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Job No: 193-2065-2  
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**REPORT  
OF**

DEPARTMENT OF ECOLOGY  
UNDERGROUND STORAGE TANKS

JUN 25 1993

**UNDERGROUND STORAGE TANK SITE ASSESSMENT  
U S WEST Communications  
102 East Alder Street  
Walla Walla, Washington**

1/2

**Prepared for:**

**U S WEST Business Resources, Inc.  
1600 Seventh Avenue, Room 1501  
Seattle, Washington 98192**

**Prepared by:**

**CHEN-NORTHERN, INC.  
Consulting Engineers & Scientists  
2214 North 4th Avenue  
Pasco, Washington  
(509) 547-1671**

**May, 1993**

**UNDERGROUND STORAGE TANK SITE ASSESSMENT  
U S WEST COMMUNICATIONS  
WALLA WALLA, WASHINGTON  
JOB NO. 193-2065-2  
MAY, 1993**

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## **EXECUTIVE SUMMARY**

Chen-Northern, Inc., has completed underground storage tank closure activities for the U S WEST Communications facility located at 102 East Alder Street in Walla Walla, Washington. This report presents the assessment findings on an underground storage tank (UST) of unknown size closed in-place at the subject site. Field activities were performed between March 31, 1993 and April 19, 1993

Results of the subsurface investigation indicate evidence of contamination in subsoils and groundwater at the site. The tank appeared to have already been filled with grout in a manner consistent with current in-place closure guidelines. Although petroleum hydrocarbon contamination was discovered at the tank site in the form of free product, no conclusions could be made as to whether this tank was the source of contamination. Based on the results of this assessment and regardless of the point source, it is Chen-Northern's professional opinion that the tank site has been impacted by petroleum hydrocarbons.

It is recommended that the Washington State Department of Ecology be notified as to the conditions that exist at the subject site as dictated by WAC 173-360-372 of the Washington State Underground Storage Tank Regulations. Furthermore, Chen-Northern recommends that the ongoing phase II/III environmental assessment be continued to further characterize the site in accordance with the EPA and Washington State Department of Ecology guidelines.

**UNDERGROUND STORAGE TANK SITE ASSESSMENT  
U S WEST COMMUNICATIONS  
WALLA WALLA, WASHINGTON  
JOB NO. 193-2065-2  
MAY, 1993**

## **1.0 PROJECT DESCRIPTION**

### **1.1 Introduction**

At the request of Mr. Steve Marczewski of U S WEST Business Resources, Inc., Chen-Northern, Inc., has completed underground storage tank closure activities for the U S WEST Communications facility located at 102 East Alder Street in Walla Walla, Washington. This report presents the assessment findings for an underground storage tank (UST) of unknown size closed in-place at the subject site. Field activities were performed between March 31, 1993 and April 19, 1993.

### **1.2 Purpose and Scope**

The purpose of the project is to assist responsible parties in complying with the current EPA and Washington State Department of Ecology regulations for the in-place decommissioning of USTs.

The following scope of services were performed for this assessment:

- \* Qualified personnel, both staffed and subcontracted, were provided to expose the top of the UST and observe the condition of the tank. The excavation was filled, compacted and resurfaced to basement floor grade. The subcontracted firm was registered with the State of Washington to provide underground storage tank services and their personnel were required to have current health and safety training.
- \* The excavation was observed for signs of contamination including visible free product and subsoil discoloration while the tank was checked for proper in-place closure status.
- \* A report was prepared to summarize the findings of the limited environmental assessment, rendering an evaluation with regard to potential contamination at the site.

### **1.3 Background**

The subject site is currently undergoing a phase II environmental site investigation resulting from the discovery of petroleum hydrocarbon contamination during construction activities. The petroleum product had the characteristics of a thick oil, possibly Bunker C fuel oil. Although the presence of free product in the subsoil and groundwater beneath and surrounding the present building has been confirmed, the full extent of the contamination has yet to be determined (Chen-Northern, 191-2065). Site characterization activities are being conducted to determine the extent of contamination and the results will be reported in the future. In an effort to determine the source of this contamination, historical records were researched which confirmed the existence, both past and present, of several UST systems. This report presents the findings from the investigation of one of these systems.

Reportedly, one UST of approximately 500 to 1,000 gallon capacity had been installed below the basement subfloor in the mid 1950s to provide fuel for emergency generators. The UST was taken out of service in the late 1960s or early 1970s when the generating equipment was relocated. The tank was apparently filled with grout and concreted in-place several years later. In order to confirm the in-place closure, U S WEST Business Resources contacted Chen-Northern to perform the site assessment. Mike Johnson, Inc., was subcontracted to physically excavate to the tank and perform an in-place decommission if needed. This UST was to be decommissioned for regulatory reasons and no plans were made for its replacement.

## **2.0 ENVIRONMENTAL ASSESSMENT FINDINGS**

### **2.1 Site Description**

The subject site is identified as the U S WEST Communications facility located at 102 East Alder Street in Walla Walla, Washington. An approximate legal description is the southeast quarter of the southwest quarter of Section 20, Township 7 North, Range 36 East, Walla Walla County, Washington. The subject site is bounded to the north by East Alder Street, to the west by North 1st Avenue, to the south by an alley and parking lot, and to the

east by Cummins Athletic Supply. Commercial and municipal properties surround the site. The subject site is currently occupied by a three story, brick, commercial building utilized as the central telephone operations center for U S WEST Communications. Surface materials consist solely of asphalt and concrete pavement. The subject site location is depicted in Figure 1, the Site Location Map, while characteristics of the site, including utilities, are shown in Figure 2, the Detailed Site Plan.

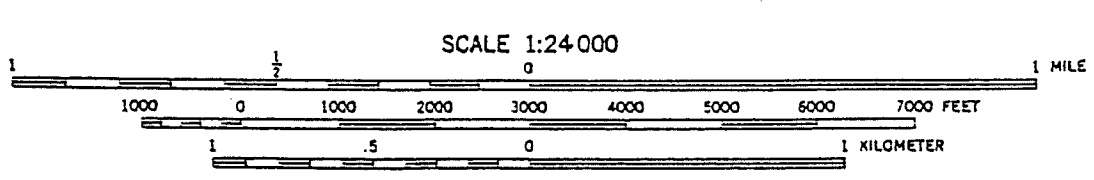
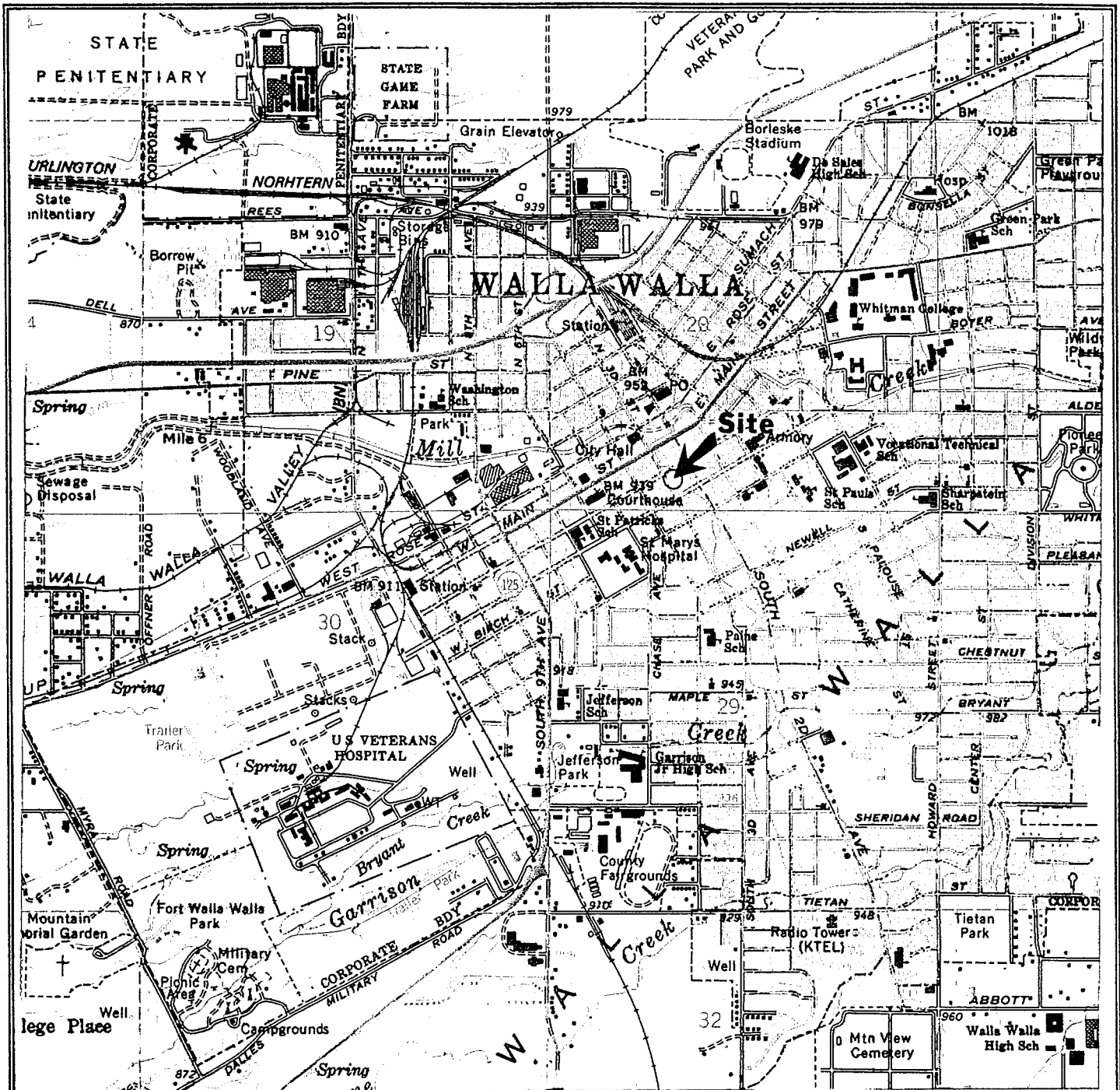
## **2.2 Geology and Hydrology**

The subject site is located on the graded flood plain associated with the Walla Walla Valley. Subsurface materials, as observed during excavation activities, consisted of well graded sandy gravel of alluvial origin. Based on previous work performed by Chen-Northern in the area of the site, groundwater is estimated to be 10 to 15 feet below ground surface (BGS). The groundwater flow direction, based on monitoring well groundwater levels, was determined to be towards the southwest. The nearest surface water is Mill Creek located approximately 500 feet north of the subject site.

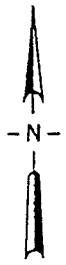
## **2.3 Tank Inspection**

An environmental professional from Chen-Northern arrived at the site on March 31, 1993, to inspect the tank site. After taking the proper safety precautions with the battery banks located in the immediate vicinity, Mike Johnson, Inc., had already excavated by hand to a depth of three feet below the basement floor. The tank site consisted of a metal plate covering an opening approximately 2 feet by 5 feet and 1 foot in depth. The base of this opening was concrete with three (3) pipes protruding up which were assumed to be the old product piping. Two 1/4-inch diameter copper pipes and one 2-inch diameter steel pipe, had been filled with concrete which prevented the probing of the tank from the surface. Excavating to reach the tank consisted of removing the 1 foot thick concrete base with an air driven jackhammer and cutting the piping as the excavation increased in depth.

Once the concrete base had been removed, excavating proceeded by hand through a subbase of sandy gravel and cobbles. Groundwater was encountered at about 1.5 feet below the



CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929



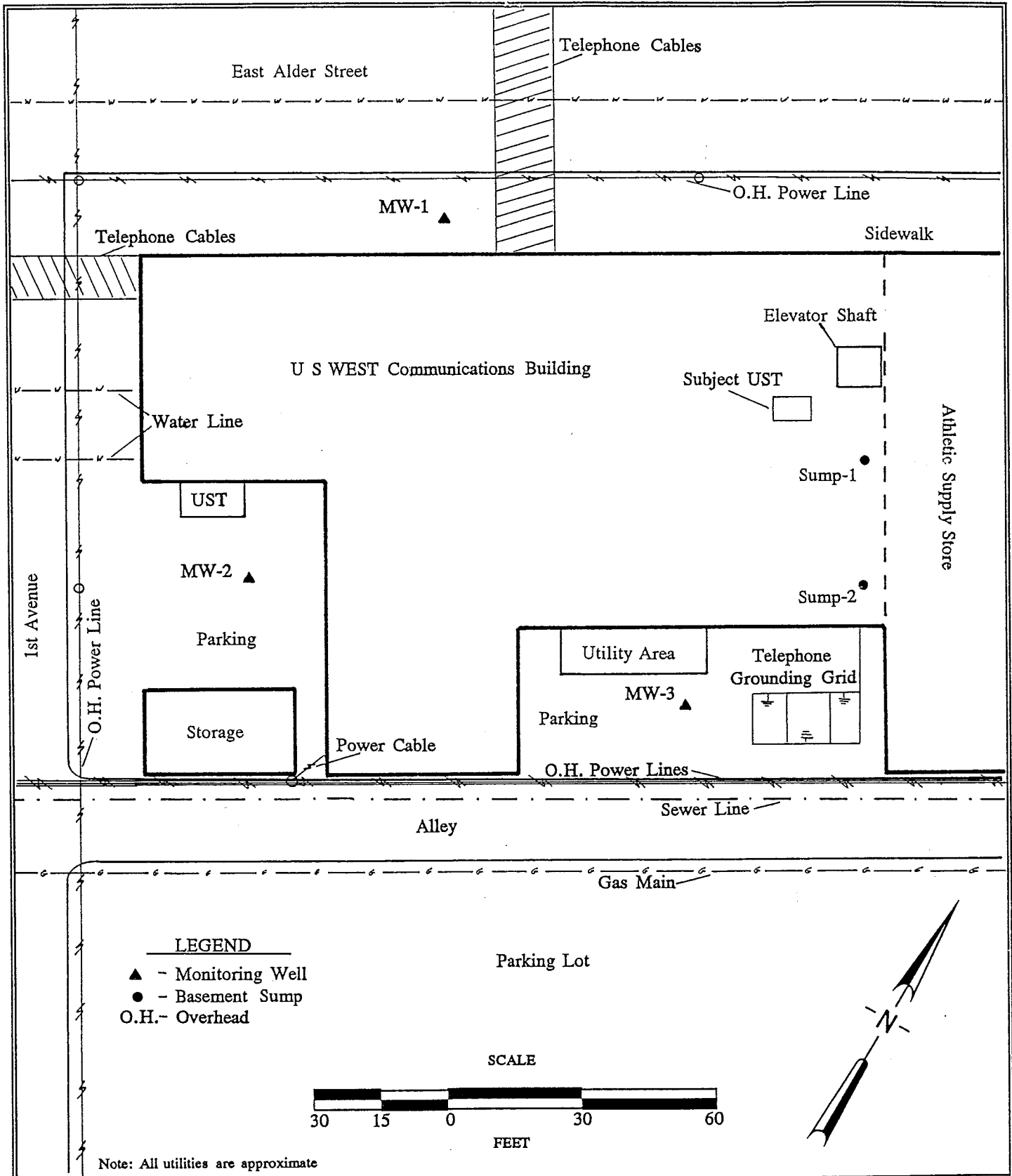
**CHEN-NORTHERN, INC.**

Job No.: 193-2065-2

**SITE LOCATION MAP**

U S WEST COMMUNICATIONS FACILITY  
102 EAST ALDER STREET  
WALLA WALLA, WASHINGTON

DATE:	DRAWN BY:	REVIEWED BY:	SCALE:	FIGURE NO.
5/26/93	GT	GH	As Shown	1



**CHEN-NORTHERN, INC.**

Job No.: 193-2065-2

<b>DETAILED SITE PLAN</b>				
U S WEST COMMUNICATIONS FACILITY 102 EAST ALDER STREET WALLA WALLA, WASHINGTON				
DATE: 5/26/93	DRAWN BY: GT	REVIEWED BY: GH	SCALE: 1:360	FIGURE NO. 2

basement floor (approximately 12 feet below street level) and had to be continuously pumped while excavating. The groundwater was pumped to a basement sump located 20 feet east of the tank site. The sump was equipped with an oil-water separator to remove petroleum product before pumping the water to the city sewer system.

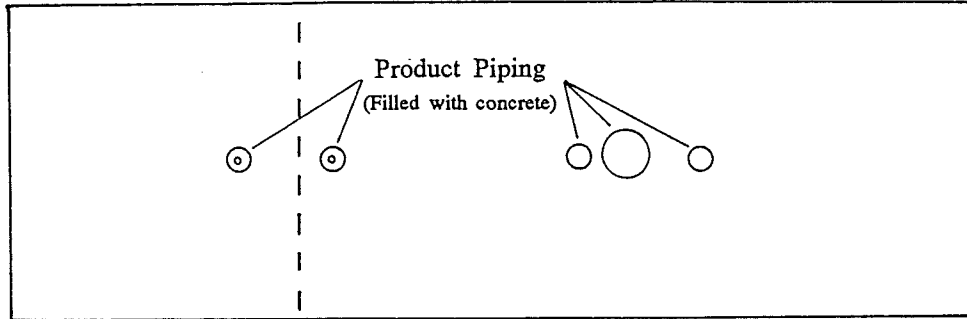
Further excavating revealed the existence of a subfloor vault which had been filled with sandy gravel. This vault was approximately 5 feet by 5 feet and centered around the tank. At approximately 3 feet below the basement floor, two more concreted product lines were discovered. Contact with the tank was made at 4 feet below the basement floor. After a sufficient amount of the gravel fill had been removed to expose a portion of the top of the tank, the tank was cut using a power drill. The tank was filled with what appeared to be a neat cement grout with the consistency of thick putty. The tank excavation is depicted in Figure 3, the Tank Excavation Diagram. Because the tank and product piping had already been grouted shut, further in-place closure activities were suspended. The tank excavation was temporarily covered and plans were submitted to U S WEST Business Resources for the permanent closure of the excavation.

#### **2.4 Field Observations**

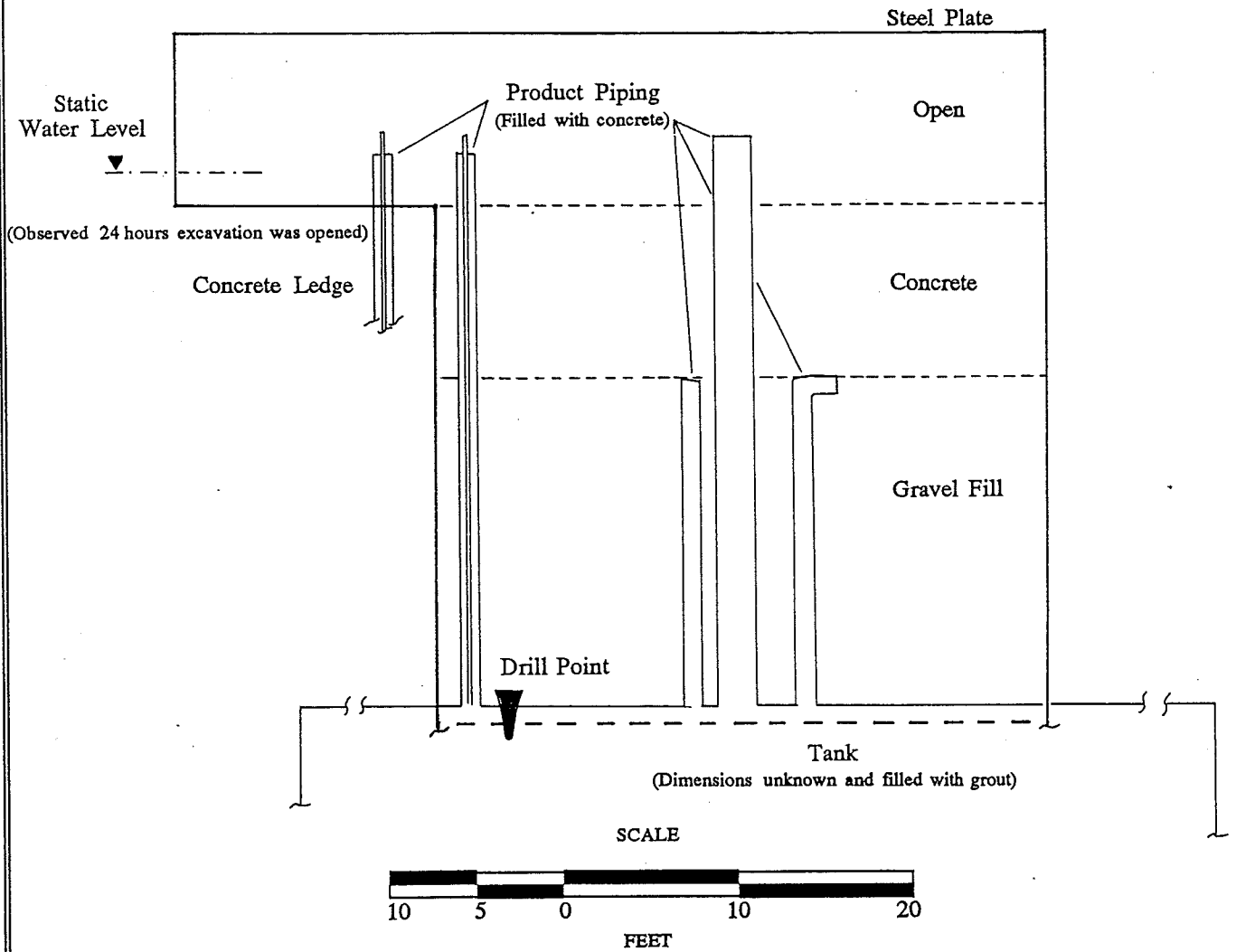
The removed subbase and fill material was visually examined for evidence of petroleum hydrocarbon contamination. This material was discolored and had a petroleum odor. Free product which appeared to be a thick oil, possible Bunker C fuel oil, was observed to be flowing into the excavation with the groundwater. This product had the same characteristics as product discovered during boring activities conducted at other locations on the subject site.

Because the tank had already been appropriately closed in-place, no further action was taken. Subsoil and groundwater samples were not collected due to the confirmed presence of free product. All contaminated material was containerized and stored with the previously collected contaminated subsoil to await final disposal at the conclusion of the phase II environmental assessment.

Top View



Side View



CHEN-NORTHERN, INC.

Job No.: 193-2065-2

**TANK EXCAVATION DIAGRAM**

U S WEST COMMUNICATIONS FACILITY  
102 EAST ALDER STREET  
WALLA WALLA, WASHINGTON

DATE: 5/26/93	DRAWN BY: GT	REVIEWED BY: GH	SCALE: 1:120	FIGURE NO. 3
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## **2.5 Excavation Closure**

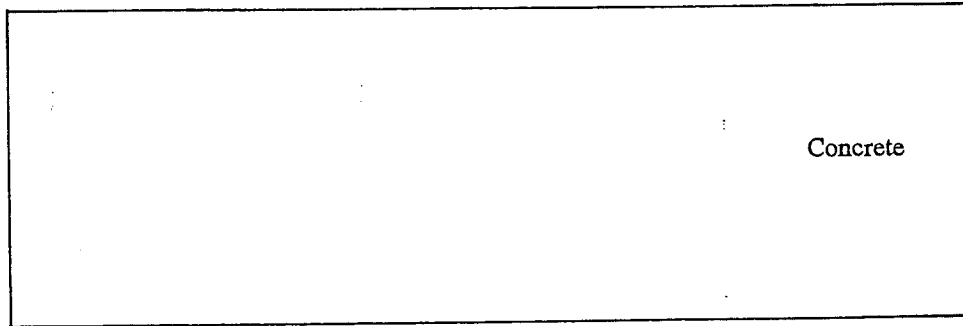
An environmental professional from Chen-Northern arrived at the site on April 19, 1993, to oversee the proper closure of the tank excavation with regards to the approved closure plans. Groundwater from the excavation was pumped to the nearby basement sump. Fill sand was placed in the open excavation and compacted with an air-driven compaction hammer. The fill sand was brought to 1 foot below the basement floor surface and checked for compaction using a nuclear densimeter. Plastic sheeting was placed over the compacted fill as a vapor barrier and covered with a thin layer of fill sand. Concrete was then poured and brought to about 4 inches below the basement floor surface where a wire mesh was placed for added strength. The concrete was then brought to the basement floor surface level and finished. The closed tank excavation is depicted in Figure 4, the Excavation Closure Diagram.

## **3.0 CONCLUSIONS**

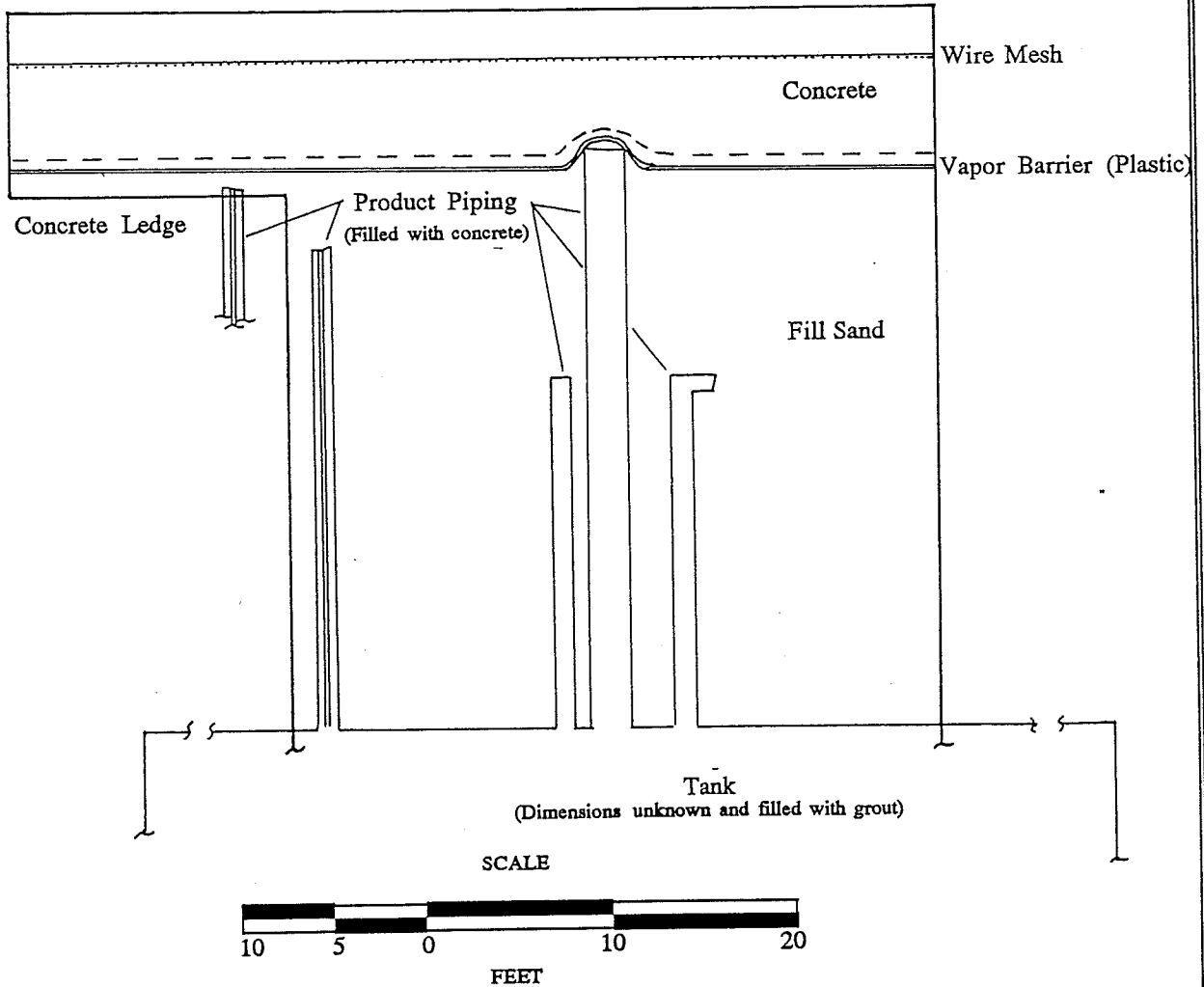
Results of the subsurface investigation indicate petroleum contamination is present in subsoil and groundwater native to the subject site. The tank appeared to have been grouted shut in a manner consistent with current in-place closure guidelines. Although petroleum hydrocarbon contamination was discovered at the tank site, no conclusions could be made as to whether this tank was the original source of contamination. However, it is speculated that the tank held a diesel fuel normally used with generators and not the apparent heavier oil found at the site which is generally associated with heating oil burners.

In conclusion, underground storage tank closure activities including excavation and tank observations have been completed for the subject site. Results of the subsurface investigation indicate evidence of contamination in subsoils native to the site. Based on the results of this assessment and regardless of the point source, it is Chen-Northern's professional opinion that the tank site has been impacted by petroleum hydrocarbons.

Top View



Side View



**CHEN-NORTHERN, INC.**

Job No.: 193-2065-2

**EXCAVATION CLOSURE DIAGRAM**

U S WEST COMMUNICATIONS FACILITY  
102 EAST ALDER STREET  
WALLA WALLA, WASHINGTON

DATE:  
5/26/93

DRAWN BY:  
GT

REVIEWED BY:  
GH

SCALE:  
1:120

FIGURE NO.  
4

#### 4.0 RECOMMENDATIONS

It is recommended that the Washington State Department of Ecology be notified as to the conditions that exist at the subject site as dictated by WAC 173-360-372 of the Washington State Underground Storage Tank Regulations. Furthermore, Chen-Northern recommends that the ongoing phase II/III environmental assessment be continued to further characterize the site in accordance with the EPA and Washington State Department of Ecology guidelines.

#### 5.0 LIMITATIONS

This work was performed in accordance with the generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. Chen-Northern observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. Chen-Northern's findings and conclusions must be considered not as scientific certainties, but as opinions based on our professional judgement concerning the significance of the data gathered during the course of monitoring. Other than this, no warranty is implied or intended.

This report has been prepared for the exclusive use of U S WEST Business Resources, Inc., and their authorized representatives. Chen-Northern is not responsible for conclusions or recommendations made by others.

Prepared and submitted by:



Greg L. Thurman  
Assistant Project Engineer

Reviewed by:



Roger Braun  
Senior Environmental Manager

**APPENDIX 1**

**Tank Closure Field Form**

CHEN-NORTHERN, INC.  
TRI-CITIES, WA  
TANK CLOSURE FIELD FORM

Date: 4/19/93

Facility ID#: Unregistered

Tank No.: 1

Tank Owner's Name & Address:

U.S. WEST Business Resources  
1600 Seventh Avenue, Rm 1501  
Seattle, WA 98191  
Randy Barr - (206) 623-4032

Tank Facility Name & Address:

U.S. WEST Communications  
102 East Alder St.  
Walla Walla, WA 99362

1. Tank Age (years) 40 ±
2. Tank Capacity (gallons) Unknown (estimate of 500 to 1000)
3. What Substance was last stored in the tank? Unknown (estimate of diesel fuel)
4. When was tank last used? Early 1960s to Early 1970s
5. Date of Closure? 3/31/93
6. Type of Closure:
  - a. Removed from ground?
  - b. Closed in place?If b, please describe fill material used: Was filled with a bentonite and/or cement grout.

7. Tank Condition and Material of Construction: N/A  
(Check any that apply and include description of effected area. This may include photographs or tank test results.)

Condition:

Tank 1 Pitted  Perforated  Cracked  Rusted  Crushed  Good Condition   
Tank 2 Pitted  Perforated  Cracked  Rusted  Crushed  Good Condition

Material of Construction:

Tank 1 Steel  Concrete  Fiberglass Reinforced Plastic  Other (please specify)   
Tank 2 Steel  Concrete  Fiberglass Reinforced Plastic  Other (please specify)

8. Piping Condition and Material of Construction:

(Check all that apply and include a description of the affected area. This may include photographs or pipe test results.)

Condition:

Tank 1 Pitted  Perforated  Cracked  Rusted  Crushed  Good Condition   
Tank 2 Pitted  Perforated  Cracked  Rusted  Crushed  Good Condition

Material of Construction:

Tank 1 Steel  Galvanized Steel  Fiberglass Reinforced Plastic  Other (please specify)   
Tank 2 Steel  Galvanized Steel  Fiberglass Reinforced Plastic  Other (please specify)

Comments:

9. Tank Protection:

(Check any that apply and include a description)

Tank 1 None  Cathodic\_\_ Ext. Coating\_\_ Interior Lining\_\_ Double Wall\_\_ Other(please specify)\_\_  
Tank 1 None\_\_ Cathodic\_\_ Ext. Coating\_\_ Interior Lining\_\_ Double Wall\_\_ Other(please specify)\_\_

10. Closure / Excavation Contractor Name & Address

Mike Johnson Inc.  
Rt 7, Box 420  
Kennewick, WA 99337  
(509) 735-6039

11. Local, County or State Officials who may have witnessed closure: *N/A*

Name & Address:

Name & Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. Explanation of Excavation Subsurface Investigation:

Tank 1 Smell of Fuel\_\_ Discoloration\_\_ Free Product  Sheen on Groundwater\_\_  
No Evidence of Contamination\_\_  
Tank 2 Smell of Fuel\_\_ Discoloration\_\_ Free Product\_\_ Sheen on Groundwater\_\_  
No Evidence of Contamination\_\_

13. Was Groundwater contact made? Yes  No\_\_

14. Did overexcavation take place? Yes\_\_ No

15. Samples Collected: *N/A*

Sample No:	Location:	PID Results:	Analysis:
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16. Physical characteristics of site:

a. Border sites (north, south, east, west)

North - East Alder Street      East - Athletic Supply Store  
South - Alley / Parking Lot      West - 1<sup>st</sup> Avenue

b. Depth to groundwater:

12 to 13' below ground surface  
10" below basement floor

c. Subsurface Profile:

Sandy Gravel

d. Location of nearest surface water:

Mill Creek

17. Disposal

a. Tanks: *Closed In-place*

b. Contaminated Soil:

*Containerized for disposal  
at Roosevelt Landfill*

c. Contents of Tank:

*Grout.*

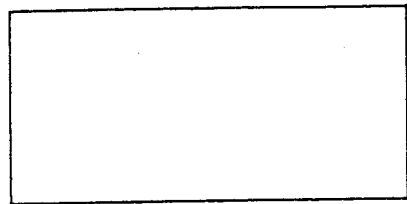
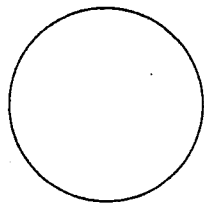
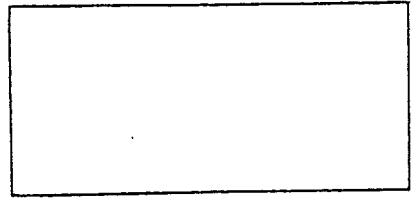
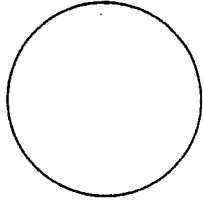
18. Excavation subsoil Log:



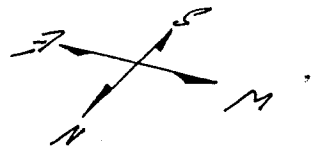
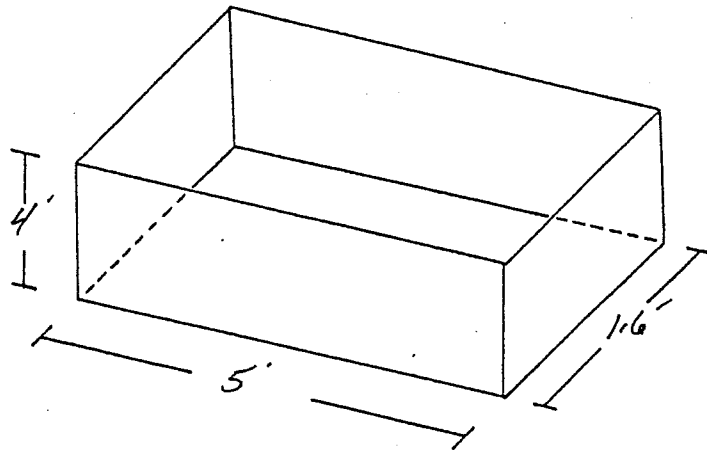
19. General observations and comments:

(Please mark diagrams on next page)

Tank Diagram:



Excavation Diagram:



**APPENDIX 2**

**Washington State Department of Ecology Underground Storage Tank Checklists**



# UNDERGROUND STORAGE TANK Site Check/Site Assessment Checklist

For Office Use Only	
Owner #	_____
Site #	_____

## INSTRUCTIONS:

When a release has **not** been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person registered with Ecology. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

**REGISTRATION INFORMATION:** Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

**TANK INFORMATION:** Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

**REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT:** Please check the appropriate item.

**CHECKLIST:** Please initial each item in the appropriate box.

**SITE ASSESSOR INFORMATION:** This form must be signed by a registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section  
Department of Ecology  
P. O. Box 47655  
Olympia, WA 98504-7655

DEPARTMENT OF ECOLOGY  
UNDERGROUND STORAGE TANKS  
JUN 25 1993

## REGISTRATION INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): Unregistered

Owner/Business Name: U.S. West Communications

Street Address: 102 East Alder Street Telephone: ( 509 ) 527-3814

Walla Walla Street WA 99362  
City State ZIP-Code

## TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
1	Unknown	Unknown

## REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

- Investigate suspected release due to on-site environmental contamination
- Investigate suspected release due to off-site environmental contamination.
- Extend temporary closure of UST system for more than 12 months.
- UST system undergoing change-in-service.
- UST system permanently closed-in-place.
- UST system permanently closed with tank removed.
- Abandoned tank containing product.
- Required by Ecology or delegated agency for UST system closed before 12/22/88.
- Other (describe): Check for proper in-place closure due to confirmed release.

**CHECKLIST**

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

		YES	NO
1.	The location of the UST site is shown on a vicinity map.	<i>St</i>	
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	<i>St</i>	
3.	A summary of UST system data is provided. (see Section 3.1)	<i>St</i>	
4.	The soils characteristics at the UST site are described. (see Section 5.2)	<i>St</i>	
5.	Is there any apparent groundwater in the tank excavation?	<i>St</i>	
6.	A brief description of the surrounding land use is provided. (see Section 3.1)	<i>St</i>	
7.	Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.		<i>St</i>
8.	A sketch or sketches showing the following items is provided:		
<i>N/A</i>	- location and ID number for all field samples collected		<i>St</i>
<i>N/A</i>	- groundwater samples distinguished from soil samples (if applicable)		<i>St</i>
<i>N/A</i>	- samples collected from stockpiled excavated soil		<i>St</i>
	- tank and piping locations and limits of excavation pit	<i>St</i>	
	- adjacent structures and streets	<i>St</i>	
	- approximate locations of any on-site and nearby utilities	<i>St</i>	
9.	If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	<i>St</i>	
10.	A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.		<i>St</i>
11.	Any factors that may have compromised the quality of the data or validity of the results are described.	<i>St</i>	
12.	The results of this site check/site assessment indicate that a confirmed release of a regulated substance has <b>not</b> occurred.		<i>St</i>

**SITE ASSESSOR INFORMATION**

Greg Thurman \_\_\_\_\_ Chen-Northern, Inc. \_\_\_\_\_  
 Person registered with Ecology Firm Affiliated with  
 Business Address: 2214 N. 4th Avenue Telephone: (509) 547-1671  
 \_\_\_\_\_  
 Street \_\_\_\_\_  
 Pasco WA 99301  
 City State ZIP+Code

*I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173.360 WAC.*

5/27/93 \_\_\_\_\_  
 Date Signature of Person Registered with Ecology

# UNDERGROUND STORAGE TANK Permanent Closure/Change-In-Service Checklist

The purpose of this form is to certify the proper closure/change-in-service of underground storage tank (UST) systems. These activities must be conducted in accordance with Chapter 173.360 WAC. Washington State UST rules require the tank owner or operator to notify Ecology in writing 30 days prior to closure or change-in-service of tanks. This must be done by completing the 30 Day Notice form (ECY 010-155).

This Permanent Closure Checklist shall be completed and signed by a Licensed Decommissioning Supervisor. The supervisor shall be on site when all tank permanent closure/change-in-service activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider. If any of the activities listed below have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping), except that UST systems at the same site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of the completion of the closure or change-in-service.

Underground Storage Tank Section  
Department of Ecology  
Mail Stop PV-11  
Olympia, WA 98504-8711

JUN 25 1993  
DEPARTMENT OF ECOLOGY  
UNDERGROUND STORAGE TANKS

## UST SYSTEM OWNER AND LOCATION

Owner/Operator: U.S. West Business Resources, Inc.

Owners Address: 1600 Seventh Avenue, Rm 1501  
Street P.O. Box

Seattle WA 98191  
City State ZIP-Code

Telephone: ( 206 ) 623-4032

ID Number (on invoice or available from Ecology if tank is registered): Unregistered

Site/Business Name: U.S. West Communications

Site Address: 102 East Alder Street Walla Walla  
Street County

Walla Walla WA 99362  
City State ZIP-Code

## TANK PERMANENT CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Firm: Mike Johnson, Inc. License Number: 502217

Address: Rt. 7, Box 420  
Street P.O. Box

Kennewick WA 99337  
City State ZIP-Code

Telephone: ( 509 ) 735-6039

Licensed Supervisor: Rodney Shearer Decommissioning License Number: W000041

**3. TANK CLOSURE/CHANGE-IN-SERVICE INFORMATION**

1. Tank ID Number (as registered with Ecology): Unregistered      2. Year installed: 1956±
3. Tank capacity in gallons: Unknown      4. Date of last use: 1970±
5. Last substance stored: Unknown      6. Date of closure/change-in-service: 3/31/93
7. Type of closure: Closure with Tank Removal       In-place Closure       Change-in-Service
8. If in-place closure is used, the tank has been filled with the following substance: Grout (either bentonite or cement)
9. If change-in-service, indicate new substance stored in tank: N/A
10. Local permit(s) (if any) obtained from: None
11. Has a site assessment been completed?    Yes       No

*Always contact local authorities regarding permit requirements.*

*Unless an external release detection system is operating at the time of closure or change in service, and a report is provided as specified in WAC 173-360-390, a site assessment must be conducted. This site assessment must be conducted by a person registered with the Department of Ecology to perform site assessments. Results of the site assessment must be included with the Site Assessment Checklist (ECY 010-158).*

**4. CHECKLIST**

Each item of the following checklist shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has all liquid been removed from product lines?			X
2. Has all product piping been capped or removed?			X
3. Have all non-product lines been capped or removed?			X
4. Have all liquid and accumulated sludges been removed from the tank?			X
5. Has the tank been properly purged or inerted?			X
6. Have the drop tube, fill pipe, gauge pipe, pumps and other tank fixtures been removed?			X
7. Have all tank openings been plugged or capped? NOTE: One plug should have 1/8 inch vent hole.			X
8. Have all sludges removed from the tank been designated and disposed of in accordance with the state of Washington's dangerous waste regulations (Chapter 173-303 WAC)?			X
9. If removed, was tank properly labeled and disposed of in accordance with all applicable local, state and federal regulations?			X

\*item not applicable

*I hereby certify that I have been the licensed supervisor present on site during the above listed permanent closure activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.*

*Persons submitting false information are subject to penalties under Chapter 173.360 WAC.*

6-2-93

Date

Rodney Shearer

Signature of Licensed Supervisor

**5. ADDITIONAL REQUIRED SIGNATURES**

6-2-93

Date

- Mike Johnson

Signature of Licensed Service Provider (firm) Owner or Authorized Representative

6-9-93

Date

[Signature]

Signature of Tank Owner or Authorized Representative

**APPENDIX 3**

**Soil Compaction Results**

# Chen-Northern, Inc.

A member of the **HIH** group of companies

2214 NORTH 4TH AVENUE  
P. O. BOX 2601  
TRI-CITIES, WA 99302  
(509) 547-1671  
FAX (509) 547-1673

## TECHNICAL REPORT



US WEST BUSINESS RESOURCES  
421 S.W. OAK RM. 4N13  
PORTLAND, OR 97204

APRIL 20, 1993  
JOB NO. 193-2065-2  
PAGE 1 OF 2

### TESTS OF COMPACTED FILL SAND MATERIAL FOR THE BACKFILL OF EXCAVATION IN BASEMENT ASSOCIATED WITH IN-PLACE CLOSURE OF ONE UST

#### SAMPLE IDENTIFICATION:

Attached are the results of field density tests performed on the above-referenced project on the dates and at the locations shown. Unless otherwise noted, our personnel utilized the nuclear densometer method of testing in accordance with ASTM D2922. In accordance with our quality control procedures, occasional routine correlation tests are performed using sand cone methods in accordance with ASTM D1556.

Contractor: **MIKE JOHNSON, INC.**

Test Locations were selected by: **CHEN-NORTHERN PERSONNEL @ RANDOM LOCATIONS**

Minimum required in-place density: **95% OF MAXIMUM LABORATORY DENSITY**

Maximum density as determined by: **ASTM D698**

Remarks:

**TESTS PERFORMED ON 4-19-93**

Reviewed By: \_\_\_\_\_

Distribution:

US WEST BUSINESS RESOURCES  
PORTLAND, OREGON  
PAGE 2 OF 2

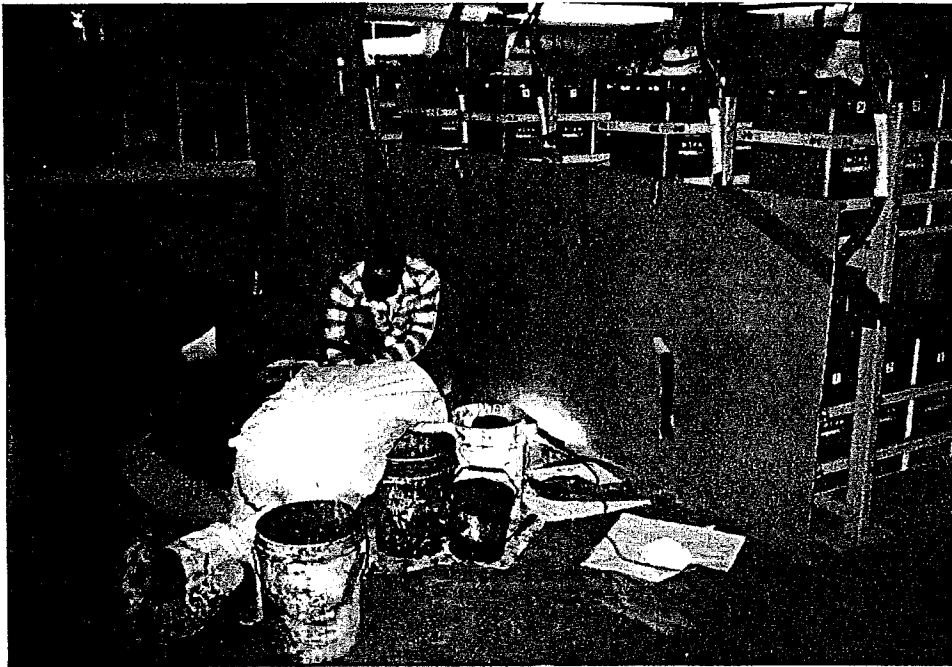
TEST RESULTS:		FIELD		MAXIMUM	PERCENT
		MOISTURE	FIELD DRY	LAB DRY	MAXIMUM
TEST DATE	LAB NO.	CONTENT %	DENSITY PCF	DENSITY PCF	OBTAINED
4-19-93	51066	8.2	102.5	97.6	100.+

LOCATION: US WEST FACILITY, E. ALDER ST., WALLA WALLA, WASHINGTON, IN-PLACE  
CLOSURE, BASEMENT, 1' BGS

MOISTURE DENSITY CURVE NO. 50974 = 97.6 PCF @ 8.1% MOISTURE

**APPENDIX 4**

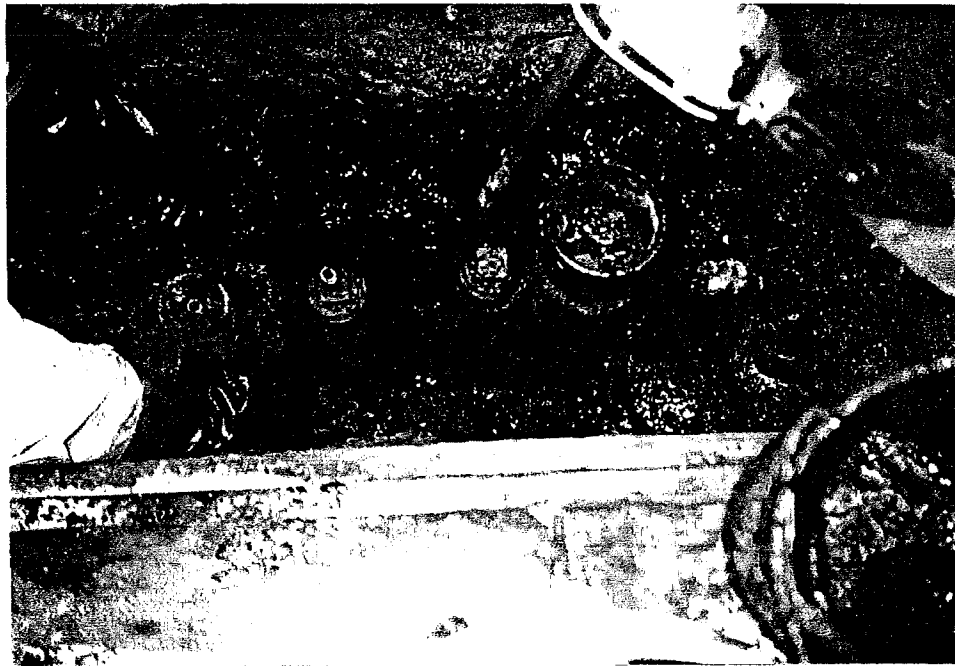
**Photographic Records**



**PHOTOGRAPHER:** Greg Thurman

**DATE:** 3/31/93

**VIEW:** Work Zone in basement.



**PHOTOGRAPHER:** Greg Thurman

**DATE:** 3/31/93

**VIEW:** Excavation nearing UST.

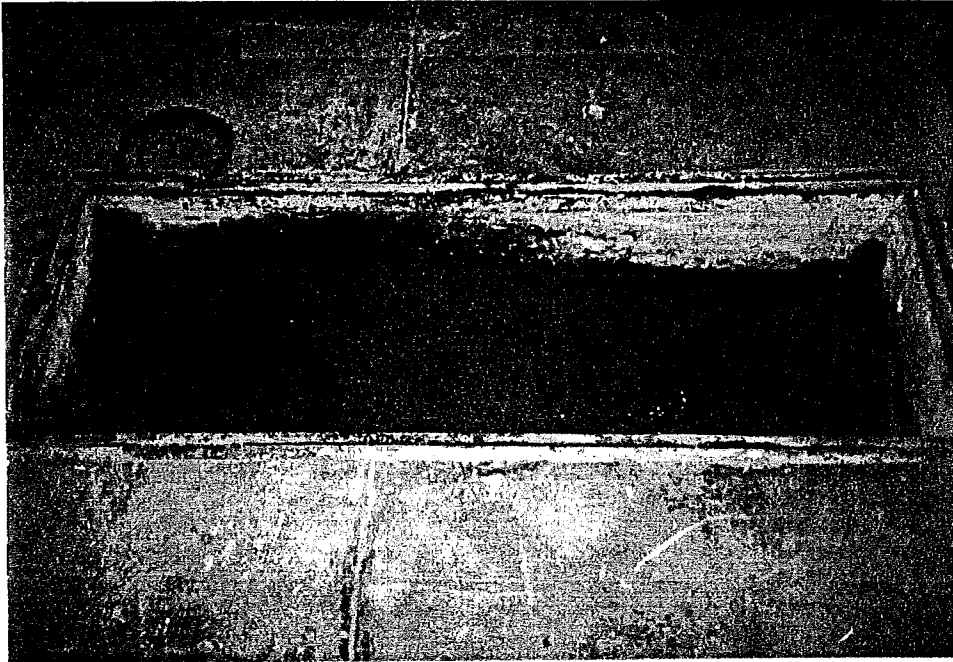
**Project No.:** 193-2065-2

**Date:** 5/25/93

**PHOTOGRAPHIC RECORDS**

**Client:** U S WEST Business Resources

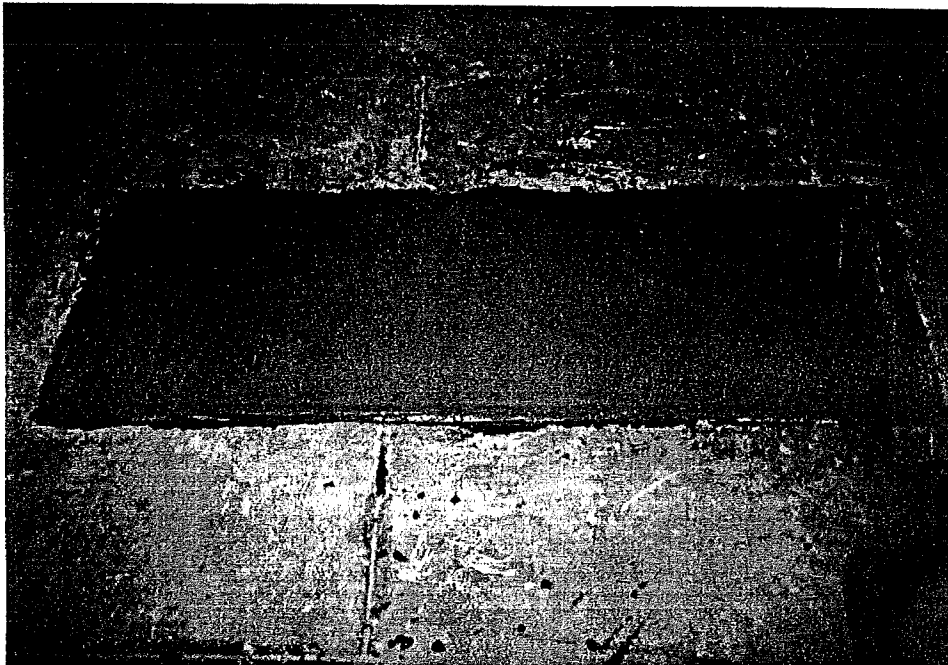
**Location:** U S WEST Communications Facility  
102 East Alder Street  
Walla Walla, Washington



PHOTOGRAPHER: Greg Thurman

DATE: 4/19/93

VIEW: Compacted fill sand for excavation closure.



PHOTOGRAPHER: Greg Thurman

DATE: 4/19/93

VIEW: Concrete surface for excavation closure.

Project No.: 193-2065-2

Date: 5/25/93

PHOTOGRAPHIC RECORDS

Client: U S WEST Business Resources

Location: U S WEST Communications Facility  
102 East Alder Street  
Walla Walla, Washington

**APPENDIX 5**

**References**

## REFERENCES:

- American Petroleum Institute, Recommended Practice for Abandonment or Removal of Used Underground Service Station Tanks, API Bulletin 1604, 1987, 8p.
- Camp, V.E., P.R. Hopper, D.A. Swanson, and T.L. Wright. "1982 Columbia River Basalt in Idaho: Physical and Chemical Characteristics, Flow Distribution, and Tectonic Implications." Cenozoic Geology of Idaho: Idaho Bureau of Mines and Geology Bulletin 26 (1982): 55-75.
- Chen-Northern, Inc. Limited Phase II Environmental Assessment: Subsurface Hydrocarbon Investigation, Job Number 191-2065. Report completed for U S WEST Business Resources, Pasco, Washington: Chen-Northern, Inc.; October, 1992.
- New England Interstate Water Pollution Control Commission, Tank Closure Without Tears: An Inspector's Safety Guide, Boston, Massachusetts, 1988.
- Washington State. Department of Ecology. Dangerous Waste Regulations, Chapter 173-303 WAC. Toxics Cleanup Program. Olympia, Washington: State document. April 1991.
- Washington State. Department of Ecology. Guidance for Remediation of Releases from Underground Storage Tanks. Toxics Cleanup Program. Olympia, Washington: State document. July 1991.
- Washington State. Department of Ecology. Guidance for Site Checks and Site Assessments for Underground Storage Tanks. Underground Storage Tank Program. Olympia, Washington: State document. October 1992.
- Washington State. Department of Ecology. The Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC. Toxics Cleanup Program. Olympia, Washington: State document. February 1991.
- Washington State. Department of Ecology. Underground Storage Tank Regulations, Chapter 173-360 WAC. Underground Storage Tank Program. Olympia, Washington: State document. October 1991.
- Uniform Fire Code, Abandonment and Status of Tanks, 1988, Sec. 79.115.