PERIODIC REVIEW

US West Communications
FS ID#: 777

102 East Alder Street
Walla Walla, Washington 99362

Eastern Region Office

TOXICS CLEANUP PROGRAM

September 2009

1.0 INTRODUCTION

This document is the Department of Ecology's review of post-cleanup site conditions and monitoring data to assure that human health and the environment are being protected at the US West Communications facility (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.

Cleanup activities at this Site were conducted under the Independent Remedial Action Program. The cleanup actions resulted in residual concentrations of Total Petroleum Hydrocarbons (TPH) exceeding MTCA Method A cleanup levels for soil established under WAC 173-340-740(2). 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' 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; and
(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 US West Communications (US West) Site is located in the City of Walla Walla in Walla Walla County, Washington. A vicinity map is available as Appendix 6.1. The Site is currently used by US West Communications as a telephone operations center.

The Site was originally the location of several commercial businesses including a liquor store, a wood working/upholstery shop, a carpenter's shop, a warehouse, and several storage sheds. Pacific Telephone and Telegraph Company constructed a three-story building with basement on the site in the late 1940s and an addition was constructed in 1955. This is the same building currently located on the property. The site is paved with asphaltic concrete. Surrounding properties are predominantly commercial. A site plan is available as Appendix 6.2.

2.2 Site Investigations and Remedial Activities

In 1973 petroleum product was detected entering the wastewater treatment facility via the city sewer system. The source was traced back to the sewer line located in the alley adjacent to the Site. It was believed that petroleum product from the underground storage tank (UST) system impacted ground water and was drawn beneath the building by the operating sump pumps. The sump pumps in turn discharged petroleum contaminated ground water into the city sewer system. During the investigation of this release, US West removed the two USTs located adjacent to the alley. Petroleum-contaminated soil was discovered and removed, and the excavation was backfilled with clean material. The petroleum product influx into the wastewater treatment facility ceased after the USTs were removed.

In December 1991, liquid hydrocarbons were encountered in ground water during excavation for an elevator shaft at the facility. In response to the discovery of liquid hydrocarbons, soil and ground water samples were collected from the elevator shaft excavation and from a boring drilled through the basement floor near an abandoned UST. Laboratory results indicated that the product was a mixture of #2 diesel fuel and bunker C oil.

Five other USTs may have been present at the Site. A 1,000-gallon emergency generator UST was located in the parking area adjacent to South 1st Avenue. Two other USTs were located on the southeast corner of the Site. These were the tanks removed during the discovery of the release to the wastewater treatment facility in 1973. Two additional USTs are shown on building plans dated 1955. The plans indicated that these tanks were to be removed during renovation and expansion of the building during the 1950s. Inspections in the basement area revealed no evidence that would indicate these USTs were still present.

In March and April 1993, Maxim evaluated the status of the abandoned UST located beneath the basement floor near the elevator shaft. The tank was located beneath a steel plate bolted to the basement floor. The plate and the soil overlying the tank were removed. Liquid hydrocarbons

and ground water were present at approximately 1.5 feet beneath the basement floor. A pump was used to remove the water, and water was routed through an oil-water separator. Further evaluation of petroleum leaks from the tank was not feasible due to restricted access and high ground water conditions.

In November 1994, the 1,000-gallon diesel fuel emergency generator UST was removed from the parking area adjacent to South 1st Avenue. The UST appeared to be in good condition with no signs of rusting or pitting. Minor staining was present in soil near the fill pipe. A total of 15 cubic yards of impacted soil were removed from the tank excavation. Five soil samples were collected from the excavation. All soil sample results from the excavation were below method detection limits.

No additional remedial actions have been conducted at the Site.

2.3 Groundwater Monitoring

In October 1992, Maxim completed a limited Phase II Environmental Assessment at the Site to determine the extent of contamination. Three monitoring wells (MW-1 through MW-3) were installed to evaluate Site ground water conditions. Soil samples collected from the borings indicated that total petroleum hydrocarbons concentrations were present in soil ranging from 53 milligrams per kilogram (mg/kg) in boring MW-l to 2,300 mg/kg in boring MW-2. TPH in ground water was detected only in well MW-2 at a concentration of 120 milligrams per liter (mg/l) and in the basement sump at a concentration of 4.5 mg/l.

In August 1993, four additional monitoring wells (MW-4 through MW-7) were installed and all 7 monitoring wells were sampled. Ground water sampling results indicted TPH concentrations in ground water exceeding Method A cleanup levels at MW-2 (2 mg/l) and basement sump #1 (3.8 mg/l). The TPH concentrations in ground water decreased in the downgradient direction away from the building and did not exceed Method A cleanup levels.

Ground water monitoring of sump #1 and Site monitoring wells was conducted quarterly in 1995. Samples from MW-2, MW-4, and MW-6 contained TPH concentrations below cleanup levels in January 1995. All other samples in 1995 and samples collected in February 1996 were below detection limits.

Groundwater monitoring data is available as Appendix 6.3.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based upon the site visit conducted on August 27, 2009, the entire Site is covered by asphalt or building footprint. These surface covers effectively serve as a cap for the Site that continues to eliminate exposure pathways (ingestion, contact) to contaminated soils. The property remains occupied by US West and continues to be used as a telephone operations center. A photo log is available as Appendix 6.4.

Probable sources of the release were the UST system previously located near the southeast corner of the Site and/or the UST located in the basement near the elevator shaft. These assumed release sources were removed over 20 years ago. Remaining soil contamination is confined to the basement subsurface area and adjacent to the building. Ground water monitoring has shown that ground water contamination did not migrate off site. Five consecutive quarters of ground water monitoring did not detect petroleum concentrations exceeding Method A cleanup levels in ground water.

Further remediation of the subsurface does not appear to be warranted. The contamination is contained on site, there is no direct contact with the contamination, and there are no sensitive receptors in the vicinity. However, since contaminated soil remains beneath and adjacent to the building, a restrictive covenant is required to ensure the long-term protectiveness of the remedial action.

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

There is no new relevant scientific information for the petroleum contaminants related to the Site.

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

Although cleanup levels changed for many contaminants as a result of modifications to MTCA in 2001, contamination remains at the site above MTCA Method A cleanup levels.

A table containing MTCA Method A cleanup levels from 1991 and 2001 is available below:

Table 1: Changes to MTCA Method A Cleanup Levels

Analyte	1991 MTCA Soil Cleanup Level (ppm)	2001 MTCA Method A Soil Cleanup Level (ppm)	1991 MTCA Method A Groundwater Cleanup level (ppb)	2001 MTCA Method A Groundwater Cleanup Level (ppb)
TPH	NL	NL	1000	NL
TPH-Gas	100	100/30*	NL	1000/800*
TPH-Diesel	200	2000	NL	500
TPH-Oil	200	2000	NL	500

* The second value is used if benzene is present.

3.4 Current and projected site use

The site is currently used for commercial purposes. There have been no changes in current or projected future site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances. With the implementation of institutional controls, the remedy would be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

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

The analytical methods used at the time of the remedial action were capable of detection below MTCA Method A cleanup levels. The presence of improved analytical techniques would not effect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

- The remedial actions completed at the Site appear to eliminate direct exposure pathways to contamination, but the remedy is not protective of human health and the environment.

- Soil cleanup levels have not been met at the Site; however, under WAC 173-340-740(6)(d), the cleanup action would comply with cleanup standards ***if*** institutional controls were implemented at the Site. The use of institutional controls in the form of a Restrictive Covenant would assure that the long-term integrity of the containment system is protected and would meet the requirements for containment technologies in WAC 173-340-360(8).

- A Restrictive Covenant has not been recorded for the property. A Restrictive Covenant is necessary to issue a No Further Action determination for the Site, because soil contamination remains at concentrations exceeding MTCA Method A cleanup levels. A Restrictive Covenant would serve to protect the integrity of the soil cleanup action and the soil cap.

Based on this five-year review, the Department of Ecology has determined that the requirements of the Model Toxics Control Act have not been met for the Site. Additional actions are required by the property owner in order to receive a No Further Action determination for the Site. It is the property owner's responsibility to continue to inspect the site to assure that the integrity of the existing remedial action maintained.

4.1 Next Review

The next review for the site will be scheduled five years from the date of this periodic review. 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

Chen-Northern, Inc. *Underground Storage Tank Site Assessment.* May 1993.

Chen-Northern, Inc. *Phase II Environmental Assessment.* December 1993.

Huntingdon Engineering and Environmental, Inc. *Underground Storage Tank Site Assessment US West Communications Facility.* November 18, 1994.

Maxim Technologies. *Quarterly Groundwater Monitoring at US West Facility.* March 18, 1996.

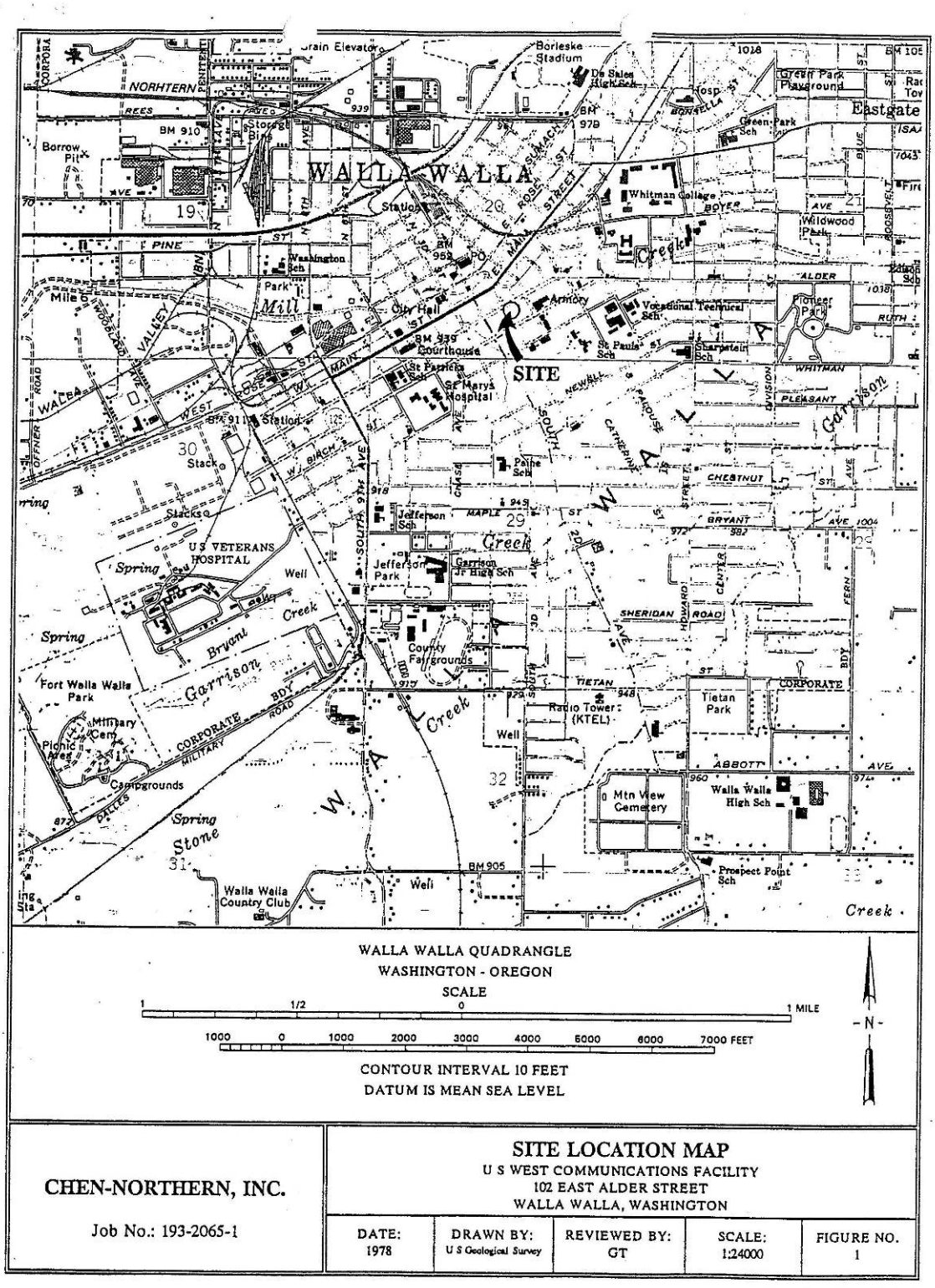
Maxim Technologies. *Independent Remedial Action Report.* August 15, 1996.

Ecology. *VCP Review.* January 24, 1997

Ecology. *Site Visit.* August 27, 2009.

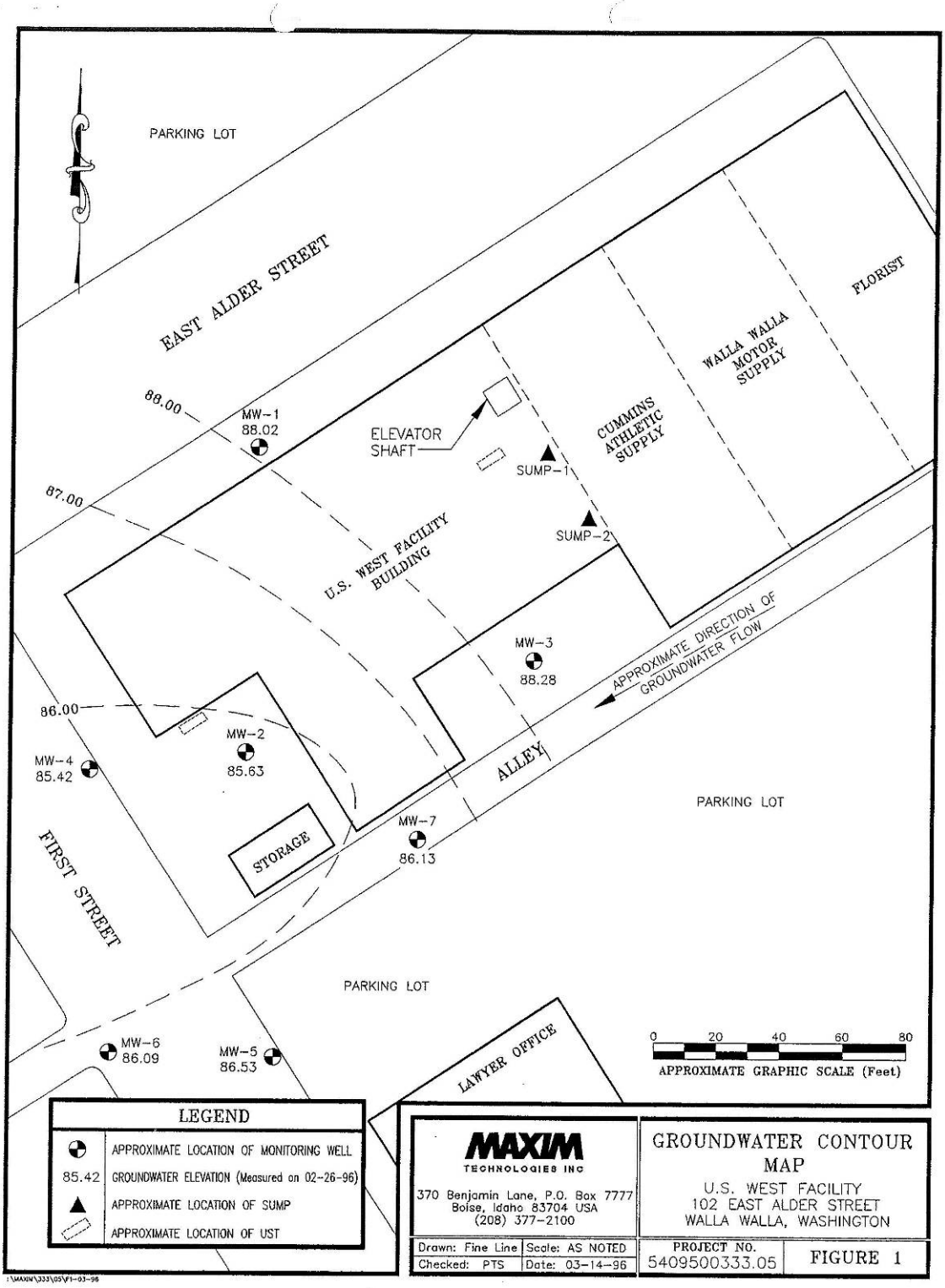
6.0 APPENDICIES

6.1 Vicinity Map



CHEN-NORTHERN, INC.	SITE LOCATION MAP U S WEST COMMUNICATIONS FACILITY 102 EAST ALDER STREET WALLA WALLA, WASHINGTON				
Job No.: 193-2065-1	DATE: 1978	DRAWN BY: U S Geological Survey	REVIEWED BY: GT	SCALE: 1:24000	FIGURE NO. 1

6.2 Site Plan


PARKING LOT
EAST ALDER STREET
88.00
87.00
86.00
MW-1
88.02
ELEVATOR SHAFT
SUMP-1
SUMP-2
CUMMINS ATHLETIC SUPPLY
WALLA WALLA MOTOR SUPPLY
FLORIST
U.S. WEST FACILITY BUILDING
MW-3
88.28
APPROXIMATE DIRECTION OF GROUNDWATER FLOW
MW-2
85.63
MW-4
85.42
ALLEY
PARKING LOT
STORAGE
MW-7
86.13
FIRST STREET
PARKING LOT
MW-6
86.09
MW-5
86.53
LAWYER OFFICE
0 20 40 60 80
APPROXIMATE GRAPHIC SCALE (Feet)
LEGEND
APPROXIMATE LOCATION OF MONITORING WELL
85.42 GROUNDWATER ELEVATION (Measured on 02-26-96)
APPROXIMATE LOCATION OF SUMP
APPROXIMATE LOCATION OF UST
MAXIM TECHNOLOGIES INC
370 Benjamin Lane, P.O. Box 7777
Boise, Idaho 83704 USA
(208) 377-2100
GROUNDWATER CONTOUR MAP
U.S. WEST FACILITY
102 EAST ALDER STREET
WALLA WALLA, WASHINGTON
Drawn: Fine Line
Scale: AS NOTED
Checked: PTS
Date: 03-14-96
PROJECT NO. 5409500333.05
FIGURE 1

6.3 Groundwater Monitoring Data

TABLE 1
Summary of Groundwater Monitoring Data
U.S.West Facility
Walla Walla, Washington

Well ID/ Elevation (ft.) (TOC)	Date	TPH-D (µg/l)	TPH-G (µg/l)	DTW (ft.)	WTE (ft.)
MW-1/ 97.98	1/17/95	ND	NA	10.00	87.98
	5/26/95	ND	ND	10.49	87.49
	8/30/95	ND	NA	10.65	87.33
	11/28/95	ND	NA	10.17	87.81
	2/26/96	**ND**	**NA**	**9.96**	**88.02**
MW-2/ 97.06	1/17/95	190	NA	10.42	86.64
	5/26/95	ND	ND	11.73	85.33
	8/30/95	ND	NA	11.84	85.22
	11/28/95	ND	NA	11.43	85.63
	2/26/96	**ND**	**NA**	**11.43**	**85.63**
MW-3/ 98.37	1/17/95	NS	NS	NM	NM
	5/26/95	NS	NS	10.25	88.12
	8/30/95	NS	NS	10.35	88.02
	11/28/95	NS	NS	10.16	88.21
	2/26/96	**NS**	**NS**	**10.09**	**88.28**
MW-4/ 96.81	1/71/95	100	NA	11.33	85.48
	5/26/95	ND	ND	NM	NM
	8/30/95	ND	NA	11.95	84.86
	11/28/95	ND	NA	11.47	85.34
	2/26/96	**ND**	**NA**	**11.39**	**85.42**
MW-5/ 96.55	1/17/95	ND	NA	11.25	85.30
	5/26/95	ND	ND	11.70	84.85
	8/30/95	ND	NA	10.49	86.06
	11/28/95	ND	NA	10.13	86.42
	2/26/96	**ND**	**NA**	**10.02**	**86.53**
MW-6/ 96.03	1/17/95	120	NA	9.63	86.40
	5/26/95	ND	ND	NM	NM
	8/30/95	ND	NA	10.22	85.81
	11/28/95	ND	NA	9.98	86.05
	2/26/96	**ND**	**NA**	**9.94**	**86.09**
MW-7 97.56	11/28/95	NS	NS	11.51	86.05
	2/26/96	**NS**	**NS**	**11.43**	**86.13**
Sump in Basement	1/17/95	ND	NA	3.16	
	5/26/95	ND	ND	NM	NM
	8/30/95	ND	NA	NM	NM
	11/28/95	ND	NA	NM	NM
	2/26/96	**ND**	**NA**	**NM**	**NM**
Duplicate MW-1	**2/26/96**	**ND**	**NA**		

EXPLANATION
Well locations shown in Figure 1
TOC - Top of Casing
ppb - Parts per billion, equivalent to micrograms per liter
TPH-G - Total Petroleum Hydrocarbons as Gasoline, Washington DOE Method
TPH-D - Total Petroleum Hydrocarbons as Diesel Extended, Washington DOE Method
DTW - Depth to Groundwater
WTE - Groundwater Table Elevation
ND - Not Detected
NA - Not Analyzed
NM - Not Measured

8362KV.HGR/5409500333-05

6.4 Photo log

Photo 1: US West Building - from the northeast

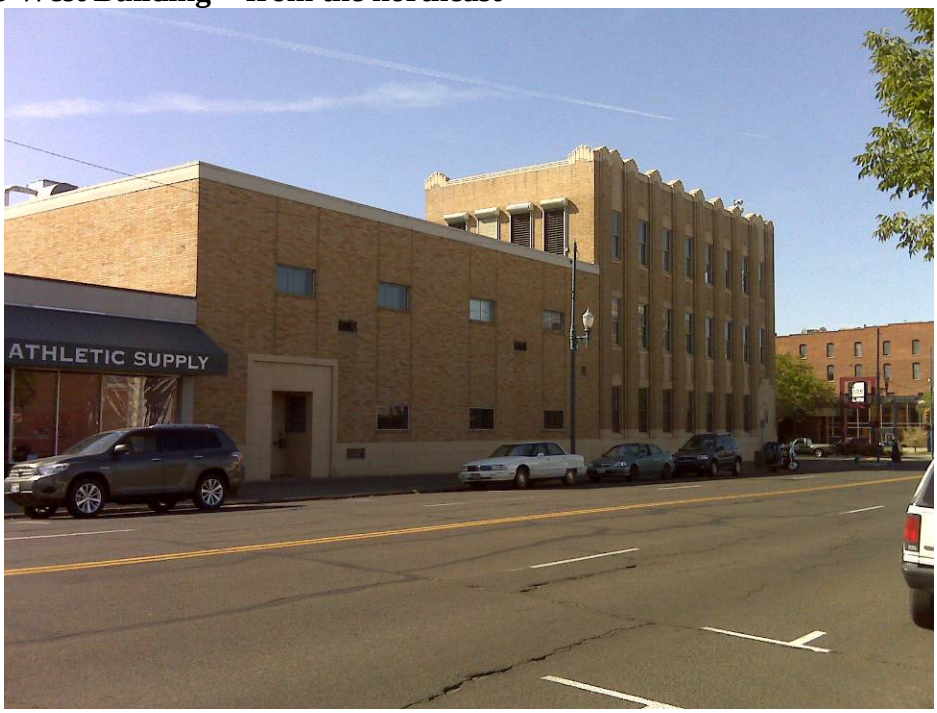


Photo 2: Backside of US West Building - from the south

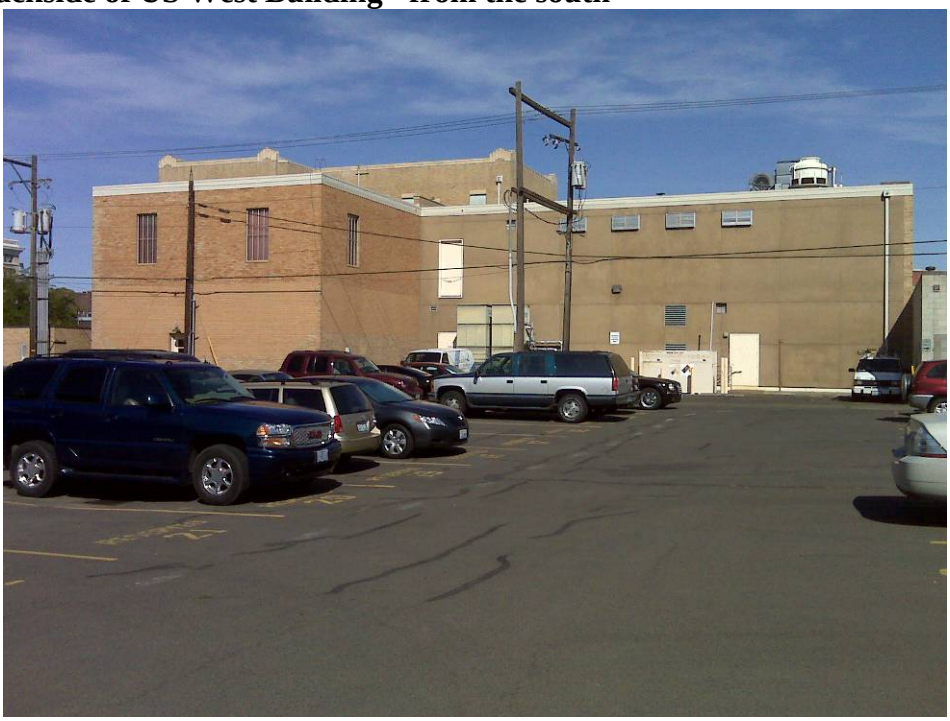


Photo 3: Former UST Location - from the east

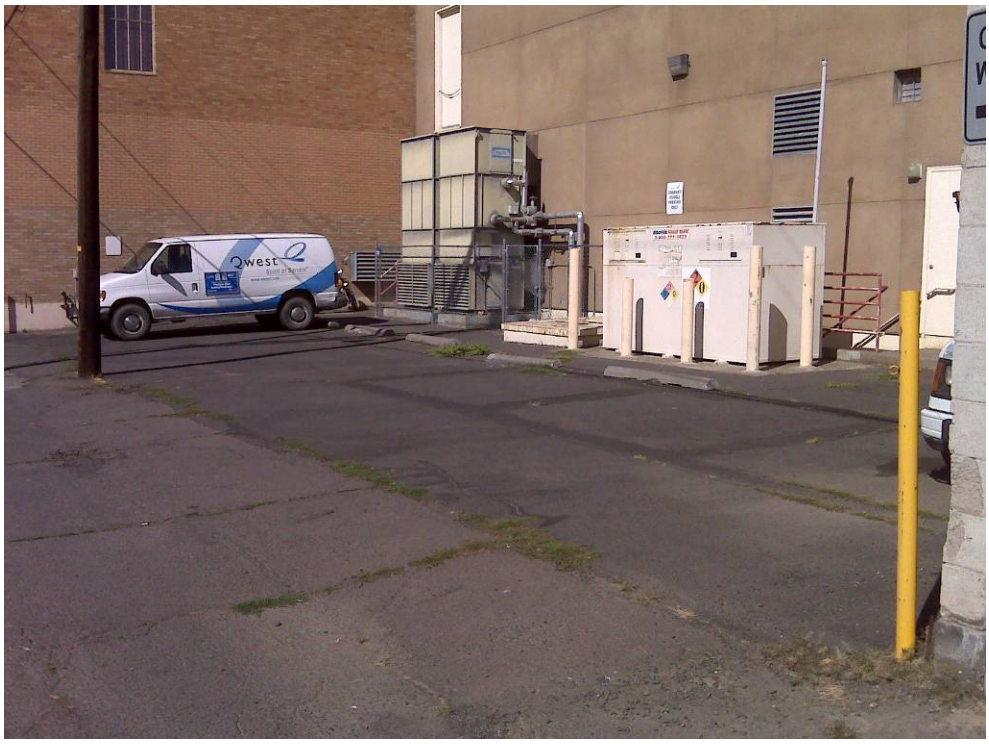


Photo 4: Monitoring Wells South of Building – from the southwest