



SECOND PERIODIC REVIEW REPORT DRAFT

QWEST COMMUNICATIONS W00161

**Facility Site ID#: 86395278
Cleanup Site ID#: 6785**

**1305 Washington Way
Longview, WA 98632**

**Southwest Regional Office
TOXICS CLEANUP PROGRAM**

May 2019

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1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup conditions and monitoring data to ensure that human health and the environment are being protected at the Qwest Communications site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). The first periodic review was conducted in April 2014. This periodic review evaluates the period from May 2014 through April 2019.

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in concentrations of diesel and oil-range petroleum hydrocarbons (TPH-D and TPH-O) in soil and groundwater that exceed MTCA Method A cleanup levels. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(2). The MTCA Method A cleanup levels for groundwater are established under WAC 173-340-720(3). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- Whenever the department conducts a cleanup action.
- Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- Or, as resources permit, whenever the department issues a no further action (NFA) opinion.
- And one of the following conditions exists:
 - (a) Institutional controls or financial assurance are required as part of the cleanup.
 - (b) Where the cleanup level is based on a practical quantitation limit.
 - (c) Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The Qwest Communications property (Site) is located in Cowlitz County, at 1305 Washington Way in Longview, Washington. The Site is located in downtown Longview and consists of an office/commercial building with several paved parking areas located along the southern side of the property. The Cowlitz River is located approximately 1 mile east of the Site. The Site previously contained three diesels and one heating oil underground storage tanks (USTs) that were located on the southeastern portion of the property. Three of the USTs were removed in 1992, and the other UST, beneath the office building was closed in place. After the Site investigation, excavated pits were backfilled with clean soil and/or pea gravel and paved with asphalt. A vicinity map and a Site Plan are available as Appendix 6.1 and 6.2 respectively.

2.2 Cleanup Levels

WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for this Site. The cleanup actions conducted at the Site were determined to be 'routine', few hazardous substances were found at the Site, and numerical standards were available for each hazardous substance.

2.3 Underground Storage Tanks Removal and Remedial Activities

2.3.1 Tanks 1 and 2

Tanks 1 and 2 were installed in 1953 in close proximity to each other. Tank 1 was a 1,680-gallon diesel fuel and heating oil tank and Tank 2 was a 300-gallon heating oil tank. These tanks were removed in January 1992. Because they were located in close proximity, both tanks were exposed by a single excavation. During the removal, a total of approximately 130 cubic yards of petroleum contaminated soils (PCS) was excavated from the area around the tanks. Following the excavation, soil samples were collected at the pit bottom and sidewalls. Results of bottom and north sidewall soil samples near Tank 2 showed TPH-D concentrations of 1,590 milligrams per kilogram (mg/Kg) and 14,000 mg/Kg respectively. The sidewall sample result exceeded the current TPH-D cleanup level of 2,000 mg/Kg. Because this sampling location was adjacent to the building foundation, further excavation was not conducted to protect the integrity of the building. Hence, soil containing TPH-D concentrations exceeding MTCA cleanup levels remains north of former location of Tank 2 and possibly below the building. Also groundwater bearing petroleum sheen was encountered at a depth of 15 feet below ground surface in the excavation of Tanks 1 and 2.

In March 1992, a Phase 2 investigation was conducted by drilling three soil borings around Tanks 1 and 2 for the collection of soil and groundwater samples. Later these borings were completed as three groundwater monitoring wells (MW-1 through MW-3). None of the soil samples from these borings had concentrations above the laboratory detection limit of 25 mg/Kg.

The groundwater sample results ranged from 82 micrograms per liter ($\mu\text{g/L}$) to 112 $\mu\text{g/L}$, which are below current MTCA cleanup level of 500 $\mu\text{g/L}$. In 2010, a 2,300-gallon diesel UST was installed in place of the former UST-1 location (Figure 1, Appendix 6.7; Photo 1, Photo 2, and Photo 5, Appendix 6.9). The USTs and groundwater monitoring wells locations are available in Appendix 6.3.

2.3.2 Tank 3

Tank 3 was a 2,000-gallon diesel fuel storage tank installed in 1953. It was located inside the building and was closed in-place in January 1992. The Tank was installed with its top at the floor. Soil sampled along sides of the tank did not exceed MTCA cleanup levels for TPH-D and/or TPH-O, indicating the clean closure of the UST. The pit area was backfilled with clean soil and paved over with asphalt.

2.3.3 Tank 4

Tank 4 was a 6,000-gallon diesel fuel storage tank installed in 1969. The tank was reportedly installed as a bunker fuel storage tank and later switched over to diesel fuel storage. Tank 4 was removed in January 1992. Approximately 100 cubic yards of PCS were excavated from the area around the tank. The subsequent soil samples from the Tank 4 excavation bottom and sidewalls did not exceed MTCA cleanup levels for TPH-D and TPH-O, indicating the clean closure of the UST. The pit area was backfilled with clean soil and paved over with asphalt.

2.3.4 Supplemental Investigations

In August 2006, Tetra Tech drilled two Geoprobe soil borings (SB-1 and SB-2), north of the facility along the Washington Way. Soil and groundwater samples were collected from these borings. Groundwater was also sampled from the existing monitoring wells, MW-1, MW-2 and MW-3. Soil and groundwater samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), gasoline (TPH-G), TPH-D and TPH-O. These contaminants were not detected in any of the groundwater samples, except for TPH-D at MW-2 (170 $\mu\text{g/L}$) and SB-2 (57 $\mu\text{g/L}$). These concentrations are well below the MTCA cleanup level of 500 $\mu\text{g/L}$ for TPH-D and TPH-O. Contaminants were not detected in any of the soil samples above the laboratory detection limits. Appendix 6.4 presents the locations of Geoprobe borings SB-1 and SB-2.

On September 23, 2008, two additional groundwater monitoring wells were installed (MW-04 and MW-05) on Washington Way on the northeast side of the facility. Groundwater and soil samples were collected and analyzed for TPH-D and TPH-O. TPH-D was detected in the sample collected from well MW-05 at 140 $\mu\text{g/L}$, which is below MTCA cleanup level of 500 $\mu\text{g/L}$. TPH-D and TPH-O were not detected in monitoring well MW-04. Soil and groundwater results are available as Appendix 6.5.

2.3.5 Groundwater Monitoring: 2003 and September 2008 through September 2014

In 2003, groundwater samples were collected from three groundwater monitoring wells, MW-01 through MW-03. Groundwater samples were analyzed for BTEX, TPH-G, TPH-D and TPH-O. These contaminants were not detected any of the groundwater samples collected from these wells.

As per the requirements of Ecology's NFA determination letter of July 23, 2007 and the Groundwater Monitoring Plan (August 18, 2008) and Groundwater Monitoring Plan Addendum (September 17, 2008), well MW-04 and MW-05 were sampled in September 2008, February 2010, September 2011 and February 2013. All groundwater samples were analyzed for TPH-D and TPH-O. Also, groundwater elevation measurements were conducted at monitoring wells MW-1 through MW-3. The groundwater gradient at the Site is quite flat and the groundwater appears to flow generally to the north-northwest. The results of TPH-D and TPH-O during the first two rounds of monitoring ranged from non-detect to 140 µg/L and 350 µg/L respectively. These concentrations are below MTCA cleanup level of 500 µg/L. However, the results of February 2013 sampling event showed TPH-D and TPH-O concentrations of 1,700 µg/L and 11,000 µg/L respectively in monitoring well MW-04. These concentrations are well above MTCA cleanup level of 500 µg/L. Detailed groundwater sampling results are available as Appendix 6.5. Additional rounds of groundwater samples were collected on June 1, 2013 to confirm the February 2013 results. The June 2013 TPH-O result for MW-04 (1,600 µg/L) continued to be above the cleanup level. As a result of this increase in TPH-D and/or TPH-O concentrations, the groundwater sampling frequency has been increased to quarterly, beginning with the December 5, 2013 sampling event. The December 2013 sample results were received on February 4, 2014. For this event, MW-4 once again had TPH-D and TPH-O concentrations above the cleanup level (1,500 µg/L and 11,000 µg/L, respectively, for samples without silica gel cleanup preparation). The samples from MW-4 that were analyzed with silica gel cleanup preparation showed only slightly lower concentrations (1,100 µg/L and 8,900 µg/L respectively).

2.3.6 Direct-Push Groundwater Investigation

In July 2015, Tetra Tech installed six Direct-Push temporary groundwater sampling wells (DPGW-1 through DPGW-6) to a depth of 17 feet below ground surface (bgs). Groundwater samples were collected using low-flow sampling technique from all six temporary wells. In addition, groundwater samples were also collected from the five permanent monitoring wells, MW-1 through MW-5. All the groundwater samples were analyzed for TPH-D, TPH-O, and polycyclic aromatic hydrocarbons (PAHs). Results of groundwater samples indicated that low levels of TPH-D (15 µg/L to 77 µg/L), and TPH-O (27 µg/L to 71 µg/L) were detected in all 11 samples. All these concentrations were well below their MTCA Method A cleanup level of 500 µg/L. The total PAHs concentrations were also well below their cleanup level of 0.1 µg/L (TEQ). Locations of Direct-Push temporary locations and groundwater samples results are available as Appendix 6.6.

2.3.7 Groundwater Monitoring: March 2015 through November 2018

A total of nine rounds of groundwater monitoring has been conducted during this periodic review. Groundwater samples were collected from all five monitoring wells (MW-1 through MW-5) and groundwater samples were analyzed for TPH-D, TPH-O and PAHs. During this monitoring period, the groundwater sampling technique was changed from bailing to low-flow sampling with Ecology's prior approval early 2015. The results of TPH-D, TPH-O and PAHs were all well below their MTCA Method A cleanup levels of 500 µg/L (TPH-D and TPH-O) and 0.1 µg/L [total PAHs (TEQ)] except TPH-D concentration of 1,500 µg/L and 570 µg/L in MW-2 during March 2016 and May 2018 sampling events, respectively. Groundwater monitoring well locations and groundwater sample results are available as Appendix 6.7.

2.3.8 Soil Vapor Pathway

Evaluation of the soil to vapor pathway is required at sites contaminated with volatile organic hydrocarbons (VOCs) to determine the potential for adverse impacts on the indoor air quality that may pose a threat to human health and the environment. Examples of when this pathway should be evaluated include at sites where soil gasoline-range petroleum hydrocarbons (TPH-G) and/or other VOC concentrations are significantly higher than the cleanup levels derived for the protection of groundwater for drinking water beneficial use, or where soil TPH-D concentrations are higher than 10,000 mg/Kg; WAC 173-340-740(3)(B)(iii)(C). As a part of this investigation, procedures outlined in the Department of Ecology draft “Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remediation Action” should be used.

No VOCs, TPH-G and BTEX were detected in soils and groundwater at the Site. However some TPH-D contaminated soils with concentration 14,000 mg/Kg were left on the Site exceeding the MTCA cleanup level of 2,000 mg/Kg; no investigations were conducted at this Site to evaluate the soil to vapor pathway and whether potential vapor concentrations are protective of human health or the environment. However, it is Ecology’s opinion that the exposure through the soil to vapor pathway does not pose a significant risk based on the following reasons:

- The USTs were removed from the Site in 1992 and cleanup was conducted about 22 years ago. Releases that occurred at the Site would have happened approximately more than 22 years ago. During that time, many of the diesel fractions would have likely volatilized even further and the current diesel concentrations on the Site are likely much lower and may not produce many vapors.
- A majority of TPH-D and TPH-O contaminated soils (Approximately 230 tons) were excavated in March 1992 and a limited amount of TPH-D contaminated soils were left in place.
- No VOCs (TPH-G and BTEX) were detected in both soil and groundwater.
- During the last five years, a total of nine rounds of groundwater monitoring has been conducted at the Site. Low levels of TPH-D and TPH-O were detected in the groundwater except in MW-2 TPH-D was detected at 1,500 µg/L and 570 µg/L during March 2016 and May 2018 sampling events, respectively.
- Currently the ground floor of the building is not occupied/vacant and this scenario probably will not change based on the current building use.

Based on the above reasons, though there is lack of soil vapor and indoor air data, Ecology believes that it is highly unlikely that there is any adverse impact on the human health and the environment through the soil to vapor pathway.

2.4 Restrictive Covenant

In July 2007, Ecology determined that the Site is eligible for an NFA determination if the remaining PCS contaminated soils were protected through the implementation of institutional controls. An NFA determination was issued by Ecology on July 23, 2008 and a Restrictive

Covenant [now referred to as an Environmental Covenant (EC)] was recorded for the property on July 20, 2007. Institutional controls would prevent exposure to remaining contaminated soils and serve to notify the future property owners of contamination at the Site. The EC imposes the following limitations:

Section 1: No groundwater may be taken for any use from the Property. A portion of the Property contains TPH-O contaminated soil located beneath the Southeast corner of the building.

Section 2: Groundwater monitoring will be performed according to a Department Ecology approved Groundwater Monitoring Plan. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3: The portion of the property under the southeast corner of the building may contain soil contaminated with petroleum hydrocarbons. The owner shall not alter, modify, or remove the existing structure[s] in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology.

Section 4: Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 5: Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 6: The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 7: The Owner must restrict leases to uses and activities consistent with the EC and notify all lessees of the restrictions on the use of the Property.

Section 8: The Owner must notify and obtain from Ecology prior to any use of the Property that is inconsistent with the terms of this EC. Ecology may approve any inconsistent use only after public notice and comment.

Section 9: The Owner shall allow authorized representatives of Ecology the right to enter the property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect records that are related to the Remedial Action.

Section 10: The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this EC shall no longer limit use of the Property or be of any further

force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

The EC is available as Appendix 6.8.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based upon the Site visit conducted on March 13, 2019, the building and asphalt cover at the Site continue to eliminate direct exposure pathways (ingestion, contact) to contaminated soils. The asphalt appears in satisfactory condition and no repair, maintenance or contingency actions are required at this time. A photo log is available as Appendix 6.7.

Soils and groundwater remain at the Site with TPH-D and TPH-O concentrations exceeding MTCA Method A cleanup levels. The contaminated soils remain contained beneath asphalt and the building approximately at 14 feet below ground surface (bgs) and are not accessible for excavation at this time.

The initial three rounds of groundwater sampling results were either non-detects or below MTCA Method A cleanup levels. However, the results of last three rounds of groundwater sampling showed a TPH-D and/or TPH-O concentrations in monitoring well MW-4 that are above the cleanup level. As a result, the groundwater sampling frequency has been changed to quarterly instead of 18 months. If the results of future quarterly groundwater monitoring show increase in TPH-D and TPH-O concentrations, appropriate contingency actions must be evaluated to address the groundwater contamination at the Site.

An EC was recorded for the Site and remains active. This EC prohibits any use of the property that is inconsistent with the covenant or will release contaminants remaining in soil and groundwater at the Site.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new relevant scientific information for hazardous substances remaining at the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

MTCA Method A cleanup levels for contaminants of concern at the Site have not changed since the NFA determination was issued in July 2007.

3.4 Current and projected Site use

The Site is currently being used for commercial purposes by the Quest communications and the ground floor is not occupied/vacant. This use is not likely to have a negative impact on the risk posed by hazardous substances contained at the Site. There are no changes projected in the Site use.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included capping of hazardous substances and groundwater monitoring continues to be protective of human health and the environment at this time. While higher preference cleanup technologies may be available, they are still not practicable at this Site. However, if the future quarterly groundwater monitoring results show increase in TPH-D and/or TPH-O concentrations, an appropriate groundwater remedy needs to be evaluated to address the groundwater contamination.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial actions were capable of detection below Site cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

- The cleanup actions completed at the Site appear to be protective of human health and the environment through the implementation of appropriate institutional controls at this time.
- Soil and groundwater cleanup levels have not been met for TPH-D and TPH-O at the Site; however, under WAC 173-340-740(6) (d), the cleanup action could comply with cleanup standards if the long-term integrity of the containment system was ensured and the requirements for containment technologies in WAC 173-340-360(8) have been met.
- The EC for the property is in place and will be effective in protecting the public health from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this review, Ecology has determined that the remedial actions conducted at the Site continue to be protective of human health and the environment at this time. The requirements of the EC are being satisfactorily followed and no additional remedial actions are required at this time. However, if the results of future quarterly groundwater monitoring continue to show TPH-D and/or TPH-O concentrations that are above the cleanup level, an appropriate groundwater remedy needs to be evaluated to address the groundwater contamination. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the surface cover is maintained.

4.1 Next Periodic Review

The next periodic review for the Site will be scheduled five years from the date of this periodic review. Ecology will also continue to review quarterly groundwater monitoring results. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

Tetra Tech, Inc. Groundwater Monitoring Reports, March 2015 through November 2018.

Tetra Tech, Inc. Direct-Push Groundwater Investigation and Groundwater Monitoring Report, September 21, 2015

Roy F. Weston, Inc. Underground Storage Tank Phase 2 Site Characterization Status Report, US West Facility, Longview, Washington, July 1992.

Langseth Environmental Services, Inc. UST Removal Report, June 15, 1998.

Robinson Noble. Environmental Site Assessment Report, January 2006.

Department of Ecology. Restrictive Covenant, September 26, 2008.

Department of Ecology. No Further Action Determination Letter, April 19, 2008.

Tetra Tech. Groundwater Monitoring Plan, August 18, 2008.

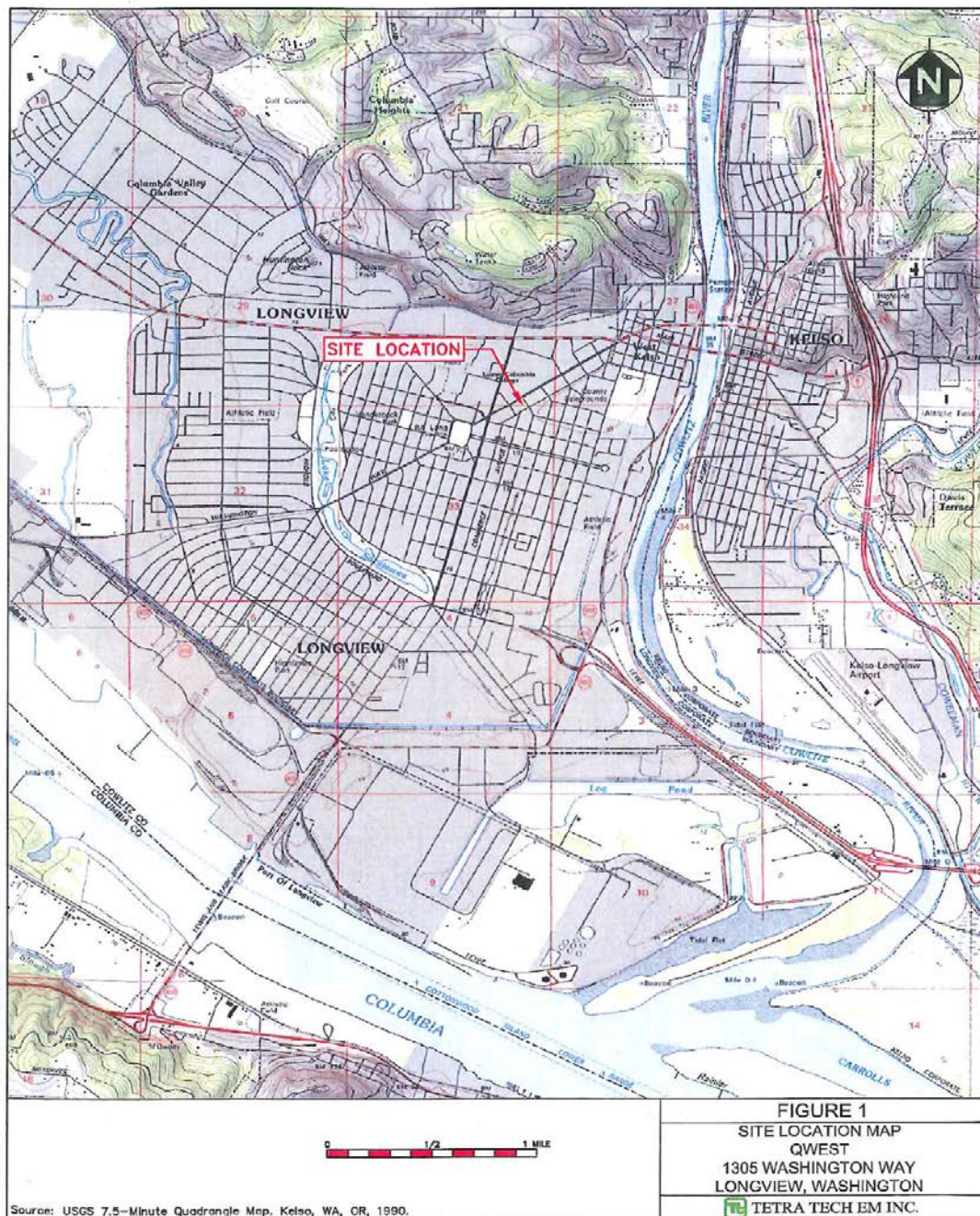
Tetra Tech. Groundwater Monitoring Plan Addendum, September 17, 2008.

Tetra Tech. Groundwater Monitoring Reports: October 2006, December 2008, May 2010, October 2011, April and August 2013, and February 2014.

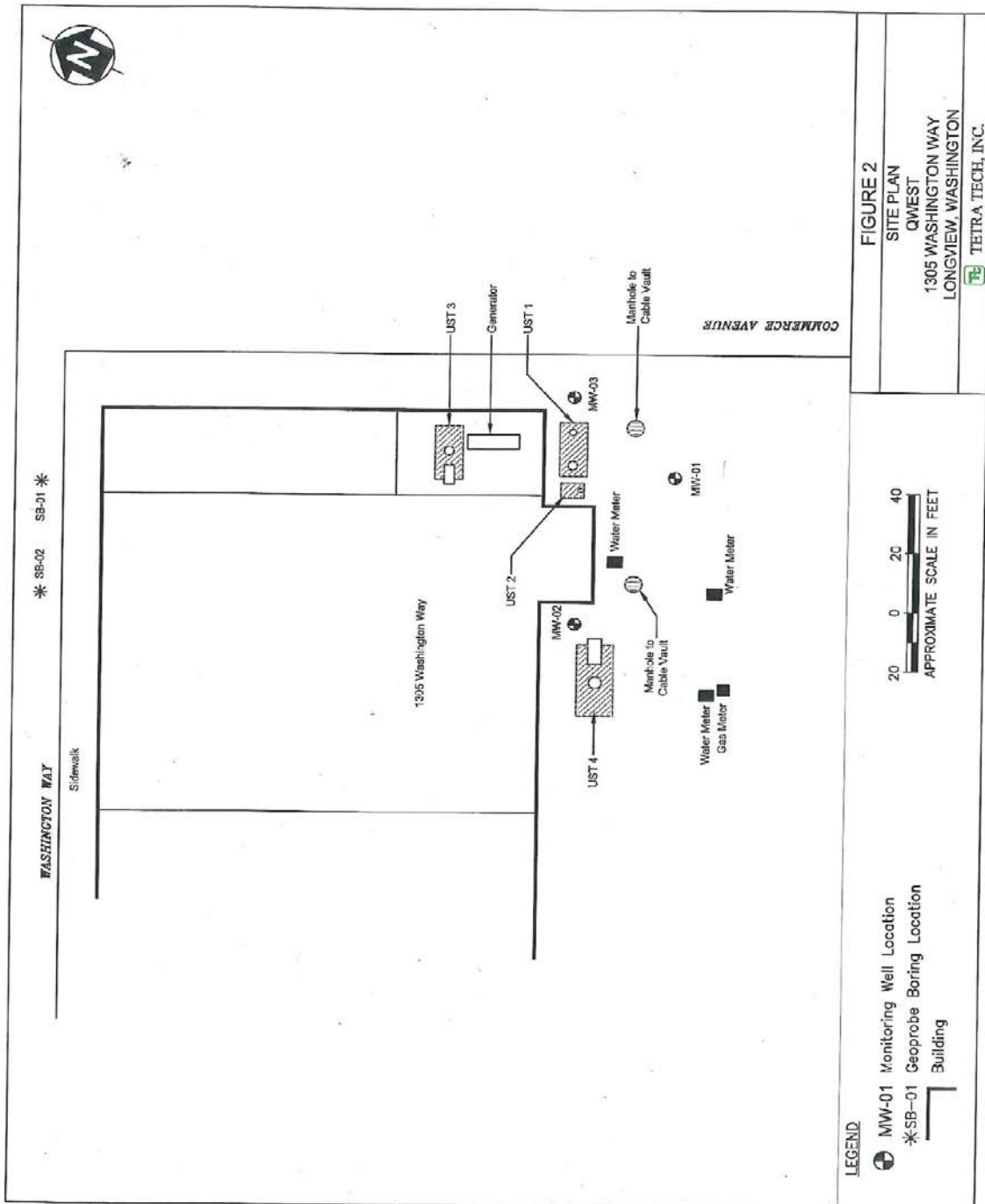
Department of Ecology. Site Visit, March 13, 2019.

6.0 APPENDICES

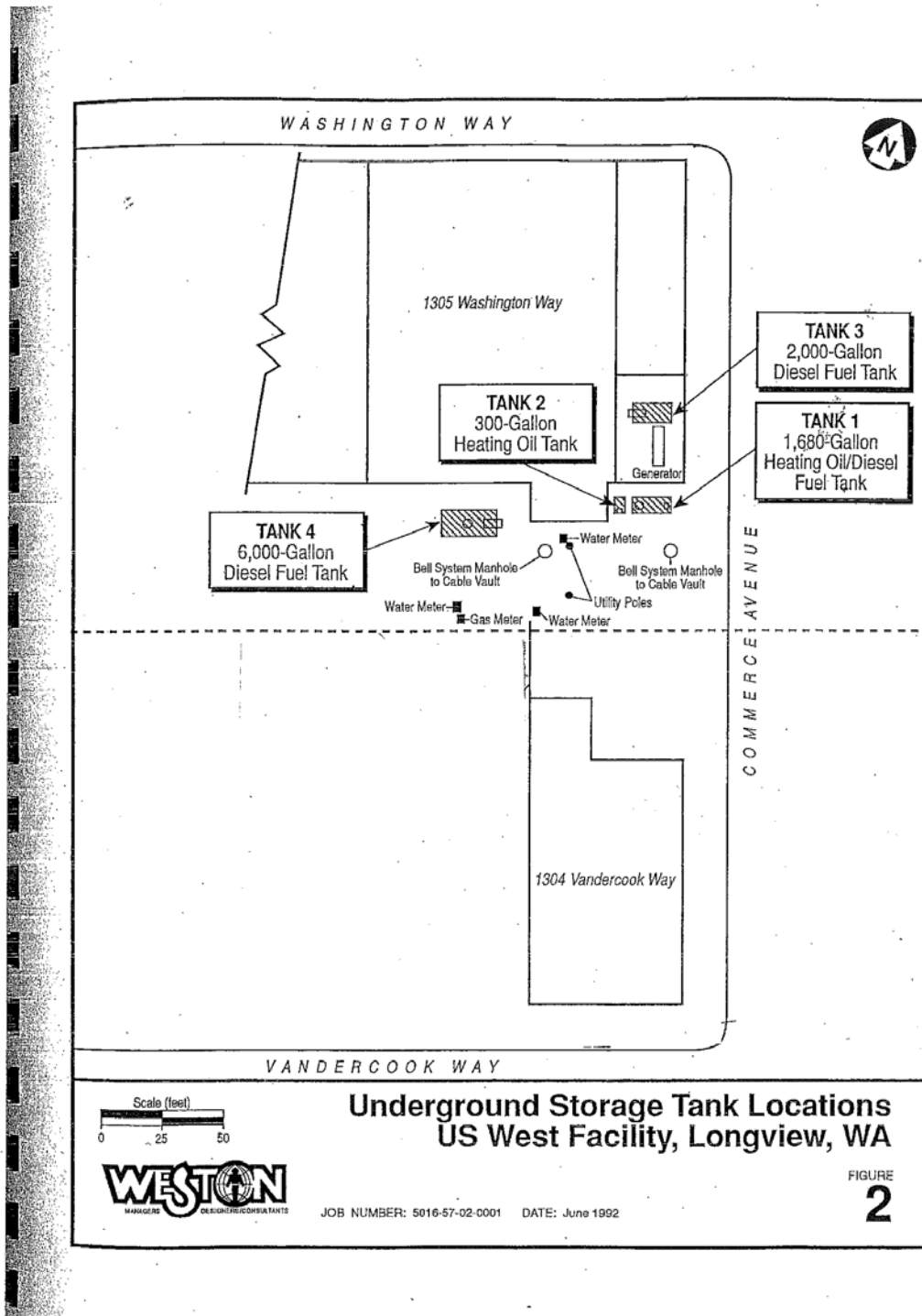
6.1 Vicinity Map

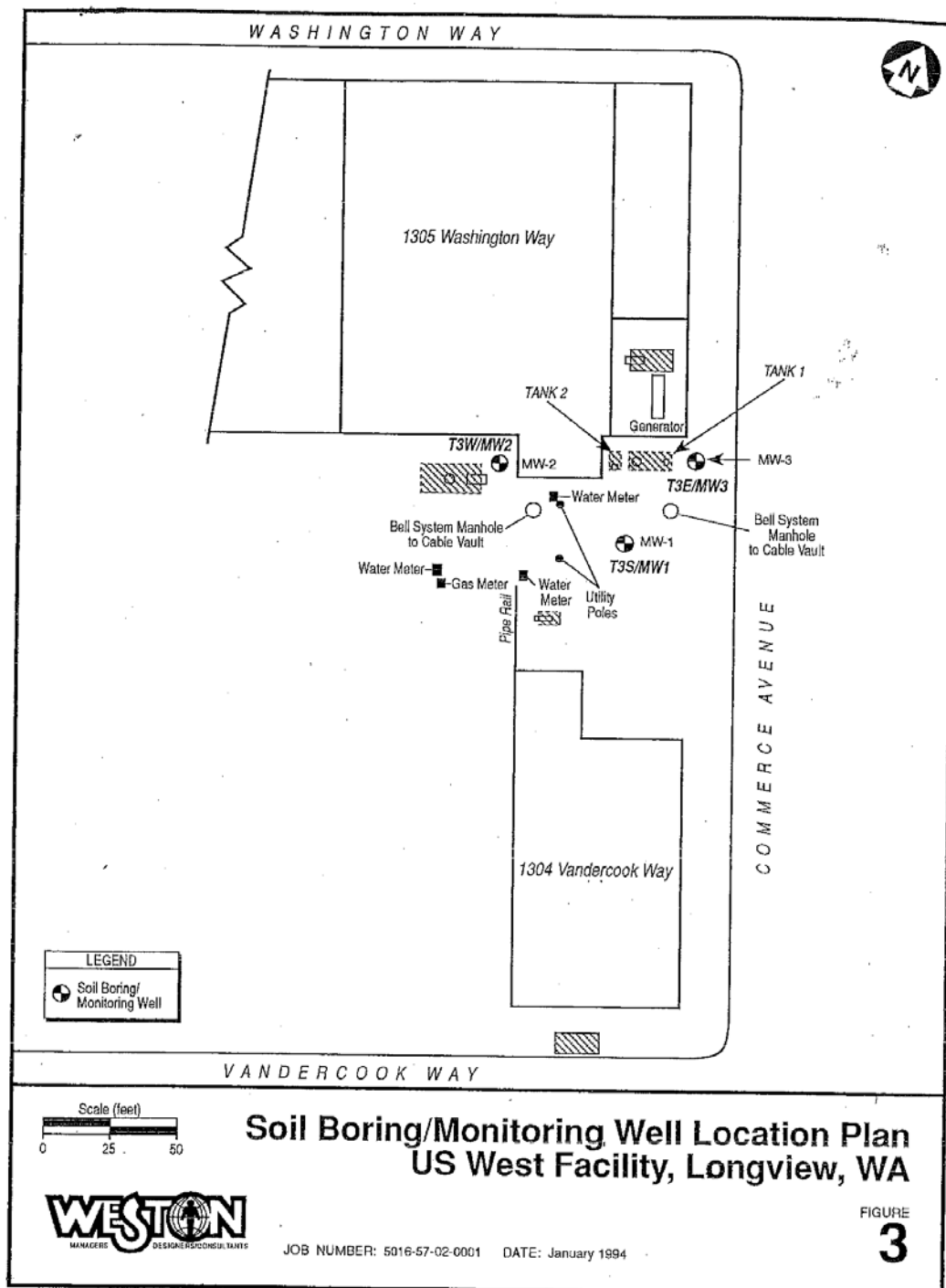


6.2 Site Plan



6.3 Underground Storage Tanks, Soil Boring/Monitoring Well Locations





6.5 Soil and Groundwater Investigation/Groundwater Monitoring Results

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (µg/L)
QWEST LONGVIEW FACILITY
AUGUST 10, 2006

Location	Benzene	Toluene	Ethylbenzene	Xylenes (total)	TPHg	TPHd	TPHmo
MW-01	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U
MW-02	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	140	< 250 U
MW-03	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U
SB-01	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	< 50 U	< 250 U
SB-0 2	< 1 U	< 1 U	< 1 U	< 3 U	< 100 U	57	< 250 U
MTCA Method a Cleanup Level	5	1,000	700	1,000	1,000	500	500

Notes:

µg/L

Microgram per liter

U

Analyte was analyzed for, but was not detected; the associated number is the reporting limit

MTCA

Model Toxics Control Act Method A for groundwater

TPHd

Total petroleum hydrocarbon as diesel

TPHg

Total petroleum hydrocarbon as gasoline

TPHmo

Total petroleum hydrocarbon as motor oil

TABLE 3
SOIL ANALYTICAL RESULTS (mg/kg)
QWEST LONGVIEW FACILITY
AUGUST 10, 2006

Location	Benzene	Toluene	Ethylbenzene	Xylenes (total)	TPHg	TPHd	TPHmo
SB-01	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	< 50 U	< 250 U
SB-0 2	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	< 50 U	< 250 U
MTCA Cleanup Level	0.03	7	6	9	1,000	2000	2000

Notes:

mg/kg

milligrams per kilogram (parts per million)

U

Analyte was analyzed for, but was not detected; the associated number is the reporting limit

MTCA

Model Toxics Control Act Method A for soil cleanup levels for unrestricted use.

TPHd

Total petroleum hydrocarbon as diesel

TPHg

Total petroleum hydrocarbon as gasoline

TPHmo

Total petroleum hydrocarbon as motor oil



TABLE 3
GROUNDWATER ANALYTICAL RESULTS
All dates

Analyte	Location	23-Sep-2008	26-Feb-2010	2-Sep-2011	26-Feb-2013	MTCA Method A Cleanup Level
TPH-d	MW-04	ND	ND	73*	1,700	500
	MW-05	ND	140	120*	ND	
TPH-mo	MW-04	ND	140	350	11,000	500
	MW-05	140	200	210*	220	

Notes:

All concentrations in microgram per liter
Maximum concentration taken from wells with duplicate results in a sampling event.

* Sample qualified by laboratory as not resembling a petroleum product
MTCA Model Toxics Control Act Method A for groundwater
ND Not detected
TPH-d Total petroleum hydrocarbon as diesel
TPH-mo Total petroleum hydrocarbon as motor oil

6.6 Direct-Push Groundwater Investigation: Direct-Push Boring Locations and Groundwater Sample Results

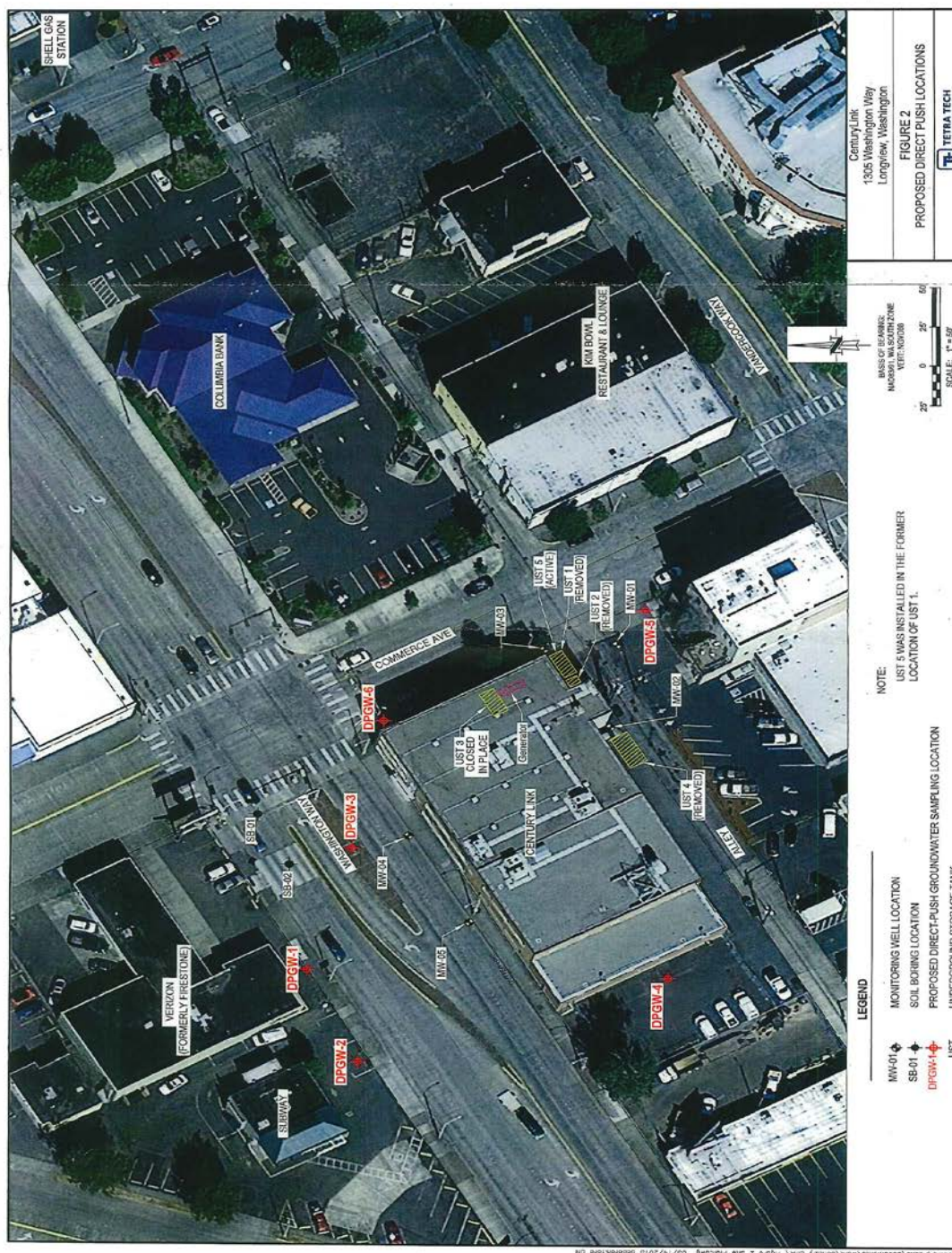


TABLE 1
GROUNDWATER SAMPLE RESULTS
CENTURYLINK LONGVIEW, WASHINGTON FACILITY

Analyte		TPH-DRO	TPH-RRO	Total PAH	BaP TEQ
MTCA Method A Cleanup Level		500 (µg/L)	500 (µg/L)	NA	0.1 (µg/L)
Location	Date				
MW-01	7/22/2015	22 J	52 J	0.0077 J	0.00029 J
MW-02	7/22/2015	77 J	71 J	0.019 J	ND
MW-03	7/21/2015	21 J	49 J	0.0056 J	ND
MW-04	7/21/2015	24 J	52 J	0.29 J	ND
MW-05	7/21/2015	30 J	42 J	0.15 J	ND
DPGW-1	7/20/2015	17 J	28 J	0.011 J	ND
DPGW-2	7/20/2015	19 J	27 J	0.013 J	ND
DPGW-3	7/21/2015	15 J	34 J	0.0059 J	ND
DPGW-4	7/21/2015	41 J	68 J	0.085 J	0.00027 J
DPGW-5	7/20/2015	18 J	40 J	0.0042 J	ND
DPGW-6	7/20/2015	21 J	45 J	ND	ND

Notes:

All concentrations in micrograms per liter (µg/L)
For wells with duplicate samples, the highest value reported is shown for each constituent

BaP TEQ Benzo(a)Pyrene Toxic Equivalent Quotient
J Estimated quantity below reporting limit
MTCA Model Toxics Control Act Method A for groundwater
NA Not applicable (no applicable MTCA standard)
ND Analyte not detected
PAH Polycyclic aromatic hydrocarbon
TPH-DRO Total petroleum hydrocarbons diesel range organics
TPH-RRO Total petroleum hydrocarbons residual range organics

6.7 Groundwater Monitoring Well Locations and Groundwater Sample Results, March 2015 through November 2018

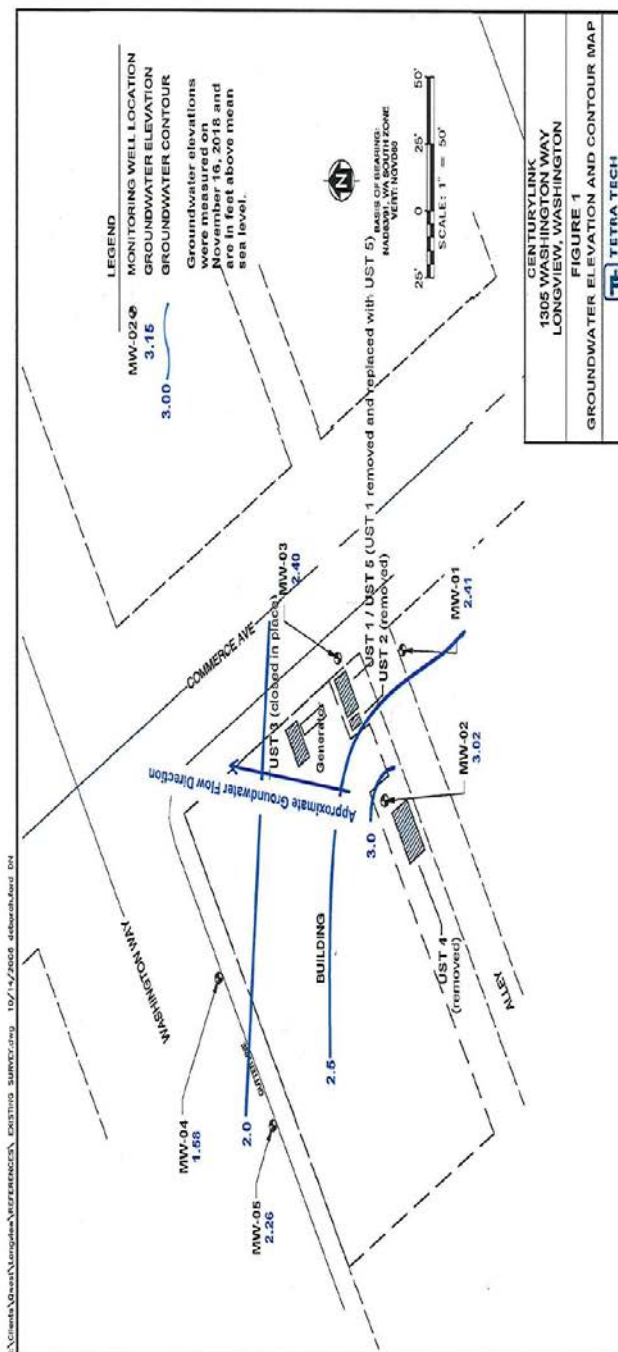


TABLE 1
GROUNDWATER SAMPLE ANALYTICAL RESULTS
CENTURYLINK LONGVIEW, WASHINGTON FACILITY

Analyte		TPH-DRO	TPH-RRO	Total PAH	BaP TEQ
MTCA Method A Cleanup Level		500 (µg/L)	500 (µg/L)	NA	0.1 (µg/L)
Location	Date				
MW-01	11/16/2018	48 J	130J	0.039	0.00020
MW-02	11/16/2018	96 J	140 J	0.098	0.00021
MW-02 DUP	11/16/2018	93 J	140 J	0.107	0.00026
MW-03	11/16/2018	61 J	240 J	0.044	0.00020
MW-04	11/16/2018	60 J	110 J	0.794	0.00023
MW-05	11/16/2018	77 J	380 J	0.068	0.00019

Notes:

All concentrations in micrograms per liter (µg/L)

BaP TEQ Benzo(a)Pyrene Toxic Equivalent Quotient
 J Data qualifier indicating that the result is an estimated quantity below the reporting limit
 MTCA Model Toxics Control Act Method A for groundwater
 NA Not applicable (no applicable MTCA standard)
 PAH Polycyclic aromatic hydrocarbon
 TPH-DRO Total petroleum hydrocarbons diesel range organics
 TPH-RRO Total petroleum hydrocarbons residual range organics

TABLE 2
HISTORICAL GROUNDWATER SAMPLE RESULTS – DRO AND RRO
CENTURYLINK LONGVIEW, WASHINGTON FACILITY

Analyte	Date	Sampling Method	MW-01	MW-02	MW-03	MW-04	MW-05
TPH-DRO (MTCA Method A Cleanup Level = 500 µg/L)	3/25/1992	Bailer	82	112	<50	--	--
	12/16/2003	Bailer	<250	<250	<250	--	--
	8/10/2006	Bailer	<50	140	<50	--	--
	9/23/2008	Bailer	--	--	--	<50	140
	2/26/2010	Bailer	--	--	--	<25	100
	9/2/2011	Bailer	--	--	--	73	120
	2/26/2013	Bailer	--	--	--	1,700	<51
	6/3/2013	Bailer	<50	66	<50	210	<50
	12/5/2013	Bailer	97	72	47	1,500	100
	3/27/2014	Bailer	63	87	<250	550	47
	6/25/2014	Bailer	50	33	<260	1,100	<260
	9/10/2014	Bailer	240	90	36	790	48
	3/5/2015	Low Flow	22	82	20	20	27
	7/20/2015	Low Flow	22	77	21	24	30
	12/18/15	Low Flow	38	83	46	96	120
	3/31/16	Low Flow	41	1,500	58	30	30
	7/7/2016	Low Flow	24	330	22	34	21
	10/13/2016	Low Flow	23	130	39	39	48
	12/09/2016	Low Flow	37	120	63	70	67
	5/04/2017	Low Flow	42	570	47	24	23
	11/16/2018	Low Flow	48	96	61	60	77
TPH-RRO (MTCA Method A Cleanup Level = 500 µg/L)	3/25/1992	Bailer	<200	<200	<200	--	--
	8/10/2006	Bailer	<250	<250	<250	--	--
	9/23/2008	Bailer	--	--	--	<250	<250
	2/26/2010	Bailer	--	--	--	140	200
	9/2/2011	Bailer	--	--	--	350	210
	2/26/2013	Bailer	--	--	--	11,000	220
	6/3/2013	Bailer	150	<100	<100	1,600	<100
	12/5/2013	Bailer	440	120	120	11,000	170
	3/27/2014	Bailer	370	63	<500	3,900	190
	6/25/2014	Bailer	340	62	21	8,400	51
	9/10/2014	Bailer	1,500	140	120	6,600	82
	3/5/2015	Low Flow	43	70	37	48	53
	7/20/2015	Low Flow	52	71	49	52	42
	12/18/15	Low Flow	84	160	81	81	82
	3/31/16	Low Flow	83	340	110	54	53
	7/7/2016	Low Flow	44	140	41	33	34
	10/13/2016	Low Flow	94	130	98	90	100
	12/09/2016	Low Flow	140	180	130	110	110
	5/04/2017	Low Flow	86	200	54	37	31
	11/16/2018	Low Flow	130	140	240	110	380

Notes:

All concentrations in micrograms per liter (µg/L)
Bold values indicate exceedance of the MTCA Method A Cleanup Level
For wells with duplicate samples, the highest value reported is shown for each constituent
MTCA Model Toxics Control Act Method A for groundwater
TPH-DRO Total petroleum hydrocarbons diesel range organics
TPH-RRO Total petroleum hydrocarbons residual range organics
-- Not sampled
< 0.01 Concentration is less than the method detection limit shown

TABLE 3
HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS –
BAP TEQ AND TOTAL PAH
CENTURYLINK LONGVIEW, WASHINGTON FACILITY

Analyte	Date	Sampling Method	MW-01	MW-02	MW-03	MW-04	MW-05
BaP TEQ Unfiltered analysis (MTCA Method A Cleanup Level=0.1 µg/L)	6/3/2013	Bailer	2.2	< 0.1	< 0.1	0.36	< 0.1
	12/5/2013	Bailer	0.20	0.027	0.074	1.4	0.0062
	3/27/2014	Bailer	0.37	0.080	0.049	0.27	0.073
	6/25/2014	Bailer	0.39	0.012	0.00033	0.40	0.0054
	9/10/2014	Bailer	0.14	0.090	0.0037	0.39	0.0051
BaP TEQ Filtered analysis (MTCA Method A Cleanup Level=0.1 µg/L)	12/5/2013	Bailer	0.00033	--	0.00068	0.00084	--
	3/27/2014	Bailer	< 0.019	< 0.019	--	< 0.019	< 0.019
	6/25/2014	Bailer	< 0.020	--	--	< 0.200	--
	9/10/2014	Bailer	0.00030	0.00027	--	< 0.020	--
	3/5/2015	Low Flow	0.00074	0.00038	< 0.019	0.00044	0.00029
	7/20/2015	Low Flow	0.00029	< 0.020	< 0.021	< 0.021	< 0.021
	12/18/2015	Low Flow	0.0065	0.00029	< 0.019	0.00050	0.00039
	3/31/2016	Low Flow	0.00035	< 0.020	< 0.020	0.00026	< 0.020
	7/7/2016	Low Flow	< 0.020	< 0.020	0.00027	0.00035	< 0.020
	10/13/2016	Low Flow	< 0.0026	< 0.0026	0.00028	0.00040	0.00041
	12/09/2016	Low Flow	0.00028	< 0.020	0.00032	0.00032	< 0.020
	5/04/2017	Low Flow	0.00026	< 0.020	0.00020	0.00023	0.00024
	11/16/2018	Low Flow	0.00020	0.00026	0.00020	0.00023	0.00019
Total PAH Unfiltered analysis (No MTCA Method A Cleanup Level)	6/3/2013	Bailer	16	1.6	< 0.1	8.7	< 0.1
	12/5/2013	Bailer	1.7	0.83	0.85	16	2.4
	3/27/2014	Bailer	3.5	1.3	0.50	3.1	0.80
	6/25/2014	Bailer	3.9	2.3	0.12	4.8	0.37
	9/10/2014	Bailer	1.2	1.5	0.049	6.0	5.5
Total PAH Filtered analysis (No MTCA Method A Cleanup Level)	12/5/2013	Bailer	0.028	--	0.043	0.52	--
	3/27/2014	Bailer	0.018	0.21	--	0.080	0.064
	6/25/2014	Bailer	0.063	--	--	0.11	--
	9/10/2014	Bailer	0.012	0.041	--	0.42	--
	3/5/2015	Low Flow	0.046	0.58	0.013	0.24	0.26
	7/20/2015	Low Flow	0.0077	0.019	0.0058	0.29	0.15
	12/18/2015	Low Flow	0.039	1.9	< 0.019	9.7	8.5
	3/31/2016	Low Flow	0.0035	0.032	< 0.020	0.041	0.0092
	7/7/2016	Low Flow	< 0.020	0.019	0.0092	2.2	0.024
	10/13/2016	Low Flow	0.0083	0.034	0.016	0.68	2.8
	12/09/2016	Low Flow	0.0028	0.0070	0.029	4.7	1.1
	5/04/2017	Low Flow	0.015	0.70	0.01	0.017	0.0096
	11/16/2018	Low Flow	0.039	0.107	0.044	0.794	0.068

Notes:

All concentrations in micrograms per liter (µg/L)
Bold values indicate exceedance of the MTCA Cleanup Level
 For wells with duplicate samples, the highest value reported is shown for each constituent
 BaP TEQ Benzo(a)Pyrene Toxic Equivalent Quotient
 MTCA Model Toxics Control Act Method A for groundwater
 PAH Polycyclic aromatic hydrocarbon
 -- Not analyzed
 < 0.01 Concentration is less than the method detection limit, shown

6.8 Restrictive Covenant

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07/20/2007 09:37:01 AM
Covenants TOM PITTS 36.00
Cowlitz County Washington
Page: 5



Model Restrictive (Environmental) Covenant

After Recording Return to:
State of Washington Department of Ecology
Southwest Regional Office
Toxics Cleanup Program
Attention: Steve Teel
P.O. Box 47775
Lacey, WA 98504-7775

Environmental Covenant

Grantor: Qwest Corporation, a Colorado corporation
Grantee: State of Washington, Department of Ecology
Legal: SUB:LONGVIEW 11 BLK:99 LOT:16,17, DESC: LONGVIEW 11 LOT
16,17,18,19,20 BLK 99 SECT,TWN,RNG:33-8N-2W PARCEL: 01662
Tax Parcel Nos.: 01662

Grantor, Qwest Corporation, a Colorado corporation, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant (hereafter "Covenant") made this 20th day of July, 2007 in favor of the State of Washington Department of Ecology (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, 2007 Wash. Laws ch. 104, sec. 12.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Qwest Corporation its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology"). An independent remedial action ("Remedial Action") occurred at the Property. The Remedial Action conducted at the Property is described in the following documents:

- a. Roy F. Weston, Inc. 1992. "Underground Storage Tank Site Characterization, Status Report, and Work Plan, US West Facility, Longview, Washington." February.
- b. Roy F. Weston, Inc. 1992. "Underground Storage Tank Phase 2 Site Characterization, Status Report, US West Facility, Longview, Washington." July.

- c. Tetra Tech EM Inc. 2004. "Groundwater Monitoring Report, Status Report, Longview Facility, Longview, Washington." February.
- d. Tetra Tech EM Inc. 2006. "Supplemental Investigation and Groundwater Monitoring Report, Longview Facility, Longview, Washington." October.

These documents are on file at Ecology's Southwest Regional Office.

This Covenant is required because the Remedial Action resulted in residual concentrations of petroleum hydrocarbons in soil and possibly groundwater which exceed the Model Toxics Control Act Method A Cleanup Level.

The undersigned, Qwest Corporation, is the fee owner of real property (hereafter "Property") in the County of Cowlitz, State of Washington, that is subject to this Covenant. The Property is legally described IN ATTACHMENT A OF THIS COVENANT AND MADE A PART HEREOF BY REFERENCE.

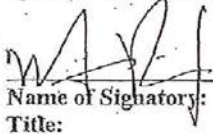
Qwest Corporation makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

1. No groundwater may be taken for any use from the Property.
2. Groundwater monitoring will be performed according to a Department of Ecology-approved Groundwater Monitoring Plan.
3. The portion of the property under the southeast corner of the building may contain soil contaminated with petroleum hydrocarbons. The Owner shall not alter, modify, or remove the existing structure(s) in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without written approval from Ecology.
4. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
5. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the

Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.


6. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.
7. The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.
8. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Covenant. Ecology may approve any inconsistent use only after public notice and comment.
9. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, to determine compliance with this Covenant, and to inspect records that are related to the Remedial Action.
10. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

QWEST CORPORATION


Name of Signatory:
Title:

Dated: 07.09.2007

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY


Name of Person Acknowledging Receipt:

Dated: 7/24/2007

STATE OF Washington
COUNTY OF Pierce

On this 9th day of July, 2007, I certify that Michael Reifers
personally appeared before me, acknowledged that he/she is the Representative of Qwest
the corporation that executed the within and foregoing instrument, and signed said instrument
by free and voluntary act and deed of said corporation, for the uses and purposes therein
mentioned, and on oath stated that he/she was authorized to execute said instrument for said
corporation.



Maura E. Peterson
Notary Public in and for the State of
Washington, residing at
Tacoma
My appointment
expires 2/14/10

6.9 Photo Log

Photo 1: Location at the Southeast Corner of the Building Where the Former UST 1 and UST 2 Were Removed. UST 5 is an Active Tank and was Placed in the Former Location of UST 1. View is from the Northwest



Photo 2: Location and Monitoring Well MW-3 at the Southeast Corner of the Building Near the Location of Former of UST 1 and UST 2 and active UST 5. View is from the East



Photo 3: Former UST 3 (Closed-in-Place) Location Next to the Generator – From the South



Photo 4: Monitoring Well MW-2 Near the Former UST 4 (Removed) Location South of the Building



Photo 5: South Side of the Building and the Alley where the Former UST 1 and UST 2 (and active UST 5) are located at the Southeast Corner of the Building. UST 4 is located near the White Truck. View is from the Southeast



Photo 6: East Side of the Building along Commerce Avenue – From the Southeast



Photo 7: Front of the Building along Washington Way – From the Northeast



Photo 8: Upgradient Monitoring Well MW-1 – From the North

