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SITE ASSESSMENT ENGINEERING REPORT

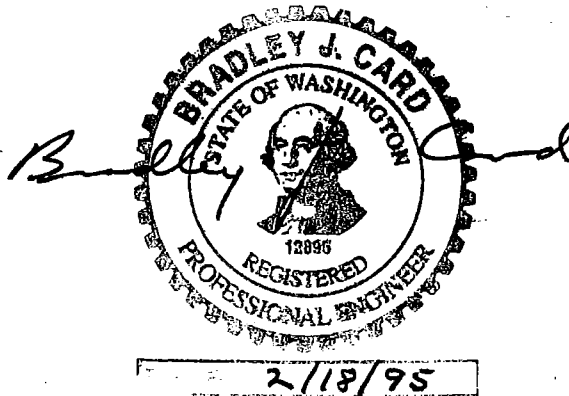
ON

UNDERGROUND STORAGE TANK REMOVAL

AND INTERMEDIATE SOIL CLEANUP

YAKIMA FIRE PROTECTION DISTRICT NO. 12

Yakima, Washington



August, 1994

Job No. 94082

Prepared by

PLSA ENGINEERING & SURVEYING
WDOE LIC. NO. S000210
1120 West Lincoln Avenue
Yakima, WA 98902
(509) 575-6990

SEP - 8 1994

SITE ASSESSMENT ENGINEERING REPORT

on

UNDERGROUND STORAGE TANK REMOVAL AND INTERMEDIATE SOIL CLEANUP

for

YAKIMA COUNTY FIRE PROTECTION DISTRICT NO. 12

Yakima, Washington

INTRODUCTION

Effort to comply with current laws and regulations relating to underground storage tanks prompted Yakima County Fire Protection District No. 12 to remove a 285 gallon, steel, underground gasoline storage tank, and a 285 gallon, steel underground diesel storage tank from their premises at 7707 Tieton Drive, Yakima, Washington. During tank removal, petroleum contaminated soil (PCS) was observed under the pump in the diesel tank basin. The tanks were located at SW 1/4, SW 1/4, SEC 20, TWP 13N, R18-EWM. See Figure 1.

This report summarizes site conditions and proposes cleanup and disposal of petroleum contaminated soil (PCS) including the results of laboratory testing of representative soil and water samples for presence of Total Petroleum Hydrocarbons (TPH), BTEX, lead, and characterization of the spilled petroleum by WTPH-HCID as appropriate. A geologist from PLSA Engineering and Surveying, WDOE License No. S000210, experienced with local soil conditions recently monitored removal of the underground storage tanks (UST's).

Tank removal was conducted by personel from West Valley Fire Station. Tanks and associated piping were removed from the basin.

The owner's representative and contact person for this project is as follows:

Chief Tom Wilson
Yakima Fire Protection District No. 12
7707 Tieton Drive
Yakima, Washington 98908
phone (509) 966-3111

SEP - 8 1994

SITE BACKGROUND

The 285 gallon unleaded gasoline tank has been used for approximately 10 years. The 285 gallon diesel tank has been used for 5 years. The neighboring areas consist of orchards to the north and east, a church to the west, with rural family houses and orchards to the south.

SURFACE CONDITIONS

A concrete asphalt parking area covered the tank basins. The two tanks were located north of the fire station.

SUB-SURFACE CONDITIONS

The tank was bedded through a thin layer of sandy, silt topsoil (USCS classification ML) and into a stratum of well cemented gravels (Ellensburg Fm). The water table is seasonally variable with the irrigation. Free groundwater was not encountered 9 feet below the surface at the bottom of the tank basins. Highest groundwater elevation is estimated to be 40 feet below the surface, from an adjacent property owner's well log.

From general topography, it appears that the groundwater hydraulic gradient is to the southeast.

SAMPLING PLAN

Representative soil samples were collected from the tank basins. Sample containers supplied by the analytical laboratory were clean glass with teflon lined, screwed caps. Sampling equipment was cleaned with non-petroleum based detergent between samplings.

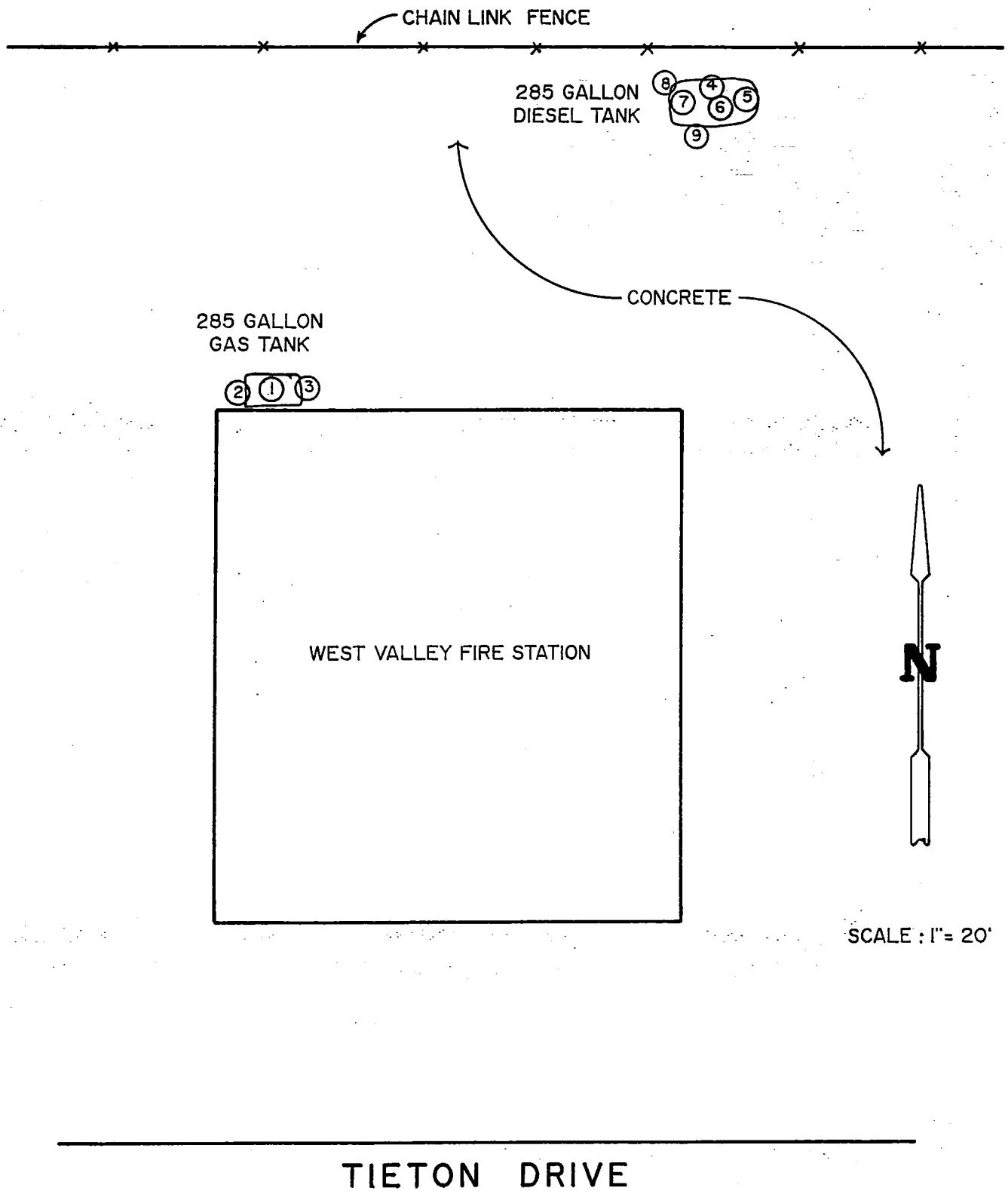
Cleanup sampling plan will be similar to that above. Cleanup samples will be designated by "FD" followed by a number.

Sound Analytical Laboratories, WDOE accreditation C027, in Fife, Washington has been selected to perform the analyses. Quality control procedures are on file at Sound Analytical.

All samples were stored under refrigeration and shipped to the laboratory by overnight express in a refrigerated, insulated container. Copies of Chain of Custody are in Appendix II.

CONTAMINANT CHARACTERIZATION

A petroleum stain was observed when the underground diesel tank basin soil was disturbed at one location, and a sample was collected. This, and other samples from the underground tank basins, were submitted to a laboratory for analysis for characterization by WTPH-HCID, and WTPH-418.1. Results of laboratory analyses are found in Appendix I.



LEGEND

⑧ = SAMPLE LOCATION & NUMBER

FIGURE 1.

TANK REMOVAL LOCATION
YAKIMA COUNTY F.P.D. # 12
YAKIMA WA

Diesel was the only contaminant found in excess of Model Toxics Control Act (WAC 173-340) cleanup limits.

CLEANUP ALTERNATIVES

Cleanup by excavation and land farming off-site is the selected soil remediation strategy. Due to limited area available on site for soil treatment, the PCS will be taken to Rocky Top Land Farm.

CONTAMINANT REMOVAL

A Photovac TIP 1 photoanalyzer was used to detect VOC's as contaminated soil was removed until significant readings were no longer obtained. Representative soil samples were then collected and submitted for laboratory analysis to verify the TIP results.

DISPOSAL OF CONTAMINATED SOIL

The estimated volume of contaminated soil is 5 cubic yards. Remediation of soil will be at Rocky Top Land Farm.

SITE CLOSURE

The tank basin will be backfilled with clean fill and the surface covered with concrete to its former condition.

TANK AND PIPING DISPOSAL

Piping was within the tank basin and was disposed of as scrap along with the tank.

RISK ASSESSMENT

Contamination level of diesel under the pump was high during characterization sampling. After additional PCS was removed another sample was taken and contamination levels were reduced to half of the original levels. See Sample Results, Table 1.

Because of the nature of the site as an active fire station it would not be feasible to impair its readiness ability to the surrounding community by further cleanup at this time. The residual amount of PCS remaining is 9 feet below the surface and all areas except the tank basin are covered with concrete. The tank basin is to be recovered with concrete which will isolate the pcs from percolating surface water. A chain link fence also keeps people from entering the site from the north, east and west.

The nearest water well to the site has a hydrostatic level 50 feet below the surface. Water well logs are in Appendix IV.

APPENDIX I
ANALYTICAL RESULTS

SAMPLE RESULTS

Units are in PPM (mg/Kg)

| Sample Number | FD-1* | FD-2 | FD-3 | FD-4 | FD-5 | FD-6 | FD-7* | FD-8 | FD-9 |
|---------------------|-------|------|------|------|------|------|-------|------|------|
| WTPH-HCID Gasoline | <20 | <20 | <20 | <20 | <20 | <20 | 720 | NT | NT |
| WTPH-HCID Diesel | <50 | <50 | <50 | <50 | <50 | <50 | 750 | NT | NT |
| WTPH-HCID Heavy Oil | <100 | <100 | <100 | <100 | <100 | <100 | <100 | NT | NT |
| Benzene | ND | ND | ND | NT | NT | NT | NT | NT | NT |
| Toluene | 0.081 | ND | ND | NT | NT | NT | NT | NT | NT |
| Ethyl Benzene | 0.72 | 0.99 | ND | NT | NT | NT | NT | NT | NT |
| Xylenes | 4.9 | 1.7 | ND | NT | NT | NT | NT | NT | NT |
| Lead | 230 | 220 | 160 | NT | NT | NT | NT | NT | NT |
| WTPH-Diesel | NT | NT | NT | NT | NT | NT | 12000 | 4300 | 6700 |

<=Less than

>=Greater than

ND=Non detected

NT=Not tested

*=Characterization samples

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 • TELEPHONE (206)922-2310 • FAX (206)922-5047

Report To: PLSA Engineering

Date: March 25, 1994

Report On: Analysis of Soil

Lab No.: 38895

IDENTIFICATION:

Samples received on 03-22-94

Project: 94082

ANALYSIS:

Lab Sample No. 38895-1

Client ID: FPD-1

WTPH-HCID

Date Extracted: 3-22-94

Date Analyzed: 3-22-94

Units: mg/kg

| <u>Parameters</u> | <u>Result</u> | <u>Flag</u> |
|-------------------------|---------------|-------------|
| Gasoline (C7 - C12) | < 20 | |
| Diesel (> C12 - C24) | < 50 | |
| Heavy Oil (C24+) | > 100 | |

SURROGATE RECOVERY, %

| | |
|----------------|----|
| 1-chlorooctane | 87 |
| o-terphenyl | 85 |

WTPH-418.1 Modified

Date Extracted: 3-23-94

Date Analyzed: 3-24-94

Units: mg/kg

| <u>Parameter</u> | <u>Result</u> |
|--------------------------------|---------------|
| Heavy petroleum oils (C24+) | < 100 |

SOUND ANALYTICAL SERVICES, INC.

PLSA Engineering
Project: 94082
Lab No. 38895
March 25, 1994

Lab Sample No. 38895-1

Client ID: FPD-1

BTEX by Method 8020
Date Extracted: 3-22-94
Date Analyzed: 3-22-94
Units: mg/kg

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> | <u>Flag</u> |
|------------------|---------------|------------|-------------|
| Benzene | ND | 0.07 | |
| Toluene | 0.081 | 0.07 | |
| Ethyl Benzene | 0.72 | 0.07 | |
| Xylenes | 4.9 | 0.07 | |

SURROGATE RECOVERY, %

| | |
|------------------|----|
| Trifluorotoluene | 71 |
|------------------|----|

ICP Metals Per EPA Method 6010
Date Analyzed: 3-22-94
Units: mg/kg

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> |
|------------------|---------------|------------|
| Lead | 230 | 2.6 |

ND - Not Detected

PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: PLSA Engineering

Date: March 28, 1994

Report On: Analysis of Soil

Lab No.: 38955

IDENTIFICATION:

Samples received on 03-24-94

Project: 94082

ANALYSIS:

Lab Sample No. 38955-1

Client ID: FD-2

WTPH-HCID

Date Extracted: 3-24-94

Date Analyzed: 3-28-94

Units: mg/kg

Parameters

Result

Flag

Gasoline

< 20

(C7 - C12)

Diesel

< 50

(> C12 - C24)

Heavy Oil

< 100

(C24+)

SURROGATE RECOVERY, %

1-chlorooctane

84

o-terphenyl

92

SOUND ANALYTICAL SERVICES, INC.

PLSA Engineering
Project: 94078
Lab No. 38955
March 28, 1994

Lab Sample No. 38955-1

Client ID: FD-2

BTEX by EPA Method 8020
Date Extracted: 3-24-94
Date Analyzed: 3-24-94
Units: mg/kg

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> | <u>Flag</u> |
|------------------|---------------|------------|-------------|
| Benzene | ND | 0.07 | |
| Toluene | ND | 0.07 | |
| Ethyl Benzene | 0.99 | 0.07 | |
| Xylenes | 1.7 | 0.07 | |

SURROGATE RECOVERY, %

| | |
|------------------|----|
| Trifluorotoluene | 63 |
|------------------|----|

ICP Metals Per EPA Method 6010
Date Analyzed: 3-25-94
Units: mg/kg

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> |
|------------------|---------------|------------|
| Lead | 220 | 2.5 |

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

PLSA Engineering
Project: 94078
Lab No. 38955
March 28, 1994

Lab Sample No. 38955-2

Client ID: FD-3

WTPH-HCID
Date Extracted: 3-24-94
Date Analyzed: 3-28-94
Units: mg/kg

| <u>Parameters</u> | <u>Result</u> | <u>Flag</u> |
|-------------------------|---------------|-------------|
| Gasoline (C7 - C12) | < 20 | |
| Diesel (> C12 - C24) | < 50 | |
| Heavy Oil (C24+) | < 100 | |

SURROGATE RECOVERY, %

| | |
|----------------|----|
| 1-chlorooctane | 88 |
| o-terphenyl | 96 |

SOUND ANALYTICAL SERVICES, INC.

PLSA Engineering
Project: 94078
Lab No. 38955
March 28, 1994

Lab Sample No. 38955-2

Client ID: FD-3

BTEX by EPA Method 8020
Date Extracted: 3-24-94
Date Analyzed: 3-24-94
Units: mg/kg

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> | <u>Flag</u> |
|------------------|---------------|------------|-------------|
| Benzene | ND | 0.06 | |
| Toluene | ND | 0.06 | |
| Ethyl Benzene | ND | 0.06 | |
| Xylenes | ND | 0.06 | |

SURROGATE RECOVERY, %

| | |
|------------------|----|
| Trifluorotoluene | 75 |
|------------------|----|

ICP Metals Per EPA Method 6010
Date Analyzed: 3-25-94
Units: mg/kg

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> |
|------------------|---------------|------------|
| Lead | 160 | 2.7 |

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: PLSA Engineering

Date: April 4, 1994

Report On: Analysis of Soil

Lab No.: 39065

IDENTIFICATION:

Samples received on 03-29-94

Project: 94082

ANALYSIS:

Lab Sample No. 39065-1

Client ID: FD-4

WTPH-HCID

Date Extracted: 3-29-94

Date Analyzed: 3-30-94

Units: mg/kg

Parameters

Result

Flag

Gasoline

< 20

(C7 - C12)

Diesel

< 50

(> C12 - C24)

Heavy Oil

< 100

(C24+)

SURROGATE RECOVERY, %

1-chlorooctane

78

o-terphenyl

88

SOUND ANALYTICAL SERVICES, INC.

PLSA Engineering
Project: 94082
Lab No. 39065
April 4, 1994

Lab Sample No. 39065-2

Client ID: FD-5

WTPH-HCID
Date Extracted: 3-29-94
Date Analyzed: 3-30-94
Units: mg/kg

| <u>Parameters</u> | <u>Result</u> | <u>Flag</u> |
|-------------------------|---------------|-------------|
| Gasoline (C7 - C12) | < 20 | |
| Diesel (> C12 - C24) | < 50 | |
| Heavy Oil (C24+) | < 100 | |

SURROGATE RECOVERY, %

| | |
|----------------|----|
| 1-chlorooctane | 70 |
| o-terphenyl | 81 |

SOUND ANALYTICAL SERVICES, INC.

PLSA Engineering
Project: 94082
Lab No. 39065
April 4, 1994

Lab Sample No. 39065-3

Client ID: FD-6

WTPH-HCID
Date Extracted: 3-29-94
Date Analyzed: 3-30-94
Units: mg/kg

| <u>Parameters</u> | <u>Result</u> | <u>Flag</u> |
|-------------------------|---------------|-------------|
| Gasoline (C7 - C12) | < 20 | |
| Diesel (> C12 - C24) | < 50 | |
| Heavy Oil (C24+) | < 100 | |

SURROGATE RECOVERY, %

| | |
|----------------|----|
| 1-chlorooctane | 66 |
| o-terphenyl | 79 |

SOUND ANALYTICAL SERVICES, INC.

PLSA Engineering
Project: 94082
Lab No. 39065
April 4, 1994

Lab Sample No. 39065-4

Client ID: FD-7

WTPH-HCID
Date Extracted: 3-29-94
Date Analyzed: 3-30-94
Units: mg/kg

| <u>Parameters</u> | <u>Result</u> | <u>Flag</u> |
|-------------------------|---------------|-------------|
| Gasoline (C7 - C12) | > 20 | |
| Diesel (> C12 - C24) | > 50 | |
| Heavy Oil (C24+) | < 100 | |

SURROGATE RECOVERY, %

| | |
|----------------|----|
| 1-chlorooctane | 95 |
| o-terphenyl | 99 |

WTPH-D
Date Extracted: 3-30-94
Date Analyzed: 4-1-94
Units: mg/kg

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> | <u>Flag</u> |
|-------------------------|---------------|------------|-------------|
| Diesel (> C12 - C24) | 12,000 | 630 | |

| <u>SURROGATE RECOVERY, %</u> | | |
|------------------------------|----|----|
| o-terphenyl | NR | X8 |

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: PLSA Engineering

Date: May 6, 1994

Report On: Analysis of Soil

Lab No.: 39966

IDENTIFICATION:

Samples received on 05-05-94

Project: 94082

ANALYSIS:

WTPH-D

Date Extracted: 5-5-94

Date Analyzed: 5-6-94

Units: mg/kg

Lab Sample No. 39966-1

Client ID: FD-8

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> | <u>Flag</u> |
|-------------------------|---------------|------------|-------------|
| Diesel (> C12 - C24) | 4,300 | 31 | E |

SURROGATE RECOVERY, %
o-terphenyl

143

Lab Sample No. 39966-2

Client ID: FD-9

| <u>Parameter</u> | <u>Result</u> | <u>PQL</u> | <u>Flag</u> |
|-------------------------|---------------|------------|-------------|
| Diesel (> C12 - C24) | 6,700 | 31 | E |

SURROGATE RECOVERY, %
o-terphenyl

170

X9

PQL - Practical Quantitation Limit

APPENDIX II
CHAIN OF CUSTODY



ANALYTICAL & ENVIRONMENTAL CHEMISTS

SOUND ANALYTICAL SERVICES, INC.

4813 Pacific Hwy. East
Tacoma, Washington 98424
(206) 922-2310 • FAX (206) 922-5047

UST PARAMETERS

CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

SPECIAL INSTRUCTIONS/COMMENTS:

R15H

UST PARAMETERS

CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

[illegible]



4813 Pacific Hwy. East
Tacoma, Washington 98424
(206) 922-2310 • FAX (206) 922-5047

UST PARAMETERS

CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

[illegible]



APPENDIX III

INDEPENDENT REMEDIAL ACTION REPORT SUMMARY



Independent Remedial Action Report Summary

This report summary is an important part of the Independent Remedial Action Report. Please complete the summary and submit it with your Independent Remedial Action Report. If this document does not accompany your cleanup report, or if it is not fully completed, your report cannot enter the review process necessary for Ecology to provide you with a "no further action" determination, or to remove your site from the hazardous sites lists.

| FOR ECOLOGY USE ONLY | | |
|----------------------|------------|---|
| ERTS No. | TCP ID No. | Date Received |
| Reviewed by | | Initial Investigation (Date) |
| | | <input type="checkbox"/> NFA <input type="checkbox"/> SHA Referral <input type="checkbox"/> Interim Action <input type="checkbox"/> Emergency Action |

PLEASE PRINT CLEARLY OR TYPE

Complete all of the following:

GENERAL INFORMATION

| | |
|---|-----------------------|
| Name of Site Owner Yakima County Fire Department | Phone 509-966-3111 |
| Address 7707 Tieton Drive Yakima, WA 98908 | |
| Authorized Contact Tom Wilson | Phone 509-966-3111 |
| Name of Facility Operator Yakima Co. Fire Protection Dist. No. 12 | Phone 509-966-3111 |
| Address 7707 Tieton Drive, Yakima, WA 98908 | |
| Authorized Contact Tom Wilson | Phone |
| Name of Consultant Luis Valdez | Phone 509-575-6990 |
| Name of Firm PLSA Engineering & Surveying | |
| Address 1120 West Lincoln Avenue, Yakima, WA 98902 | |
| Please indicate which of the above persons completed this report. If the report was completed by someone other than listed above, please provide their name, address, and a daytime phone. Luis Valdez | |

REPORT INFORMATION

| | |
|--|---|
| Type of Report (check one) | Is this a Leaking Underground Storage Tank (LUST) report? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| <input type="checkbox"/> Combined release and independent remedial action report | Date release was reported to Ecology April 20, 94 |
| <input type="checkbox"/> Independent remedial action report | Date cleanup was completed May 4, 94 |
| <input type="checkbox"/> Interim Action Report | |
| <input type="checkbox"/> Final Cleanup Action Report | |

FACILITY INFORMATION

| | | | |
|---|---------------------------|---------------------------------------|--------------------------------|
| Site Name | | | |
| West Valley Fire Station | | | |
| Other Names (the site may be known as) | | | |
| | | | |
| Site Contact Person If Other Than Owner/Operator (This must be a person who is on-site during normal working hours and is authorized and qualified to answer questions about the site, or a person who is available during normal business hours and has knowledge about the site and the remediation.) | | | |
| Name Tom Wilson - Chief | | Phone 966-3111 | |
| Site Mailing Address (or site contact mailing address) | | | |
| 7707 Tieton Drive Yakima, WA 98908 | | | |
| Site Location Address (including zip code) | | | |
| Closest City | | County (where site is located) | |
| Yakima | | Yakima | |
| Township | Range | Section | Quarter-Quarter |
| 13 | 18 | 20 | SW-SW |
| Longitude: | | Degree | Minute |
| | | | |
| Latitude: | | Degree | Minute |
| | | | |
| Ownership and Operator Type Complete the table below by checking the appropriate box to identify the type of owner and operator for the facility. (For example, if the property owner is a port district and the operator a private individual, then check the boxes under owner identification column in the municipal, code #2 row, and under the operator identification column in the private party, code #1 row.) | | | |
| Ownership/Operator Type | Code # | Owner Identification | Operator Identification |
| Private Party | 1 | | |
| Municipal (Public) | 2 | | |
| County | 3 | X | X |
| Federal | 4 | | |
| State | 5 | | |
| Tribal | 6 | | |
| Mixed | 7 | | |
| Other | 8 | | |
| Unknown | 9 | | |
| Public Entity Acquisition through Bankruptcy | 10 | | |
| Financial Institution Acquisition through Bankruptcy | 11 | | |
| Standard Industrial Classification (SIC) Codes. List all that apply. If none apply, or if you don't know your SIC code, list activities conducted at the site, e.g., automotive repair and maintenance, construction equipment storage, etc. | | | |
| Fire Station | | | |
| Hazardous Substance Management Practice(s). The hazardous substance(s) cleaned up from the site was the result of which of the following sources, activities, or actions? Please circle all that apply to the facility. | | | |
| 1 = Drug Lab | 5 = Landfill | 9 = A Spill | |
| 2 = Drum | 6 = Land application | 10 = Storm Drain | |
| 3 = A Leaking Impoundment | 7 = Pesticide application | 11 = Leaking Tank: | |
| 4 = Improper Handling | 8 = Pesticide Disposal | a - below ground; b - above ground | |
| | | 12 = Unknown | |

RELEASE INFORMATION

| | | | | | | | | | | | | | | | | | |
|---|--|-------------------------------------|---|---|-----------------------|--------------------|--------------------|--------------------------|---------|---|-----------------|------------------|--------------------|--------------------------------------|---------------------------------------|--------------------------------|----------|
| Date of Release (if known) | | Date of Discovery April 20, 1994 | | Are there any drinking water systems affected? Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> | | | | | | | | | | | | | |
| If drinking water systems are affected, are the systems public, private, or both? (circle one) | | | If drinking water systems are affected, has alternate drinking water been provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> | | | | | | | | | | | | | | |
| General Hazardous Substance Categories Using the contaminants listed below, complete the table. (A more detailed description of the contaminants can be found in Appendix A of the guidance.) | | | | | | | | | | | | | | | | | |
| Affected Media | Contaminants. For each of the applicable contaminants, enter the appropriate letter designating the status of the contaminants: C = Confirmed or S = Suspected (Contaminant status definitions are defined in Appendix A of the guidance.) | | | | | | | | | | | | | | | | |
| | Halogenated Organic Compounds | Metals - Priority Pollutants | Metals - Other | Polychlorinated Bi-Phenyls (PCBs) | Pesticides/Herbicides | Petroleum Products | Phenolic Compounds | Non-Halogenated Solvents | Dioxins | Polynuclear Aromatic Hydrocarbons (PAH) | Reactive Wastes | Corrosive Wastes | Radioactive Wastes | Conventional Contaminants - Organics | Conventional Contaminants - Inorganic | Base/Neutral Organic Compounds | Asbestos |
| Ground Water | | | | | | | | | | | | | | | | | |
| Surface Water | | | | | | | | | | | | | | | | | |
| Drinking Water | | | | | | | | | | | | | | | | | |
| Soil | | | | | | C | | | | | | | | | | | |
| Air | | | | | | | | | | | | | | | | | |

CLEANUP INFORMATION

Indicate cleanup level methods used by completing Table 5-A below. (Check all that apply)

| TABLE 5-A | | | | | | | | | |
|---|---|------|----|--------------|----|-----|----|---------------|----|
| | | Soil | | Ground Water | | Air | | Surface Water | |
| Method | A | X | | | | | | | |
| | B | | | | | | | | |
| | C | | | | | | | | |
| Have these levels been met throughout the site? (circle only one) | | YES | NO | YES | NO | YES | NO | YES | NO |

CLEANUP INFORMATION (continued)

Indicate the treatment methods used by completing Tables 5-B through 5-D below. (Check all that apply)

| TABLE 5-B | | | | | | | |
|---------------|--------------------------------|----------------------|----------------------|--------------|--------------------------------|---------------------------|--------------------|
| | Destruction or Detoxification | | | | Media Transfer | | |
| | Carbon Adsorption ¹ | Biological Treatment | Chemical Destruction | Incineration | Air Stripping/ Air Sparging | Aeration/Vapor Extraction | Thermal Desorption |
| Soil | -NA- | | | | -NA- | | |
| Ground Water | | | | -NA- | | -NA- | -NA- |
| Surface Water | | | | -NA- | | -NA- | -NA- |
| Air | | -NA- | | | | -NA- | |
| Wastes | -NA- | | | | -NA- | -NA- | -NA- |

¹Carbon followed by regeneration; use of granular activated carbon followed by landfilling would be classified in these tables as volume reduction and off-site landfill.

| TABLE 5-C | | | | | | |
|---------------|----------------|----------------------------------|------------------------------|-----------------------------|--------------|----------------------------------|
| | Immobilization | | Reuse/Recycling ² | Separation/Volume Reduction | | |
| | Vitrification | Solidification/ Stabilization | | Solvent Extraction | Soil Washing | Physical Separation ³ |
| Soil | | | | | | |
| Ground Water | -NA- | -NA- | | -NA- | -NA- | |
| Surface Water | -NA- | -NA- | | -NA- | -NA- | |
| Wastes | | | | | | |

²For example, reuse of free petroleum product recovered in a pump and treat system.
³For example, oil/water separators.

| TABLE 5-D | | | | |
|---------------|------------------------------------|-------------------|------------------------|--------------------------|
| | Land Disposal/Containment | | Institutional Controls | Others |
| | Containment or On-site Landfill | Off-site Landfill | | Specify treatment method |
| Soil | | | | |
| Ground Water | | -NA- | | |
| Surface Water | -NA- | -NA- | | |
| Wastes | | | | |

LUST SITE INFORMATION

| | |
|---|--|
| Type of product released (check one) | Approx. Tank Size: <u>285</u> gals |
| Leaded Gas <input type="checkbox"/> Diesel <input checked="" type="checkbox"/> Waste Oil <input type="checkbox"/> Unleaded Gas <input type="checkbox"/> Heating Oil <input type="checkbox"/> Other <input type="checkbox"/> (Identify _____) | Was free product encountered? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |

ENVIRONMENTAL INDICATORS

Answer the following questions as they are applicable to your site:

How many cubic yards of soil have been treated? _____

Where soil treatment was conducted, was it done on-site, off-site, or both? (circle one)

How many cubic yards of soil have been disposed of off-site? _____ (Calculate these quantities of soil while the soil is in place, prior to any excavation and/or treatment.)

Identify the off-site location(s) where soil was disposed. Rocky Top Landfarm Yakima, WA

If ground water pump and treatment was conducted, how many gallons of ground water have been treated to date? _____ gals.

How many years is the ground water extraction system expected to continue in operation? _____ yrs.

APPENDIX IV
WATER WELL LOGS

(USE ADDITIONAL SHEETS IF NECESSARY)

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 036694

Water Right Permit No. G3-21664 P

(1) OWNER: Name Arthur Hallauer Address 912 S. 72nd, Yakima, WA 98908

(2) LOCATION OF WELL: County Yakima NE 1 SE 4 NW 4 Sec 29 T 13 N., R. 18 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address)

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

(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 ☐
Replacement

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 97 feet. Depth of completed well 97 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 Diam. from +1 ft. to 59 ft.
Welded ☒ 4" PVC Diam. from 17 ft. to 97 ft.
Liner installed ☒
Threaded ☐ Diam. from _____ ft. to _____ ft.

Perforations: Yes ☒ No ☐

Type of perforator used Skill Saw

SIZE of perforations 6" Long in. by 1/8" Wide in.
_____ perforations from 57 ft. to 97 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 _____

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 13 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: 50 gal./min. with _____ ft. drawdown after _____ hrs.
"Est Air-lift" " " " "

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, sandy clay, brown | 0 | 15 |
| Sandston, gravel, black, brown | 15 | 18 |
| Sand, gravel, cobbels, black, brown, trace | 18 | 24 |
| Sandy clay, pea gravel, brown | 24 | 36 |
| Gray snadstone | 36 | 53 |
| Tan clay, sandstone, brown | 53 | 58 |
| Brown sandstone | 58 | 69 |
| Malty colored snadston w/water | 69 | 97 |

6" Drive Shoe

Work started 9/13/90, 19. Completed 9/14/90, 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 License No. 1335
(WELL DRILLER)

Contractor's Registration No. PO ND EI * 248 JB Date 9/14/90, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

WATER WELL REPORT

STATE OF WASHINGTON

Application No.

Permit No.

(1) OWNER: Name MRS FERN BAYS Address 1401 ALDER ST.
(2) LOCATION OF WELL: County YAKIMA Sec. 5 T. 3 R. 1 W.M. 18
bearing and distance from section or subdivision corner 1401 EAST ALDER STREET 20 1/2 in 18

(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 45 ft. Depth of completed well 45 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" Diam. from 11 ft. to 44 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? 20 ft.
Material used in seal 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 4-19-79
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 4-18-4-19-79
Pail test 8 gal./min. with 8 ft. drawdown after 2 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 |
|------------------------|------|----|
| SILT | 0 | 1 |
| SILT + COBBLES | 1 | 7 |
| SAND + COBBLES | 4 | 25 |
| Cemented SAND + GRAVEL | 25 | 30 |
| Cemented SAND | 30 | 36 |
| Cemented SAND + GRAVEL | 36 | 45 |

RECEIVED

MAY 21 1979

DEPARTMENT OF ECOLOGY

C. J. ...

Work started 4-10 1979 Completed 4-19 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 BACH DRILLING CO
(Person, firm, or corporation) (Type or print)

Address Rt 3 Box 60 Ellensburg

[Signed] Dean M. ...
(Well Driller)

License No. 836 Date 4-19 1979

WATER WELL REPORT

STATE OF WASHINGTON

Application No. _____

Permit No. 2

(1) OWNER: Name Don Alderson Address 7611 Tieton Drive, Yakima, Wa.

(2) LOCATION OF WELL: County Yakima - SW 1/4 SW 1/4 Sec. 20 T. 13 N., R. 18 W.

-ing 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 | <input checked="" type="checkbox"/> | Method: Dug | <input type="checkbox"/> | Bored | <input type="checkbox"/> |
| Deepened | <input type="checkbox"/> | Cable | <input type="checkbox"/> | Driven | <input type="checkbox"/> |
| Reconditioned | <input type="checkbox"/> | Rotary | <input checked="" type="checkbox"/> | Jetted | <input type="checkbox"/> |

(5) **DIMENSIONS:** Diameter of well 6 inches.
 Drilled 25 ft. Depth of completed well 25 ft.

(6) CONSTRUCTION DETAILS: Plastic casing

Casing installed:6....." Diam. from+1..... ft. to-65..... 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? 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: HP

(8) WATER LEVELS: Land-surface elevation above mean sea level.....ft.
 Static level50.....ft. below top of well Date. 2/84
 Artesian pressurelbs. 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> 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 50-30
 ler 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 |
|--------------------------|------|----|
| Topsoil | 0 | 3 |
| Sand & hard pan | 3 | 4 |
| Sand | 4 | 10 |
| Cement gravel | 10 | 24 |
| Brown clay & gravel | 24 | 46 |
| Brown clay & sandstone | 46 | 75 |
| Sandstone Gravel & water | 75 | 85 |

~~OCT - 6 1992~~

Work started 12/31, 1983 Completed 1/2, 1984

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 Vernon L. Rank
(Person, firm, or corporation) (Type or print)

Address 5503 Ahtenum Rd. Yakima, Wa. 98903

[Signed] Vernon L. Brank
(Well Driller)

License No. 0854 Date 1/3 84

WATER WELL REPORT

STATE OF WASHINGTON

Application No.

Permit No.

(1) OWNER: Name Alma Beerman Address 7217 MacLaren Yakima WA

(2) LOCATION OF WELL: County Yakima NE 1/4 NW 1/4 Sec 19 T 13 N, R 18 W
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: Drilled 65 ft. Diameter of well 6 inches.
Depth of completed well 65 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 60 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? 50 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 18 ft. below top of well Date 5-1-86
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: 75 gal./min. with ft. drawdown after hrs.
" Blown with Air " " "

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

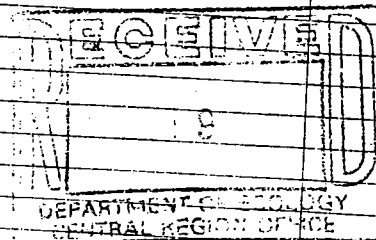
| Time | Water Level | Time | Water Level | Time | Water Level |
|------|-------------|------|-------------|------|-------------|
| | | | | | |
| | | | | | |
| | | | | | |

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 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 |
|--|------|----|
| Top Soil | 0 | 6 |
| Boulders + Gravel | 6 | 10 |
| Clay | 10 | 30 |
| Sand + Water | 30 | 36 |
| Clay | 36 | 60 |
| White Sand Stone + Gravel (with water) | 60 | 65 |



Work started 4-30 1986 Completed 5-1 1986

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 Eastwood Drilling Inc.
(Person, firm, or corporation) (Type or print)

Address 2202 River Rd Yakima WA

[Signed] Chester A Eastwood
(Well Driller)

License No 0112 Date 5-1 1986

(1) OWNER: Name Mike Corn Address 705 S. 80th Ave., Yakima

LOCATION OF WELL: County Yakima SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 29 T. 13 N., R. 18 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) 705 S. 80th Ave., Yakima

(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 110 feet. Depth of completed well 110 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 70 ft.
Welded ☒ 4 1/2 " Diam. from 50 ft. to 110 ft.
Liner installed ☐
Threaded ☐ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☒ No ☐

Type of perforator used Saw Cut
 SIZE of perforations 1/4 in. by 5 in.
160 perforations from 70 ft. to 110 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 _____ ft.
above mean sea level _____ ft.
Static level 14 _____ 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: _____ 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 110 ft. for 1 hrs.

Artesian flow _____ g.p.m. Date 10/6/92

Temperature of water 59° 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 | 14 |
| Gravel, Brown Clay & Water | 14 | 25 |
| Brown Clay & Gravel | 25 | 30 |
| Cemented Gravel & Brown Clay | 30 | 43 |
| Brown Sandstone, Gravel & Water | 43 | 46 |
| Brown Clay, Brown Sandstone, Gravel & Water | 46 | 60 |
| Brown Clay, Brown Sandstone & Water | 60 | 102 |
| Brown Sandstone, Gravel & Water | 102 | 110 |

Work started 10/5/92, 19. Completed 10/6/92, 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.

Water Wells Drilling, Inc.

NAME 5503 Ahtanum
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Yakima, WA 98903

Address _____
(Signed) Jimmy L. Runk License No. 1435
(JIMMY L. RUNK)

Contractor's
Registration
No. WATERWD1120B Date 10/8/92, 1992

(USE ADDITIONAL SHEETS IF NECESSARY)

WATER WELL REPORT.

STATE OF WASHINGTON

Start Card No. 036694

Water Right Permit No. G3-21664 P

(1) OWNER: Name Arthur Hallauer Address 912 S. 72nd, Yakima, WA 98908

(2) LOCATION OF WELL: County Yakima NE 1 SE 4 NW 4 Sec. 29 T. 13 N., R. 18 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) _____

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

(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 ☐
Replacement

(5) DIMENSIONS: Diameter of well 6" inches.
Drilled 97 feet. Depth of completed well 97 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 Diam. from +1 ft. to 59 ft.
Welded ☒ 4" PVC Diam. from 17 ft. to 97 ft.
Liner installed ☒
Threaded ☐ Diam. from _____ ft. to _____ ft.

Perforations: Yes ☒ No ☐

Type of perforator used Skill Saw
SIZE of perforations 6" Long in. by 1/8" Wide in.
_____ perforations from 57 ft. to 97 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 _____
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 13 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: 50 gal./min. with _____ ft. drawdown after _____ hrs.
"Est Air-lift" " " " "

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, sandy clay, brown | 0 | 15 |
| Sandston, gravel, black, brown | 15 | 18 |
| Sand, gravel, cobbels, black, brown, trace | 18 | 24 |
| Sandy clay, pea gravel, brown | 24 | 36 |
| Gray snadstone | 36 | 53 |
| Tan clay, sandstone, brown | 53 | 58 |
| Brown sandstone | 58 | 69 |
| Malty colored snadston w/water | 69 | 97 |

6" Drive Shoe

Work started 9/13/90, 19. Completed 9/14/90, 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 License No. 1335
(WELL DRILLER)

Contractor's Registration
No. PO ND EI * 248 JE Date 9/14/90, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

(1) OWNER: Name L. EVANS Address Treton Drive
(2) LOCATION OF WELL: County YAKIMA - NE 1/4 NE 1/4 Sec. 29 T. 13 N., R. 18 W.M.
ing 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 | <input type="checkbox"/> | Method: Dug | <input type="checkbox"/> | Bored | <input type="checkbox"/> |
| Deepened | <input checked="" type="checkbox"/> | Cable | <input checked="" type="checkbox"/> | Driven | <input type="checkbox"/> |
| Reconditioned | <input type="checkbox"/> | Rotary | <input type="checkbox"/> | Jettied | <input type="checkbox"/> |

(5) **DIMENSIONS:** Diameter of well 6 inches.
 Drilled 124 ft. Depth of completed well 170 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6" Diam. from 0 ft. to 150 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 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 45 ft. below top of well Date. 7/5/97
 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 | 7/5/78 | | | | |
| Bailer test | 42 gal./min. | with | 20 ft. | drawdown after | 1/2 hrs. |
| Artesian flow | | | | | |
| Temperature of water | | | | | |
| Was a chemical analysis made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | | | |

(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 + ROCK | 46 | 75 |
| SAND - GRAVEL | 75 | 85 |
| CLAY FINE SAND - SOME GRAVELS | 85 | 125 |
| CLAY SAND + GRAVEL | 125 | 170 |

RECEIVED

JUL 19 1973

DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C. 20250

Work started 1/26, 1978, Completed 7/5, 1978

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 Steve DRUSSELL
(Person, firm, or corporation) (Type or print)

Address. Route 2 Box 576 YAKIMA

[Signed] Steve Russell
(Well Driller)

License No. 0102 Date 7/8 1978

(1) OWNER: Name Fred Showman Address 7205 MacLarn Yakima WA

LOCATION OF WELL: County Yakima NE 1/4 NW 1/4 Sec. 29 T. 13 N., R. 18 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 <input checked="" type="checkbox"/> | Method: Dug <input type="checkbox"/> | Bored <input type="checkbox"/> |
| Deepened <input type="checkbox"/> | Cable <input type="checkbox"/> | Driven <input type="checkbox"/> |
| Reconditioned <input type="checkbox"/> | Rotary <input checked="" type="checkbox"/> | Jetted <input type="checkbox"/> |

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

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 60 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? 48 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: **HP**.....

(8) **WATER LEVELS:** Land-surface elevation
above mean sea level.... ft.
Static level 18 ft. below top of well Date 5-1-86
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: 75 gal./min. with _____ ft. drawdown after _____ hrs

" Blown 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..... 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.

[illegible]

Work started 5-1, 1986. Completed 5-3, 1986

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 Eastwood Drilling Inc.
(Person, firm, or corporation) (Type or print)

Address 2202 River Rd Yakima wa

[Signed] Chester W. Eastwood
(Well Driller)

License No. 0112 Date 5-5 1986

1) OWNER: Name Alnora. Pease

Address 7207 MacClean, Yakima

LOCATION OF WELL: County WAB, 417

- NE 1/4 NW 1/4 Sec 39 T 13 N R 18 E W M

bearing and distance from section or subdivision corner

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

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

| | | | | | |
|---------------|-------------------------------------|-------------|-------------------------------------|--------|--------------------------|
| New well | <input checked="" type="checkbox"/> | Method: Dug | <input type="checkbox"/> | Bored | <input type="checkbox"/> |
| Deepened | <input type="checkbox"/> | Cable | <input type="checkbox"/> | Driven | <input type="checkbox"/> |
| Reconditioned | <input type="checkbox"/> | Rotary | <input checked="" type="checkbox"/> | Jetted | <input type="checkbox"/> |

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 52 ft. Depth of completed well 52 ft.

5) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 40 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? 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.

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

(°) **WATER LEVELS:** Land-surface elevationft.
 Static level 19ft. below top of well Date.....
 Artesian pressurelbs. per square inch Date.....
 Artesian water is controlled by..... (Cap. valve, etc.)

() **WELL TESTS:** Drawdown is amount water level is lowered below static level

Was a pump test made? Yes ☐ No ☐ If yes, by whom?.....

| Prod: | 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 |
|------|-------------|------|-------------|------|-------------|
| 00 | 9.00 | 01 | 5.0 | | |
| 20 | " | " | 3.5 | | |

Date of test
 Flow test 60 gal./min. with ft. drawdown after 1 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.

[illegible]

Work started 8-1, 1979 Completed 8-1, 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 Eastwood Drilling Inc.
(Person, firm, or corporation) (Type or print)

Address 2202 River Rd Yakima WA

[Signed] Jeff Lander
(Well Driller)

License No. 0495 Date 8-1 1979

Water Right Permit No.

Address 619 S. 74th Ave., Yakima

NE ¼ NW ¼ Sec 29 T. 13 N., R. 18 W.M.

(a) STREET ADDRESS OF WELL (or nearest address) 619 S.74th.Ave., Takima

(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 70 feet. Depth of completed well 70 ft.

6) CONSTRUCTION DETAILS:

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

Perforations: Yes ☒ No ☐

Type of perforator used Torch

SIZE of perforations 1/4 in. by 4 in.
50 perforations from 60 ft. to 70 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 _____ ft.
 Static level 24 _____ ft. below top of well Date 5-21-91
 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 75 gal./min. with stem set at 70 ft. for 1 hrs.

Artesian flow _____ g.p.m. Date 5-21-91

Temperature of water 56 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.

[illegible]

Work started 5-20-91, 19. Completed 5-21-91, 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 Wells Drilling INC.
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 5503 Ahtanum Rd., Yakima 98903

(Signed) Gregory L. Rank License No. 1435

Contractor's
Registration
No. WATER WD1120B Date 5-23-91, 1991

(USE ADDITIONAL SHEETS IF NECESSARY)

(1) **OWNER:** Name Cedric Clark Address 7720 Tieton Dr., Yakima

(2) LOCATION OF WELL: County Yakima NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 29 T. 13 N., R. 18 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) 7720 Tieton Dr., Yakima

(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 170 feet. Depth of completed well 170 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 118 ft.
 Welded ☒ 4 1/2" PVC Diam. from 110 ft. to 170 ft.
 Liner installed ☒
 Threaded ☐ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☒ No ☐

Type of perforator used Drill
 SIZE of perforations 3/8 Round in. by _____ in.
300 perforations from 110 ft. to 170 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? 23 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 60 _____ ft. below top of well Date 6-6-91
 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 100 gal./min. with stem set at 170 ft. for 1 hrs.

Artesian flow _____ g.p.m. Date 6-6-91

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 |
|----------------------------|------|-----|
| Topsoil | 0 | 3 |
| Br. Clay & Cemented Gravel | 3 | 48 |
| Br. Clay & Sand | 48 | 56 |
| Br. Sandstone | 56 | 67 |
| Br. Sandstone & Gravel | 67 | 70 |
| Sandstone & Sand & | 70 | 105 |
| Water | | |
| Gravel & Sand | 105 | 113 |
| Br. Sandstone & Water | 113 | 158 |
| Br. Sandstone & Gravel & | 158 | 170 |
| Water | | |

Work started 6-4-91, 19. Completed 6-6-91, 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 Wells Drilling INC.
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 5503 Ahtanum Rd., Yakima 98903

(Signed) James L. Rank License No. 1435

Contractor's
Registration

Registration
No. WATER WD1120B Date 6-11-91, 1991

(USE ADDITIONAL SHEETS IF NECESSARY)



WATER WELL REPORT

STATE OF WASHINGTON

Application No.

Permit No.

(1) OWNER: Name PURVIS CONSTRUCTION & MILLWORK Address P.O. BOX 2305 YAKIMA.

(2) LOCATION OF WELL: County YAKIMA — NW 1/4 NW 1/4 Sec 29 T 13 N, R 18 W.M.

aring 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 5 inches.
Drilled ft. Depth of completed well 56 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 5 " Diam. from 0 ft. to 38' 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? 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 APP 1200 ft.
Static level 5' ft. below top of well Date 8-31-76
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 ☒ If yes, by whom?
Yield: 20 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 60° 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 |
|-----------------------------|------|----|
| TOP SOIL | 0 | 14 |
| LOOSE ROCK & SAND (MED G) | 14 | 38 |
| COMBLOMERATE (LIGHT G.) | 38 | 39 |
| COURSE SANDSTONE (LIGHT G.) | 39 | 56 |

WELL IS AT
7803 MIDVALE.

RECEIVED

SEP 23 1976

DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 8-31, 1976 Completed 8-31, 1976

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 9-23, 1976

(1) OWNER: Name. GERALD L. RUSSELL Address RT 4 Box 63 YAKIMA, WN.
(2) LOCATION OF WELL: County YAKIMA - SE 1/4 NW 1/4 Sec. 29 T. 13 N., R. 18 E. W.M. F
Bearing and distance from section or subdivision corner

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 | <input checked="" type="checkbox"/> | Method: Dug | <input type="checkbox"/> | Bored | <input type="checkbox"/> |
| Deepened | <input type="checkbox"/> | Cable | <input type="checkbox"/> | Driven | <input type="checkbox"/> |
| Reconditioned | <input type="checkbox"/> | Rotary | <input checked="" type="checkbox"/> | Jettied | <input type="checkbox"/> |

(5) **DIMENSIONS:** Diameter of well 5" inches.
 Drilled.....ft. Depth of completed well 55 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 5 " Diam. from 0 ft. to 36' 8" 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: HP

(8) **WATER LEVELS:** Land-surface elevation above mean sea level. App. 1200 ft.
 Static level 5' ft. below top of well Date 10-22-75
 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?.....

Yield: 20 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
 er test.....gal./min. with.....ft. drawdown after.....hrs.

Arterial flow.....g.p.m. Date.....
Temperature of water 53° 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 |
|--|------|----|
| TOP SOIL | 0 | 15 |
| COMBLOMERATE (MED B) ^{HARD} | 15 | 40 |
| SANDSTONE & ROCK (LIGHT B) ^{EASY} | 40 | 43 |
| " " (MED B) " | 43 | 50 |
| SANDSTONE (LIGHT B) " | 50 | 55 |

RECEIVED

CONFIDENTIAL

Work started 10-22 1975 Completed 10-22 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 JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 SOUTH 16TH AVE.

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

License No. 0217 Date 10-29 19 75