rainier Avenue South and South Graham Street, and BP 0316 Exxon 79049 (CSID 6432), approximately 0.15 miles north of the Site along Rainier Avenue South.

SITE BACKGROUND:

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

From	To	Operator/Tenant	Activity
	2014	Qwest Communications International	Telephone exchange facility and warehouse

SITE CONTAMINATION:

In 1992 the Qwest Communications International site was reported to Washington State Department of Ecology (Ecology) and placed on the Leaking Underground Storage Tank (LUST) list with ID number 2258.

Ecology received an initial report of a release at the Site in August 1992. A preliminary investigation was completed in August 2011.

Two underground storage tanks (USTs) were formerly located on the property, and included one 1,000-gallon and one 6,000-gallon kerosene tank.

Groundwater at the Site contains diesel at concentrations above the Model Toxics Control Act (MTCA) Method A cleanup levels. Diesel is also suspected in soils at the Site.

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PAST REMEDIATION ACTIVITIES:

In 1992, two USTs were scheduled to be removed from the property. In October 1992, a 6,000-gallon kerosene tank was reportedly emptied, excavated, and abandoned in place. The tank was located beneath the basement of a building. The basement floor and underlying soils were excavated to expose the UST, and the UST vent lines and pipes were removed. The soils adjacent to the tank were characterized, and the contractor (Geraghty & Miller) found evidence of a petroleum hydrocarbon release from the tank, though no petroleum-stained soils were observed during excavation. Two soil samples were collected during excavation, one from the west sidewall at a depth of 1.5 feet below the basement floor (RAIN1-2), and one from the stockpiled soils (RAIN1-3). Groundwater was encountered approximately 2 feet below the basement floor, so no soil samples were collected below this depth. The excavation was reportedly dewatered by vacuum truck, and three groundwater samples were collected from the excavation (EW0, EW0.5, and EW1) during a dewatering test. Stockpiled soil was removed from the Site and disposed of offsite. The tank was filled with a cement slurry and closed in place.

Soil samples collected adjacent to the 6,000-gallon tank did not contain detectable concentrations of diesel or oil (detection level 25 parts per million (ppm)/100 ppm respectively). A groundwater sample from the excavation area contained 3,360 micrograms per liter (µg/L) diesel (August 1992), which is above the MTCA Method A cleanup level of 500 µg/L for diesel in groundwater. Groundwater samples collected during a dewatering test (September 1992) contained detectable concentrations of diesel, gasoline, ethylbenzene, toluene, and xylenes, but only diesel was detected at concentrations greater than the MTCA Method A cleanup level. During a one hour dewatering test, concentrations of diesel in groundwater increased, and then decreased to below MTCA Method A cleanup levels (start of dewatering test, 4,010 µg/L; after half an hour, 8,600 µg/L; after one hour, 320 µg/L).

Upon investigation, a 1,000-gallon UST located northeast of the building was discovered to have been previously abandoned and filled with concrete. No further information was available regarding this UST.

CURRENT SITE CONDITIONS:

No information was available for review regarding soil contamination surrounding the closed-in-place 1,000 gallon UST. The extent of groundwater contamination at the Site is unknown, and the potential for offsite migration has not been assessed. An Independent Technical Assistance Meeting note from the Department of Ecology (1996) suggests that the source of petroleum hydrocarbon-impacted soils could be offsite, from former gas stations located to the north of the Site, though the stations are expected to primarily be a source of gasoline rather than diesel. In 1996, Ecology recommended that the Site needed to undergo a limited cleanup with a deed restriction, or complete further assessment of the Site. Ecology does not have any record of further action at the Site.

Groundwater samples collected in 1992 contained concentrations of diesel above the MTCA Method A cleanup level.

The approximate depth to groundwater is 2 feet below the basement floor, estimated as 12 to 17 feet below ground surface, with groundwater flowing to the northeast, estimated from surface topography. Subsurface soils are sandy clay.

SPECIAL CONSIDERATIONS:

Checked boxes indicate routes applicable for Washington Ranking Method (WARM) scoring

☐ **Surface Water**

The release is expected to have occurred in the subsurface.

☐ **Air**

Diesel was detected in groundwater at the Site, and is suspected in subsurface soils. However, due to the low volatility of diesel, it is not expected to impact the air route.

☑ **Groundwater**

Diesel was detected in groundwater at concentrations above MTCA Method A cleanup levels.

The extent of petroleum-impacted soils and groundwater at the Site is unknown.

ROUTE SCORES:

SITE HAZARD ASSESSMENT
Worksheet 1
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Surface Water/ Human Health:		Surface Water/ Environment:	
Air/ Human Health:		Air/ Environment:	
Groundwater/ Human Health:	19.6		

Overall Rank: 5

REFERENCES:

1 Department of Ecology, 2013, Reported Cleaned Up (RCU) Status Update Letter to Property Owner, April 4.

2 Ecology Water Resources Explorer, accessed February 2014. https://fortress.wa.gov/ecy/waterresources/map/WaterResourcesExplorer.aspx

3 Geraghty & Miller, Inc., 1993, Site Assessment Underground Storage Tank Abandonment, U S West Building, 6315 Rainier Avenue South, Seattle, Washington. March 15, 1993.

4 King County GIS Center iMAP application, Property Information, Groundwater Program, and Sensitive Areas mapsets. Accessed March 2014. http://www.kingcounty.gov/operations/GIS/Maps/iMAP.aspx

5 Missouri Census Data Center, Circular Area Profiles - 2010 census data around a point location. http://mcdc.missouri.edu/websas/caps10c.html. Accessed March 2014.

6 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

7 WARM Scoring Manual

8 WARM Toxicological Database

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

10 Washington State Department of Ecology, 1996, Independent Technical Assistance Meeting for Site: US West Bldg., 6315 Rainier Ave. S., Seattle. December 23, 1996.

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The Site is currently operated as a warehouse by Centurylink Real Estate.

The Site is currently used as a warehouse.

The Site is located one building south of the southwest corner of the intersection of South Graham Street and Rainier Avenue South, and on the northwest corner of the intersection of Rainier Avenue South and South Eddy Street. Two former gas stations were located to the north of the Site, across South Graham Street.

Other state cleanup sites located in the vicinity include Rainier 76 (Cleanup Site ID (CSID) 10034) northeast of the Site across the intersection of Rainier Avenue South and South Graham Street, and BP 0316 Exxon 79049 (CSID 6432), approximately 0.15 miles north of the Site along Rainier Avenue South.

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Groundwater at the Site contains diesel at concentrations above the Model Toxics Control Act (MTCA) Method A cleanup levels. Diesel is also suspected in soils at the Site.

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Upon investigation, a 1,000-gallon UST located northeast of the building was discovered to have been previously abandoned and filled with concrete. No further information was available regarding this UST.

CURRENT SITE CONDITIONS:

Petroleum-Diesel

The approximate depth to groundwater is feet below ground surface, with groundwater flowing to the . Subsurface soils are .

SPECIAL CONSIDERATIONS:

Checked boxes indicate routes applicable for Washington Ranking Method (WARM) scoring

☐ **Surface Water**

The release is expected to have occurred in the subsurface.

☐ **Air**

Diesel was detected in groundwater at the Site, and is suspected in subsurface soils. However, due to the low volatility of diesel, it is not expected to impact the air route.

☑ **Groundwater**

Diesel was detected in groundwater at concentrations above MTCA Method A cleanup levels.

The extent of petroleum-impacted soils and groundwater at the Site is unknown.

ROUTE SCORES:

Surface Water/ Human Health:

Surface Water/ Environment:

Air/ Human Health:

Air/ Environment:

Groundwater/ Human Health: 19.6

Overall Rank: 5

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5 Missouri Census Data Center, Circular Area Profiles - 2010 census data around a point location. http://mcdc.missouri.edu/websas/caps10c.html. Accessed March 2014.

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7 WARM Scoring Manual

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10 Washington State Department of Ecology, 1996, Independent Technical Assistance Meeting for Site: US West Bldg., 6315 Rainier Ave. S., Seattle. December 23, 1996.

SITE HAZARD ASSESSMENT
Worksheet 2
Route Documentation

Cleanup Site ID: 8267 Qwest Communications International

Facility/Site ID: 21154698

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

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

Detection of diesel in groundwater at concentrations above the MTCA Method A cleanup level

List those management units to be considered for scoring:

Groundwater

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

Prior detection of diesel in groundwater at concentrations above the MTCA Method A cleanup level

Worksheet 6

Groundwater Route

CSID: 8267 **Site Name:** Qwest Communications International

1.0 Substance Characteristics

1.1 Human Toxicity

Substance	Drinking Water Standard Value	Acute Toxicity Value	Chronic Toxicity Value	Carcinogenicity Value
Diesel	4	5	3	X

Highest Value 5

Bonus Points? 0

Toxicity Value 5

1.2 Mobility

Cations/Anions Max Value:

Solubility Max Value: 1 Mobility Value 1

1.3 Substance Quantity

Amount: >10 to 100 cubic yards

Basis: Estimated volume of diesel-impacted soils

Substance Quantity Value 2

2.0 Migration Potential

2.1 Containment Containment Value 10

Explain Basis: Contaminated Soil

2.2 Net Precipitation 10 to 20 inches Net Precipitation Value 2

2.3 Subsurface Hydraulic Conductivity Conductivity Value 2

Sandy clay

2.4 Vertical Depth to Groundwater 0 to 25 feet

Confirmed release: Yes Depth to Aquifer Value 8

3.0 Targets

3.1 Groundwater Usage Aquifer Use Value 4

Private supply, but alternate sources available with minimum hookup requirements

3.2 Distance to Nearest Drinking Water Well 2,690 feet

Well Distance Value 2

3.3 Population Served within 2 Miles Population Served Value 2

3 people

Worksheet 6

Groundwater Route

CSID: 8267 **Site Name:** Qwest Communications International

3.4 Area Irrigated by GW Wells within 2 miles Area Irrigated Value 1

1 acres

4.0 Release Release to Groundwater Value 5

Explain basis for scoring a release to groundwater:

Confirmed release to groundwater

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}	101
MIG_G=Depth to Aquifer+Net Precip + Hydraulic Conductivity	MIG_G	12
REL_G = Release to Groundwater	REL_G	5
TAR_{GH} = Aquifer Use + Well Distance + Population Served + Area Irrigated	TAR_{GH}	8.5
	GW_H	19.6

Washington Ranking Method

Route Scores Summary and Ranking Calculation Sheet

Site Name: Qwest Communications International **CSID:** 8267

Site Address: 6315 Rainier Avenue South **FSID:** 21154698

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	19.6	1

H=	1
M=	0
L=	0

$$\frac{H^2 + 2M + L}{8} = \frac{1 + 0 + 0}{8}$$

Human Health Priority Bin Score: **1**

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 **5**

FOR REFERENCE:

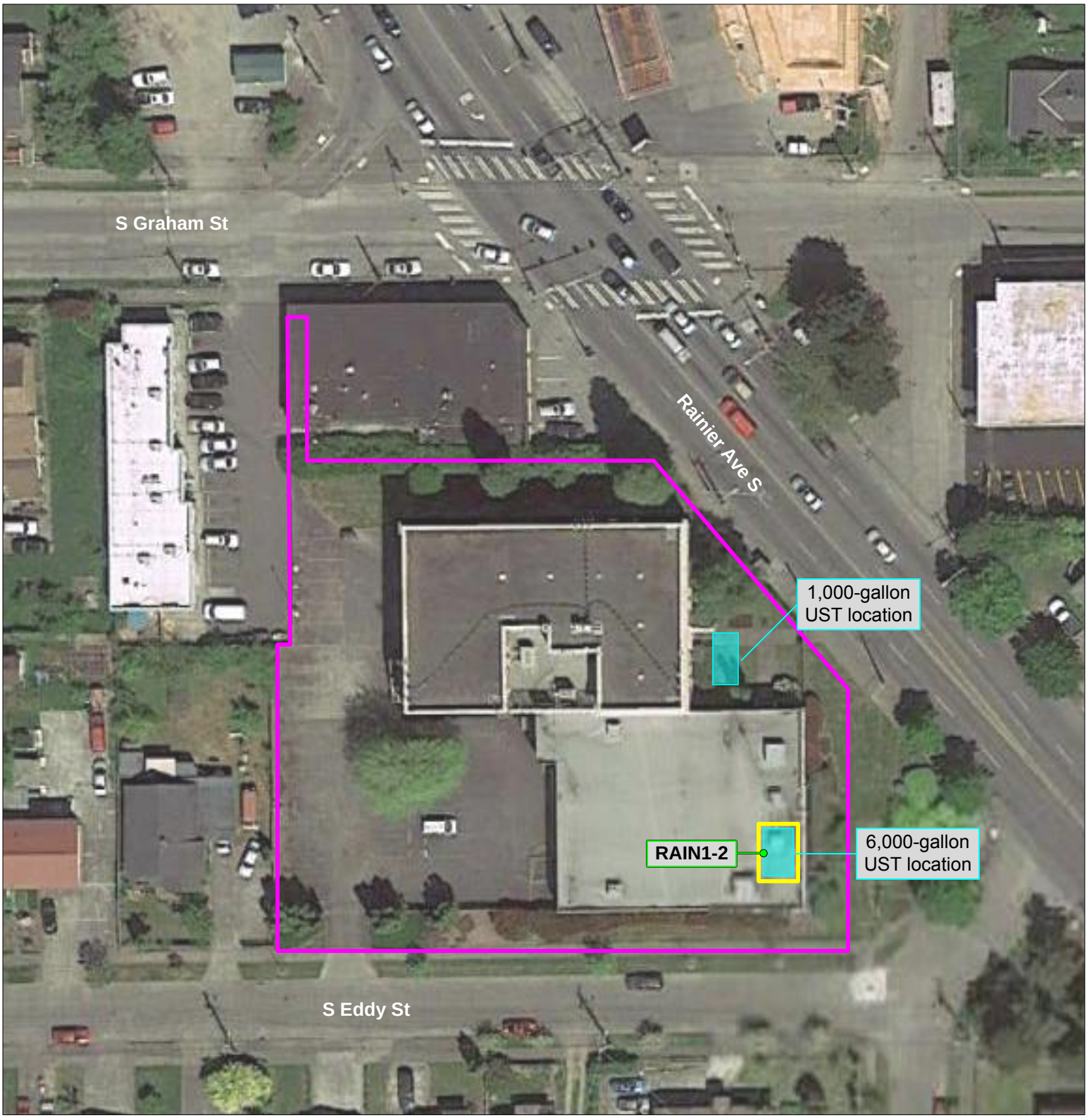
Final WARM Bin Ranking Matrix

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 - March 2014 Values

Quintile	Human Health: Surface Water	Air	Ground Water	Environment: Surface Water	Air
5	>= 30.0	>= 35.6	>= 50.7	>= 49.6	>= 29.5
4	>= 21.1	>= 22.4	>= 40.4	>= 30.6	>= 20.5
3	>= 12.5	>= 14.1	>= 32.2	>= 22.7	>= 9.5
2	>= 6.2	>= 7.9	>= 23.1	>= 10.2	>= 1.4
1	< 6.2	< 7.9	< 23.1	< 10.2	< 1.4

Quintile value associated with each route score entered above



Legend:

- Property location (approximate)
- Excavation area (approximate)
- UST location (closed in place) (approximate)
- Soil sample (approximate)

Notes:

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

N

Qwest Communications International
6315 Rainier Avenue South
Seattle, WA 98118

DEPARTMENT OF ECOLOGY
State of Washington

Site Overview Map

CSID 8267
CSID8267.vsd