956
#~~29009~~
REPOWEL DIST.
U.~~2652~~
5570

UST CLOSURE SITE ASSESSMENT AND INTERIM REMEDIAL ACTION REPORT

DeBock's Main Street Texaco
Grandview, WA

Prepared For:
Mr. Gary Christensen
Powell Christensen, Inc.
501 East Main Street
Grandview, WA 98930

MAY, 1995

WHITE SHIELD INC.
P.O. BOX 477, 801 GRANDRIDGE ROAD, GRANDVIEW, WA 98930
TELEPHONE: (509) 882-1144 VOICE (509) 882-4566 FAX

WHITE SHIELD, INC.

P.O. BOX 477 • GRANDVIEW, WA 98930 • (509) 882-1144
FAX (509) 882-4566

May 2, 1995

Mr. Gary Christensen
Powell-Christensen, Inc.
501 E. Main
Grandview, WA 98930-0098

Re: UST Closure Site Assessment and Interim Remedial Action Report - De Bock's Main Street Texaco - 100 West Main Street, Grandview, WA 98930

Dear Mr. Christensen:

Enclosed, please find three copies of a UST closure site assessment and interim remedial action report for the above referenced site, as required by the Washington State Department of Ecology (WSDOE). Based on the data and findings reported here, further action is required for the remediation of this site.

The Washington State Department of Ecology (WSDOE) requires that you retain this report for a minimum of ten years. We recommend that you retain it indefinitely. A copy of the Underground Storage Tank Site Assessment Checklist must be submitted to the WSDOE. This form is included in Appendix D of the report.

White Shield, Inc. provided the UST decommissioning service at this site. A copy of the Underground Storage Tank Permanent Closure/Site Assessment Notice is included with this report for your signature. Please send a copy of the signed form to: WSDOE - P.O. Box 47655 - Olympia, WA 98504-47655.

We appreciate the opportunity to provide you with technical assistance for your UST closure. Please call us at (509) 882-1144 should you have any questions or need any additional information.

Sincerely,
WHITE SHIELD, INC.

William J. Goggin, PE
Chief Design Engineer

Stuart W. Fricke,
President

cc: Department of Ecology, Olympia Headquarters
Department of Ecology, Central Regional Office

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EXECUTIVE SUMMARY

White Shield, Inc. (WSI) provided UST Closure site assessment services during the removal of one 1000 gallon unleaded gasoline tank, one 5000 gallon leaded gasoline tank and one 8000 gallon unleaded gasoline tank. These three regulated underground storage tanks were located at 100 West Main Street, Grandview, Washington. The 8000 gallon tank and 5000 gallon tank were removed from a single excavation located behind De Bock's Main Street Texaco building. The 1000 gallon tank was located at the northwest corner of the building.

Gasoline was piped from the tanks to three fuel dispensers located in front of the Service Station. The product lines, partially located beneath the concrete floor slab, were purged and capped in place. The USTs and piping were in good condition.

Field screening of samples taken from the tank excavations indicated that there was no organic vapor concentrations exceeding MTCA method A cleanup levels present in the excavations. The laboratory analysis of the samples also indicated there is no petroleum contamination exceeding the MTCA Method A Cleanup Levels remaining in the excavations.

Gasoline contamination was detected within stockpile samples from the 1,000 gallon UST excavation. A small amount of overfill contamination was suspected. This stockpiled soil was transported to Lower Valley Remediation Service for disposal. Field screening of three soil samples collected beneath the fuel dispensers from a depth of 3' revealed gasoline contamination above MTCA cleanup level. A test pit was excavated beneath the fuel dispensers to a depth of 14.5 feet on March 29, 1995. The soil samples at 14.5 feet contained higher concentrations of petroleum than those collected from 3' depth. The test pit was temporarily backfilled until a remediation strategy is chosen. No further remedial activities were undertaken.

1.0 Introduction

1.1 Purpose

This report describes findings and actions taken for work associated with the closure of three regulated Underground Storage Tanks (UST's) including the fuel transfer and dispensing system. The UST system was located at 100 West Main Street, Grandview, Washington.

1.2 Scope of Work

White Shield, Inc. (WSI) provided closure site assessment and decommissioning services for the removal of one 1000 gallon, one 5000 gallon and one 8000 gallon gasoline UST. Alba's Excavating Inc. of Grandview, WA removed the USTs from the site. The 8,000 gallon tank was sold to Larry Lodges for farm use.(Refer to Appendix I). R.E. Powell Distributing Co. intends to use the other two tanks for fuel storage. They have been purged and capped for temporary storage at 501 E. Main St., Grandview, Washington.

The initial site assessment services provided by WSI technicians included 15 Organic Vapor Analyzer field screening tests for volatile components. A total of 18 samples were sent to the laboratory for analysis. Refer to Appendix B, Laboratory Reports and Chain of Custody. OnSite Environmental, Inc. (OnSite), Redmond, Washington, provided the laboratory analytical services.

This report completes the closure site assessment services provided by White Shield, Inc.

2.0 Background Information

2.1 Site Location

The site is located at the southwest quadrant of the Division Street/West Main Street intersection in Grandview, Washington. The site is described as the NW1/4, NE1/4, Section 23, T9N, R23E, W.M. Refer to Figure 1, Site Location Map.

2.2 Site Description and History

De Bocks Main Street Texaco is located at the southwest corner of West Main Street and Division Street. The offices of Kimbrough Realty and Bleyhl Farm Services are located in the northeast quadrant of E. Main Street and Division Street. Express Lube and Detail and Anderson Motors' car lot are located across E. Main Street to the north. The Sports Center Bar and M & J Tavern are to the east and west of the subject site respectively. The Grandview Market, Grandview Herald, and 88 ¢ Store are located to the east across Division Street. VFW Post 6929 is located across an alley and a parking lot to the south of the subject site. Refer to Figure 2, Site Plan.

One 1000 gallon UST was located at the northwest corner of The Service Station Building. One 5000 gallon UST and one 8000 gallon UST were located to the south of the building. Refer to Figure 3, Sampling Plan. The tanks were approximately 22 years old.

The USTs are described as follows:

Tank Code	WSDOE UST Site number	Contents	Volume (gallons)
1	000956	Unleaded Gasoline	1000
1	000956	Leaded Gasoline	5000
1	000956	Unleaded Gasoline	8000

2.3 Soils Description

The soil consists of inorganic silts, very fine sands and inorganic clays of low to medium plasticity (ML-CL). A fine sandy silt layer was encountered from the depth of 9 feet to 14.5 feet.

WHITE SHIELD INC.
P.O. BOX 477, 801 GRANDRIDGE ROAD, GRANDVIEW, WA 98930
TELEPHONE: (509) 882-1144 VOICE (509) 882-4566 FAX

JOB REP-1295

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE NTS

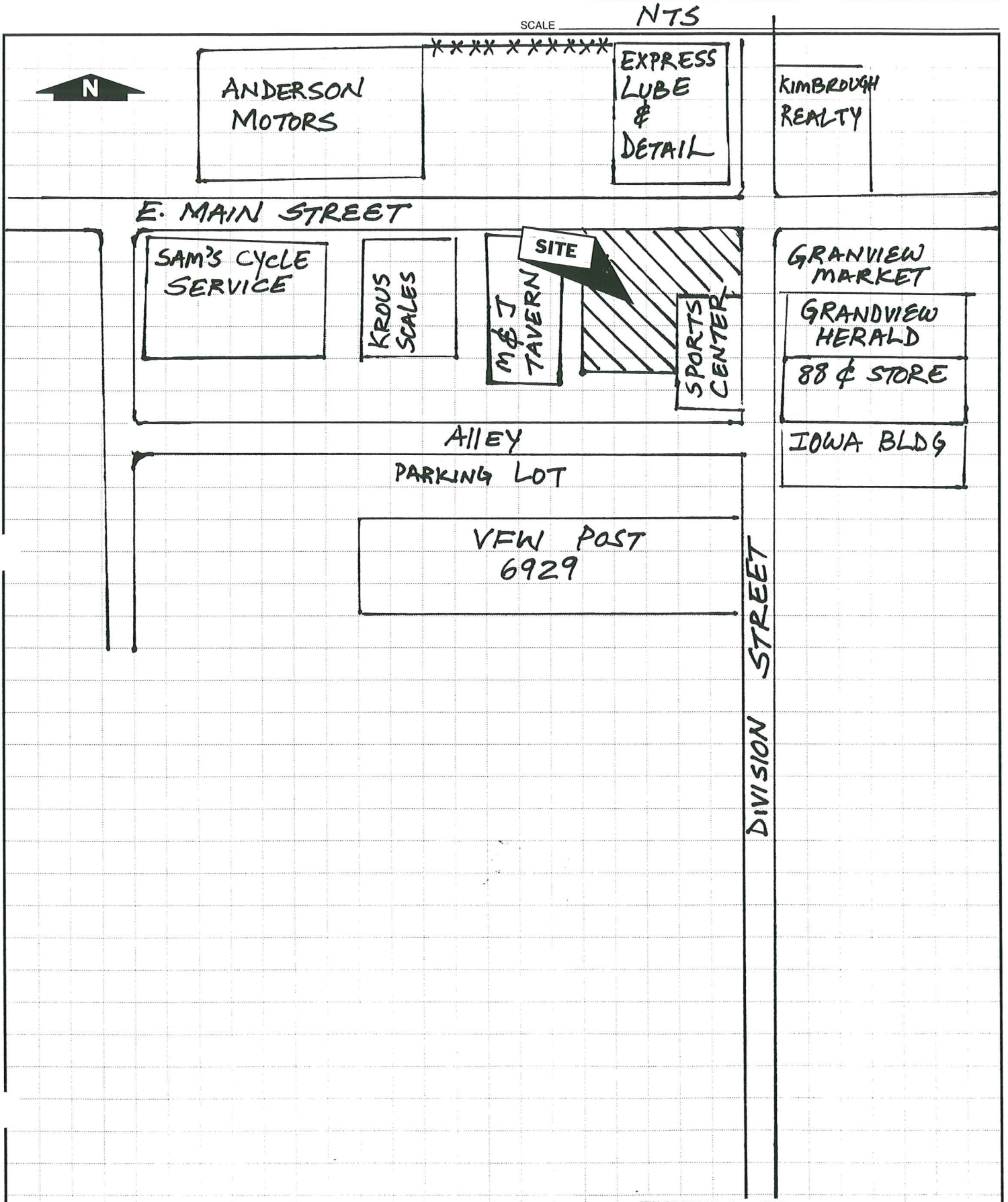


FIGURE 2 - SITE PLAN

WHITE SHIELD INC.
P.O. BOX 477, 801 GRANDRIDGE ROAD, GRANDVIEW, WA 98930
TELEPHONE: (509) 882-1144 VOICE (509) 882-4566 FAX

JOB REP-1295

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____

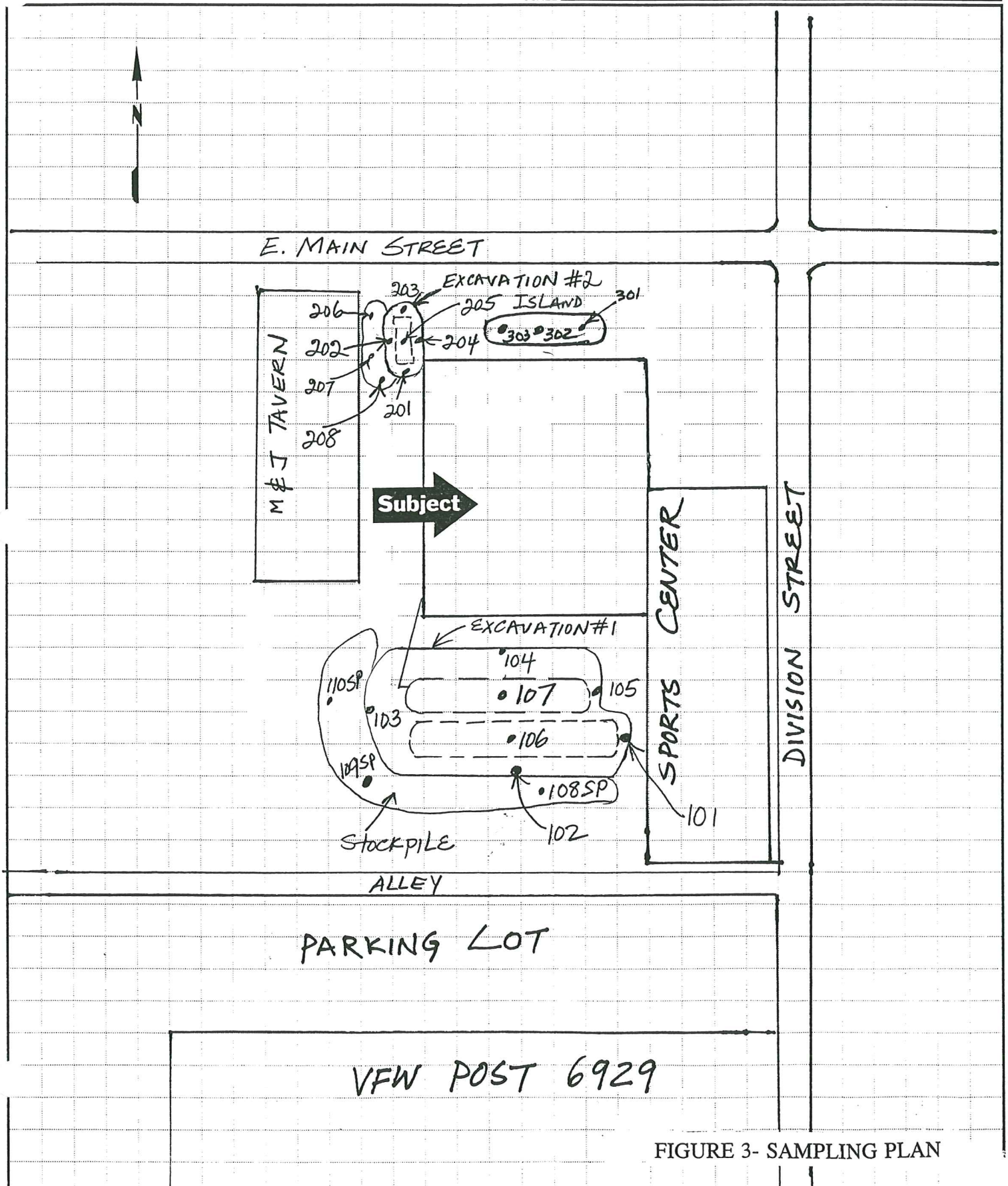


FIGURE 3- SAMPLING PLAN

3.0 Field Activities

3.1 General Investigative Methods

We visually inspected the USTs and the soil surrounding the tanks. We also used field screening, analytical laboratory analyses and interviews for data. The methods and general conclusions are discussed below.

3.1.1 Field Screening

For field analysis of semi-volatile (diesel) and non-volatile compounds (motor oil), WSI uses Thin Layer Chromatography (TLC) for qualitative and quantitative analysis. This analytical technique utilizes the principle of chromatography to separate individual components for comparison to known standards.

TLC is classified as a solid-liquid chromatographic system, meaning there are two phases through which an extract of the sample is passed; a solid phase (silica gel) and a liquid phase (a solvent such as hexane).

The solid phase is stationary and is coated on a glass plate. During the chromatography process, the liquid phase carries the sample through the solid phase. The solvent moves at a fairly constant rate through the solid phase. However, the compound in the sample (analyte) are partitioned by a relative attractiveness of the analyte between the solid phase and the liquid phase. Analytes strongly attracted to the silica will remain on the silica longer and move more slowly than analytes that are not as strongly attracted to the silica. When the chromatography is stopped, the distance the analyte has moved relative to the distance the solvent has moved is used to identify the compound. When the plate is viewed under ultraviolet light, the analytes can be seen and compared to standards of known concentration for quantitative analysis.

3.1.2 Soil Sampling

The Sampling Plan (refer to Figure 3) and the attached Field Sampling Log (Appendix A) show the location, depth and types of samples taken. In general, sample collection and control followed the following protocol:

1. Select a laboratory certified clean sample jar for sample collection.
2. Using clean latex gloves and clean sampling utensils (Alconox Detergent, chlorine solution, tap water rinse and distilled water rinse cycle) tightly pack the soil sample in the sample jar (8 oz.)

to the top of the jar to prevent any airspace. Collect co-located samples using the same procedure.

3. Label the jar with the soil sample number, the type of laboratory test required, the date, name of site and sampler. The sample is then entered on the chain of custody form.
4. Cool the sample in wet ice to approximately 4 degrees centigrade.
5. Repack the samples for shipment to the laboratory in blue ice and a cooler.
6. Relinquish sample to courier for shipment to the laboratory.

3.2 Tank Removals

Hari Sharma and William Goggin, site assessors registered with the Washington State Department of Ecology Underground Storage Tank Program provided the site assessment and decommissioning services on March 13 and March 14, 1995. The pipelines beneath the building and concrete paving were capped after purging and left in place.

The main UST excavation, hereafter referred to as excavation #1, was located to the south of the building. One 5000 gallon tank and one 8000 gallon tank were removed from excavation #1. The excavation measured approximately 30' x 30' x 11' in depth.

The excavation for the removal of 1000 gallon tank, hereafter referred to as excavation #2, measured approximately 15 feet x 10 feet x 10 feet deep. It was located at the northwest corner of the building. The soil in the excavation appeared clean and had no smell of petroleum. The stockpiled soil that was taken from the top of the tank exhibited signs of limited petroleum contamination.

3.3 Tank Inspection

We removed attached soil and scale to completely expose the tanks and carefully examined their condition. The 1000 gallon tank still had red paint on it and it was in good condition, with little evidence of corrosion and pitting. The tank measured 3'9" in diameter and 12' in length.

The 5000 gallon tank had minor corrosion on the bottom, but the rest still had the original paint. The tank was 7'10" in diameter and 14'4" long. Refer to Photograph 5, Condition of 5000 gallon tank.

The 8000 gallon tank was in good condition with little evidence of corrosion or pitting. The tank measured 7'10" in diameter and 22' in length. Refer to Photograph 6, for the condition of the 8,000 gallon tank.

3.4 Initial Sampling/Site Assessment

Twelve soil samples were collected on March 14, 1995 from the UST excavations for organic vapor analyzer (OVA) field screening and laboratory analysis. Sample REP-0194-101 through 107 were collected from Excavation #1. Samples REP-0195-201 through 205 were collected from excavation #2. Refer to Figure 3, Sampling Plan and Table I for the sample location, depth and test results. None of the samples from the excavations contained detectable levels of gasoline contamination.

Sample REP-1295-108sp through 110sp were collected from stockpile of material excavated from excavation #1. None of the samples exhibited any significant gasoline contamination as determined by WTPH-G.

Samples REP-1295-206sp through 208sp were collected from the stockpile of material excavated from excavation #2. The analytical result of REP-1295-206sp/207sp revealed 1600 parts per million (ppm) gasoline contamination. Gasoline contamination was not detected in the sample REP-1295-208sp.

4.0 Soil Analysis Summary

The field screening and the laboratory analytical results are summarized in Table I. The Field Sampling Log is included as Appendix A, and the laboratory analytical report, as Appendix B.

5.0 Ground Water & Well Logs

Groundwater was not intersected on this site. Monitoring well information is presented in Appendix G. The well logs indicate static water level from 5.5 feet to 45 feet in Grandview area.

TABLE I: SOIL FIELD SCREENING & LABORATORY ANALYTICAL RESULTS

NT= Not Tested nd = Not Detected

LOCATION	DEPTH	SAMPLE #	DATE	OVA ppm	WTPH-G ppm
South Wall	6.5 feet	REP-1295-201	3/14/95	nd	
West Wall	6.5 feet	REP-1295-202	3/14/95	nd	nd
North Wall	6.5 feet	REP-1295-203	3/14/95	nd	nd
East Wall	6.5 feet	REP-1295-204	3/14/95	nd	nd
Bottom	9 feet	REP-1295-205	3/14/95	nd	nd
East Wall (8000 gal.)	7.5 feet	REP-1295-101	3/14/95	nd	nd
South Wall	7.5 feet	REP-1295-102	3/14/95	nd	nd
West Wall	7.5 feet	REP-1295-103	3/14/95	nd	nd
North wall	7.5 feet	REP-1295-104	3/14/95	nd	nd
East Wall (5000 gal.)	7.5 feet	REP-1295-105	3/14/95	nd	nd
Bottom (8000 gal.)	12.5 feet	REP-1295-106	3/14/95	nd	nd
Bottom (5000 gal.)	12.5	REP-1295-107	3/14/95	nd	nd
Stockpile	2'	REP-1295-206sp/207sp	3/15/95	NT	1600
Stockpile	2'	REP-1295-208sp	3/15/95	NT	nd
Stockpile	2'	REP-1295-108sp/109sp	3/15/95	NT	15
Stockpile	2'	REP-1295-110sp	3/15/95	NT	nd
Dispenser Island	2.5'	REP-1295-301	3/21/95	>1000 ppm	NT
Dispenser Island	2.5'	REP-1295-302	3/21/95	>1000 ppm	NT
Dispenser Island	2.5'	REP-1295-303	3/21/95	>1000 ppm	NT

6.0 End Use of Soil

WSI finds no evidence of petroleum contamination in excess of the Method A Cleanup Levels as established by the Model Toxics Control Act (WAC 173-340-720) in the sidewalls or bottom of both of the tank excavations. The soil from excavation #1 was used to backfill the excavation. The stockpile of soil removed from excavation #2 contained gasoline contamination. The soil was transported to Lower Valley Remediation Service in Mabton, WA for treatment and disposal. Refer to Appendix F, Table V, End Use Criteria For Petroleum Contaminated Soils.

7.0 Conclusion

7.1 Summary

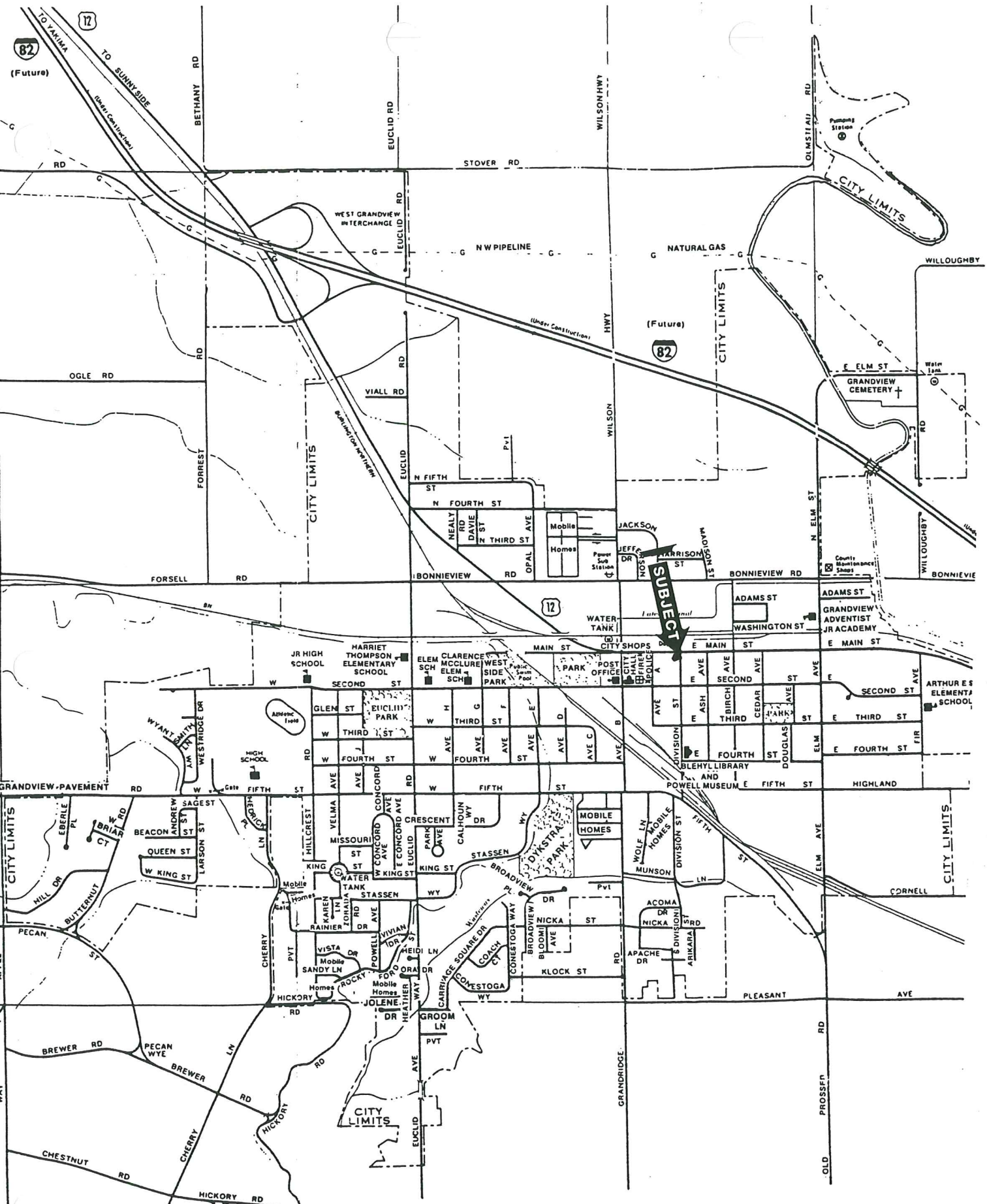
WSI finds no evidence of petroleum contamination in excess of the Cleanup Levels as established by the Model Toxics Control Act (WAC 173-340-720) remaining in the USTs excavations. However, there are high concentrations of petroleum contamination remaining in the soil beneath the former fuel dispensers.

7.2 Recommendations

The remaining petroleum contamination must be characterized to determine the horizontal and vertical extent and degree of contamination. Soil borings with continuous sampling down to and including groundwater are recommended, starting at the known contaminated areas and working outward until no contamination is found. Monitoring wells upstream, downstream and within the contamination plume may be required if groundwater has been impacted. Insitu remediation is recommended for soil and groundwater treatment since many areas of contamination will not be easily or economically accessible by direct excavation. A remediation strategy can be developed as soon as the data from the characterization study is available.

8.0 Limitations

In performing our professional services, WSI uses a degree of care ordinarily exercised under similar circumstances by members of our profession. No warranty, expressed or implied, is made or intended. Our conclusions and recommendations, developed from our field and laboratory investigation reported herein, are based upon this firm's understanding of the project and are in concurrence with generally accepted practice.



GRANDVIEW

FIGURE 1 - SITE LOCATION MAP

APPENDIX A

— 3/13/95 REP-1295

8:00 to 8:30 Made calls to Cascade Fire equipment, Inland ICE and to get dry ice.

8:30 to 8:45 Mobilized.

8:45 to 11:00 Travelled to Kennewick for dry ice.

12:00 to 12:40 Filled dry ice in the 8,000 and 5,000 gallon tanks.

1:00 to 2:00 Excavating around the tanks.

3:20 Started Pulling 8000 Gallon tanks out of the ground.

3:45 Pulled out 8000 Gallon tank. Red Paint on ends. Minor rusting on the sides. It is in good condition.

5:00 LEFT SITE.

SITE LOCATION: SW QUADRANT OF DIVISION STREET AND HWY 12 INTERSECTION.

GRANDVIEW HERALD, 88¢ STORE, IOWA BUILDING - ACROSS DIVISION ST.

VFW POST 6929 to the South Across the alley AND PARKING LOT.

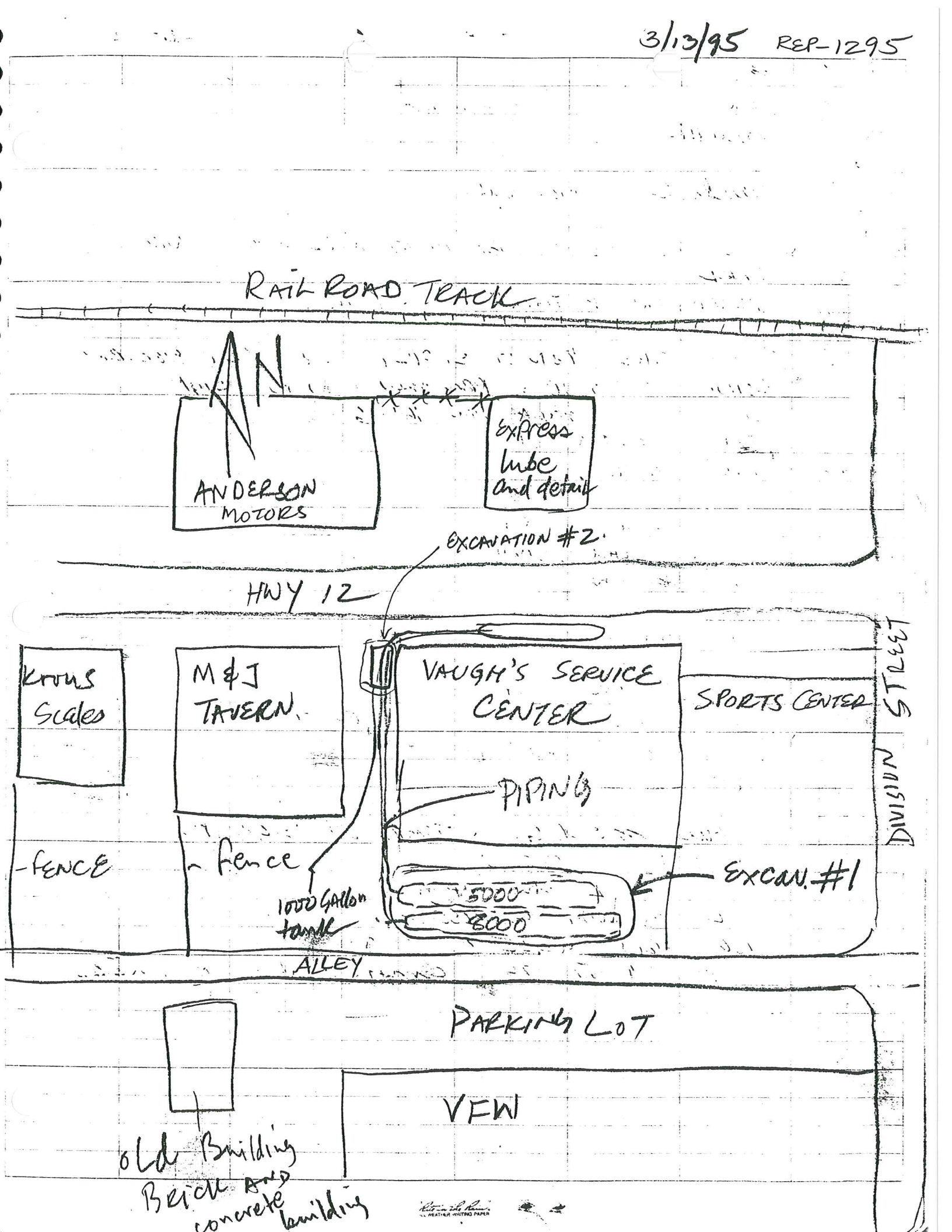
SPORTS CENTER BAR AND M & J BAR; To the EAST AND WEST OF THE SITE RESPECTIVELY.

EXPRESS LUBE AND DETAIL, ANDERSON MOTORS AND A CHURCH BLOCK TO THE WEST ACROSS AVENUE A — Anderson's used Cars, CITY OF GRANDVIEW, FIRE STATION, YAKIMA COUNTY FIRE DIST #5, 7 ELEVEN; USED CAR LOT TO THE NORTH OF 7 Eleven.

SAM'S Cycle SERVICE - MOTOR cycles, Snow mobiles All terrain Vehicles.

GRANDVIEW MARKET IN THE SE QUADRANT AND Kimbrough Realtors in the NE Quadrant

3/13/95 REP-1295



3/14/95

10:20 ARRIVED AT T-SITE. ALBA EXCAVAT. I IS REMOVING CONCRETE SLAB ON 1000 GALLON TANK.

10:20 to 12:40 EXCAVATED SOIL

12:40 to 12:10 PULLED THE TANK OUT.

TANK APPEARS TO BE IN GOOD CONDITION. NO CORROSSION OR PITTING. RED PAINT STILL ON IT.
DIMENSION OF TANK: 3'9" in diameter
12' LONG.

CAPPED THE PRODUCT SUPPLY LINE. CUT ELECTRICAL CONDUIT THAT WAS PROBABLY USED FOR SIGN.
DIMENSION OF EXCAVATION 16'x 6'.

SAMPLE #	Depth	LOCATION	OVA	
REP-1295-201	6.5'	South wall	ND	
202	6½'	West wall	ND	
203	6½'	N. wall	ND	
204	6½'	E. WALL	ND	
205	9'	Bottom	ND	
101	7.5'	E. WALL (8000 Gallon)	ND	
102	7.5'	S. WALL	ND	8000 GALLON TANK.
103	7.5'	W. WALL	ND	
104	7.5'	N. WALL	ND	
105	7.5'	E. WALL (5000)	ND	5000 GALLON TANK.

A total of three tanks were extricated of which two were located in excavation 1 and one 1000 gallon tank in excavation #1.

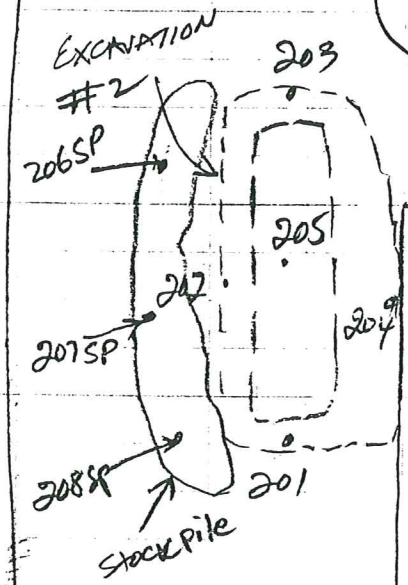
Pulled out ~~80~~ 5000 Gallon tank at 3:45 PM.
Dimension Ø = 7'10"
Length = 14'4".
TANK HAS MINOR CORROSSION ON THE BOTTOM.
NO HOLES WERE NOTICED.
NO BACKFILL IN THE EXCAVATION. TANKS WERE PLACED IN NATIVE SOIL.

Sample	Depth	Location	OVA	
REP-1295-106	12.5'	Bottom (8000)	ND	8000 GALLON TANK
107	12.5'	Bottom (5000)	ND	5000 GALLON TANK

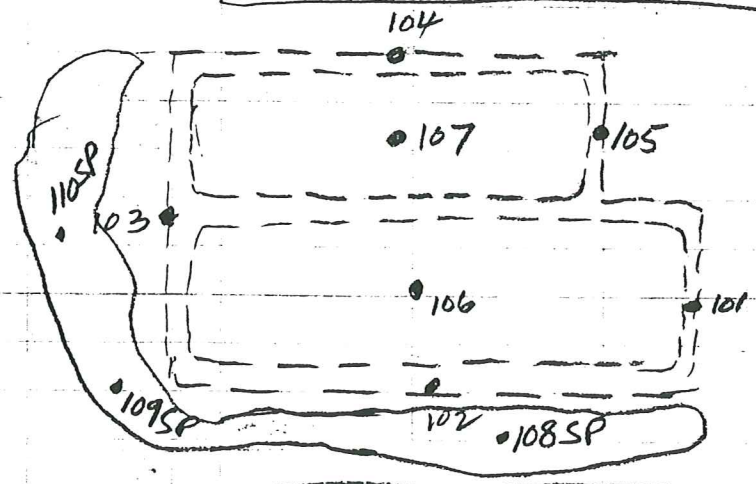
NOT TO SCALE

M AND J TAVERN

(LAB RESULT REVEALED
1600 ppm in 206SP/207SP
Composite.)



VAUGHN'S SERVICE STATION



ALLEY

PARKING LOT

3/15/95

10:00 LEFT OFFICE

10:10 INFORMED GARY THAT THE PUMP ISLAND CONCRETE MAKES IT DIFFICULT TO SAMPLE UNDER THE PUMP AND ASKED HIS PERMISSION TO REMOVE IT. JOHN ALBA TOLD ME THAT HE WON'T BE ABLE TO REMOVE THE CONCRETE TILL FRIDAY (3/17/95)

10:20 to 11:10 SAMPLED Stockpiles – 3 sets of samples from Each Stockpile.

Sample #	LOCATION	
REP-1295-206SP	Stockpile	Excavation #2
-207SP	Stockpile	
-208SP	Stockpile	
REP-1295-108SP	stockpile	Excavation #1.
-109SP	Stockpile	
-110SP	Stockpile	

I ASKED ALBA TO Blow Compressed air through the product piping prior to capping them.

Hari Sharma.

Total Time Spent on Site 1.5 hours.

PACKAGING, CHAIN OF Custody, Call to Pony Express = 0.75hr.

3/21/95

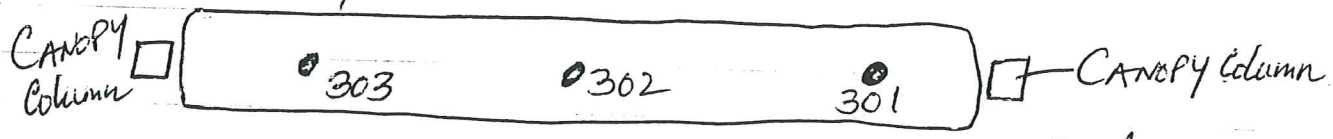
1:30-1:45 Mobilize.

1:45-2:00 Waited to grab samples while excavation was underway.

2:00-2:30 Conducted three OVA field screen tests on samples from ~~below~~ beneath the Pump.

OVA Sample #	Location	Depth	Result
REP-1295-301	East End	2-5'	>1000 PPM
-302	Middle	2-5'	>1000 PPM
-303	West Pump	2-5'	>1000 PPM.

Called Bill and informed him that the soil beneath the Pumps ~~have~~ has Petroleum Contamination.



Hari Sharma

3/29/95

1:30 Left office.

2:10 Reached sandy layer at 9' depth. It has high concentration of Petroleum Product.

3:30 High Concentration of Petroleum detected at 14.5'. ~~Closed the site~~ Backfilled the excavation and covered the top with Plywood.

APPENDIX B

March 20, 1995
Lab Traveler #:03-038

Terry Miller
White Shield, Inc.
P.O. Box 477
Grandview, WA 98930

Dear Terry:

Enclosed are the results of the analyses of samples submitted on March 16, 1995 from Project REP-1295.

We appreciate this opportunity to be of service to you on this project. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Karl P. Hornyik
Project Chemist

Enclosures

Date of Report: March 20, 1995
Samples Submitted: March 16, 1995
Lab Traveler: 03-038
Project: REP-1295

EPA 8020 & WTPH-G

Date Extracted: 3-16-95
Date Analyzed: 3-16-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	03-038-1/2	03-038-3/4	03-038-5	03-038-6/7	
Client ID	**REP-1295-201 / 202 COMP**	**REP-1295-203 / 204 COMP**	**REP-1295-205**	**REP-1295-101 / 102 COMP**	Method PQL
Dilution Factor	50	50	50	50	
Benzene	**ND**	**ND**	**ND**	**ND**	.001
Toluene	**ND**	**ND**	**ND**	**ND**	.001
Ethyl Benzene	**ND**	**ND**	**ND**	**ND**	.001
m,p-Xylene	**ND**	**ND**	**ND**	**ND**	.001
o-Xylene	**ND**	**ND**	**ND**	**ND**	.001
TPH-Gas	**ND**	**ND**	**ND**	**ND**	.100
4-BFB Surrogate Recovery	83%	85%	83%	84%	

Note: Sample PQL(practical quantitation limit)= Method PQL x dilution factor

Date of Report: March 20, 1995
Samples Submitted: March 16, 1995
Lab Traveler: 03-038
Project: REP-1295

EPA 8020 & WTPH-G

Date Extracted: 3-16-95
Date Analyzed: 3-16-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	03-038-8/9	03-038-10	03-038-11	03-038-12	
Client ID	**REP-1295-103 / 104 COMP**	**REP-1295-105**	**REP-1295-106**	**REP-1295-107**	Method PQL
Dilution Factor	50	50	50	50	
Benzene	**ND**	**ND**	**ND**	**ND**	.001
Toluene	**ND**	**ND**	**ND**	**ND**	.001
Ethyl Benzene	**ND**	**ND**	**ND**	**ND**	.001
m,p-Xylene	**ND**	**ND**	**ND**	**ND**	.001
o-Xylene	**ND**	**ND**	**ND**	**ND**	.001
TPH-Gas	**ND**	**ND**	**ND**	**ND**	.100
4-BFB Surrogate Recovery	83%	84%	84%	76%	

Note: Sample PQL(practical quantitation limit)= Method PQL x dilution factor

Date of Report: March 20, 1995
Samples Submitted: March 16, 1995
Lab Traveler: 03-038
Project: REP-1295

EPA 8020 & WTPH-G

Date Extracted: 3-16-95
Date Analyzed: 3-16-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	03-038-13/14	03-038-15	03-038-16/17	03-038-18	
Client ID	**REP-1295-206SP / 207SP COMP**	**REP-1295-208SP**	**REP-1295-108SP / 109SP**	**REP-1295-110SP**	Method PQL
Dilution Factor	250	50	50	50	
Benzene	**ND**	**ND**	**ND**	**ND**	.001
Toluene	**ND**	**ND**	**ND**	**ND**	.001
Ethyl Benzene	**1.4**	**ND**	**ND**	**ND**	.001
m,p-Xylene	**15**	**ND**	**ND**	**ND**	.001
o-Xylene	**21**	**ND**	**ND**	**ND**	.001
TPH-Gas	**1600**	**ND**	**15**	**ND**	.100
4-BFB Surrogate Recovery	S	85%	79%	85%	

Note: Sample PQL(practical quantitation limit)= Method PQL x dilution factor

S-Surrogate recovery data not available due to the necessary dilution of the sample.

Date of Report: March 20, 1995
Samples Submitted: March 16, 1995
Lab Traveler: 03-038
Project: REP-1295

EPA 8020 & WTPH-G
QUALITY CONTROL

Date Extracted: 3-16-95
Date Analyzed: 3-16-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	MB0316S-1	03-038-5	03-038-5	
	Blank	**Original**	**Duplicate**	**RPD**
Dilution Factor	50	50	50	
Benzene	**ND**	**ND**	**ND**	NA
Toluene	**ND**	**ND**	**ND**	NA
Ethyl Benzene	**ND**	**ND**	**ND**	NA
m,p-Xylene	**ND**	**ND**	**ND**	NA
o-Xylene	**ND**	**ND**	**ND**	NA
TPH-Gas	**ND**	**ND**	**ND**	NA
4-BFB Surrogate Recovery	93%	83%	84%	

Date of Report: March 20, 1995
Samples Submitted: March 16, 1995
Lab Traveler: 03-038
Project: REP-1295

EPA 8020 & WTPH-G
QUALITY CONTROL

Date Extracted: 3-16-95
Date Analyzed: 3-16-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	03-038-5		03-038-5		
spiked @ 1 ppm	**MS**	Percent	**MSD**	Percent	
Dilution Factor	50	Recovery	50	Recovery	RPD
Benzene	**0.890**	**89%**	**0.915**	**92%**	2.8
Toluene	**0.970**	**97%**	**0.990**	**99%**	2.0
Ethyl Benzene	**0.890**	**89%**	**0.915**	**92%**	2.8
m,p-Xylene	**0.900**	**90%**	**0.930**	**93%**	3.3
o-Xylene	**0.890**	**89%**	**0.915**	**92%**	2.8
4-BFB Surrogate Recovery	84%		84%		

Date of Report: March 20, 1995
Samples Submitted: March 16, 1995
Lab Traveler: 03-038
Project: REP-1295

Date Analyzed: 3-16-95

% MOISTURE

Client ID	% Moisture
REP-1295-201/REP-1295-202	15
REP-1295-203/REP-1295-204	14
REP-1295-205	15
REP-1295-101/REP-1295-102	15
REP-1295-103/REP-12-5-104	15
REP-1295-105	15
REP-1295-106	15
REP-1295-107	19
REP-1295-206SP/REP-1295-207SP	12
REP-1295-208SP	12
REP-1295-108SP/REP-1295-109SP	15
REP-1295-110SP	14

APPENDIX C

Method A Cleanup Levels - Soil [a]

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	20.0 mg/kg [b]
Benzene	71-43-2	0.5 mg/kg [c]
Cadmium	7440-43-9	2.0 mg/kg [d]
Chromium	7440-47-3	100.0 mg/kg [e]
DDT	50-29-3	1.0 mg/kg [f]
Ethylbenzene	100-41-4	20.0 mg/kg [g]
Ethylene dibromide	106-93-4	0.001 mg/kg [h]
Lead	7439-92-1	250.0 mg/kg [i]
Lindane	58-89-9	1.0 mg/kg [j]
Methylene chloride	75-09-2	0.5 mg/kg [k]
Mercury (inorganic)	7439-97-6	1.0 mg/kg [l]
PAHs (carcinogenic)		1.0 mg/kg [m]
PCB Mixtures		1.0 mg/kg [n]
Tetrachloroethylene	127-18-4	0.5 mg/kg [o]
Toluene	108-88-3	40.0 mg/kg [p]
TPH (gasoline)		100.0 mg/kg [q]
TPH (diesel)		200.0 mg/kg [r]
TPH (other)		200.0 mg/kg [s]
1,1,1 Trichloroethane	71-55-6	20.0 mg/kg [t]
Trichloroethylene	79-01-5	0.5 mg/kg [u]
Xylenes	1330-20-7	20.0 mg/kg [v]

APPENDIX D

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

ECOLOGY

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 the Department of 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.

SITE 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 the tanks for which the site check and site assessment is being conducted. Use the tank ID number 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 the 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

SITE INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): 000956

Site/Business Name: VAUGHN'S SERVICE STATION TEXACO.

Site Address: 100 WEST MAIN STREET (Street) Telephone: (509) 882-2115

GRANDVIEW (City) WA (State) 98930 (ZIP-Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
1	8,000	Unleaded Gasoline
1	5,000	Leaded Gasoline
1	1,000	Unleaded Gasoline

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): ____

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 the vicinity map.	HS	
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	HS	
3.	A summary of UST system data is provided. (see Section 3.1)	HS	
4.	The soils characteristics at the UST site are described. (see Section 5.2)	HS	
5.	Is there apparent groundwater in the tank excavation?		HS
6.	A brief description of the surrounding land is provided. (see Section 3.1)	HS	
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.	HS	
8.	A sketch or sketches showing the following items is provided:		
	- location and ID number for all field samples collected	HS	
	- groundwater samples distinguished from soil samples (if applicable)	N/A	
	- samples collected from stockpiled excavated soil	HS	
	- tank and piping locations and limits of excavation pit	HS	
	- adjacent structures and streets	HS	
	- approximate locations of any on-site and nearby utilities	HS	
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)	N/A	
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.	HS	
11.	Any factors that may have compromised the quality of the data or validity of the results are described.		HS
12.	*The results of this site check/site assessment indicate that a confirmed release of regulated substance has occured.*	HS	

SITE ASSESSOR INFORMATION

Hari Sharma
PERSON REGISTERED WITH ECOLOGY

White Shield, Inc
FIRM AFFILIATED WITH

BUSINESS ADDRESS: 801 GRANDRIDGE ROAD

TELEPHONE: (509) 882-1144

GRANDVIEW
CITY

WA
STATE

98930
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.

4/4/95
Date

Hari Sharma
Signature of Person Registered with Ecology

APPENDIX E

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK TEMPORARY/PERMANENT CLOSURE and SITE ASSESSMENT NOTICE

See back of form for instructions
Please ☑ the appropriate box(es)
Please type or print information

Office Use Only
Owner #
Site #

☐ Temporary Tank Closure ☐ Permanent Tank Closure ☐ Change-In-Service ☐ Site Assessment/ Site Check

SITE INFORMATION:

Site ID Number (on invoice or available from Ecology if the tanks are registered): 000956
Site/Business Name: VAUGHN'S SERVICE STATION TEXACO
Site Address: 100 W. MAIN STREET (Street) Telephone: ( )
(City) (State) (ZIP-Code)

TANK INFORMATION:

Tank ID	Closure Date	Tank Capacity	Substance Stored
1	3/13/95	8000	Unleaded Gasolin
1	3/14/95	5,000	Leaded Gasoline
1	3/14/95	1,000	Unleaded Gasoline

CONTAMINATION PRESENT AT THE TIME OF CLOSURE

☐ Yes ☒ No

☐ Unknown

Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

UST SYSTEM OWNER/OPERATOR:

UST Owner/Operator: POWELL - CHRISTENSEN, INC.
Owners Signature: Telephone: (509) 882-2115
Address: 501 E. MAIN (Street) 98 (P.O. Box)
GRANDVIEW (City) WA (State) 98930 (ZIP-Code)

TANK CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Service Provider: ALBA EXCAVATING INC. License Number: 201027
Licensed Supervisor: William J. HOGGIN, P.E Decommissioning License Number: W001863
Supervisors Signature:
Address: 801 GRANDRIDGE ROAD (Street) 477 (P.O. Box)
GRANDVIEW (City) WA (State) 98930 (ZIP-Code)
Telephone: (509) 882-1144

SITE CHECK/SITE ASSESSMENT CONDUCTED BY:

Name of Registered Site Assessor: HARI SHARMA
Telephone: (509) 882-1144
Address: 801 GRANDRIDGE ROAD (Street) 477 (P.O. Box)
GRANDVIEW (City) WA (State) 98930 (ZIP-Code)

ECY 020-34

PLEASE READ CAREFULLY

INSTRUCTIONS

Return this completed form to:

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

This form is to be completed by the Tank Owner and submitted to Ecology within 30 days of tank closure.

Mark the appropriate box(es) for temporary tank closure, permanent tank closure, change-in-service, or site assessment.

Permanent Closure and Change-in-Service require a site assessment be performed.

SITE INFORMATION:

Fill in the site information. Be sure to include the Ecology site ID number. This number may be found on the invoice or permit. Include a contact telephone number so any problems may be resolved quickly.

TANK INFORMATION:

List the tanks that were closed. Please use tank ID numbers and indicate the date of permanent closure. Be sure to attach your Underground Storage Tank Permits for any tanks that are now closed.

UST SYSTEM OWNER/OPERATOR:

Please fill in the owner's/operator's name, address, and telephone number. **Be sure to sign this form.**

TANK CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

List the closure company. Companies that provide UST services **MUST** be licensed by Ecology. Ask to see their supervisor's license. Make sure the licensed supervisor signs this form.

SITE CHECK/SITE ASSESSMENT CONDUCTED BY:

Fill in the site assessor information for permanent closure or change-in-service. Mark the appropriate box showing whether contamination from the underground tank(s) was or is present at the site. A site check/site assessment **MUST** be conducted by a site assessor who is registered with Ecology.

If contamination at the site is found or suspected, the appropriate Ecology Regional Office must be notified within 24 hours. If the contamination is confirmed, a site characterization report must be submitted to the regional office within 90 days. If contamination is not confirmed, a site assessment report must be submitted to the above address within 30 days.

Tanks exempt from notification requirements are:

Farm or residential tanks, 1100 gallons or less, used to store motor fuel for personal or farm use only. The fuel must not be for resale or used for business purposes.

Tanks used for storing heating oil that is used on the premises where the tank is located.

Tanks with a capacity of 110 gallons or less.

Equipment or machinery tanks such as hydraulic lifts or electrical equipment tanks.

Emergency overflow tanks, catch basins, or sumps.

For more information call toll free in the state of Washington
1-800-826-7716 or (206) 438-7137

APPENDIX F

TABLE V. END USE CRITERIA FOR PETROLEUM-CONTAMINATED SOILS

Analyte	Analytical Method	Soil Class (ppm) 1	2	3	4
Heavy fuel hydrocarbons (C24-C30)	WTPH-418.1 mod.	<60	60-200	200-2000	>2000
Diesel (C12-C24)	WTPH-D	<25	25-200	200-500	>500
Gasoline (C6-C12)	WTPH-G	<5	5-100	100-250	>250
Benzene	8020	<0.005	0.005-0.5	≤0.5	>0.5
Ethylbenzene	8020	<0.005	0.005-20	≤20	>20
Toluene	8020	<0.005	0.005-40	≤40	>40
Xylenes (total)	8020	<0.005	0.005-20	≤20	>20

Treatment is recommended for all Class 3 and 4 soils.

NOTES:

Class 1 Soil Uses:
Any use which will not cause threat to human health or the environment.

Class 2 Soil Uses:
Backfill at the cleanup site
Fill in commercial or industrial areas
Cover or fill in permitted landfills
Road subgrade or other road construction fill
Fill in or near: wetlands, surface water, ground water, drinking water wells or utility trenches is NOT recommended. Use as residential topsoil is also NOT recommended.

Class 3 Soil Uses:
Treatment
Disposal at the original site (no solid waste diposal permit needed)
Road construction (no solid waste diposal permit needed)
Use or disposal in permitted, municipal landfills
Permitted as a new PCS landfill
(An evaluation should be made to ensure that disposal will not cause a threat to human health or the environment, e.g. use near water bodies)

Class 4 Soil Uses:
Treatment
Disposal in a permitted, municipal landfill
Permitted as a new PCS landfill

APPENDIX G

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. ____

Permit No. 1

(1) OWNER: Name Ed Feasel Address R. 3 Box 3124 Grandview, Wa

(2) LOCATION OF WELL: County Yakima — W ½ SW ¼ Sec 13 T. 9 N., R. 23 W.M.

Bearing and distance from section or subdivision corner 200'N & 100'S of Subdivision Corner

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [X] Driven [ ]
Reconditioned [ ] Rotary [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 70 ft. Depth of completed well 70 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: ____" Diam. from ____ ft. to ____ ft.
Threaded [ ] ____" Diam. from ____ ft. to ____ ft.
Welded [X] 6" Diam. from 0 ft. to 28 ft.

Perforations: Yes [ ] No [X]
Type of perforator used ____
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes [ ] No [X]
Manufacturer's Name ____
Type ____ Model No ____
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel: ____
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes [X] No [ ] To what depth? 20 ft.
Material used in seal CEMENT
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? ____ Depth of strata ____
Method of sealing strata off ____

(7) PUMP: Manufacturer's Name SEARS
Type: JET H.P. 1

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ____ ft.
Static level 15 ft. below top of well Date 1-19-78
Artesian pressure ____ lbs. per square inch Date ____
Artesian water is controlled by ____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? ____
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ____
Bailer test 25 gal./min. with 25 ft. drawdown after 2 hrs.
Artesian flow ____ g.p.m. Date ____
Temperature of water ____ Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Clay	0'	28'
Brown Basalt	28'	72'

RECEIVED
MAR 29 1978
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 1-9- 19 78 Completed 1-19- 19 78

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Watkins Well Drilling
(Person, firm, or corporation) (Type or print)

Address R. 2 Box 2457A Grandview, Wa

[Signed] Kenneth L. Watkins
(Well Driller)

License No. 0516 Date 1-19- 19 78

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

File Original and First Copy with
Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. /

Permit No. .... /

(1) OWNER: Name ERNEST W. PETERSON Address RT 3 Box 3128 Grandview, Wa.

(2) LOCATION OF WELL: County YAKIMA SW¼ SW¼ Sec. 13 T. 9 N., R. 23 W.M. N

Bearing and distance from section or subdivision corner 100' W & 30' N OF SUB DIVISION LINE

(3) PROPOSED USE: Domestic X Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well X Method: Dug ☐ Bored ☐
Deepened ☐ Cable X Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 70 ft. Depth of completed well 70 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: ..... " Diam. from ..... ft. to ..... ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded X 6 " Diam. from 0 ft. to 30 ft.

Perforations: Yes ☐ No X
Type of perforator used
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No X
Manufacturer's Name
Type ..... Model No.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No X Size of gravel:
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes X No ☐ To what depth? 20 ft.
Material used in seal CEMENT
Did any strata contain unusable water? Yes ☐ No X
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name BERK
Type: JET H.P. 1/2

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 6 ft. below top of well Date 4-28-77
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No X If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 40 gal./min. with 25 ft. drawdown after 2 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No X

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	18
Brown Rock	18	65
Brown Honey comb	65	70
Black Basalt	70	71

RECEIVED
MAY 2 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 4-24, 19 77 Completed 4-28, 19 77

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME WATKINS WELL DRILLING
(Person, firm, or corporation) (Type or print)

Address Rt. 2 Box 2457 A Grandview

[Signed] Kenneth L Watkins
(Well Driller)

License No. 0516 Date 4-28-, 1977

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

4037

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 036696

Water Right Permit No. B

(1) OWNER: Name Cleatus R. Vining Address 1121 Wilson Hiway, Grandview,WA 98930

(2) LOCATION OF WELL: County Yakima W½ NW ¼ NE ¼ Sec 14 T 9 N., R 23 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) Parcel #230914-12401

(3) PROPOSED USE: [X] Domestic [ ] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ] DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) 1
Abandoned [ ] New well [X] Method: Dug [ ] Bored [ ] Deepened [ ] Cable [ ] Driven [ ] Reconditioned [ ] Rotary [X] Jetted [ ]

(5) DIMENSIONS: Diameter of well 10x8x6x5 inches. Drilled 96 feet. Depth of completed well 96 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" Diam. from +1 ft. to 66 ft.
Welded [X] 5" Diam. from +2 ft. to 82 ft.
Liner installed [ ] Threaded [ ] 4" PVC Diam. from -4 ft. to 96 ft.

Perforations: Yes [X] No [ ]
Type of perforator used saw
SIZE of perforations 1/8 in. by 6 in.
105 perforations from 82 ft. to 96 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes [ ] No [X]
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes [ ] No [X] Size of gravel
Gravel placed from ft. to ft.

Surface seal: Yes [X] No [ ] To what depth? 50 ft.
Material used in seal Cement Bentonite
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level 45 ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom?
Yield: 15 gal./min. with ft. drawdown after hrs.
" ESTIMATED AIRLIFT " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Airtest gal./min. with stem set at ft. for hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Gravel & sand	0	1
Sand loam	1	20
Sandy clay w/st of gravel	20	43
Broken basalt w/brown silt	43	86
Gray basalt	86	87
Broken basalt w/silt & water	87	96

6" Drive Shoe Utilized

RECEIVED
NOV 1

Work started 9/29/ 19 90 Completed 10/2/90 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME PONDEROSA DRILLING & DEVELOPMENT INC.
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address E. 6010 Broadway, Spokane WA 99212

(Signed) Robert Britton (WELL DRILLER) License No. 0043

Contractor's Registration No. PO-ND-EI *248JE Robert Britton Date 10/24 19 90

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329-

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. ....

Permit No. ....

(1) OWNER: Name GARY L. SCHOEPFLIN Address 109 N. ELM GRANDVIEW, Wa.

(2) LOCATION OF WELL: County YAKIMA N½ - NE¼ NW¼ Sec 14 T 9 N., R 23 W.M.

Bearing and distance from section or subdivision corner 500' E. & 400' N OF SUB DIVISION CORNER

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [X] Driven [ ]
Reconditioned [ ] Rotary [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 148 ft. Depth of completed well 148 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: ..." Diam. from .... ft. to .... ft.
Threaded [ ] ..." Diam. from .... ft. to .... ft.
Welded [X] 6" Diam. from 0 ft. to 51 ft.

Perforations: Yes [ ] No [X]
Type of perforator used ....
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes [ ] No [X]
Manufacturer's Name ....
Type .... Model No ....
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes [ ] No [X] Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes [X] No [ ] To what depth? 3 ft.
Material used in seal CEMENT
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? .... Depth of strata ....
Method of sealing strata off ....

(7) PUMP: Manufacturer's Name BERK
Type: SUB H.P. 1

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 40 ft. below top of well Date 12/22/77
Artesian pressure .... lbs. per square inch Date ....
Artesian water is controlled by .... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? ....
Yield: .... gal./min. with .... ft. drawdown after .... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ....
Bailer test 20 gal./min. with 50 ft. drawdown after 2 hrs.
Artesian flow .... g.p.m. Date ....
Temperature of water .... Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
TOP SOIL	0	4
SHALE	4	18
HARD PAN	18	46
BROWN BASALT	46	92
BLACK BASALT	92	133
GREY BASALT	133	143
SAND & GRAVEL	143	148

RECEIVED
JAN 25 1978
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 11-17- 19 77 Completed 12-22- 19 77

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME WATKINS WELL DRILLING
(Person, firm, or corporation) (Type or print)

Address Rt. 2, Box 2457A GRANDVIEW, Wa.

[Signed] Kenneth L. Watkins
(Well Driller)

License No. 0516 Date 12/22/ 19 77

(USE ADDITIONAL SHEETS IF NECESSARY) 02

S. F. No. 7356—OS—(Rev. 4-71).

3

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy Fred

WATER WELL REPORT
STATE OF WASHINGTON

Application No. ✓
Permit No. ....

(1) OWNER: Name ~~Frank~~ Webb Address Grandview Wash.

(2) LOCATION OF WELL: County Yakima NE ¼ SE ¼ SW ¼ Sec 14 T. 9 N., R. 23 W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....

New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 112 ft. Depth of completed well 112 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 45 5" ft. (Foot above)
Threaded ☐ ____ " Diam. from ____ ft. to ____ ft.
Welded ☒ ____ " Diam. from ____ ft. to ____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type ____ Model No.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 40 ft.
Material used in seal High Early Type III
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? ____ Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: ____ H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ✓ ft.
Static level 26' ft. below top of well Date 3/20/75
Artesian pressure ____ lbs. per square inch Date
Artesian water is controlled by ____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Bleyles
Yield: gal./min. with ft. drawdown after hrs.
" 45 " 40 " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

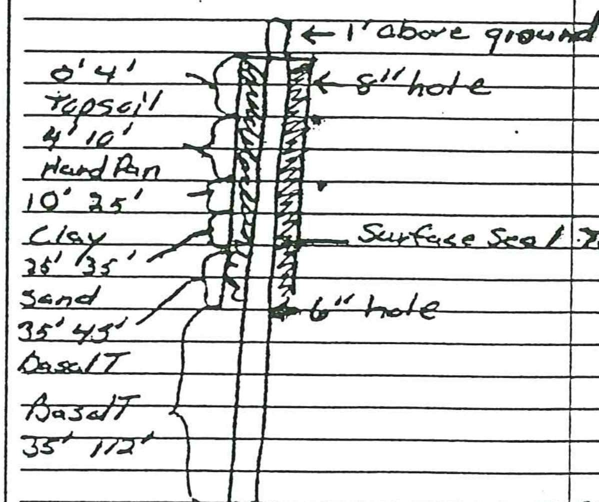
Date of test 3/26/75
Bailer test 36 gal./min. with 20 ft. drawdown after 1 hrs.
Artesian flow ____ g.p.m. Date 3/15/75
Temperature of water ____ Was a chemical analysis made? Yes ☐ No ☒

OK MAB

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Topsoil - Brown Sand & clay	0'	4'
	4'	10'
(Surface Seal To	10'	25'
40' In Black Basalt)	25'	35'
~~Hard Pan~~ Hard Pan	35'	105'
Clay - Brown - Very Gummy	105'	112'
Sand - Very fine - watery		
Basalt - Black - Very Hard		
Basalt - Black - Broken		
with Brown Seams.		



RECEIVED
NOV 20 1975
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 2/25, 1975. Completed 3/16, 1975

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Big C 183 Columbia Drilling Co (Person, firm, or corporation) (Type or print)

Address Rt 1 Box 216 B

[Signed] Troy W. Rafford (Well Driller)

License No. 0438 Date 4/1, 1975

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

4/14

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 081109

Water Right Permit No. _____

(1) OWNER: Name EVERETT DOYLE KELLEY Address 951 wilson hiway, Grandview WA 98930

LOCATION OF WELL: County YAKIMA N½ SW ¼ NE ¼ Sec 14 T 09 N., R 23 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) PARCEL # 230914-13001

(3) PROPOSED USE: ☒ Domestic ☐ Irrigation ☐ DeWater ☐ Industrial ☐ Test Well ☐ Municipal ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned ☐ New well ☒ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☐ Rotary ☐ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 200 feet. Depth of completed well 200 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 59 ft.
Welded ☒ PVC 4 " Diam. from -60 ft. to 200 ft.
Liner installed ☐
Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☒ No ☐ PVC LINER
Type of perforator used skillsaw
SIZE of perforations 1/8 in. by 6 in.
172 perforations from 160 ft. to 200 ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 40 ft.
Material used in seal BENTONITE & cement
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 30 ft. below top of well Date _____
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: 60 gal./min. with _____ ft. drawdown after _____ hrs.
" ESTIMATED AIRIFT " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Top soil, brown, soft	0	1
Sandy clay, brown, medium soft	1	31
Caliche, Black, hard	31	33
Fractured Basalt, brown, hard	33	44
Basalt, gray, very hard	44	80
Pouris basalt, brown, hard	80	84
Basalt, black, hard	84	133
Sandstone, gray, medium	133	163
Sandstone, tan, soft medium	163	176
Sandstone, brown, soft medium	176	200
6" Drive Shoe Utilized		

RECEIVED
JUN 1991
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 12/11/90, 19. Completed 12/13/90, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME PONDEROSA DRILLING & DEVELOPMENT INC.
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address E. 6010 BROADWAY SPOKANE WA 99212

(Signed) Steve Mills (WELL DRILLER) License No. 1335

Contractor's Registration No. PO-ND-EI *248JE (Steve Mills) Date 12/20, 19 90-

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329- 3

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....

Permit No. .....

(1) OWNER: Name EUGENE MARTIN Address RT 1 BOX 107 U MABTON, WN.

(2) LOCATION OF WELL: County YAKIMA. SW¼ SW¼ Sec 14 T. 9 N., R. 23 W.M.

g and distance from section or subdivision corner LOT 5 - GREEN VALLEY ESTATES

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 5 inches.
Drilled ..... ft. Depth of completed well 76' ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 5 " Diam. from 0 ft. to 76' ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☒ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal: BENTONITE
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level APP. ft.
Static level 5'6" ft. below top of well Date 1-24-78
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by .....
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? .....
Yield: 30 gal./min. with ft. drawdown after hrs.
" WITH AIR" " " "
" " " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

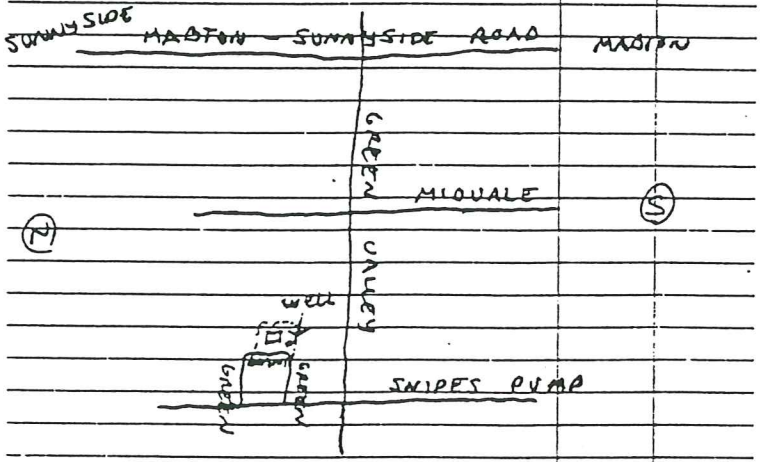
Date of test .....
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 58° Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL		TYPE OF DRILL	FROM	TO
TOP SOIL	(MED B.)	EASY	0	6
SAND (LOOSE)	"	"	6	36
"	(GRAY BROWN)	"	36	71
CONGLOMERATE	(LIGHT B.)	HARD	71	76

RECEIVED
JAN 27 1978
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE



Work started 1-23 19 78 Completed 1-24 19 78

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 SO. 10TH AVE -

[Signed] Chris B. Jensen Jr.
(Well Driller)

License No. 0217 Date 12-27, 19 78

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology.
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. W 24394

Water Right Permit No. _____

(1) OWNER: Name Rich Wallingford Address Box 712 Grandview Wash 989

(2) LOCATION OF WELL: County Yakima NW ¼ NW ¼ Sec 15 T 9 N., R 23E W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) Outerbaugh

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) 1

Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 155 feet. Depth of completed well 155 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 63 ft.
Welded ☐ Liner installed ☐ Threaded ☐
_____ " Diam. from _____ ft. to _____ ft.
_____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 25 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 20 ft. below top of well Date 8-11-93
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
	air lift 25+gpm				

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated with at least one entry for each change of information.

MATERIAL	FROM	TO
Topsoil Brown	0	3
sand Tan	3	12
Clay Brown	12	45
fine sand Tan Clay	45	63
Basalt Black	63	140
Basalt Broken Black	140	155

Work started 8-10 19 93 Completed 8-11 19 93

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Blue Water Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address Box 1175 Prosser Wash 99350

(Signed) Matt Hammons (WELL DRILLER) License No. 2014

Contractor's Registration No. WD0872 Date 8-11 19 93

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Start Card No. 36061
UNIQUE WELL I.D. # ABI610
Water Right Permit No. _____

(1) OWNER: Name Joe Tayon Address P.O. Box 367, Sunnyside

LOCATION OF WELL: County Yakima NW 1/4 NW 1/4 Sec 15 T. 9 N, R 23 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) 8080 Puterbaugh Rd., Grandview

(3) PROPOSED USE: [X] Domestic [ ] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ] DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
Abandoned [ ] New well [X] Method: Dug [ ] Bored [ ] Deepened [ ] Cable [ ] Driven [ ] Reconditioned [ ] Rotary [X] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 65 feet. Depth of completed well 65 ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: 6" Diam. from +1 ft. to 65 ft.
Welded [X] _____" Diam. from _____ ft. to _____ ft.
Liner installed [ ] _____" Diam. from _____ ft. to _____ ft.
Threaded [ ]

Perforations: Yes [ ] No [X]
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes [ ] No [X]
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes [X] No [ ] To what depth? 18 ft.
Material used in seal Bentonite Clay
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 6 ft. below top of well Date 11/3/93
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 100 gal./min. with stem set at 65 ft. for 1 hrs.
Artesian flow _____ g.p.m. Date 11/3/93
Temperature of water 62° Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Topsoil	0	7
Brown Clay, Sand, & Water	7	23
Brown Clay, Sand, & Water	23	38
Sand & Water	38	50
Sand, Gravel, Tan Clay, Water, & Brown Sandstone	50	65

Work Started 11/2/93 19. Completed 11/3/93 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME OASIS DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address 940 Locust Lane Moxee, WA 98936
(Signed) _____ (WELL DRILLER) License No. 1435
Contractor's Registration No. OASISD*072J9 Date 11/7/93 19

(USE ADDITIONAL SHEETS IF NECESSARY)

ECL 050-1-20 (2/93)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. .....
Permit No. .....

(1) OWNER: Name Kranz, Dan Address Rt. 2 Box 3573-B Grandview Wa

(2) LOCATION OF WELL: County Yakima • SW ¼ NE ¼ Sec 24 T. 9 N., R. 23 WM. G

ng and distance from section or subdivision corner 200' South & 100' East of the North West Boundary

(3) PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one).... 1
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☑ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 140 ft. Depth of completed well 140 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6 " Diam. from 118 ft. to 37 ft.
Threaded ☐ ____ " Diam. from ____ ft. to ____ ft.
Welded ☐ ____ " Diam. from ____ ft. to ____ ft.

Perforations: Yes ☐ No ☑
Type of perforator used ____
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes ☐ No ☑
Manufacturer's Name ____
Type ____ Model No ____
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes ☑ No ☐ Size of gravel: ____
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes ☑ No ☐ To what depth? 37 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? ____ Depth of strata ____
Method of sealing strata off ____

(7) PUMP: Manufacturer's Name ____
Type: ____ H.P ____

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ____ ft.
Static level 20 ft. below top of well Date 4-12-79
Artesian pressure ____ lbs. per square inch Date ____
Artesian water is controlled by ____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☑ If yes, by whom? ____
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
" " " " "
" " " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ____
Bailer test ____ gal./min. with ____ ft. drawdown after ____ hrs.
Artesian flow ____ g.p.m. Date ____
Temperature of water ____ Was a chemical analysis made? Yes ☐ No ☑

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
soil	0	18
caliche & sand rock	18	21
broken basalt	21	37
hard grey basalt	37	80
brown basalt (little water (1 to 2 g.p.m.)	80	83
hard grey basalt	83	134
brown sand rock (water)	134	140
Blowed approx 40 g.p.m. with air		

RECEIVED
JUN 11 1979
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 4-10, 1979. Completed 4-11, 1979

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Henry Bach Well Drilling
(Person, firm, or corporation) (Type or print)
Address Rt. 1 Box 360 H Wapato, Wa 98951
[Signed] Henry Bach
(Well Driller)
License No. 0053 Date 4-20, 1979

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

3

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

TATE OF WASHINGTON

Application No. ____

Permit No. ____

(1) OWNER: Name GERALD OWENS Address 2144 EVERETT AVE. WICHITA, KAN

(2) LOCATION OF WELL: County YAKIMA SE ¼ NW ¼ Sec 24 T 9 N., R 23 W.M.

Bearing and distance from section or subdivision corner 200' FROM S.E. CORNER OF THE SE ¼ SECT

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [X] Driven [ ]
Reconditioned [ ] Rotary [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 65 ft. Depth of completed well 62 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 1 ft. to 31 ft.
Threaded [ ] " Diam. from ____ ft. to ____ ft.
Welded [X] " Diam. from ____ ft. to ____ ft.

Perforations: Yes [ ] No [X]
Type of perforator used ____
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes [ ] No [X]
Manufacturer's Name ____
Type ____ Model No ____
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel: ____
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes [X] No [ ] To what depth? 20 ft.
Material used in seal CEMENT
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? ____ Depth of strata ____
Method of sealing strata off ____

(7) PUMP: Manufacturer's Name BERK
Type: JET H.P 1/2

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ____ ft.
Static level 10 ft. below top of well Date 5/26/76
Artesian pressure ____ lbs. per square inch Date ____
Artesian water is controlled by ____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? ____
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ____
Bailer test 20 gal./min. with 35 ft. drawdown after 2 hrs.
Artesian flow ____ g.p.m. Date ____
Temperature of water ____ Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil & Clay	0'	18'
Brown Lock	18'	60'
Brown Broken Lock	60'	65'

RECEIVED
JUL 9 1976
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 5/22/ 19 76 Completed 5/26/ 19 76

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Watkins Drilling Co.
(Person, firm, or corporation) (Type or print)

Address Rt 2 Box 245A Grandview

[Signed] Kenneth L. Watkins
(Well Driller)

License No. 0516 Date 5/27/ 19 76

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

000277

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. .....
Permit No. .... H

(1) OWNER: Name Daniel W Neil Address Dayton Rd Grandview Wa.

(2) LOCATION OF WELL: County Yakima SE ¼ NE ¼ Sec 24 T 9 N., R 23 W.M.
Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 145 ft. Depth of completed well 145 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" " Diam. from +18 ft. to 33 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☒ No ☐
Type of perforator used
SIZE of perforations ¼ in. by ½ in.
80 perforations from 80 ft. to 120 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 25 ft. below top of well Date 1-8-88
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
	A.I.L.	ET	50+	GPM.	

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Over Burden	0	10
Sand & Clay	10	25
Basalt Sand.	25	32
Broken Basalt.	32	50
Soft Basalt.	50	85
Basalt. water.	85	90
Hard Basalt.	90	105
Bad Basalt. Some Clay	105	125
Hard Pan Clay. Water.	125	145

RECEIVED
FEB - 9 1988
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started: 19 Completed: 19

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Carman Development Co Inc.
(Person, firm, or corporation) (Type or print)

Address Rt 1 Box 1287 Prosser Wa.

[Signed] John Carman
(Well Driller)

License No. 1452 Date 1-9, 1988

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

RECEIVED
JUN 30 1982
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

WATER WELL REPORT
STATE OF WASHINGTON

Application No. [illegible]
Permit No. ....

(1) **OWNER:** Name City of Grandview Address 207 West 2nd St. Grandview, Wa.

(2) **LOCATION OF WELL:** County ____ — ____ ¼ SW ¼ Sec 13 T. 9 N., R 23 W.M.

Bearing and distance from section or subdivision corner

(3) **PROPOSED USE:** Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one).... DW #14
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 16 inches.
Drilled 954 ft. Depth of completed well 954 ft.

(6) **CONSTRUCTION DETAILS:**
Casing installed: 22 " Diam. from 0 ft. to 24 ft.
Threaded ☐ 12 " Diam. from 0 ft. to 693 ft.
Welded ☒ ____ " Diam. from ____ ft. to ____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes ☐ No ☐
Manufacturer's Name
Type Model No
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes ☐ No ☐ Size of gravel:
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 693 ft.
Material used in seal cement grout
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) **PUMP:** Manufacturer's Name
Type: H.P.

(8) **WATER LEVELS:** Land-surface elevation above mean sea level.... 955 ft.
Static level 127 ft. below top of well Date 5/24/82
Artesian pressure ____ lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? Layne
Yield: 1000 gal./min. with 349 ft. drawdown after 24 hrs.
" " " " "
" " " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
2:00	532				
2:10	127				

Date of test 5/20-21
Bailer test ____ gal./min. with ____ ft. drawdown after ____ hrs.
Artesian flow ____ g.p.m. Date
Temperature of water ____ Was a chemical analysis made? Yes ☐ No ☐

(10) **WELL LOG:** LMUP

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Soil sandy, med brn	0	17
Basalt fract. grey-brn	17	71
Basalt weath. brn-red, vell	71	76
Basalt semi fract. grey-brn	76	91
Basalt med-hrd grey	91	118
Sandstone soft, brn-grey-white-green, sand conglom.	118	144
Claystone med brn	144	217
Basalt fract. grey-red	217	251
Basalt hrd black	251	364
Basalt hrd grey	364	380
Basalt weath. brn-grey	380	401
Basalt hrd grey	401	426
Basalt fract. grey-brn	426	432
Basalt hrd grey	432	564
Basalt semi fract. red-brn	564	576
Basalt fract. brn-green-grey, blue claystn strks	576	606
Sand packed, green	606	622
Claystn blue-green	622	665
Ash, coal, red med	665	672
Basalt hrd grey	672	707
Basalt fract. black	707	716
Basalt hrd black, seamy	716	824
Basalt med black	824	841
Basalt hrd black	841	891
Basalt porous, grey-brn	891	898
Basalt hrd grey	898	910
Basalt fract. grey	910,	917
Basalt fract. black, with red & brn inseames	917	932
Basalt hrd grey	932	954

Work started 2/17, 19 82 Completed 5/24, 19 82

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME West Coast Drilling Co. Inc.
(Person, firm, or corporation) (Type or print)

Address 220 Academy St. Mt. Angel, Or.

[Signed] Steve Stadeli
(Well Driller)

License No. 0260 Date 6/15, 1982

(USE ADDITIONAL SHEETS IF NECESSARY) EP 7.28.82

ile Original and First Copy with
epartment of Ecology
econd Copy—Owner's Copy
hird Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 03927

UNIQUE WELL I.D. # AAF028

Water Right Permit No. _____

(1) OWNER: Name Apol-Richards Realty Address P.O. Box 367, Sunnyside WA

(1) LOCATION OF WELL: County Yakima NW ¼ SE ¼ Sec 24 T 9 N., R 23 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 1270 Highland Rd., Grandview WA

(3) PROPOSED USE: [X] Domestic [ ] Irrigation [ ] DeWater [ ] Industrial [ ] Test Well [ ] Municipal [ ] Other

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned [ ] New well [X] Deepened [ ] Reconditioned [ ] Method: Dug [ ] Cable [ ] Rotary [X] Bored [ ] Driven [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 150 feet. Depth of completed well 150 ft.

(6) CONSTRUCTION DETAILS:

Casing Installed: 6 " Diam. from +1 ft. to 25 ft.
Welded [X] 4½ PVC " Diam. from 10 ft. to 150 ft.
Liner installed [X]
Threaded [ ] _____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes [X] No [ ]
Type of perforator used Saw Cut
SIZE of perforations 3/16 in. by 5 in.
80 perforations from 120 ft. to 150 ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes [ ] No [X]
Manufacturer's Name _____
_____ Model No _____
_____ Slot size _____ from _____ ft. to _____ ft.
Diam _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes [X] No [ ] To what depth? 23 ft.
Material used in seal Bentonite Clay
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 11 ft. below top of well Date 8/23/93
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 33 gal./min. with stem set at 150 ft. for 1 hrs.
Artesian flow _____ g.p.m. Date 8/23/93
Temperature of water 62° Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Soil, Brown Clay & Sand	0	16
Brown Basalt	16	24
Medium Gray Basalt	24	45
Brown Basalt	45	55
Brown & Gray Basalt & Water	55	63
Medium Gray Basalt	63	73
Brown Basalt	73	83
Medium Gray Basalt	83	98
Medium Gray Basalt w/Brown Basalt Strips	98	115
Brown Sandstone & Water	115	130
Gray Sandstone & Water	130	142
Light Gray Clay	142	145
Gray Clay	145	150

RECEIVED AUG 31 1993 DEPARTMENT OF E... CENTRAL REGION

Work started 8/20/93, 19. Completed 8/23/93, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME OASIS DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 340 Lamb Lane Moxee, WA 98936

(Signed) _____ (WELL DRILLER) License No. 1435

Contractor's Registration No. OASISD*072J9 Date 8/30/93, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

050-1-20 (10/87) -1329- 18

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 36082

UNIQUE WELL I.D. # ABL139

Water Right Permit No. _____

(1) OWNER: Name Leonard Brooks Address 21 Ogle Rd., Grandview

(2) LOCATION OF WELL: County Yakima SW 1/4 NE 1/4 Sec 15 T. 9 N, R 23 W.M. G

(2a) STREET ADDRESS OF WELL (or nearest address) 621 Forrest Rd., Grandview WA

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (If more than one) _____

Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 100 feet. Depth of completed well 100 ft.

(6) CONSTRUCTION DETAILS:

Casing Installed: 6 " Diam. from +1 ft. to 70 ft.
Welded ☒
Liner installed ☐ _____ " Diam. from _____ ft. to _____ ft.
Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite Clay
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 14 ft. below top of well Date 2/2/94
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 30 gal./min. with stem set at 100 ft. for 1 hrs.
Artesian flow _____ g.p.m. Date 2/2/94
Temperature of water 62° Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Topsoil	0	5
Brown Clay & Sand	5	57
Brown Sand	57	65
Sand, Gravel & Water	65	68
Brown Basalt & Water	68	100

23 - 6

Work Started 2/1/94 19. Completed 2/2/94 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME OASIS DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 840 Lamb Lane Moxee, WA 98936

(Signed) _____ (WELL DRILLER) License No. 1435

Contractor's Registration No. OASISD*072J9 Date 2/3/94 19

(USE ADDITIONAL SHEETS IF NECESSARY)

ECL 050-1-20 (2/93)

096

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 010216

Water Right Permit No. _____

(1) OWNER: Name Larry Ortiz Address 550 Bethany Rd, Grandview, Wa.

(2) LOCATION OF WELL: County Yakima SE ¼ NE ¼ Sec 15 T 9 N., R 23 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 550 Bethany Rd. Grandview, Wa.

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 65 feet. Depth of completed well 65 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: ~~6~~ 6 " Diam. from +1 ft. to 60 ft.
Welded ☒
Liner installed ☐ _____ " Diam. from _____ ft. to _____ ft.
Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 5 ft. below top of well Date 9/12/88
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 42 gal./min. with stem set at 65 ft. for 1 hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water 58 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Top soil	0	1
Br, clay	1	43
Br, sandstone & water	43	60
Rotten basalt & water	60	65

RECEIVED
SEP 20 1988
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 9/12/88 19. Completed 9/12/88 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Water Well's Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 5503 Ahtanum Rd, Yakima, Wa.

(Signed) _____ (WELL DRILLER) License No. 1435

Contractor's Registration No. WATERW*131N8 Date 9/16/88 19

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

WRC 41 2

Application No. .....

Permit No. 45930

(1) OWNER: Name Wallace E Derr Address 1310 W Highway 12 Grandview

(2) LOCATION OF WELL: County Yakima SW¼ SE¼ NE¼ Sec. 15 T. 9 N., R. 23 W.M. H

and distance from section or subdivision corner N E 200 ft S W Corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☒
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 100 ft. Depth of completed well 101 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 90 ft.
Threaded ☐ ____ " Diam. from ____ ft. to ____ ft.
Welded ☒ ____ " Diam. from ____ ft. to ____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type ____ Model No
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes ☐ No ☒ To what depth? ____ ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ____ Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: ____ H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ____ ft.
Static level 8 ft. below top of well Date 7-1973
Artesian pressure ____ lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

e of test July 1973
t 200 gal./min. with 20 ft. drawdown after 4 hrs.
low g.p.m. Date
ire of water 62° Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO

RECEIVED
DEC 27
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

RECEIVED
DEC 10
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

Work started ____, 19____. Completed ____, 19____

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME
(Person, firm, or corporation) (Type or print)

Address

[Signed]
(Well Driller)

License No. ____ Date ____, 19____

(USE ADDITIONAL SHEETS IF NECESSARY)

156—OS—(Rev. 4-71).

12/13

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APPENDIX H

Photograph 1: Looking north from the site.

Photograph 2: Looking east from the site

Photograph 3: Looking west from the site

Phyotograph 4: Looking south from the site

Photograph 5: 5,000 gallon tank

Photograph 6: 8,000 gallon tank.

APPENDIX I

R. E. POWELL DISTRIBUTING CO.

Phone 882-2115 P.O. Box 98

GRANDVIEW, WASHINGTON 98930

For Value Received

R.E. Powell Distributing hereby sells one used 8,000 gallon underground tank to Larry Loges.

It us understood that this underground tank has been used to store gasoline petroleum product and is not to be used for watering livestock. Also it is understood that an underground tank is designed only for underground use.

Agreed and Accepted 3-22-95