

**Garwood Source Water Delineation  
Kootenai County, Idaho**

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## **Introduction**

The Garwood Water District (Garwood) is located approximately 11-miles north of Coeur d'Alene, Idaho on State Route 95 in Kootenai County (Figure 1). Garwood has a population of approximately 90 households that are served water from two community wells. Garwood has requested that the Idaho Department of Environmental Quality complete a Source Water Delineation (SWD) as part of the requirements under the 1986 Safe Drinking Water Act. The SWD for Garwood determines the source of water that contributes to two community wells and is the basis for a Drinking Water Protection Plan (DWPP). The DWPP uses the areas contributing water to the community well as defined in the SWD and describes the presence of any potential sources of contaminants within these areas. The DWPP can be used as a planning tool allowing a community to make decisions regarding any current or future activities within these areas and take appropriate action if necessary to protect the drinking water supply.

## **Garwood Water System**

The Garwood water system currently supplies their service area with two wells as can be seen in Figure 2. The available driller's reports for Garwood's water supply wells can be seen in Appendix A. Garwood's municipal wells are located approximately 10-feet apart and were completed in 1986 and 1995. Both wells are located north of the water district along the east side of State Route 95. The 1986 Garwood well is completed 332-feet below ground surface and has a reported flow rate of 100-gallons per minute (gpm). The 1995 Garwood well is completed 361-feet below ground surface and has a reported flow rate of 150-gpm. Garwood has a water right filed with the Idaho Department of Water Resources for 0.67 cubic feet per second (300 gpm). A copy of the water right can be seen in Appendix B.

## **Geologic and Hydrogeologic Setting**

### **Regional Geology**

The geology of the Garwood area is largely comprised of four primary geologic units 1) Precambrian age rocks, 2) younger granitic intrusions, 3) basalt flows and 4) glacial flood deposits as can be seen in Figure 3 (Lewis, 2002). The Precambrian rocks are defined as the Priest River Metamorphic complex (PRMC) and the Belt Supergroup. The PRMC appear to be the oldest rocks of the area with age dates of approximately two billion years old. The PRMC is composed largely of gneiss (Lewis, 2002) a rock characterized by black and white bands made of alternating dark (biotite) and light (quartz and feldspars) colored minerals. They are commonly referred to as "granite" on driller's reports.

The Belt Supergroup is composed of a variety of very old sedimentary rocks that are over one billion years old. The Belt Supergroup sediments are estimated to be tens of thousands of feet thick and are believed to have been deposited in a narrow ocean basin. The pressure of the overlying sediments has caused the rocks to metamorphose or recrystallize with time into siltstones and sandstones. They are commonly referred to as "shale" on driller's reports. The Belt rocks were deformed into folds, faults and fractures about 70 to 80 million years ago.

The granitic intrusions pushed up into the overlying rock from about 70 to 50 million years ago. A large granitic intrusion (batholith) pushed up underneath the PRMC and the Belt Supergroup sediments forming the Kaniksu Batholith. It is believed that the large granitic intrusion pushed the belt rocks upward and to the east off of the PRMC. The contact between the two is called the Purcell Trench and is oriented north-south underneath the Rathdrum Prairie. The result is predominantly gneissic rocks to the west of the Rathdrum Prairie and the Belt rocks to the east.

Flood basalt originating from the northeast Oregon-Idaho area flowed predominantly north and west creating the Columbia Plateau during the Miocene about 14 to 17 million years ago. The flood basalt flowed as far north as the Spokane and Coeur d'Alene areas. The basalt is believed to have dammed the surface water flowing near the Spokane area creating a lake environment possibly as far north as what is now Lake Pend Oreille. The sediments are believed at time to be covered by subsequent basalt flows with additional damming and deposition of fine grained sediments. Significant portions of the sediment and basalt may have been removed from general erosional processes and subsequent glaciation and the flood events described below.

North Idaho was covered by glaciers during at least two ice ages that flowed south from Canada (Breckenridge, 1989), with the latest glaciation occurring approximately 10,000 to 15,000 years ago (Figure 4). Lobes of ice flowing from north to south blocked the Clark Fork River near Clark Fork Idaho causing significant quantities of water to pool behind the ice dam forming Lake Missoula. Occasionally the ice dam would fail causing very large flood events to occur. The flood waters would carry large boulders, gravel and sand down stream depositing them within what is now the Rathdrum Prairie.

### **Regional Hydrogeology**

The Rathdrum Prairie Aquifer (RPA) is a largely unconfined aquifer, and covers an area from Lake Pend Oreille and the City of Spirit Lake to the Cities of Coeur d'Alene and Post Falls west into Washington (see Figure 5). The RPA is composed of coarse sand and gravel with cobbles and boulders from the glacial flood events described above. Recharge to the aquifer is in the form of runoff from upland area, leakage from surrounding lake and rivers along with precipitation. Ground water flows regionally from north-northeast to south-southwest (Figure 6).

The hydraulic conductivity of the sediments is generally very high with municipal water wells capable of drawing significant quantities of water with limited drawdown. Areas around the margin of the RPA may contain some to significant quantities of silt. The silt is most likely due to a depositional environment with low water velocities occurring along the edges of the flood path or backwater environments. The bedrock topography is largely unknown. Water wells in the area have generally shallow completions due to the high permeability and wells completed to bedrock are relatively uncommon.

### **Project Area Geology/Hydrogeology**

Evidence to date indicates that the area underlying Garwood is composed of three bedrock channels. The channels from east to west are the Chilco, Ramsey and Main channels. The channels are defined by Tertiary basalt outcrops to the east, Precambrian Belt and Tertiary basalt rocks separating the Chilco and Ramsey channels, Cretaceous and Tertiary granitics separating the Ramsey and Main channels and PRMC to the west (see Figure 3). The lateral limits of the channels have been described in Graham & Buchanan, 1994 and Baldwin & Owsley, 2005; the depths of the channels are unknown and can be seen in cross section on Figure 7. The Main and Ramsey Channels are open at both the north and south ends allowing ground water to flow from the north Rathdrum Prairie area to the south. The ground water elevations of the Chilco Channel range from approximately 2,000 to 2,220 feet above mean sea level (ft msl) with the ground water elevations in the adjacent RPA ranging from approximately 2,000 to 2,030 ft msl. The Chilco channel appears to have a ground water bedrock divide at the north end with water discharging from the south end. Given the closed north end and the elevated ground water levels above the more regional RPA it would appear that ground water is being derived predominantly from the upland areas to the east.

The unconsolidated sediments within the Chilco channel are most likely derived from glacial flood deposits. Water well reports of the area (Appendix A) appear to indicate a pattern of coarser material at the north end with increasing fines at the southern end and along the margins. This may reflect a combination of fluvial and glacial flood depositional patterns.

## **Source Water Delineation**

### **General**

DEQ's interpretation of the geology and hydrogeology of Garwood and the surrounding areas is based on a compilation of selected literature, information as described on selected driller's reports in the area from the IDWR and a reconnaissance of Garwood and the surrounding area. The location of the driller's reports used can be seen in Figure 8 and a summary of the driller's reports used can be seen in Table 1.

The source water delineations for Garwood were estimated using the U.S. Geological Survey's (U.S.G.S.) numerical flow simulation model MODFLOW (McDonald and Harbaugh, 1988) with Waterloo Hydrogeologic's Visual Modflow (WHI, 2004) as a pre- and post-processor. The capture zones were estimated using backward particle tracking with U.S.G.S. Modpath (Pollack, 1994) with water budget calculations for specific areas of the model determined using the U.S.G.S. ZoneBudget (Harbaugh, 1990).

The ground water model was constructed in general accordance with the following ASTM Guidelines: D5490, D5609, D5610, D5718, and D5880.

## **Ground Water Flow Model**

### Modeling Objectives

The ground water flow model was constructed to estimate the capture zones for a DWPP. Capture zones are geographic areas that overlie portion of an aquifer that contribute water to a well. The capture zones are based on time that is necessary for ground water within the contributing areas to travel to the water supply well. The captures zones generally used in this DWPP are the 3-, 6-, and 10-year time-of-travel. In order to estimate the capture zones a geological/hydrogeological conceptual model must be developed and the pertinent aquifer parameters and boundaries must be defined. The conceptual model and the aquifer parameters were used to construct a numerical ground water flow model to delineate the capture zones for the Garwood DWPP. The model was run as a steady state model, meaning none of the boundaries, boundary conditions or aquifer parameters changed with time and the model was run a sufficient simulated period of time so that the output also did not change with time.

### Water Wells

The two Garwood community water wells were modeled as one well due to the close proximity of the wells to each other (approximately 10-feet), as can be seen in Figure 2. A modeled pump well was placed at the Garwood well field site with a grid spacing of approximately 35-feet squared. The modeled well was pumped at the water right capacity of 300 gpm.

### Grid Design

A variable density grid was used in the construction of the ground water flow model and can be seen in Figure 9. There are 120 row and 120 columns defining the ground water flow system. The cells are approximately 35 feet by 35 feet in size at the well head expanding outward by about 2.0 times to approximately 275 feet squared. The vertical grid distribution consists of only one layer and was considered sufficient for modeling the unconfined aquifer.

### Aquifer Parameters

Transmissivity values for the modeled area were estimated from specific capacity data as recorded on selected driller's reports from the IDWR and the Theis equation (Fetter, 1988). Transmissivity is defined as the rate at which water is transmitted through a unit width of the aquifer under a unit hydraulic gradient (Fetter, 1988). The hydraulic conductivity is defined as the rate of water flowing through a unit area of the aquifer and is equal to the transmissivity divided by the aquifer thickness. Specific capacity is a value defined as the production rate of the well divided by the associated drawdown. A summary of the driller's reports used and associated transmissivities can be seen in Table 1, the driller's reports can be seen in Appendix A.

Estimated values for storativity and "aquifer thickness" necessary for calculating transmissivity and hydraulic conductivity respectively using the Theis equation are described in Table 1. In general hydraulic conductivity ranged from approximately 20 to 100,000 feet per day (ft/day). The hydraulic conductivity for the majority of the model was 3,500 ft/day with the Chilco Channel divided into an upper (northern) 250 ft/day area and a lower (southern) 65 ft/day area. The hydraulic conductivity areas can be seen in Figure 10. Storativity was assumes to be 0.15 for the entire model and is representative of an unconfined aquifer (Freeze and Cherry, 1978).

### Boundary Conditions

#### 1. General

Boundary conditions are generally defined as any inputs or outputs of water into the system and any physical constraints of the system such as no-flow or bedrock boundaries. The boundaries used in the Garwood model consist of no-flow, general-head boundaries, and recharge. Below is a description of each of the boundaries used in the model with the location and areal extent of the boundaries shown in Figure 10.

## 2. No-Flow

The bedrock boundaries that define the RPA are represented as no-flow boundaries in the model. The no-flow boundaries cannot remove or contribute water to the aquifer. There are contributions from these upland areas and the form of surface and subsurface flow and are accounted for through the aquifer recharge described below. The bedrock topography was interpolated from a few existing wells that have been completed to or within bedrock in the modeled area and the location of area outcrops. A summary of bedrock well characteristics are shown in Table 1 and the locations are shown on Figure 8. The bedrock topography was gridded in Surfer (Golden Software, 2004) and then imported, interpolated, and contoured in Visual Modflow using the nearest neighbor algorithm. A three-dimensional mesh of the Surfer gridded and contoured data can be seen in Figures 12 and 13.

## 3. General-Head Boundaries

General-head boundaries (GHB) are boundaries that can contribute water to or remove water from a ground water flow model depending on the level of water at the boundary. If aquifer ground water levels are above the GHB then water will flow out of the aquifer and if the ground water levels are below the GHB then the water will flow out of the GHB. The rate at which water flows at the GHB is defined by the conductance. The conductance is defined as the resistance to flow between the GHB and the aquifer and is mathematically represented by the hydraulic conductivity multiplied by the area of the cell and divided by the distance to the external source/sink (WHI, 2004). GHBs were used as up gradient and down gradient boundaries. The up gradient boundaries contributed water to the aquifer and were used to represent Pend Oreille Lake. The down gradient boundaries removed water from the aquifer and were used to represent water loss from the aquifer modeled at Spirit & Hoodoo Valleys and RPA just south of the Round Mountain area. The location and extent of the GHB used in this model can be seen in Figure 10. Conductance values for the GHB used at Pend Oreille Lake was approximately  $1.4E6$  feet squared per day ( $\text{ft}^2/\text{day}$ ) and  $100,000 \text{ ft}^2/\text{day}$  at the other GHB. The value was determined initially through calculations as described above and then adjusted to aid in model calibration.

## 4. Areal Recharge

Precipitation along with surface and subsurface contributions of water from the surrounding upland areas to the aquifer were simulated through the recharge package. The recharge package simulates areal recharge to the modeled aquifer. Recharge to the aquifer from precipitation is typically the precipitation rate minus the rate of evapotranspiration. The resulting recharge rate to the aquifer is typically 5% to 30% of precipitation rates. There are contributions to the aquifer from both surface and subsurface water from the surrounding upland areas. These sources were not individually specified but included in the recharge number. No attempt was made to determine lag times due to flow through the vadose zone of recharge to the aquifer from precipitation events. The recharge for the RPA was based on the average precipitation of 25.31-inches per year (in/yr) for the period of record between 1895 and 2003 (Western Regional Climate Center). The evapotranspiration rate was estimated at 90% so that the recharge rate to the RPA was assumed to be 2.5 in/yr.

The aquifer within the Chilco Channel appears to be isolated along the north from the regional RPA. Recharge to this area is from precipitation and contributions from the surrounding upland areas. The contributions from the upland areas become a significant source of recharge water and must be incorporated into the model. The recharge from the upland areas is most likely from perennial streams and contributions from fractures within the bedrock (Graham & Buchanan, 1994, Baldwin & Owsley, 2005). Due to the sparse to nonexistent information regarding the quantity, timing and location of these upland sources relative to the Chilco Channel and Garwood's well, the upland sources were simulated by increasing the areal recharge for this portion of the model. The recharge used for the Chilco Channel area was 1,800 in/year and is based on calibration to the water elevations as reported on the driller's reports for selected wells in the area. The areal distribution of recharge can be seen in Figure 14.

## Calibration

The model was calibrated by comparing the observed head for selected wells throughout the modeled area to the modeled heads for those same wells. The observed head values were determined from static water levels usually reported as depth below top of casing and well locations as provided on the driller's reports. The location of the wells was estimated from the Public Land Survey system description of the well that is

accurate to a quarter-quarter section. The corresponding wellhead elevations were estimated from U.S. Geological Survey 7.5 minute map coverages of the area.

Modeled aquifer parameters and boundary conditions were adjusted manually until the observed heads corresponded to the modeled head values. The modeled ground water elevation contour map can be seen in Figure 15. The calibration process continued until it appeared no further decrease in error between the two could be calculated. The scatter plot for the observed versus modeled heads can be seen in Figure 16. The root mean squared error is approximately 1.9 Percent.

Another measure of error used during calibration is the mass balance error. The mass balance for the model determines the quantity of water entering the model and compares this value to the quantity of water leaving the model. The mass balance error for the model is 0.73 percent and the mass balance report has been included in Appendix C.

#### Sensitivity Analysis

A sensitivity analysis is performed to quantify changes in the model response due the uncertainty in input values. The input values used in the sensitivity analysis for the Garwood SWA model are: RPA and Chilco Channel hydraulic conductivity, RPA and Chilco Channel recharge and the conductance values for the general head boundaries. An upper and lower range of values for each parameter was input to the model and the corresponding change in head values and RMS error was obtained. A sensitivity index was then calculated for each change to indicate which values were the most sensitive. The results of the sensitivity analysis are summarized in Table 2.

#### **Capture Zones**

The modeled capture zones for the 6-month and one-year time of travel (TOT) are shown in Figure 17. The capture zone is very narrow and terminates quickly up gradient due to the hydraulic conductivity, homogeneous, isotropic modeled aquifer parameters and a significant gradient. The actual aquifer conditions within the Chilco Channel would most likely be heterogenous and anisotropic causing a divergence of the capture zones within the aquifer. The significant contributions from the upland immediately east of the Chilco Channel would most likely impact water quality. Due to the potential for contributions from the upland areas and aquifer heterogeneity and anisotropy, an increase in capture zone area within the aquifer has been incorporated along with inclusion of portions of the upland area and can be seen in Figures 18 and 19.

The ground water/surface water regime of the upland area is largely unknown. The average surface gradient is approximately 0.12 feet per foot based on the elevation change and distance from the RPA surface and Hollister Mountain located approximately three miles east of the Chilco Channel. The resultant velocity using a hydraulic conductivity of a fractured bedrock of 10 ft/day (Spitz & Moreno, 1996) and a bulk effective porosity of .003 (Spitz & Moreno, 1996) is 400 feet per day. The length of travel time through ground water for a conservative contaminant to travel the approximate three miles from the Hollister Mountain to the RPA would be about 40 days. Surface water and any associated contaminants would have decreased TOT values and would most likely reach the RPA sooner. The calculation for upland area TOT is relatively simple and a more detailed study of the specific area would be required for a more accurate analysis and is considered beyond the scope of this project. The simple calculation does suggest that all the surrounding watersheds that contribute water to the Chilco Channel should be included in the capture zones.

#### **Conclusion**

The Garwood wells receive ground water from the Chilco Channel. The Chilco Channel is oriented north-south and composed of exposed bedrock on the east and west sides with water elevations indicating that ground water flows from north to south discharging into the Rathdrum Prairie Aquifer. The ground water elevations appear to be elevated at the northern end such that there is a ground water divide isolating the northern end of the channel from the Rathdrum Prairie Aquifer. Recharge to the Chilco Channel would most likely be restricted to areal precipitation within the channel and with what appears to be significant contributions from the upland areas to the east.

Due to the boundary conditions the ground water flow within the channel is restricted to a small area with a relatively significant gradient. The Garwood wells are located at the southern end of the channel such that any activity within the channel would be upgradient from the wells and has the potential to impact the water quality. The 6-month and one-year capture zones are defined within the channel, the 3-, 6- and 10-year would be beyond the northern extreme of the channel. There appears to be significant surface/ground water contributions from the upland area to the east such that any activity within this area may also have impacts to water quality in the Garwood wells. Due to limitations in subsurface data, the size of the capture zones has been increased so that the source area of ground water to the wells is conservatively larger.

#### **Model Limitations**

The Garwood SWA model was constructed to estimate the capture zones for the Garwood community wells pumping at water right capacity. The capture zones are dependent on aquifer parameters, recharge rates and other boundary conditions that most certainly vary both over time and the geographic area modeled. No attempt has been made to establish or determine these variations and is considered beyond the scope of this project. Site specific water elevations and aquifer parameters used in this model are based largely on data described in driller's reports provided by the IDWR. The data in the driller's reports are general in nature and not necessarily described with the detail necessary for a more complete analysis. Aquifer parameters and location of the data points were interpreted from the information provided on the driller's reports, the accuracy and completeness of the resultant aquifer parameters cannot be guaranteed. If a more detailed analysis is required or the model is to be used for another purpose, then Garwood should acquire the necessary ground water professional for the proper application limits of this model or the requirements for any additional studies or model construction.

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Table 1. Summary of Driller's Reports

Number	Name	Location <sup>1</sup>			Well Head	Completion Level			Static Water Level				Aquifer Material <sup>1</sup>
		Township	Range	Section	Elevation <sup>2</sup>	Depth	elevation	bgs <sup>3</sup>	Map	Well	Hydraulic		
					(ft msl)							(ft)	
1	Wheeler (Garwood Water Cooperative)	52N	4W	24	2,330	332	2,006	276	2,054	100	403	Sand & Gravel	
2	Garwood Water Cooperative)	52N	4W	24	2,330	361.5	1,977	275	2,055	150	NA	Sand & Gravel	
3	Timbercraft Products	52N	4W	24	2,319	320	2,006	240	2,079	20	NA	Sand & Gravel	
4	Cooper	52N	4W	24	2,265	327	1,943	230	2,035	50	NA	Sand & Gravel	
5	Ohio Match Road Water District	52N	4W	24	2,288	317	1,976	251	2,037	210	121	Fine Sand & Gravel	
6	Beamis	52N	4W	24	2,325	325	2,013	272	2,053	35	NA	Sand & Gravel	
7	Thienes	52N	4W	24	2,295	322	1,981	290	2,005	10	12,847	Gravel	
8	Pope	52N	4W	24	2,318	325	2,001	295	2,023	8	NA	Basalt	
9	Davis	52N	4W	13	2,290	90	2,200	60	2,230	50	121	Decomposed Granite	
10	Gish	52N	4W	13	2,298	225	2,080	180	2,118	100	NA	Gravel	
11	Thomson	52N	4W	13	2,290	302	1,987	75	2,215	1	NA	Granite	
12	Cordon	52N	4W	13	2,300	152	2,157	17	2,283	39	NA	Granite	
13	Thomas	52N	4W	13	2,290	150	2,152	9	2,281	7	NA	Decomposed Granite	
14	Hommerding	52N	4W	13	2,275	219	2,067	185	2,090	20	6	Sand & Gravel	
15	Grant	52N	4W	13	2,265	325	1,942	NA	NA	0.25	NA	Granite	
16	Geddes	52N	3W	19	2,330	265	2,069	NA	NA	0	NA	Basalt	
17	Geddes	52N	3W	19	2,375	165	2,223	70	2,305	5.5	NA	Basalt/Shale	
18	Edwards	52N	3W	18	2,295	107	2,188	77	2,218	120	385,791	Sand & Gravel	
19	Johnson	52N	3W	18	2,292	505	1,792	NA	NA	NA	NA	NA	
20	Adams	52N	3W	18	2,325	203	2,130	80	2,245	15	NA	Basalt	
21	Carney	52N	3W	18	2,287	175	2,114	75	2,212	3	NA	Gravel/Shale	
22	Souther	52N	3W	18	2,342	700	1,659	NA	NA	NA	NA	NA	
23	Reed	52N	3W	18	2,295	136	2,157	101	2,194	10	10	Sand & Gravel	
24	Held	52N	3W	8	2,315	100	2,210	60	2,255	2	NA	Gravel	
25	Haney	52N	3W	8	2,340	200	2,344	80	2,260	2.5	0.12	Fine Sand/Clay	
26	Guerro	52N	3W	7	2,305	77	2,233	70	2,235	12	16,271	Gravel & Sand	
27	Roerick	52N	3W	7	2,290	95	2,203	70	2,220	30	NA	Gravel	
28	Johnson	52N	3W	7	2,320	136	2,190	83	2,237	40	NA	Gravel & fine sand/clay	
29	Shepard	52N	3W	7	2,310	117	2,189	69	2,241	30	42,903	Sand & Gravel	
30	Hayden Pines Water Co.	52N	3W	7	2,315	147	2,163	90	2,225	100	NA	Gravel	
31	L.P.	52N	3W	7	2,298	107	2,196	76	2,222	95	40	Sand & Gravel	
32	Brunner	53N	4W	36	2,390	426	-426	397	1,993	25	173,040	Sand & Gravel	
33	Brunner	53N	4W	36	2,388	415	1,995	NA	NA	NA	NA	Granite	
34	Deeter	53N	4W	19	2,440	440	-440	400	2,040	20	NA	Gravel	
35	Zile	53N	4W	28	2,550	585	1,977	530	2,020	22.5	7	Sand & Gravel	
36	U.S. Forest Service	53N	4W	27	2,428	497	1,969	420	2,008	1500	30,894	Gravel & Boulders	
37	Allen	53N	4W	25	2,430	445	2,016	415	2,015	20	0.59	Gravel & Cobbles	
38	San Francisco Ranch	53N	4W	24	2,458	570	1,907	409	2,049	20	31	Basalt	
39	Holiday & Crest Water & Sewer	53N	4W	23	2,475	505	1,992	460	2,015	20	30,374	Sand & Gravel	
40	Hunters	53N	4W	21	2,580	592	2,008	560	2,020	19	68,843	Sand & Gravel	
41	Fisher	53N	4W	12	2,535	581	1,965	500	2,035	20	NA	Gravel	
42	Young	53N	4W	10	2,590	622	1,999	560	2,030	20	9	Sand & Gravel	
43	City of Spirit Lake	53N	4W	5	2,575	632	1,973	547	2,028	NA	NA	Sand & Gravel	
44	Turk	53N	3W	32	2,355	603	1,769	335	2,020	16.5	0.52	Granite	
45	Hester	53N	3W	32	2,358	395	1,979	345	2,013	50	2	Sand & Gravel	
46	Belt	53N	3W	27	2,355	335	2,034	315	2,040	6	NA	Gravel & Silt	
47	Wheeler	53N	3W	27	2,375	500	1,889	310	2,065	60	1	Sand & Gravel	
48	Bruse	53N	3W	21	2,380	198	2,184	156	2,224	25	19,055	Sand & Gravel	
49	Witherspoon	53N	3W	15	2,420	420	2,000	375	2,045	20	1	Gravel	
50	Berry	53N	3W	15	2,405	560	1,867	370	2,035	10	NA	Decomposed Granite	
51	GT Investments	53N	3W	12	2,442	485	1,986	415	2,027	100	6	Gravel & Clay	
52	Rayborn-Cook	53N	3W	12	2,455	459	2,021	405	2,050	15	2	Sand & Gravel	
53	Walt	53N	3W	8	2,510	525	1,999	470	2,040	25	NA	Gravel	
54	Canchia	53N	3W	3	2,390	369	2,020	346	2,044	7.5	211,020	Gravel & Sand	
55	Madsen	53N	3W	3	2,395	426	1,939	340	2,055	30	2	Sand & Gravel	
56	State of Idaho - Farragut State Pk	53N	2W	9	2,377	420	1,971	315	2,062	1500	9,431	Gravel	
57	Maynard	53N	2W	6	2,290	242	2,063	228	2,062	NA	NA	Gravel	
58	Shove	52N	4W	28	2,240	298	1,942	260	1,980	60	NA	Sand & Gravel	

<sup>1</sup>As described on Idaho department of Water Resources Well Driller's Report

<sup>2</sup>Elevation determined from U.S.G.S. 7.5 minute quadrangle map

<sup>3</sup> bgs - below ground surface

<sup>4</sup>Transmissivity determined from Theis eqn and information supplied on Well Driller's Log. Assumed observation radius is 0.5 feet and storativity value of 5.0E-3. Aquifer thickness assumed to be well screen length. If no well screen present then aquifer thickness defined by exposed saturated portion of aquifer in bore or 20-feet if well bore terminates at same depth as with casing.

Table 2. Garwood Source Water Assessment Sensitivity Analysis

Parameter	Boundary	Value <sup>1</sup>	Unit <sup>2</sup>	Standard Error of the Estimate (ft)	Normalized RMS Error %	Correlation Coefficient	Sensitivity Index <sup>3</sup>
Hydraulic Conductivity	Zone #1-RPA Areal Distribution	<b>3,500</b>	ft/day	1.268	1.937	0.996	-
		2,000	ft/day	1.268	1.969	0.996	0.000
		5,000	ft/day	1.403	2.205	0.966	0.315
	Zone #2-Lower Chilco Channel	<b>65</b>	ft/day	1.268	1.937	0.996	-
		50	ft/day	2.693	4.328	0.994	-6.175
		80	ft/day	2.064	3.303	0.996	3.449
	Zone #3-Upper Chilco Channel	<b>250</b>	ft/day	1.268	1.937	0.996	-
		175	ft/day	1.304	1.995	0.996	-0.120
		325	ft/day	1.262	1.961	0.996	0.007
General Head Boundaries Conductance	Zone #1-Lake Pend Oreille	<b>2,484,912</b>	ft <sup>2</sup> /day	1.268	1.937	0.996	-
		1,500,000	ft <sup>2</sup> /day	1.270	1.940	0.996	-0.005
		3,000,000	ft <sup>2</sup> /day	1.268	1.936	0.996	0.000
	Zone #2-Spirit&Hoodoo Valleys	<b>100,000</b>	ft <sup>2</sup> /day	1.268	1.937	0.996	-
		75,000	ft <sup>2</sup> /day	1.269	1.938	0.996	-0.004
		125,000	ft <sup>2</sup> /day	1.269	1.938	0.996	0.004
	Zone #3-South Model RPA Boundary	<b>650,000</b>	ft <sup>2</sup> /day	1.268	1.937	0.996	-
		500,000	ft <sup>2</sup> /day	1.270	1.940	0.996	-0.009
		800,000	ft <sup>2</sup> /day	1.267	1.935	0.996	-0.004
Recharge	Zone #1-RPA Areal Distribution	<b>6</b>	in/yr	1.268	1.937	0.996	-
		4	in/yr	1.269	1.939	0.996	-0.003
		8	in/yr	1.268	1.937	0.996	0.000
	Zone #2-Chilco Channel Area	<b>1,800</b>	in/yr	1.268	1.937	0.996	-
		1,500	in/yr	2.524	4.095	0.996	-7.536
		2,100	in/yr	1.927	3.075	0.995	3.954

<sup>1</sup> Bold number indicates value used in model

<sup>2</sup> ft/day = feet per day, ft<sup>2</sup>/day = feet squared per day, in/yr = inches per year

<sup>3</sup> Sensitivity Index = (SE<sub>base</sub> - SE<sub>sensitivity</sub>)/(Change in Input Value/Initial Input Value) where SE = Standard Error of the Estimate



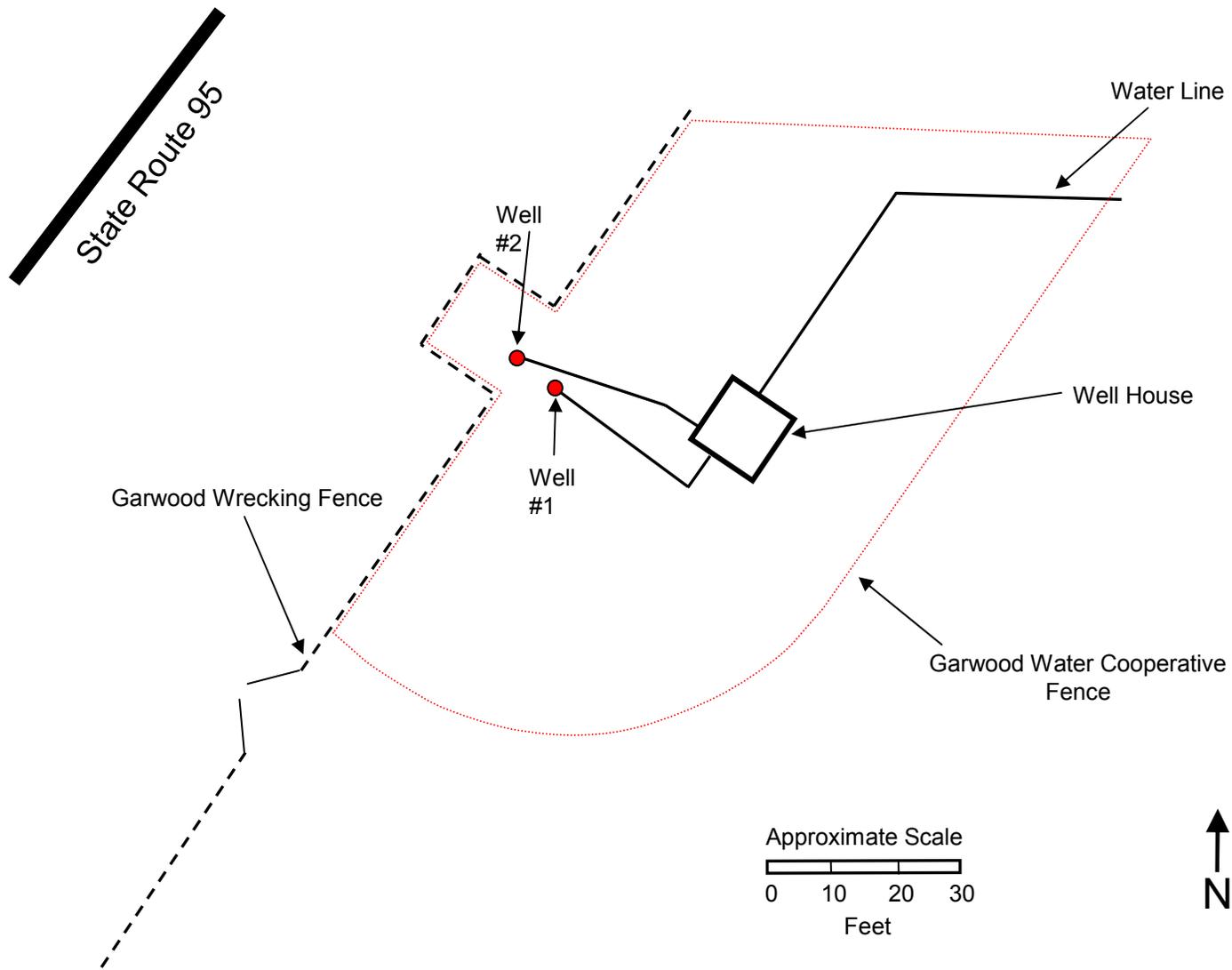
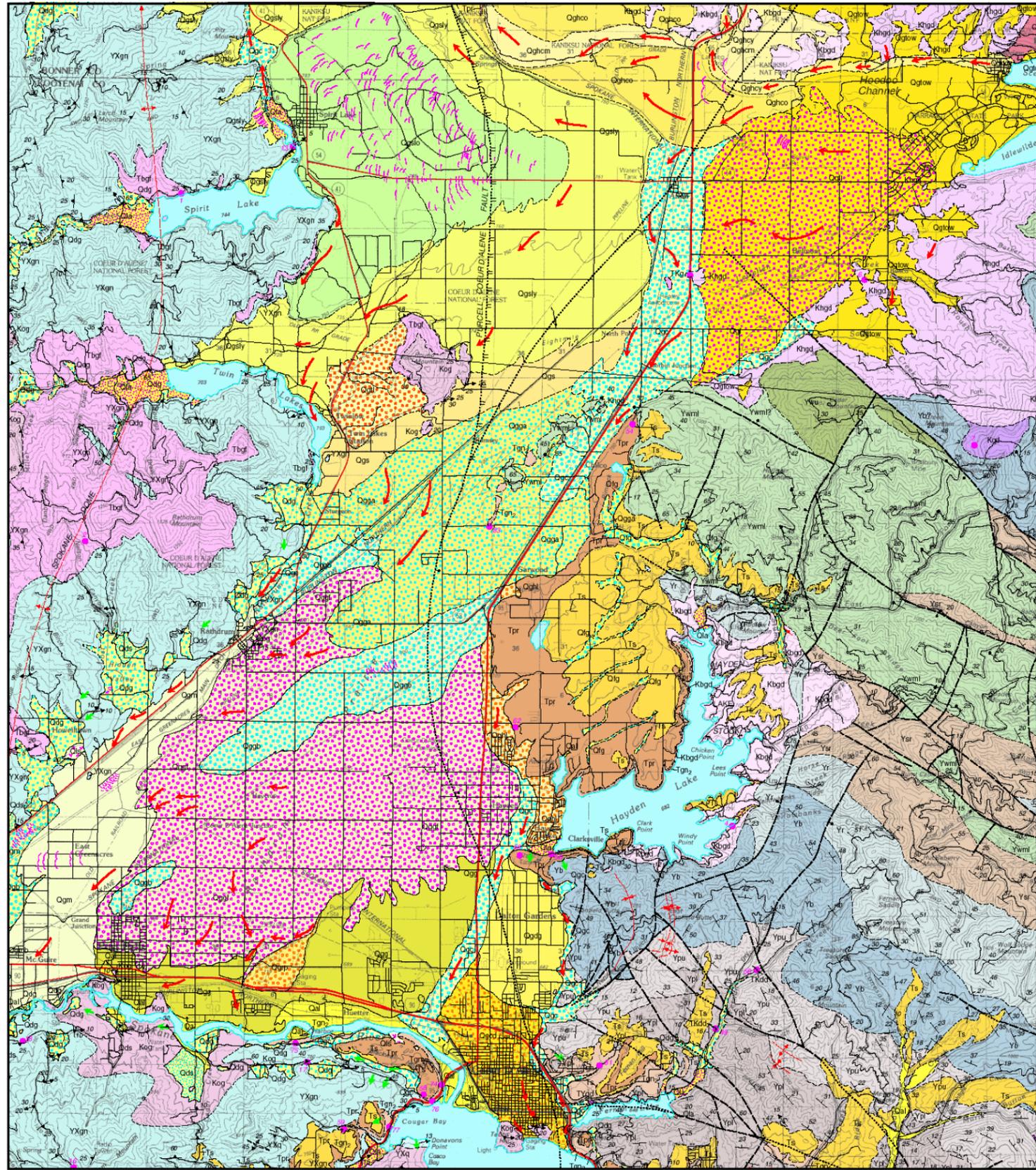


Figure 2. Garwood Well Field Site Map. Based on drawings by Quantum Engineering (1995)



**MAP UNITS**  
Unit descriptions in accompanying booklet

**HOLOCENE DEPOSITS**

Oal	Alluvial deposits (Holocene)
Ola	Lacustrine sediments and alluvium (Holocene)
Ola <sup>1</sup>	Landslide deposits (Holocene)
Olg	Fluvial gravel (Pleistocene and Holocene)
Olg <sup>1</sup>	Pebble formation (Pleistocene and Holocene)

**DEPOSITS OF GLACIAL ORIGIN**

Oghy	Gravel of Hoodoo channel, younger (late Pleistocene)
Oghm	Gravel of Hoodoo channel, middle (late Pleistocene)
Ogho	Gravel of Hoodoo channel, older (late Pleistocene)
Ogow	Bouldery till and outwash deposits (late Pleistocene)

**CATASTROPHIC FLOOD DEPOSITS AND REWORKED OUTWASH**

Ogu	Gravel, undivided (Pleistocene) (cross section or)
Og <sup>1</sup>	Gravel of Farragut State Park (Pleistocene)
Og <sup>2</sup>	Channel gravel, undivided (Pleistocene)
Og <sup>3</sup>	Distal gravel deposits (Pleistocene)
Ods	Distal sand and silt deposits (Pleistocene)
Odp	Gravel of Beck Road (Pleistocene)
Ogpd	Gravel of Coeur d'Alene (Pleistocene)
Ogpl	Gravel of Dalton Gardens fan (Pleistocene)
Ogm	Gravel of Garwood (Pleistocene)
Ogmu	Gravel of McGuire, bar facies (Pleistocene)
Ogg	Gravel of Green Ferry (Pleistocene)

**PALEOZOIC ROCKS**

Gl	Lakeview Limestone (Cambrian)
Erg	Rennie Shale and Gold Creek Quartzite (Cambrian)

**BELT SUPERGROUP**

Yl	Libby Formation (Middle Proterozoic)
Ysp	Striped Peak Formation, undivided (Middle Proterozoic)
Ysp <sup>4</sup>	Striped Peak Formation, member four (Middle Proterozoic)
Ysp <sup>3</sup>	Striped Peak Formation, member three (Middle Proterozoic)
Ysp <sup>2</sup>	Striped Peak Formation, member two (Middle Proterozoic)
Ysp <sup>1</sup>	Striped Peak Formation, member one (Middle Proterozoic)
Ywu	Wallace Formation, upper member three (Middle Proterozoic)
Ywu <sup>3</sup>	Wallace Formation, upper member two (Middle Proterozoic)
Ywu <sup>2</sup>	Wallace Formation, upper member one (Middle Proterozoic)
Ywu <sup>1</sup>	Wallace Formation, middle and lower members, undivided (Middle Proterozoic)
Ywml	Wallace Formation, middle member (Middle Proterozoic)
Ywm	Wallace Formation, lower member (Middle Proterozoic)

**PALEOZOIC METAMORPHIC ROCKS**

Yxl	Wallace Formation, lower member (Middle Proterozoic)
Ysr	St. Regis Formation (Middle Proterozoic)
Yr	Revett Formation (Middle Proterozoic)
Yb	Burke Formation (Middle Proterozoic)
Yp	Prichard Formation, undivided (Middle Proterozoic)
Ypu	Prichard Formation, upper part (Middle Proterozoic)
Ypl	Prichard Formation, lower part (Middle Proterozoic)
Ypp	Quartzite of the Prichard Formation (Middle Proterozoic)

**BELT SUPERGROUP OR PRE-BELT METAMORPHIC ROCKS**

Yxs	Schist of the Priest River metamorphic complex (Proterozoic)
Yxq	Quartzite of the Priest River metamorphic complex (Proterozoic)
Yxg	Gneiss of the Priest River metamorphic complex (Proterozoic)

**INTRUSIVE ROCKS**

Tr	Rhyolite dikes (Eocene)
Td	Dacite dikes (Eocene)
Tbgr	Fine-grained biotite granite (Eocene)
Tkde	Diabase and diorite dikes (Tertiary or Cretaceous)
Tksa	Lampophyre dikes (Tertiary or Cretaceous)
Tkg	Granitic rocks, undivided (Tertiary or Cretaceous)

**OLDER SEDIMENTS**

Ts	Sediment (Miocene)
----	--------------------

**COLUMBIA RIVER BASALT GROUP**

Tmb	Saddle Mountains Formation(s)
Tpr	Basalt of Mica Flats (Miocene)
Tpr <sup>1</sup>	Wanapum Formation
Tpr <sup>2</sup>	Priest Rapids Member (Miocene)
Tpr <sup>3</sup>	Grande Ronde Formation
Tpr <sup>4</sup>	Grande Ronde N <sub>2</sub> magnetostratigraphic unit (Mi)
Tpr <sup>5</sup>	Grande Ronde R <sub>2</sub> magnetostratigraphic unit (Miocene)

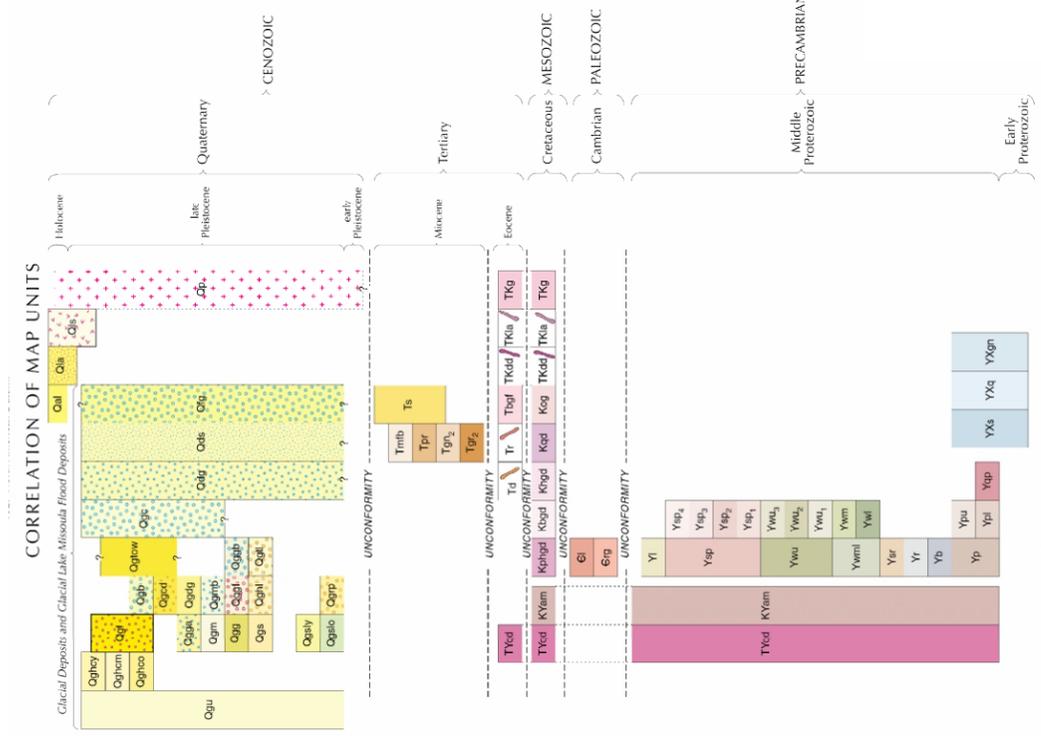


Figure 3. Regional Geologic Map of the Rathdrum Prairie

Reference: Lewis et al., 2002, Geologic Map of the Coeur d'Alene 30 x60 Minute Quadrangle, Idaho Geological Survey.

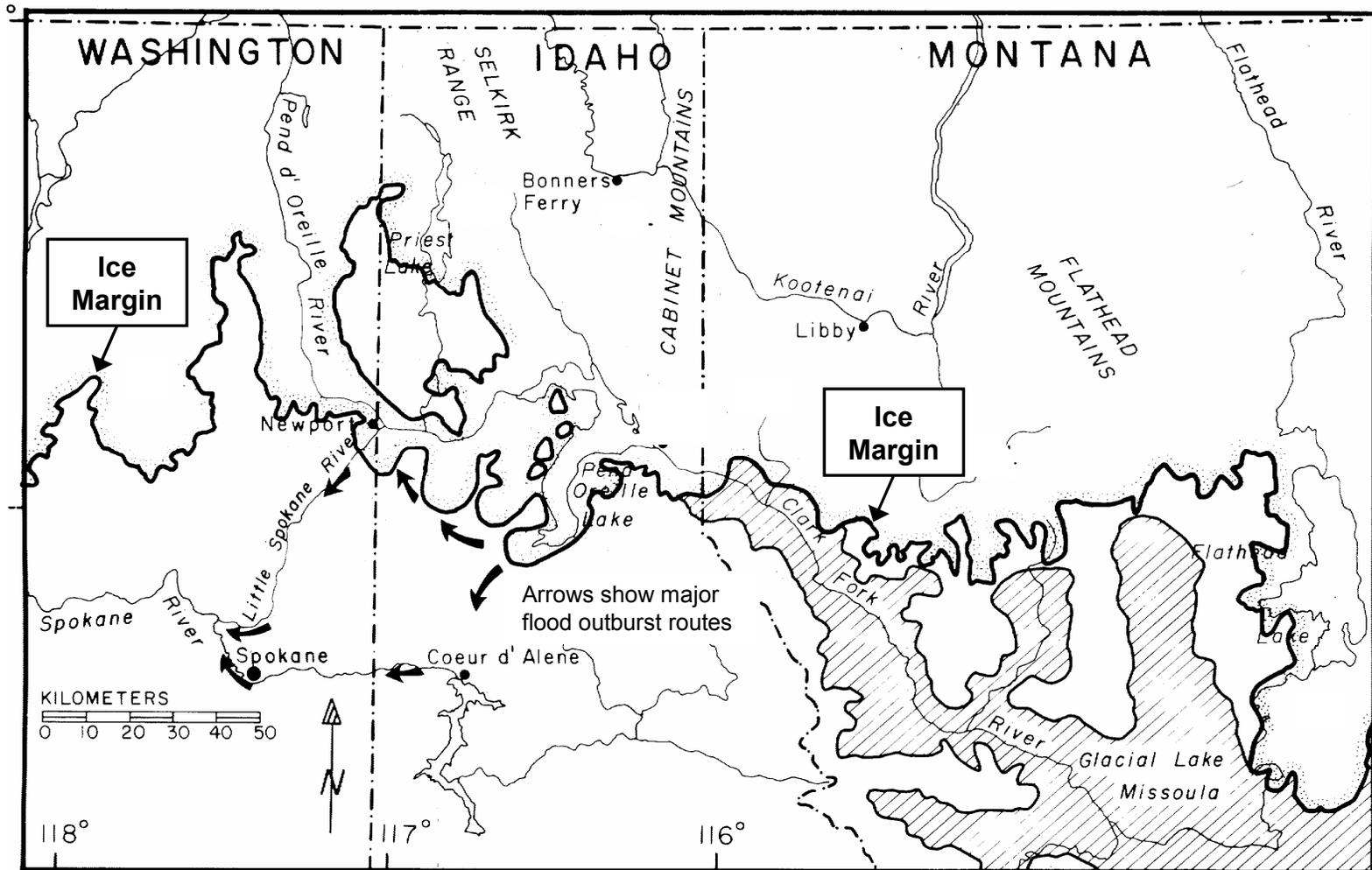


Figure 4. Cordilleran Ice Margin and Lake Missoula

Reference: Breckenridge, 1989

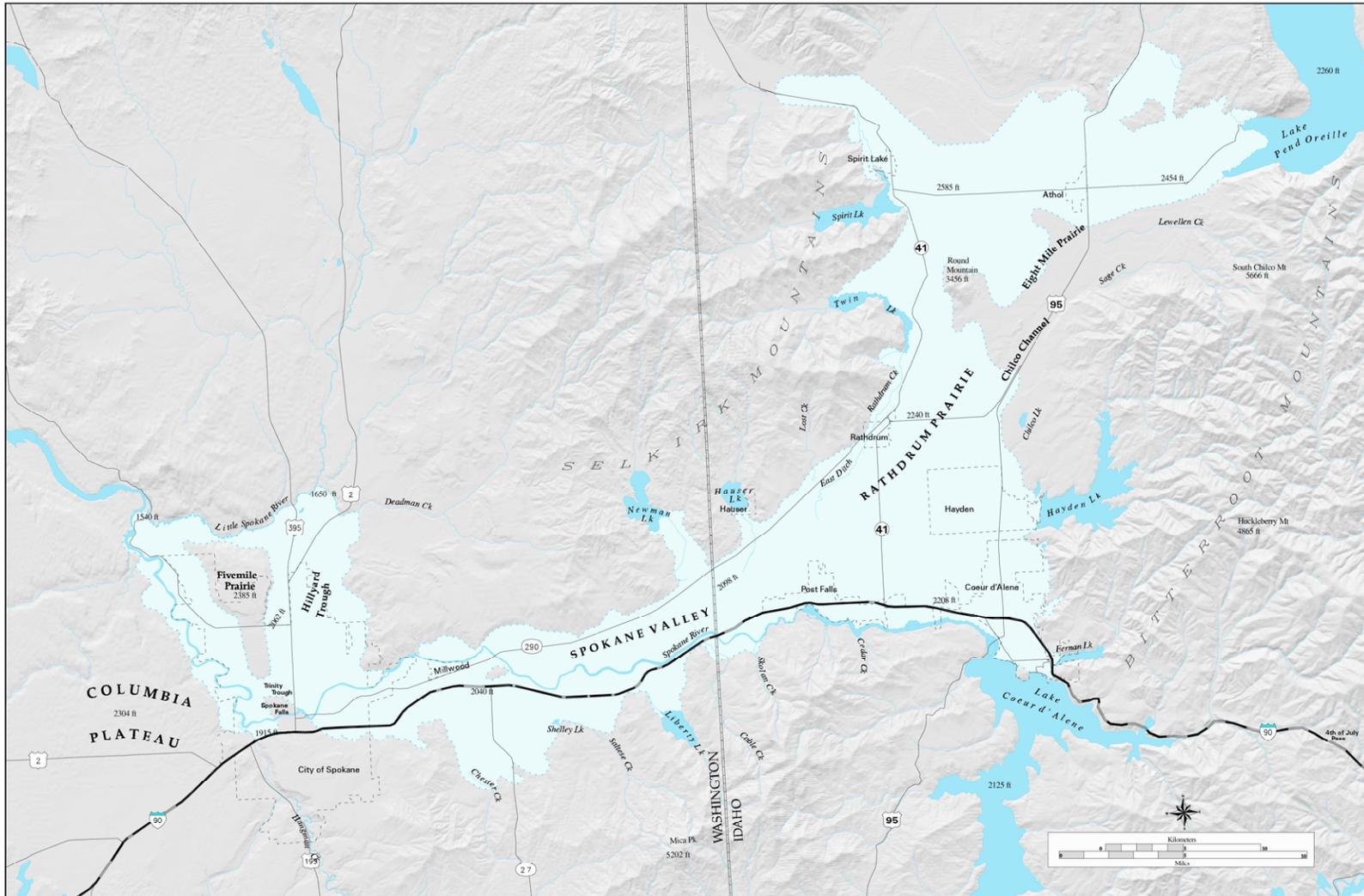


Figure 5. Rathdrum-Spokane Aquifer Boundaries

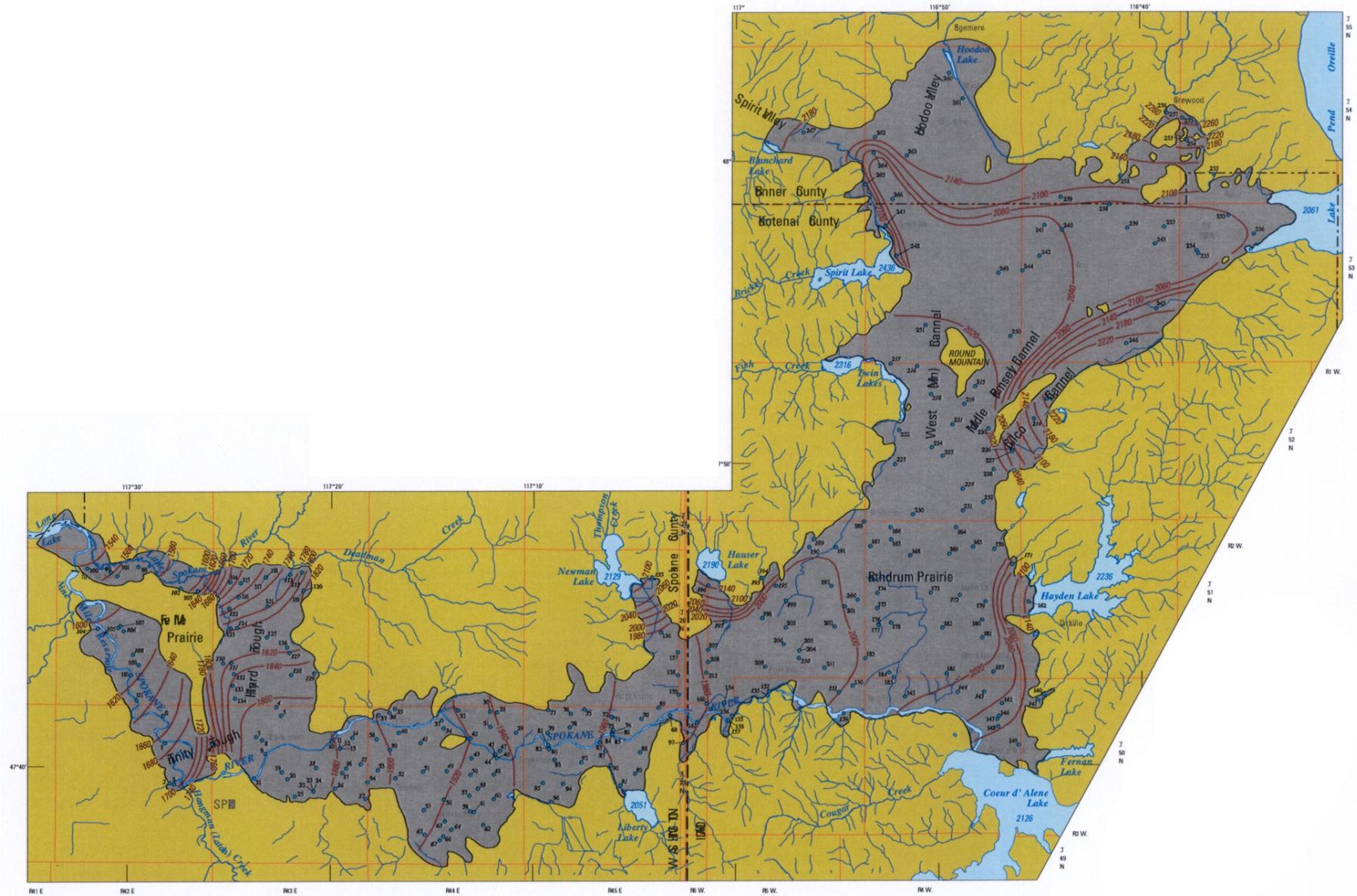


Figure 6. Groundwater Elevation, Rathdrum-Spokane Aquifer (Campbell, 2005)

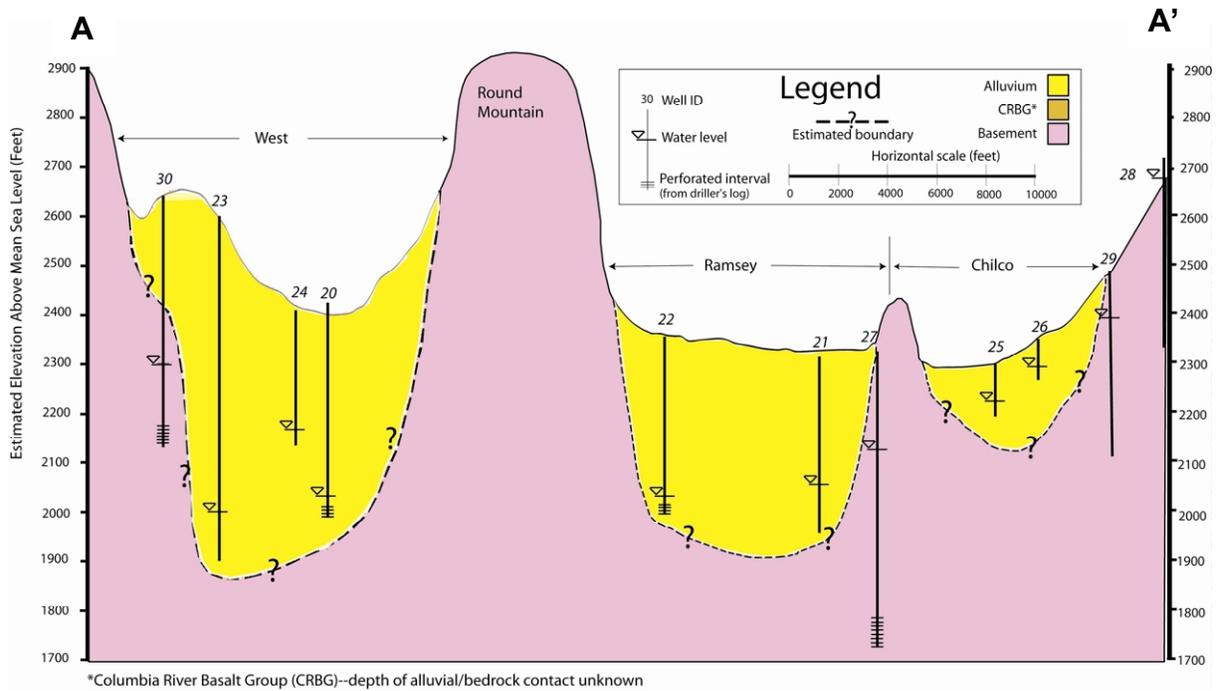
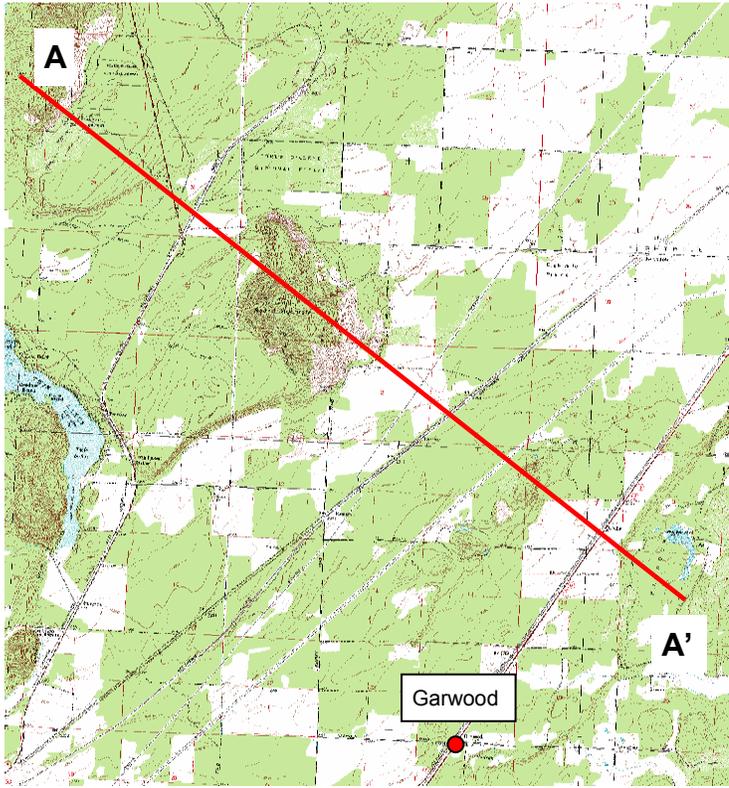


Figure 7. Hydrogeologic Cross Section, Garwood Area (DEQ, 2005)

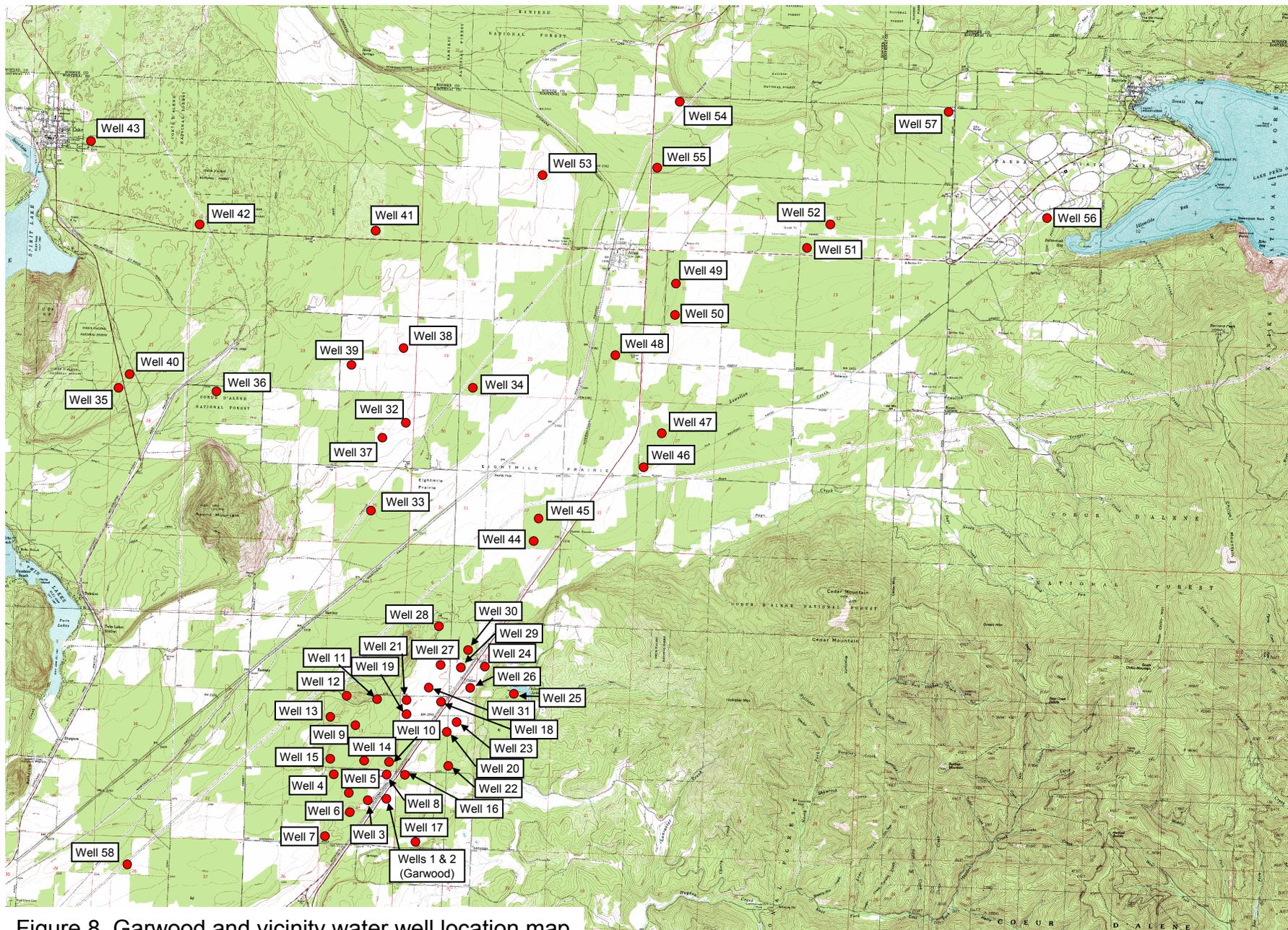


Figure 8. Garwood and vicinity water well location map

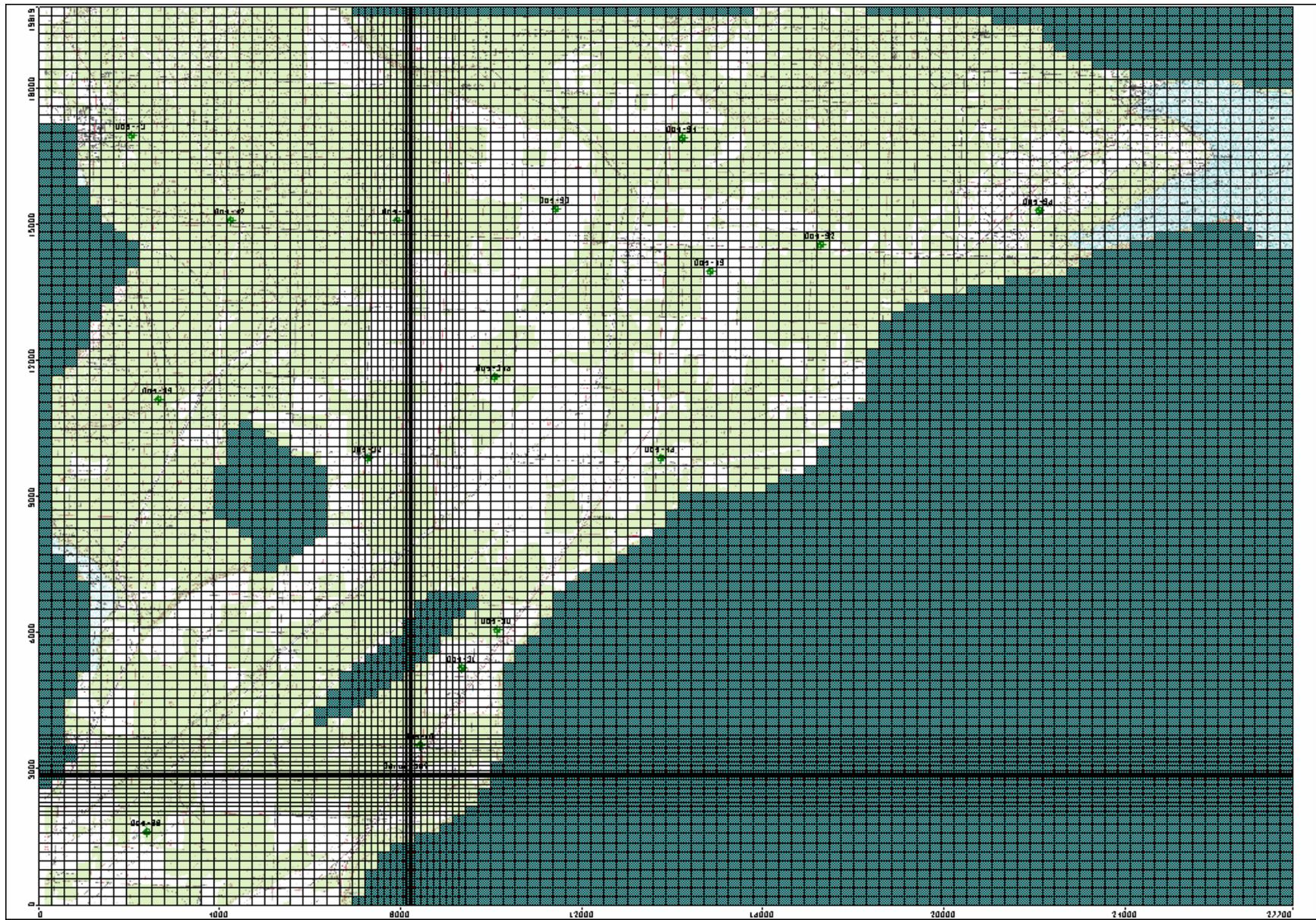


Figure 9. Variable density grid used in Garwood Source Water Assessment Modflow model.

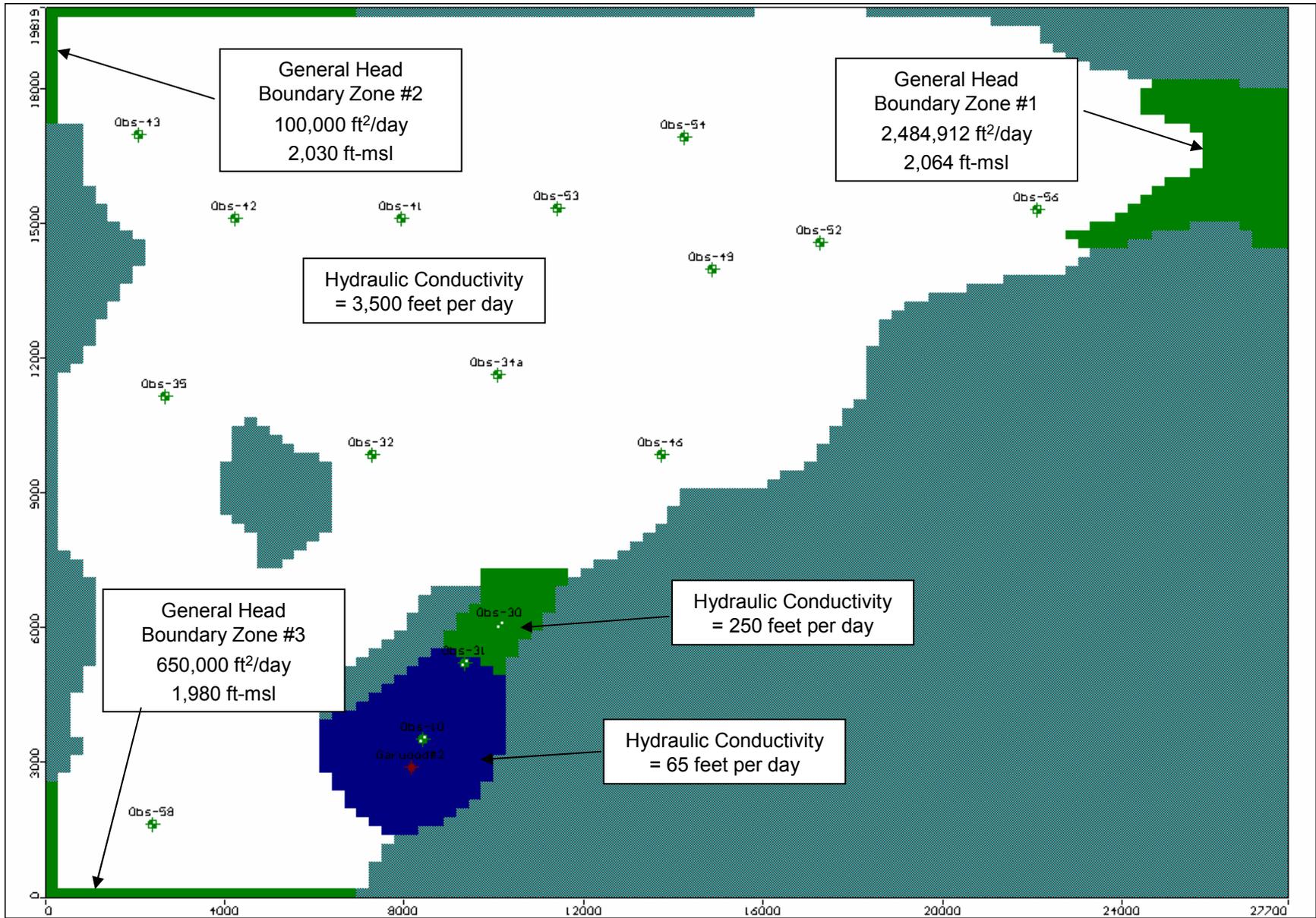


Figure 10. Aquifer parameters and boundary conditions used in Garwood Source Water Assessment Modflow model.

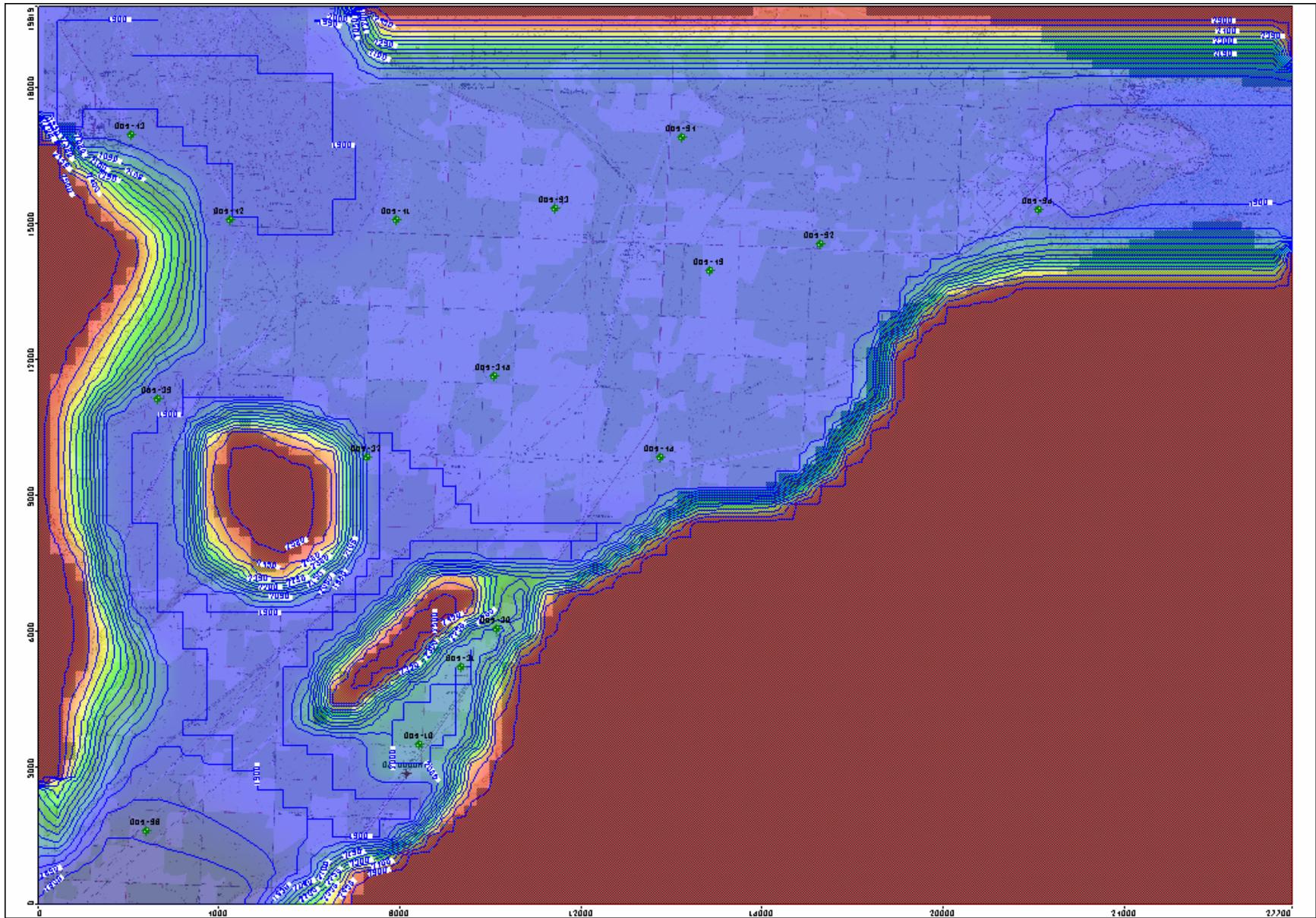


Figure 11. Plan view bedrock topographic map used in Garwood Source Water Assessment Modflow model.

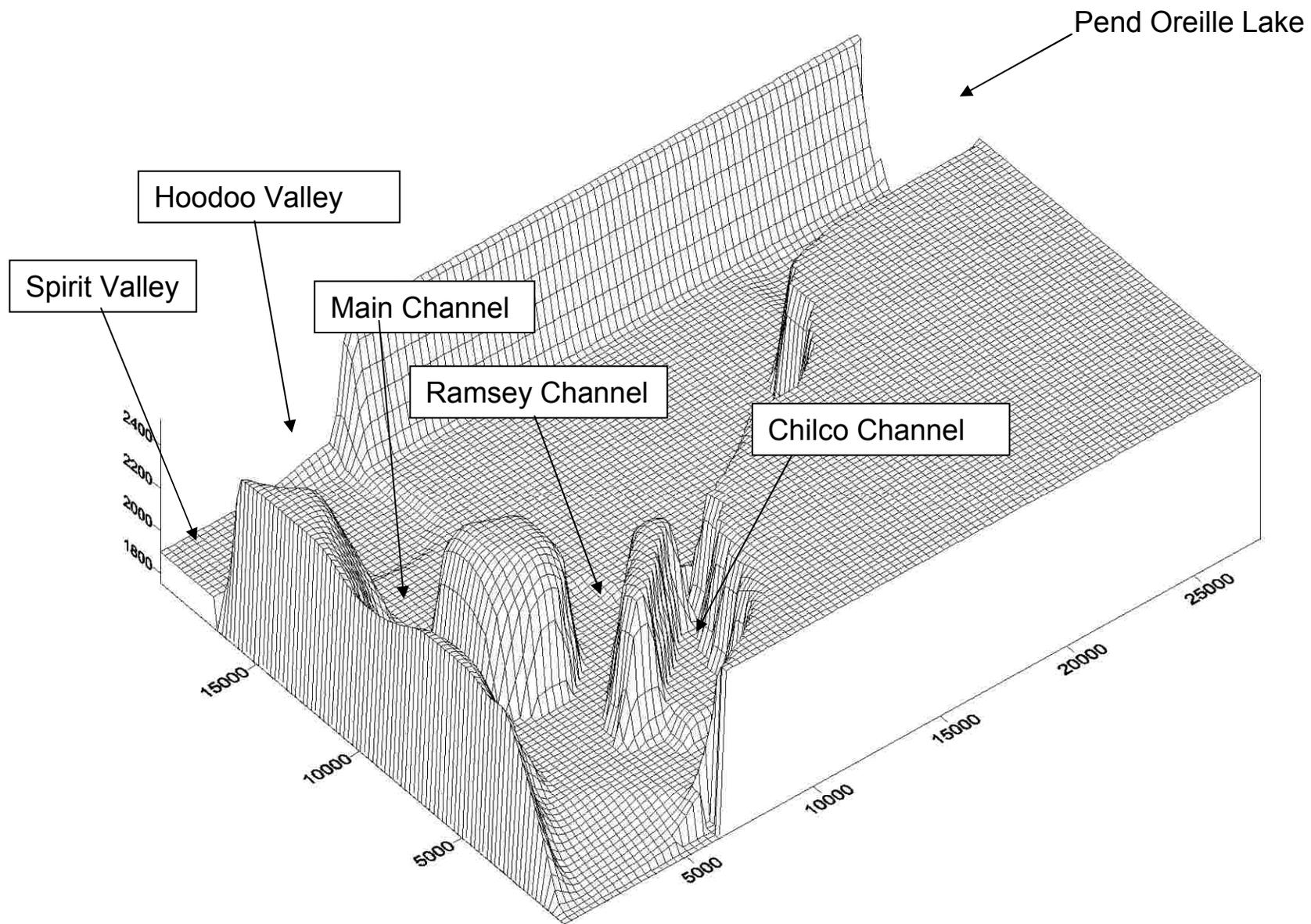


Figure 12. Bedrock topographic map created in Surfer and used in Garwood Source Water Assessment Modflow model.

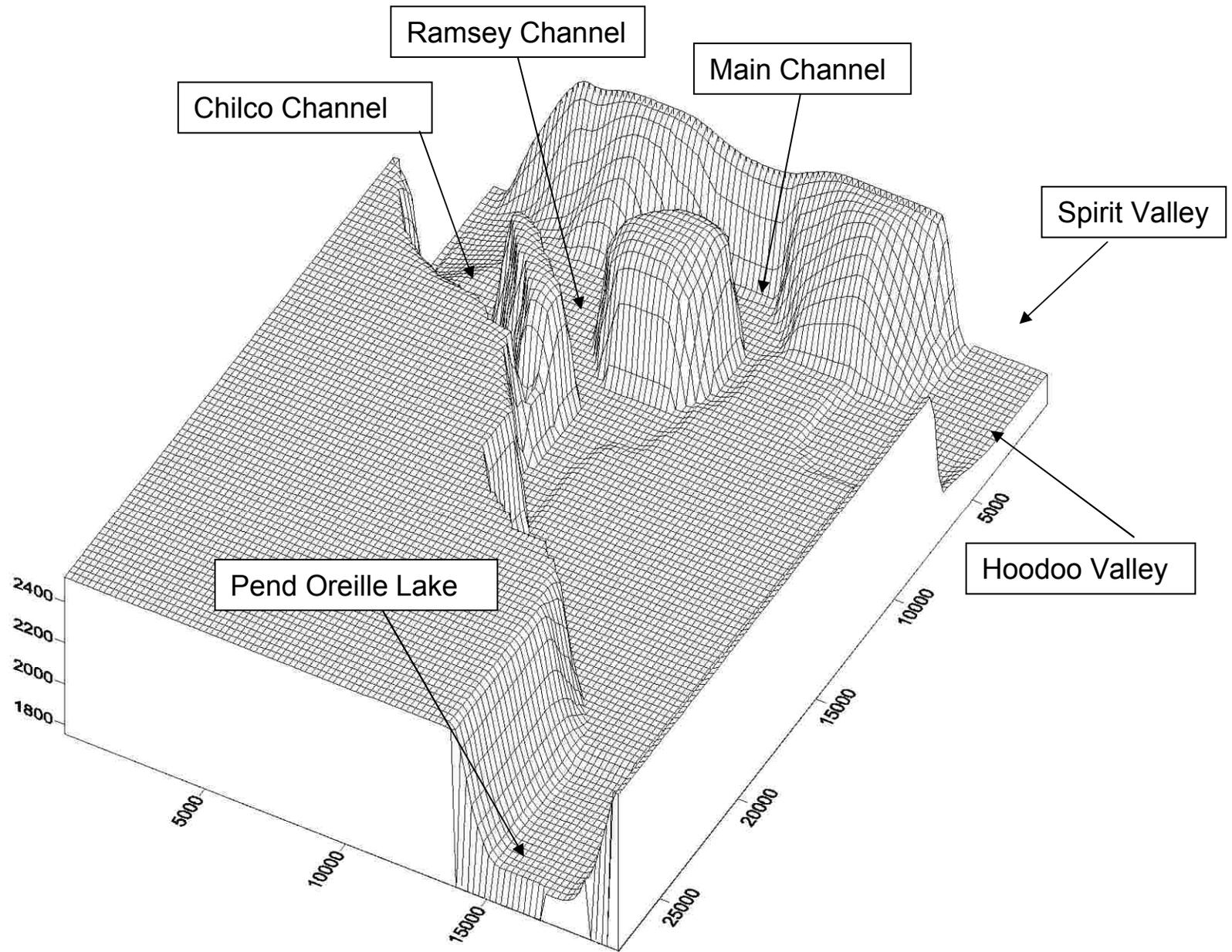


Figure 13. Bedrock topographic map created in Surfer and used in Garwood Source Water Assessment Modflow model.

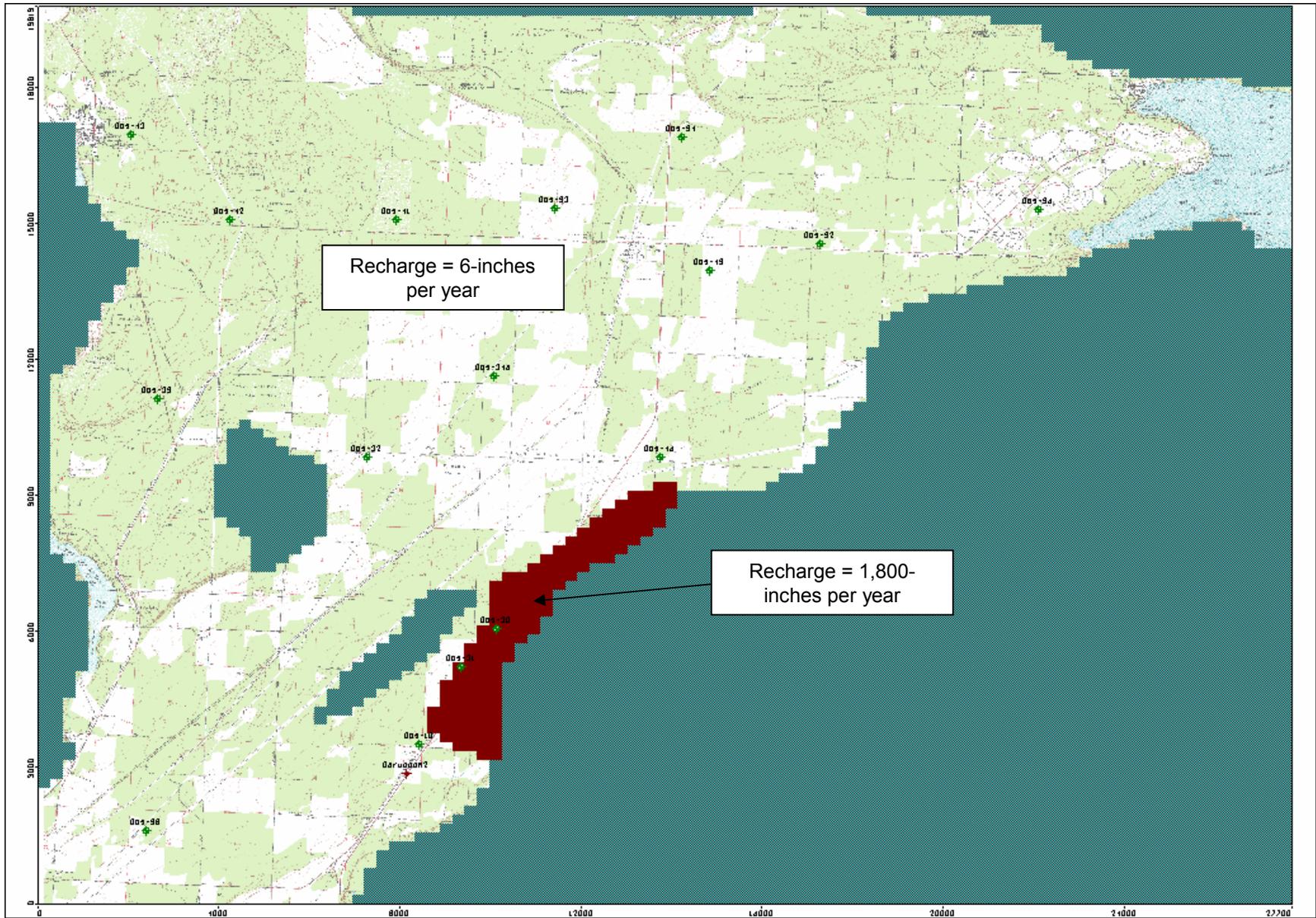


Figure 14. Recharge map used in Garwood Source Water Assessment Modflow model.

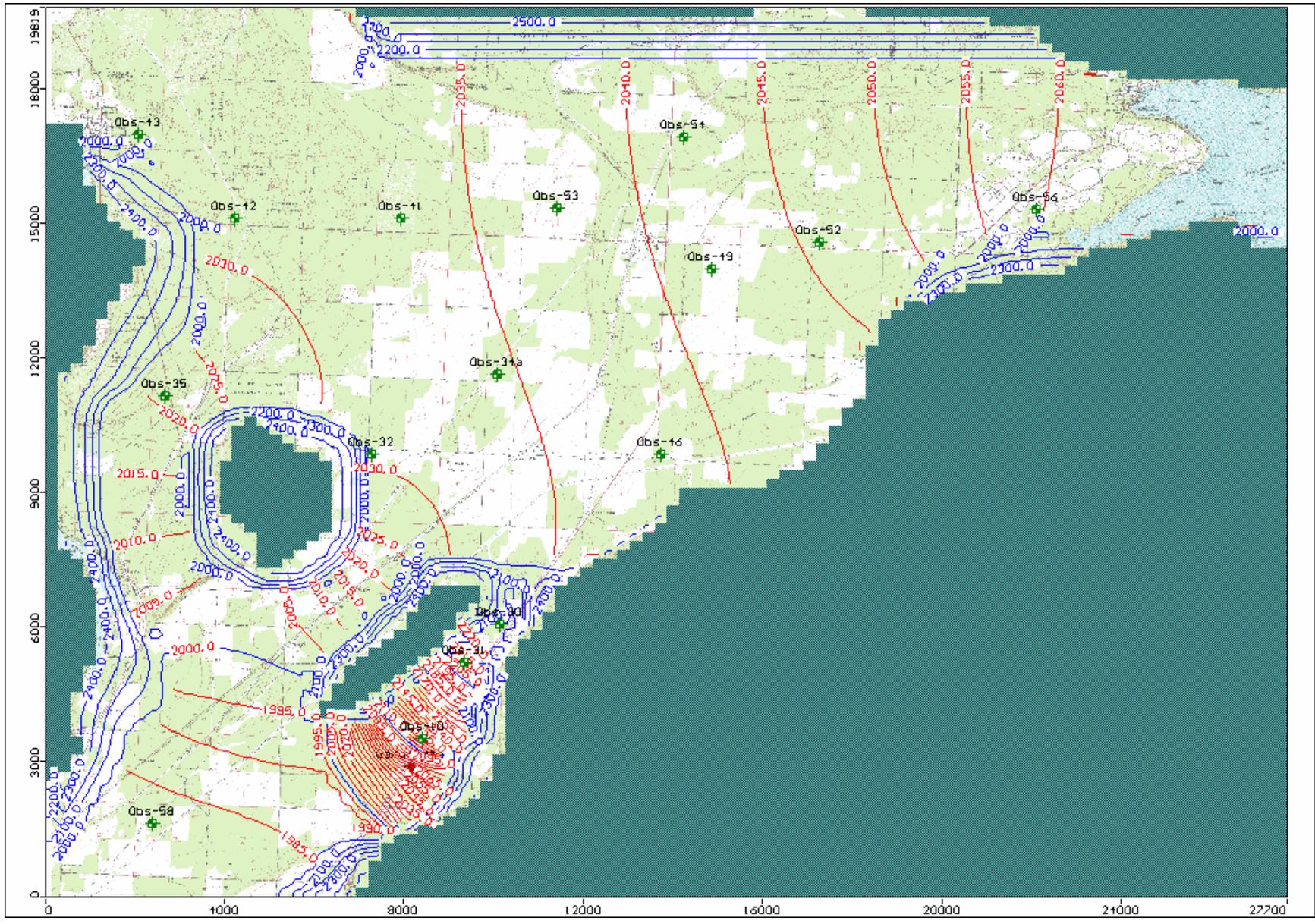


Figure 15. Modeled ground water elevation contour map (red) of Garwood Source Water Assessment Modflow model.

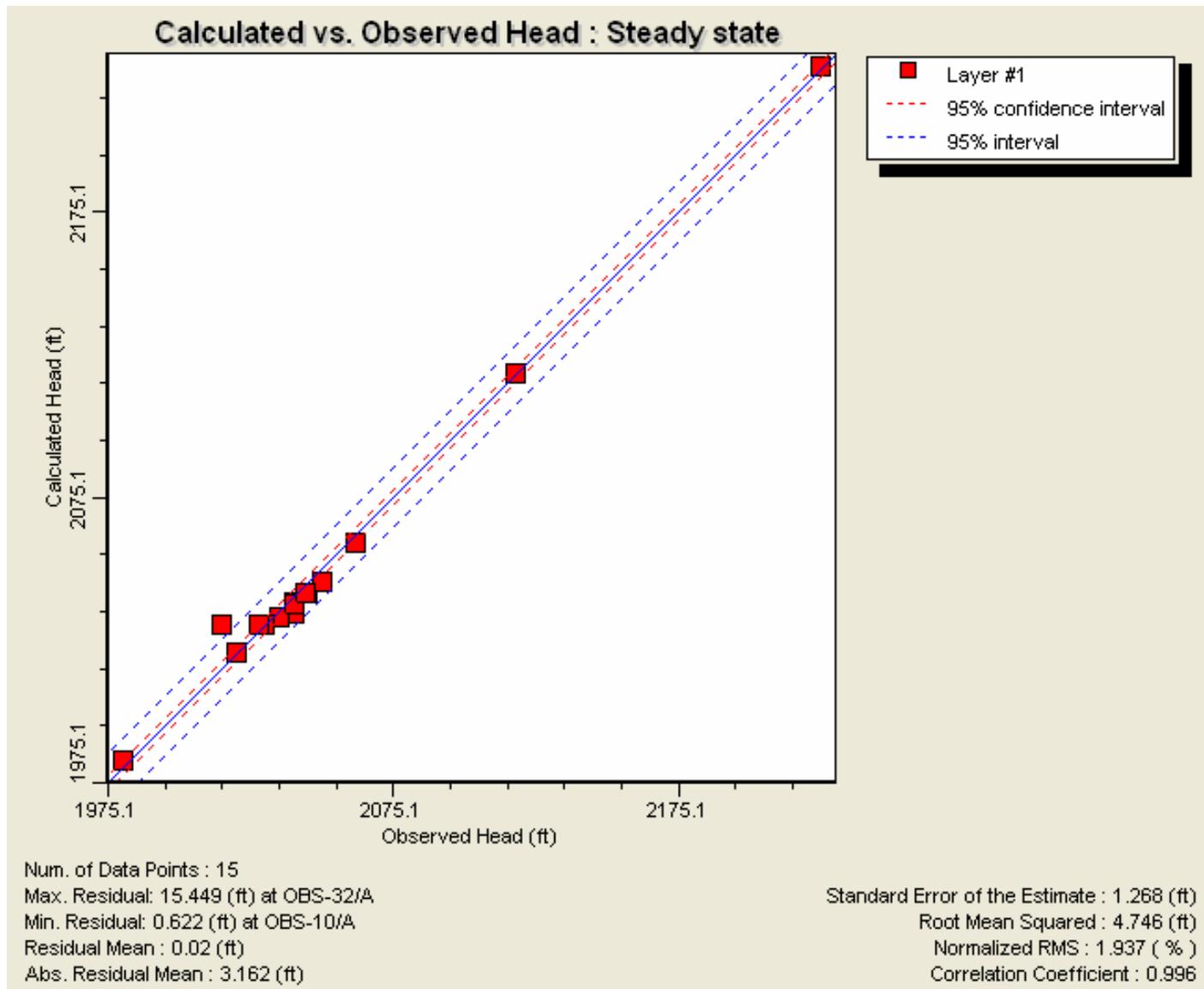


Figure 16. Scatter plot showing observed versus modeled ground water levels.

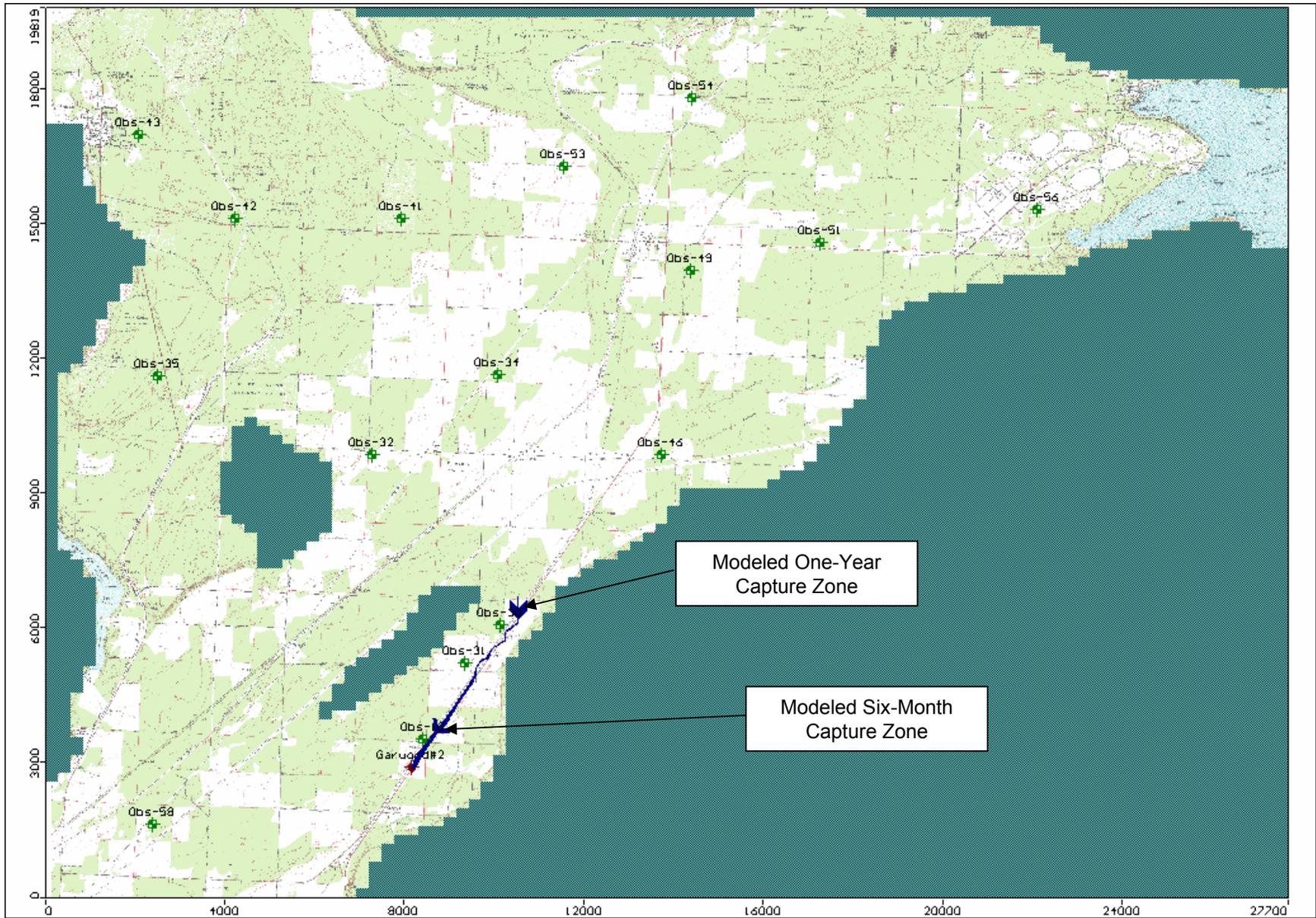


Figure 17. Modeled 6-month and one-year capture zones.

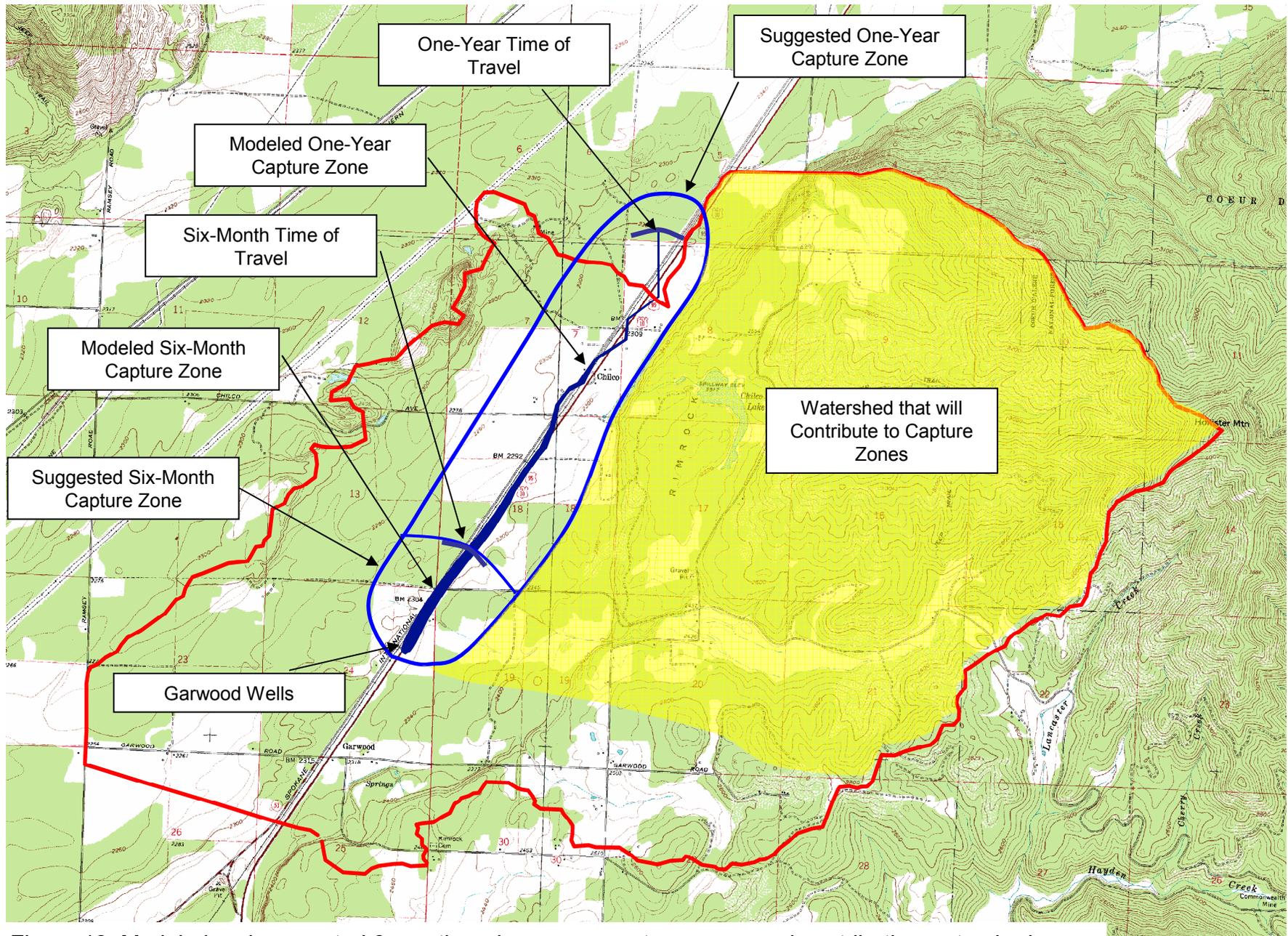


Figure 18. Modeled and suggested 6-month and one-year capture zones and contributing watershed area.

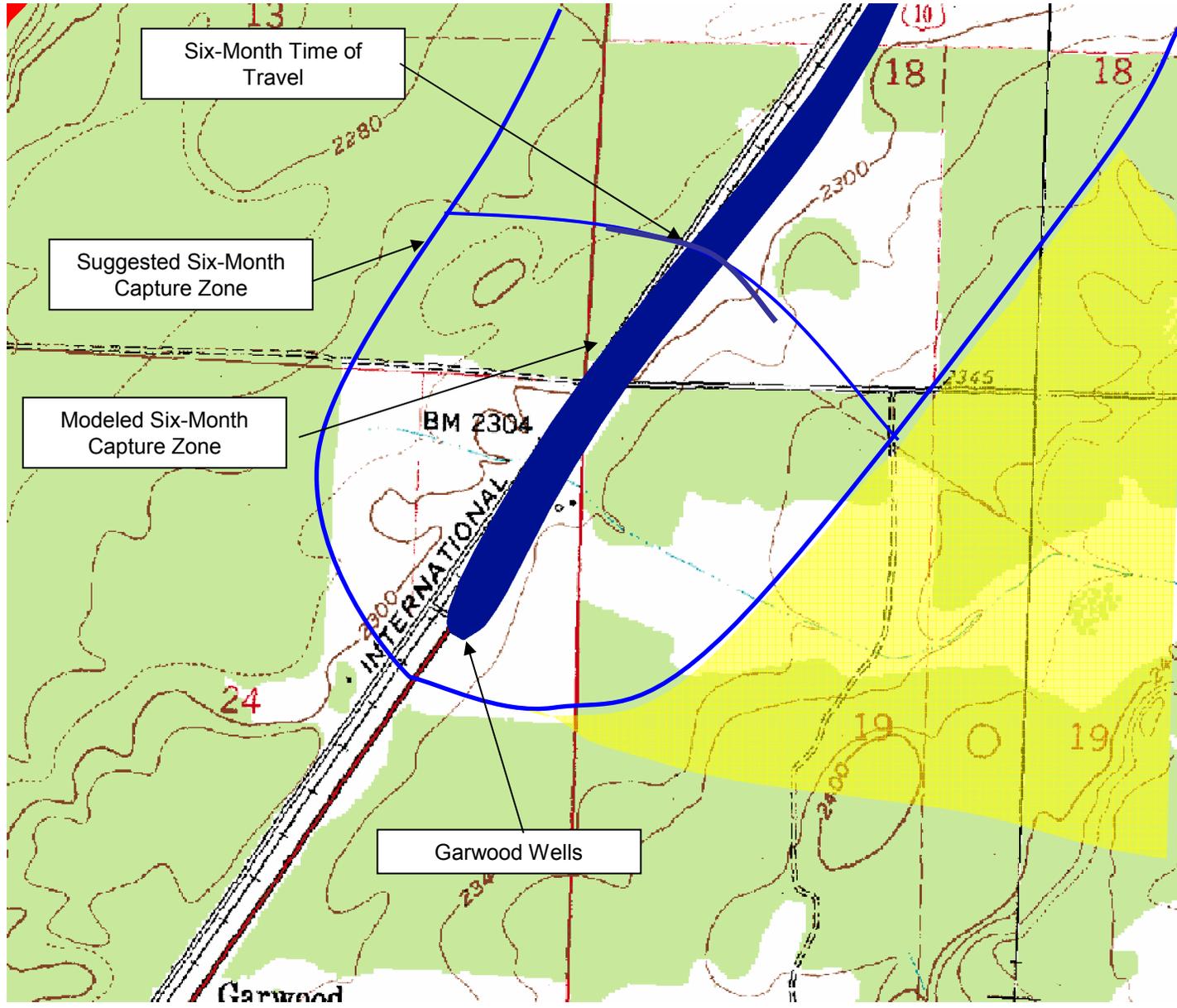


Figure 19. Modeled and suggested 6-month capture zones

## Appendix A

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**



USE TYPEWRIT  
BALLPOINT I

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

93

<p><b>1. WELL OWNER</b></p> <p>Name <u>John Wheeler</u></p> <p>Address <u>Hayden Lake</u></p> <p>Owner's Permit No. <u>95-86-N-125</u></p>	<p><b>7. WATER LEVEL</b></p> <p>Static water level <u>276</u> feet below land surface.</p> <p>Flowing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No G.P.M. flow _____</p> <p>Artesian closed-in pressure _____ p.s.i.</p> <p>Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug</p> <p>Temperature _____ °F. Quality _____</p> <p><i>Describe artesian or temperature zones below.</i></p>																																																										
<p><b>2. NATURE OF WORK</b></p> <p><input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement</p> <p><input type="checkbox"/> Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)</p>	<p><b>8. WELL TEST DATA</b></p> <p><input checked="" type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Air <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> <tr> <td style="text-align: center;">100+</td> <td style="text-align: center;">282'</td> <td style="text-align: center;">24</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped	100+	282'	24																																																				
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100+	282'	24																																																									
<p><b>3. PROPOSED USE</b></p> <p><input type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Test <input checked="" type="checkbox"/> Municipal</p> <p><input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Waste Disposal or Injection</p> <p><input type="checkbox"/> Other _____ (specify type)</p>	<p><b>9. LITHOLOGIC LOG</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>0</td> <td>20</td> <td>gravel</td> <td> </td> <td> </td> </tr> <tr> <td>8</td> <td>20</td> <td>90</td> <td>gravel</td> <td> </td> <td> </td> </tr> <tr> <td>8</td> <td>90</td> <td>110</td> <td>fine gravel &amp; clay</td> <td> </td> <td> </td> </tr> <tr> <td>8</td> <td>110</td> <td>203</td> <td>gravel &amp; boulders</td> <td> </td> <td> </td> </tr> <tr> <td>8</td> <td>203</td> <td>285</td> <td>sand &amp; gravel</td> <td> </td> <td> </td> </tr> <tr> <td>8</td> <td>285</td> <td>307</td> <td>sand &amp; gravel</td> <td> </td> <td> </td> </tr> <tr> <td>8</td> <td>307</td> <td>317</td> <td>clay sand &amp; gravel</td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td>317</td> <td>322</td> <td>sand &amp; gravel</td> <td> </td> <td> </td> </tr> </tbody> </table>	Bore Diam.	Depth		Material	Water		From	To	Yes	No	10	0	20	gravel			8	20	90	gravel			8	90	110	fine gravel & clay			8	110	203	gravel & boulders			8	203	285	sand & gravel			8	285	307	sand & gravel			8	307	317	clay sand & gravel				317	322	sand & gravel		
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	317	322	sand & gravel																																																								
<p><b>4. METHOD DRILLED</b></p> <p><input type="checkbox"/> Rotary <input type="checkbox"/> Air <input type="checkbox"/> Hydraulic <input type="checkbox"/> Reverse rotary</p> <p><input checked="" type="checkbox"/> Cable <input type="checkbox"/> Dug <input type="checkbox"/> Other _____</p>	<div style="text-align: center;"> <p>MAY 27 1988</p> <p>Department of Water Resources</p> </div>																																																										
<p><b>5. WELL CONSTRUCTION</b></p> <p>Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>250 inches</td> <td>8 inches</td> <td>172 feet</td> <td>252 feet</td> </tr> <tr> <td>380 inches</td> <td>8 inches</td> <td>252 feet</td> <td>312 feet</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Was casing drive shoe used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Was a packer or seal used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch</p> <p>Size of perforation _____ inches by _____ inches</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Well screen installed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Manufacturer's name <u>Johnson</u></p> <p>Type <u>stainless</u> Model No. _____</p> <p>Diameter <u>8"</u> Slot size <u>30</u> Set from <u>317</u> feet to <u>322</u> feet</p> <p>Diameter <u>8</u> Slot size <u>50</u> Set from <u>312</u> feet to <u>317</u> feet</p> <p>Gravel packed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Size of gravel _____</p> <p>Placed from _____ feet to _____ feet</p> <p>Surface seal depth <u>20'</u> Material used in seal: <input type="checkbox"/> Cement grout</p> <p><input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Pudding clay <input type="checkbox"/> _____</p> <p>Sealing procedure used: <input type="checkbox"/> Slurry pit <input checked="" type="checkbox"/> Temp. surface casing</p> <p><input type="checkbox"/> Overbore to seal depth</p> <p>Method of joining casing: <input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Solvent</p> <p style="text-align: center;">Weld</p> <p><input type="checkbox"/> Cemented between strata</p> <p>Describe access port _____</p>	Thickness	Diameter	From	To	250 inches	8 inches	172 feet	252 feet	380 inches	8 inches	252 feet	312 feet					Number	From	To										<p><b>10.</b></p> <p>Work started <u>3/5/86</u> finished <u>10/29/86</u></p>																														
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<p><b>6. LOCATION OF WELL</b></p> <p>Sketch map location <u>must</u> agree with written location.</p> <div style="text-align: center;"> </div> <p>Subdivision Name _____</p> <p>Lot No. <u>DEC 12 1988</u></p> <p>County <u>Kootenai</u></p> <p><u>N/2</u> 1/4 <u>S/2</u> 1/4 Sec. <u>24</u> T. <u>52</u> N. R. <u>4</u> E. <u>4</u></p>	<p><b>DRILLERS CERTIFICATION</b></p> <p>I/We certify that all minimum well construction standards were complied with at the time the rig was removed.</p> <p>Firm Name <u>H2O Well Service</u> Firm No. <u>448</u></p> <p>Address <u>582 Hayden Ave</u> Date <u>10/29/86</u></p> <p style="text-align: center;"><u>H 2 O</u></p> <p>Signed by (Firm Official) <u>John Wheeler</u></p> <p style="text-align: center;">and</p> <p>(Operator) <u>John Wheeler</u></p>																																																										





USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Administration

RECEIVED

WELL DRILLER'S REPORT

JUL 2 1974

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

**1. WELL OWNER**  
 Name: Bob Cooper  
 Address: CDA Idaho  
 Owner's Permit No.: 95-74-N-95

**2. NATURE OF WORK**  
 New well     Deepened     Replacement  
 Abandoned (describe method of abandoning)

**3. PROPOSED USE**  
 Domestic     Irrigation     Test     Other (specify type)  
 Municipal     Industrial     Stock     Waste Disposal or Injection

**4. METHOD DRILLED**  
 Cable     Rotary     Dug     Other

**5. WELL CONSTRUCTION**  
 Diameter of hole: 8 inches    Total depth: 329 feet  
 Casing schedule:  Steel     Concrete  

Thickness	Diameter	From	To
<u>2.50</u> inches	<u>8</u> inches	<u>+1</u> feet	<u>180</u> feet
<u>2.50</u> inches	<u>6</u> inches	<u>+1</u> feet	<u>329</u> feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

 Was a packer or seal used?     Yes     No  
 Perforated?     Yes     No  
 How perforated?     Factory     Knife     Torch  
 Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches  

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

 Well screen installed?     Yes     No  
 Manufacturer's name \_\_\_\_\_  
 Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Gravel packed?     Yes     No    Size of gravel \_\_\_\_\_  
 Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Surface seal depth: 18    Material used in seal     Cement grout  
 Pudding clay     Well cuttings  
 Sealing procedure used     Shurry pit     Temporary surface casing  
 Overbore to seal depth

**6. LOCATION OF WELL**  
 Sketch map location must agree with written location.  
  
 Subdivision Name \_\_\_\_\_  
 Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
 County: Rootenai  
 NW 1/4 NW 1/4 Sec. 24, T. 52 N., R. 4 W.

**7. WATER LEVEL**  
 Static water level: 230 feet below land surface  
 Flowing?     Yes     No    G.P.M. flow \_\_\_\_\_  
 Temperature \_\_\_\_\_ ° F.    Quality \_\_\_\_\_  
 Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
 Controlled by     Valve     Cap     Plug

**8. WELL TEST DATA**  
 Pump     Bailer     Other air  

Discharge G.P.M.	Draw Down	Hours Pumped
<u>50 GPM</u>		

**9. LITHOLOGIC LOG**  

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
<u>8"</u>	<u>0</u>	<u>5</u>	<u>Brown top soil</u>		<input checked="" type="checkbox"/>
	<u>5</u>	<u>25</u>	<u>sand and gravel</u>		<input checked="" type="checkbox"/>
	<u>25</u>	<u>120</u>	<u>sand and gravel</u>		<input checked="" type="checkbox"/>
	<u>120</u>	<u>220</u>	<u>Gravel and clay</u>		<input checked="" type="checkbox"/>
	<u>220</u>	<u>329</u>	<u>sand and small gravel</u>		<input checked="" type="checkbox"/>

**10.** Work started 4 12 74 finished 4 29 74

**11. DRILLERS CERTIFICATION**  
 Firm Name: Carson Development Co Firm No. 228  
 Address: 220 Main St Boise Idaho Date: 4 29 74  
 Signed by (Firm Official): John Carson  
 and  
 (Operator): John Carson

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**



USE TYPEWRITING  
BALLPOINT PEN

Well #5

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

**WELL OWNER**  
Name Ohio Match Road Water Dist.  
Address North 5152 - Government way C.D.E. No.  
Owner's Permit No. 95-8065

**7. WATER LEVEL**  
Static water level 251 feet below land surface.  
Flowing?  Yes  No G.P.M. flow \_\_\_\_\_  
Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
Controlled by:  Valve  Cap  Plug  
Temperature \_\_\_\_\_ °F. Quality \_\_\_\_\_

**2. NATURE OF WORK** 95-81-N-74  
 New well  Deepened  Replacement  
 Abandoned (describe method of abandoning) \_\_\_\_\_

**8. WELL TEST DATA**  
 Pump  Bailer  Air  Other \_\_\_\_\_

Discharge G.P.M.	Pumping Level	Hours Pumped
<u>209.7</u>	<u>268-0</u>	<u>2.</u>

**3. PROPOSED USE**  
 Domestic  Irrigation  Test  Municipal  
 Industrial  Stock  Waste Disposal or Injection  
 Other \_\_\_\_\_ (specify type)

**4. METHOD DRILLED**  
 Rotary  Air  Hydraulic  Reverse rotary  
 Cable  Dug  Other \_\_\_\_\_

**5. WELL CONSTRUCTION**  
Casing schedule:  Steel  Concrete  Other \_\_\_\_\_  
Thickness \_\_\_\_\_ Diameter \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
250 inches 8 inches + 1 feet 306 feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
Was casing drive shoe used?  Yes  No  
Was a packer or seal used?  Yes  No  
Perforated?  Yes  No  
How perforated?  Factory  Knife  Torch  
Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches  
Number \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
\_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
Well screen installed?  Yes  No  
Manufacturer's name UOP Johnson  
Type Stainless Steel Model No. 304  
Diameter 7; Slot size 80 Set from 281 feet to 301 feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Gravel packed?  Yes  No  Size of gravel \_\_\_\_\_  
Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Surface seal depth 20 Material used in seal:  Cement grout  
 Pudding clay  Well cuttings  
Sealing procedure used:  Slurry pit  Temp. surface casing  
 Overbore to seal depth  
Method of joining casing:  Threaded  Welded  Solvent  
 Cemented between strata  
Describe access port IN The Pump head of the Pit-Less Adaptor.

**9. LITHOLOGIC LOG**

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
10	0	2	Top Soil		
10	2	22	Large Gravel		
28	22	24	Red Gravel 4.5 sand		
8	24	38	Large Gravel & Boulders		
	38	69	Cemented Gravel (hard)		
	69	71	Boulder's (shot)		
	71	83	Cemented Gravel (hard)		
8	83	95	Gravel small w/ sand		
	95	135	Sand fill hard		
	135	144	Cobble stones		
	144	153	Gravel large w/ sand (hard)		
	153	156	Red sand broken		
	156	162	Gravel large (hard)		
	162	164	Boulder (shot)		
	164	176	Gravel - sand w/ silt (hard)		
	176	179	Boulder again (shot)		
	179	183	sand & silt		
	183	193	Cemented Gravel (hard)		
	193	199	Clay light tan		
	199	203	Gravel w/ sand hard		
	203	207	Quick sand Gray		
	207	215	Clay Gray		
	215	223	Quick sand Brown		
	223	241	Sand Fine w/ silt		
	241	259	Sand Fine w/ Red gravel		
	259	301	washed Gravel 3" minus		
	301	306	Sand Fine		
	306	317	Clay w/ Fine sand		

**6. LOCATION OF WELL**  
Sketch map location must agree with written location.  
Subdivision Name \_\_\_\_\_  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
County Kootenai  
SE 1/4 NW 1/4 Sec. 34 T. 52 N. 8. R. 4 W.

**11. DRILLERS CERTIFICATION**  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
Firm Name E.H. Holman Drilling Co Firm No. 105  
Address Lat. S. Paris Rd Date 1-15-81  
Signed by (Firm Official) [Signature]  
and  
(Operator) [Signature]

RECEIVED  
JAN 16 1981  
Department of Water Resources  
Northern District Office  
cb dl

Form 238-7  
6/02

IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

Office Use Only			
Well ID No.	_____		
Inspected by	_____		
Twp	Rge	Sec	
_____	_____	_____	
Lat: _____	: _____	Long: _____	: _____

1. WELL TAG NO. D 0033852  
 DRILLING PERMIT NO. 815842 **RECEIVED**  
 Water Right or Injection Well No. \_\_\_\_\_

**JUN 25 2004**

12. WELL TESTS:  
 Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
30-40			4 hrs

2. OWNER:  
 Name Kyra Beamis **IDWR/North**  
 Address 19406 Pinecone  
 City Hayden State ID Zip 83835

3. LOCATION OF WELL by legal description:  
 You must provide address or Lot, Blk, Sub. or Directions to well.  
 Twp. 52 North  or South   
 Rge. 4 East  or West   
 Sec. 24 1/4 NE 1/4 SW 1/4  
 Gov't Lot \_\_\_\_\_ County Kootenai  
 Lat: 47°: 50 : 160 Long: 116°: 46 : 616  
 Address of Well Site 51178 Old Hwy 95 N of  
Garwood City \_\_\_\_\_  
 (Give at least name of road + Distance to Road or Landmark)  
 Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_



Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_  
 Water Quality test or comments: Dark brown silt, clear & cold  
after 4 hours Depth first Water Encounter 290'

4. USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD:  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
<u>Bentonite</u>	<u>0</u>	<u>18</u>	<u>300#</u>	<u>dry granular</u>

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
 Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>6"</u>	<u>+2</u>	<u>323</u>	<u>250</u>	<u>Steel</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_  
 Packer  Y  N Type \_\_\_\_\_

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method \_\_\_\_\_  
 Screen Type & Method of Installation \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:  
272 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
 Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

52N 4W 24

13. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
	10	0	2 Topsoil, gravel		
		2	6 Cobbles, gravel		
		6	18 Gravel, cobbles		
8	18	26	Gravel, cobbles		
	26	43	Cobbles, gravel		
	43	52	Sand, gravel		
	52	73	Gravel, cobbles		
	73	90	Cobbles		
	90	126	Boulders, cobbles		
	126	168	Gravel, cobbles, silt		
	168	190	Cobbles, gravel		
	190	193	Sand		
	193	208	Gravel, cobbles		
	208	231	Gravel, sand, silt		
	231	273	Boulders, sand gravel, silt		
	273	275	Clay, brown		
	275	286	Gravel, sand, fine, silt		<input checked="" type="checkbox"/>
	286	304	Gravel, fine, sand, silt		<input checked="" type="checkbox"/>
	304	309	Sand, silt, dark brown		<input checked="" type="checkbox"/>
	309	316	Gravel, fine, sand, medium		<input checked="" type="checkbox"/>
	316	324	Sand, coarse, gravel, fine		<input checked="" type="checkbox"/>
	324	325	Clay, dark brown		

Completed Depth 323' (Measurable)  
 Date: Started 05/27/04 Completed 06/01/04

14. DRILLER'S CERTIFICATION  
 I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name McCarty Drilling & Pump Inc Firm No. 586  
 Principal Driller Brett McCarty Date 6-14-04  
 and  
 Driller or Operator II Mike Michalak Date 6-14-04  
 Operator I \_\_\_\_\_ Date \_\_\_\_\_  
 Principal Driller and Rig Operator Required.  
 Operator I must have signature of Driller/Operator II.

USE TYPEWRITER OR BALL POINT PEN

State of Idaho  
Department of Water Resources

Well #7

**WELL DRILLER'S REPORT**

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

**1. WELL OWNER**  
 Name KEVIN THIENES  
 Address RT 3 BOX 22 HAYDEN LAKE, WA  
 Owner's Permit No. 95-77-N-160

**2. NATURE OF WORK**  
 New well     Deepened     Replacement  
 Abandoned (describe method of abandoning)

**3. PROPOSED USE**  
 Domestic     Irrigation     Test     Other (specify type)  
 Municipal     Industrial     Stock     Waste Disposal or Injection

**4. METHOD DRILLED**  
 Cable     Rotary     Dug     Other

**5. WELL CONSTRUCTION**  
 Diameter of hole 6 inches    Total depth 322 feet  
 Casing schedule:  Steel     Concrete  

Thickness	Diameter	From	To
<u>250</u> inches	<u>6</u> inches	<u>1</u> feet	<u>306</u> feet
<u>480</u> inches	<u>6</u> inches	<u>306</u> feet	<u>322</u> feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

 Was casing drive shoe used?  Yes     No  
 Was a packer or seal used?  Yes     No  
 Perforated?  Yes     No  
 How perforated?  Factory     Knife     Torch  
 Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches  

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

 Well screen installed?  Yes     No  
 Manufacturer's name \_\_\_\_\_  
 Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Gravel packed?  Yes     No    Size of gravel \_\_\_\_\_  
 Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Surface seal depth 20 Material used in seal  Cement grout  
 Puddling clay     Well cuttings  
 Sealing procedure used  Sherry pit     Temporary surface casing  
 Overbore to seal depth

**6. LOCATION OF WELL**  
95  
 Sketch map location must agree with written location.  
  
 Subdivision Name \_\_\_\_\_  
 Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
 County KOOTENAI  
S.W. 1/4 S.W. 1/4 Sec. 24, T. 52 N., R. 4 E., W.

**7. WATER LEVEL**  
 Static water level 290 feet below land surface  
 Flowing?  Yes     No    G.P.M. flow \_\_\_\_\_  
 Temperature \_\_\_\_\_ ° F.    Quality \_\_\_\_\_  
 Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
 Controlled by  Valve     Cap     Plug

**8. WELL TEST DATA**  
 Pump     Bailer     Other  

Discharge G.P.M.	Draw Down	Hours Pumped
<u>10</u>	<u>0</u>	<u>1 hr</u>
_____	_____	_____
_____	_____	_____

**9. LITHOLOGIC LOG**

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
<u>8"</u>	<u>0</u>	<u>4</u>	<u>TOP SOIL + GRAVEL</u>		<u>X</u>
	<u>4</u>	<u>16</u>	<u>CLAY + GRAVEL</u>		<u>X</u>
	<u>16</u>	<u>29</u>	<u>11" + LARGE GRAVEL</u>		<u>X</u>
	<u>29</u>	<u>44</u>	<u>LARGE GRAVEL + SILT</u>		<u>X</u>
	<u>44</u>	<u>55</u>	<u>CLAY + GRAVEL</u>		<u>X</u>
	<u>55</u>	<u>63</u>	<u>17oz FT BOULDERS</u>		<u>X</u>
	<u>63</u>	<u>101</u>	<u>GRAVEL 12" AND SMALLER</u>		<u>X</u>
	<u>101</u>	<u>108</u>	<u>PEA GRAVEL</u>		<u>X</u>
	<u>108</u>	<u>131</u>	<u>1" TO 2" BOULDERS</u>		<u>X</u>
	<u>131</u>	<u>137</u>	<u>2" TO 4" GRANITE BOULDERS</u>		<u>X</u>
	<u>137</u>	<u>162</u>	<u>4" MEDIUM GRAVEL</u>		<u>X</u>
	<u>162</u>	<u>172</u>	<u>PEA GRAVEL</u>		<u>X</u>
	<u>172</u>	<u>175</u>	<u>BOULDERS + CLAY</u>		<u>X</u>
	<u>175</u>	<u>186</u>	<u>GRANITE</u>		<u>X</u>
<u>6"</u>	<u>186</u>	<u>189</u>	<u>PEA GRAVEL</u>		<u>X</u>
	<u>189</u>	<u>195</u>	<u>EAZY CLAY</u>		<u>X</u>
	<u>195</u>	<u>244</u>	<u>SMALL GRAVEL + CLAY</u>		<u>X</u>
	<u>244</u>	<u>251</u>	<u>BOULDERS</u>		<u>X</u>
	<u>251</u>	<u>286</u>	<u>CLAY + GRAVEL</u>		<u>X</u>
	<u>286</u>	<u>302</u>	<u>BOULDERS</u>		<u>X</u>
	<u>302</u>	<u>322</u>	<u>PEA GRAVEL</u>		<u>X</u>

**10.** Work started 6-24-77 finished 8-23-77

**11. DRILLERS CERTIFICATION**  
 Firm Name Brown & Water Wells Firm No. 289  
 Address Batholomew Idaho Date 9-20-77  
 Signed by (Firm Official) Landon Gordon  
 and  
 (Operator) Lenny Gordon

RECEIVED  
 SEP 20 1977  
 Department of Water Resources  
 Northern District Office

USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Resources

Well #8

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

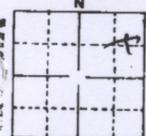
**WELL OWNER**  
 Name Frank Pope JR.  
 Address Rt 3 Box 25 Hayden Lake.  
 Owner's Permit No. 95-78-N-45

**2. NATURE OF WORK**  
 New well     Deepened     Replacement  
 Abandoned (describe method of abandoning)

**3. PROPOSED USE**  
 Domestic     Irrigation     Test     Other (specify type)  
 Municipal     Industrial     Stock     Waste Disposal or Injection

**4. METHOD DRILLED**  
 Cable     Rotary     Dug     Other

**5. WELL CONSTRUCTION**  
 Diameter of hole 6 inches    Total depth 300 feet  
 Casing schedule:  Steel     Concrete  
 Thickness 6 inches    Diameter 6 inches    From 1 feet    To 300 feet  
 inches    inches    feet    feet  
 inches    inches    feet    feet  
 inches    inches    feet    feet  
 inches    inches    feet    feet  
 Was casing drive shoe used?  Yes     No  
 Was a packer or seal used?  Yes     No  
 Perforated?  Yes     No  
 How perforated?  Factory     Knife     Torch  
 Size of perforation 1/4 inches by 6 inches  
 Number 236 From 236 feet To 300 feet  
 perforations    feet    feet  
 perforations    feet    feet  
 perforations    feet    feet  
 Well screen installed?  Yes     No  
 Manufacturer's name \_\_\_\_\_  
 Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Gravel packed?  Yes     No    Size of gravel \_\_\_\_\_  
 Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Surface seal depth 20+ Material used in seal  Cement grout  
 Puddling clay     Well cuttings  
 Sealing procedure used  Shurry pit     Temporary surface casing  
 Overbore to seal depth

**6. LOCATION OF WELL**  
 Sketch map location must agree with written location.  
  
 Subdivision Name \_\_\_\_\_  
 Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
 County Kootenai  
E 1/2 NE 1/4 Sec. 24 T. 52N N/S. R. 4 W

**7. WATER LEVEL**  
 Static water level 275 feet below land surface  
 Flowing?  Yes     No    G.P.M. flow \_\_\_\_\_  
 Temperature Cold ° F.    Quality Good  
 Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
 Controlled by  Valve     Cap     Plug

**8. WELL TEST DATA**  
 Pump     Bailer     Other Air  
 Discharge G.P.M. 8 GPM    Draw Down \_\_\_\_\_    Hours Pumped 2 hrs.

**9. LITHOLOGIC LOG**

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
<u>6</u>	<u>0</u>	<u>3</u>	<u>Top Soil</u>		<input checked="" type="checkbox"/>
	<u>3</u>	<u>165</u>	<u>Sand &amp; Gravel</u>		<input checked="" type="checkbox"/>
	<u>165</u>	<u>175</u>	<u>Boulders</u>		<input checked="" type="checkbox"/>
	<u>175</u>	<u>190</u>	<u>Sand &amp; Gravel</u>		<input checked="" type="checkbox"/>
	<u>190</u>	<u>195</u>	<u>Rock</u>		<input checked="" type="checkbox"/>
	<u>195</u>	<u>240</u>	<u>Sand &amp; Gravel</u>		<input checked="" type="checkbox"/>
	<u>240</u>	<u>245</u>	<u>Rock - Quartz</u>		<input checked="" type="checkbox"/>
	<u>245</u>	<u>299</u>	<u>Sand &amp; Gravel</u>		<input checked="" type="checkbox"/>
	<u>299</u>	<u>300</u>	<u>Rock - Quartz</u>		<input checked="" type="checkbox"/>
	<u>300</u>	<u>300</u>	<u>Sand &amp; Gravel</u>		<input checked="" type="checkbox"/>

**10.** Work started 1-18-78 finished 1-27-78

**11. DRILLERS CERTIFICATION**  
 Firm Name Agua Pulling & Drilling Firm No. 163  
 Address Box 1499 Coeur d'Alene, ID 83814  
 Signed by (Firm Official) Richard Bram  
 and  
 (Operator) E. Paul Lewis

RECEIVED

MAR 24 1978

Department of Water Resources Northern District Office

USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Resources



RECEIVED

Well #9

JUL 20 1976

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources Department of Water Resources days after the completion or abandonment of the well.

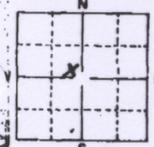
**1. WELL OWNER**  
 Name Jim Davis  
 Address Rt 1 Rathdrum, ID 266A  
 Owner's Permit No. 95-76-N-96

**2. NATURE OF WORK**  
 New well     Deepened     Replacement  
 Abandoned (describe method of abandoning)

**3. PROPOSED USE**  
 Domestic     Irrigation     Test     Other (specify type)  
 Municipal     Industrial     Stock     Waste Disposal or Injection

**4. METHOD DRILLED**  
 Cable     Rotary     Dug     Other

**5. WELL CONSTRUCTION**  
 Diameter of hole 8 inches    Total depth 90 feet  
 Casing schedule:  Steel     Concrete  
 Thickness 3/22 inches    Diameter 8 inches    From 1 feet 69 To 90 feet  
 \_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
 Was casing drive shoe used?  Yes     No  
 Was a packer or seal used?     Yes     No  
 Perforated?     Yes     No  
 How perforated?     Factory     Knife     Torch  
 Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches  
 Number \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
 Well screen installed?     Yes     No  
 Manufacturer's name \_\_\_\_\_  
 Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Gravel packed?     Yes     No    Size of gravel \_\_\_\_\_  
 Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Surface seal depth 18 Material used in seal     Cement grout  
 Pudding clay     WBIT cuttings  
 Sealing procedure used     Shurry pit     Temporary surface casing  
 Overbars to seal depth

**6. LOCATION OF WELL**  
 Sketch map location must agree with written location.  
  
 Subdivision Name Gish  
 Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
 County Kootenai  
NE 1/4 SE 1/4 Sec. 13, T. 52 N. R. 4

**7. WATER LEVEL**  
 Static water level 60 feet below land surface  
 Flowing?     Yes     No    G.P.M. flow \_\_\_\_\_  
 Temperature \_\_\_\_\_ ° F.    Quality Good  
 Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
 Controlled by     Valve     Cap     Plug

**8. WELL TEST DATA**  
 Pump     Bailer     Other  

Discharge G.P.M.	Draw Down	Hours Pumped
<u>50</u>	<u>4.11</u>	<u>3</u>

**9. LITHOLOGIC LOG**

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
<u>10</u>	<u>1</u>	<u>18</u>	<u>Soil Gravel + clay</u>		
<u>8</u>	<u>18</u>	<u>60</u>	<u>Gravel Boulder + clay</u>		
<u>8</u>	<u>60</u>	<u>66</u>	<u>SAND + Gravel</u>		
<u>8</u>	<u>66</u>	<u>69</u>	<u>Decomposed Gravel</u>		
	<u>69</u>	<u>90</u>	<u>Decomposed Gravel</u>		

**10.** Work started May 10 finished July 8

**11. DRILLERS CERTIFICATION**  
 Firm Name High Well Service Firm No. 195  
 Address Rt 1 Rathdrum Date July 21  
 Signed by (Firm Official) Ray Davis  
 and \_\_\_\_\_  
 (Operator)

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE COPY TO THE DEPARTMENT

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

USE TYPEWR  
BALLPOINT PEN  
Well #10

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

**1. WELL OWNER**  
Name Roy Gish  
Address Rt 1 Rathdrum Id  
Owner's Permit No. 95-79-N-34

**2. NATURE OF WORK**  
 New well  Deepened  Replacement  
 Abandoned (describe method of abandoning)

**3. PROPOSED USE**  
 Domestic  Irrigation  Test  Municipal  
 Industrial  Stock  Waste Disposal or Injection  
 Other \_\_\_\_\_ (specify type)

**4. METHOD DRILLED**  
 Rotary  Air  Hydraulic  Reverse rotary  
 Cable  Dug  Other \_\_\_\_\_

**5. WELL CONSTRUCTION**  
Casing schedule:  Steel  Concrete  Other \_\_\_\_\_  
Thickness 2.50 inches Diameter 8 inches + 1 feet To 220 feet  
Was casing drive shoe used?  Yes  No  
Was a packer or seal used?  Yes  No  
Perforated?  Yes  No  
How perforated?  Factory  Knife  Torch  
Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches  
Number \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
\_\_\_\_\_ perforations \_\_\_\_\_ feet  
\_\_\_\_\_ perforations \_\_\_\_\_ feet  
\_\_\_\_\_ perforations \_\_\_\_\_ feet  
Well screen installed?  Yes  No  
Manufacturer's name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Gravel packed?  Yes  No  Size of gravel \_\_\_\_\_  
Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Surface seal depth 20 Material used in seal:  Cement grout  
bentonite  Puddling clay  Well cuttings  
Sealing procedure used:  Slurry pit  Temp. surface casing  
 Overbore to seal depth  
Method of joining casing:  Threaded  Welded  Solvent  
Weld  
 Cemented between strata  
Describe access port \_\_\_\_\_

**6. LOCATION OF WELL**  
Sketch map location must agree with written location.  
N  
W E  
Subdivision Name \_\_\_\_\_  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
County Kootenai  
SE 1/4 SE 1/4 Sec. 13, T. 52 N, R. 4 W.

**7. WATER LEVEL**  
Static water level 180 feet below land surface.  
Flowing?  Yes  No G.P.M. flow 100  
Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
Controlled by:  Valve  Cap  Plug  
Temperature \_\_\_\_\_ OF. Quality \_\_\_\_\_

**8. WELL TEST DATA**  
 Pump  Bailer  Air  Other \_\_\_\_\_  
Discharge G.P.M. 100 Pumping Level \_\_\_\_\_ Hours Pumped 2

**9. LITHOLOGIC LOG**

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
<u>8</u>	<u>0</u>	<u>20</u>	<u>clay &amp; cobbles</u>		<input checked="" type="checkbox"/>
	<u>20</u>	<u>25</u>	<u>boulders + clay</u>		<input checked="" type="checkbox"/>
	<u>25</u>	<u>100</u>	<u>sand + gravel</u>		<input checked="" type="checkbox"/>
	<u>100</u>	<u>110</u>	<u>boulders, sand + gravel</u>		<input checked="" type="checkbox"/>
	<u>110</u>	<u>200</u>	<u>gravel</u>		<input checked="" type="checkbox"/>
	<u>200</u>	<u>205</u>	<u>broken basalt</u>		<input checked="" type="checkbox"/>
	<u>205</u>	<u>225</u>	<u>gravel</u>		<input checked="" type="checkbox"/>

**10.** Work started 12 April 79 finished 26 April 79

**11. DRILLERS CERTIFICATION**  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
Firm Name Hendricks Drilling Firm No. 332  
Address Hayden Lake Date 2 May 79  
Signed by (Firm Official) Richard Hendricks  
and  
(Operator) Sure

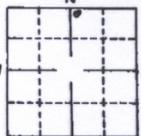


STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

USE TYPEWRIT  
BALLPOINT PEN

Well #11

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

<p><b>WELL OWNER</b></p> <p>Name <u>Bill &amp; Bonnie Thomson</u></p> <p>Address <u>Coeur d'Alene, ID</u></p> <p>Owner's Permit No. <u>95-87-N-63</u></p>	<p><b>7. WATER LEVEL</b></p> <p>Static water level <u>75</u> feet below land surface.</p> <p>Flowing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No G.P.M. flow _____</p> <p>Artesian closed-in pressure _____ p.s.i.</p> <p>Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug</p> <p>Temperature _____ of. Quality _____</p> <p><i>Describe artesian or temperature zones below.</i></p>																																																										
<p><b>2. NATURE OF WORK</b></p> <p><input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement</p> <p><input type="checkbox"/> Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)</p>	<p><b>8. WELL TEST DATA</b></p> <p><input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input checked="" type="checkbox"/> Air <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> <tr> <td><u>Est 1 GPM</u></td> <td></td> <td></td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped	<u>Est 1 GPM</u>																																																						
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<p><b>3. PROPOSED USE</b></p> <p><input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Test <input type="checkbox"/> Municipal</p> <p><input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Waste Disposal or Injection</p> <p><input type="checkbox"/> Other _____ (specify type)</p>	<p><b>9. LITHOLOGIC LOG</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>8"</td> <td>0</td> <td>3</td> <td>over Burden</td> <td></td> <td></td> </tr> <tr> <td>"</td> <td>3</td> <td>25</td> <td>soft decomposed Granite</td> <td></td> <td></td> </tr> <tr> <td>"</td> <td>25</td> <td>40</td> <td>Med soft Granite</td> <td></td> <td></td> </tr> <tr> <td>6"</td> <td>40</td> <td>130</td> <td>Med Granite</td> <td></td> <td>X</td> </tr> <tr> <td>"</td> <td>130</td> <td>190</td> <td>Fractured Granite Med</td> <td></td> <td></td> </tr> <tr> <td>"</td> <td>190</td> <td>240</td> <td>Med hard Granite</td> <td></td> <td></td> </tr> <tr> <td>"</td> <td>240</td> <td>248</td> <td>Med soft Granite</td> <td></td> <td></td> </tr> <tr> <td>"</td> <td>248</td> <td>302</td> <td>Med Hard Granite</td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: center;">Water Encountered AT ABOUT THE 100 foot Area</p>	Bore Diam.	Depth		Material	Water		From	To	Yes	No	8"	0	3	over Burden			"	3	25	soft decomposed Granite			"	25	40	Med soft Granite			6"	40	130	Med Granite		X	"	130	190	Fractured Granite Med			"	190	240	Med hard Granite			"	240	248	Med soft Granite			"	248	302	Med Hard Granite		
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<p><b>4. METHOD DRILLED</b></p> <p><input checked="" type="checkbox"/> Rotary <input checked="" type="checkbox"/> Air <input type="checkbox"/> Hydraulic <input type="checkbox"/> Reverse rotary</p> <p><input type="checkbox"/> Cable <input type="checkbox"/> Dug <input type="checkbox"/> Other _____</p>	<div style="text-align: center;"> <p><b>RECEIVED</b></p> <p>MAY 5 1987</p> <p>Department of Water Resources Northern District Office</p> </div> <div style="text-align: center; margin-top: 20px;"> <p><b>RECEIVED</b></p> <p>MAY 21 1987</p> <p>Department of Water Resources</p> </div>																																																										
<p><b>5. WELL CONSTRUCTION</b></p> <p>Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>250</u> inches</td> <td><u>6</u> inches</td> <td><u>1</u> feet</td> <td><u>40</u> feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> <p>Was casing drive shoe used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Was a packer or seal used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch</p> <p>Size of perforation _____ inches by _____ inches</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> <p>Well screen installed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Manufacturer's name _____</p> <p>Type _____ Model No. _____</p> <p>Diameter _____ Slot size _____ Set from _____ feet to _____ feet</p> <p>Diameter _____ Slot size _____ Set from _____ feet to _____ feet</p> <p>Gravel packed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Size of gravel _____</p> <p>Placed from _____ feet to _____ feet</p> <p>Surface seal depth <u>40</u> Material used in seal: <input type="checkbox"/> Cement-grout</p> <p><input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Puddling clay <input type="checkbox"/> _____</p> <p>Sealing procedure used: <input type="checkbox"/> Slurry pit <input type="checkbox"/> Temp. surface casing</p> <p><input checked="" type="checkbox"/> Overbore to seal depth</p> <p>Method of joining casing: <input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Solvent</p> <p style="text-align: center;">Weld</p> <p><input type="checkbox"/> Cemented between strata</p> <p>Describe access port _____</p>	Thickness	Diameter	From	To	<u>250</u> inches	<u>6</u> inches	<u>1</u> feet	<u>40</u> feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	Number	From	To	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	<div style="text-align: center;"> <p><b>RECEIVED</b></p> <p>MAY 21 1987</p> <p>Department of Water Resources</p> </div>																										
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<p><b>6. LOCATION OF WELL</b></p> <p>Sketch map location must agree with written location</p>  <p>Subdivision Name _____</p> <p style="text-align: center;">MAR 09 1988</p> <p>Lot No. _____ Block No. _____</p> <p>County <u>Kootenai</u></p> <p><u>NW 1/4 NE 1/4 Sec. 13, T. 52 N, R. 4 E/W</u></p>	<p><b>10.</b> Work started <u>3-26-87</u> finished <u>3-29-87</u></p>																																																										
<p><b>11. DRILLERS CERTIFICATION</b> <u>DR</u></p> <p>I/We certify that all minimum well construction standards were complied with at the time the rig was removed.</p> <p>Firm Name <u>Aqua Drilling &amp; Exploration Inc</u> Firm No. <u>163</u></p> <p>Address <u>PO Box 225 CDA ID</u> Date <u>3-29-87</u></p> <p>Signed by (Firm Official) <u>Scott M. Braun</u></p> <p>and (Operator) <u>Scott M. Braun</u></p>	<div style="text-align: center;"> <p><b>RECEIVED</b></p> <p>MAY 21 1987</p> <p>Department of Water Resources</p> </div>																																																										

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 Form 238-7  
 4/82 JUN 01 1993  
 ENGINEERING DIVISION

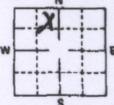


STATE OF IDAHO  
 DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

USE TYPEWRITER OR  
 BALLPOINT PEN

Well #12

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

<p><b>1. WELL OWNER</b>          Name <u>Lindon Gordon</u>          Address <u>417 E MON Ripby Id 83442</u>          Drilling Permit No. <u>95-92-N-171</u>          Water Right Permit No. _____</p>	<p><b>7. WATER LEVEL</b>          Static water level <u>17</u> feet below land surface.          Flowing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No G.P.M. flow _____          Artesian closed-in pressure _____ p.s.i.          Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug          Temperature _____ °F. Quality _____  <small>Describe artesian or temperature zones below.</small></p>																																																																						
<p><b>2. NATURE OF WORK</b>  <input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement  <input type="checkbox"/> Well diameter increase <input type="checkbox"/> Modification  <input type="checkbox"/> Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)</p>	<p><b>8. WELL TEST DATA</b>  <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Air <input type="checkbox"/> Other _____</p> <table border="1"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td><u>39 gpm</u></td> <td><u>12.6</u></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped	<u>39 gpm</u>	<u>12.6</u>																																																																	
Discharge G.P.M.	Pumping Level	Hours Pumped																																																																					
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<p><b>3. PROPOSED USE</b>  <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Monitor  <input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Waste Disposal or Injection  <input type="checkbox"/> Other _____ (specify type)</p>	<p><b>9. LITHOLOGIC LOG</b> <span style="float: right;">105055</span></p> <table border="1"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td><u>1 1/4"</u></td> <td><u>0</u></td> <td><u>3</u></td> <td><u>TOP SOIL</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>3</u></td> <td><u>8</u></td> <td><u>GRAVEL</u></td> <td></td> <td></td> </tr> <tr> <td><u>1</u></td> <td><u>8</u></td> <td><u>17</u></td> <td><u>GRAVEL &amp; CLAY</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>17</u></td> <td><u>21</u></td> <td><u>BROKEN ROCK</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>21</u></td> <td><u>78</u></td> <td><u>FIRM GRANITE</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>78</u></td> <td><u>102</u></td> <td><u>HARD GRANITE</u></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>102</u></td> <td><u>108</u></td> <td><u>BROKEN</u></td> <td><u>WATER</u></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td><u>108</u></td> <td><u>123</u></td> <td><u>FIRM</u></td> <td></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td><u>123</u></td> <td><u>126</u></td> <td><u>BROKEN</u></td> <td><u>WATER</u></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td><u>126</u></td> <td><u>152</u></td> <td><u>HARD</u></td> <td></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Bore Diam.	Depth		Material	Water		From	To	Yes	No	<u>1 1/4"</u>	<u>0</u>	<u>3</u>	<u>TOP SOIL</u>				<u>3</u>	<u>8</u>	<u>GRAVEL</u>			<u>1</u>	<u>8</u>	<u>17</u>	<u>GRAVEL &amp; CLAY</u>				<u>17</u>	<u>21</u>	<u>BROKEN ROCK</u>				<u>21</u>	<u>78</u>	<u>FIRM GRANITE</u>				<u>78</u>	<u>102</u>	<u>HARD GRANITE</u>				<u>102</u>	<u>108</u>	<u>BROKEN</u>	<u>WATER</u>	<input checked="" type="checkbox"/>		<u>108</u>	<u>123</u>	<u>FIRM</u>		<input checked="" type="checkbox"/>		<u>123</u>	<u>126</u>	<u>BROKEN</u>	<u>WATER</u>	<input checked="" type="checkbox"/>		<u>126</u>	<u>152</u>	<u>HARD</u>		<input checked="" type="checkbox"/>
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	<u>126</u>	<u>152</u>	<u>HARD</u>		<input checked="" type="checkbox"/>																																																																		
<p><b>4. METHOD DRILLED</b>  <input checked="" type="checkbox"/> Rotary <input checked="" type="checkbox"/> Air <input type="checkbox"/> Auger <input type="checkbox"/> Reverse rotary  <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Mud <input type="checkbox"/> Other _____  <small>(backhoe, hydraulic, etc.)</small></p>																																																																							
<p><b>5. WELL CONSTRUCTION</b>          Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____  <small>Thickness Diameter From To</small>  <u>3 1/2</u> inches <u>10</u> inches + <u>1</u> feet <u>21</u> feet          _____ inches _____ inches _____ feet _____ feet          _____ inches _____ inches _____ feet _____ feet          Was casing drive shoe used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          Was a packer or seal used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch <input type="checkbox"/> Gun          Size of perforation? <input checked="" type="checkbox"/> _____ inches by _____ inches  <small>Number From To</small>  <u>3</u> perforations _____ feet _____ feet  <u>3</u> perforations _____ feet _____ feet  <u>3</u> perforations _____ feet _____ feet          Well screen installed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          Manufacturer _____ Type _____          Top Packer or Headpipe <input checked="" type="checkbox"/>          Bottom of Tailpipe _____          Diameter <input checked="" type="checkbox"/> Slot size _____ Set from _____ feet to _____ feet          Diameter <input checked="" type="checkbox"/> Slot size _____ Set from _____ feet to _____ feet          Gravel packed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Size of gravel _____          Placed from _____ feet to _____ feet          Surface seal depth <u>20</u> Material used in seal: <input type="checkbox"/> Cement grout  <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Pudding clay <input type="checkbox"/> _____          Sealing procedure used: <input type="checkbox"/> Slurry pit  <input checked="" type="checkbox"/> Temp. surface casing <input checked="" type="checkbox"/> Overbore to seal depth          Method of joining casing: <input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded  <input type="checkbox"/> Solvent Weld <input type="checkbox"/> Cemented between strata          Describe access port <u>TRANSPARENT HOLE</u></p>	<p><b>10.</b>          Work started <u>NOV 15 92</u> finished <u>MAY 5 93</u></p>																																																																						
<p><b>6. LOCATION OF WELL</b>          Sketch map location must agree with written location:            Subdivision Name _____          Lot No. _____ Block No. _____          County <u>HOOTEN</u>          Address of Well Site <u>NOT ISSUED</u>  <small>(give at least name of road)</small>  <u>NE</u> 1/4 <u>NW</u> 1/4 Sec. <u>13</u>, R. <u>4</u> E <input type="checkbox"/> or W <input checked="" type="checkbox"/></p>	<p><b>11. DRILLER'S CERTIFICATION</b>          I/We certify that all minimum well construction standards were complied with at the time the rig was removed.          Firm Name <u>PAUL X W - W</u> Firm No. <u>289</u>          Address <u>417 E MON Ripby Id 83442</u> Date <u>5-19-93</u>          Signed by Drilling Supervisor <u>Lindon Gordon</u>          and _____          (Operator) <u>Mico Gordon</u>  <small>(If different than the Drilling Supervisor)</small></p>																																																																						

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**RECEIVED**  
 Form 238-7  
 395 FEB 05 1997  
 IDWR

**IDAHO DEPARTMENT OF WATER RESOURCES**  
**WELL DRILLER'S REPORT**  
 Use Typewriter or Ballpoint Pen 097079

Office Use Only  
 Inspected by \_\_\_\_\_  
 Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
 Lat: \_\_\_\_\_ Long: \_\_\_\_\_

1. DRILLING PERMIT NO. 95-96-N-0175-000  
 Other IDWR No. \_\_\_\_\_

2. OWNER: PAUL THOMAS  
 Name \_\_\_\_\_  
 Address 10234 N REED  
 City HAYDEN LAKE State ID Zip 83835

3. LOCATION OF WELL by legal description:  
 Sketch map location must agree with written location.

Twp. <u>52</u>	North <input checked="" type="checkbox"/>	or	South <input type="checkbox"/>
Rge. <u>4</u>	East <input type="checkbox"/>	or	West <input checked="" type="checkbox"/>
Sec. <u>13</u>	1/4 <u>SW</u> 1/4 <u>NW</u> 1/4		
Gov't Lot _____	County _____	10 acres	40 acres
Lat: _____	Long: _____		
Address of Well Site <u>Rounly Rd Chileo</u>			
City _____			

(Give at least name of road + Distance to Road or Landmark)

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
<u>BENTONITE</u>			<u>14 SACKS</u>		<u>TEMP PIPE + OVERDRILL</u>

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
 Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>6" + 2</u>	<u>22</u>	<u>250</u>	<u>STEEL</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS  
 Perforations Method DRILL 1/2"  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>-5</u>	<u>150</u>	<u>1/2"</u>	<u>80</u>	<u>4"</u>	<u>PVC</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:  
9 ft. below ground Artesian pressure 0 lb.  
 Depth flow encountered 22 ft. Describe access port or control devices: \_\_\_\_\_

11. WELL TESTS:  
 Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>79 gpm</u>			

Water Temp. Cold Bottom hole temp. \_\_\_\_\_  
 Water Quality test or comments: \_\_\_\_\_  
 Depth first Water Encountered 22'

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
	<u>0</u>	<u>7</u>	<u>Fill</u>		<input checked="" type="checkbox"/>
	<u>7</u>	<u>10</u>	<u>TOP SOIL</u>		<input checked="" type="checkbox"/>
	<u>10</u>	<u>17</u>	<u>BOULDERS + GRAVEL</u>		<input checked="" type="checkbox"/>
	<u>17</u>	<u>36</u>	<u>D 9</u>	<input checked="" type="checkbox"/>	
	<u>36</u>	<u>150</u>	<u>FIRM TO SOFT GRANITE</u>		<input checked="" type="checkbox"/>

Completed Depth 150 (Measurable)  
 Date: Started 12-10-96 Completed 1-15-97

13. DRILLER'S CERTIFICATION  
 I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Brandx Water Wells Firm No. 289  
 Firm Official Lindon Corson Date 2-3-97  
 and \_\_\_\_\_  
 Supervisor or Operator \_\_\_\_\_ Date \_\_\_\_\_  
 (Sign once if Firm Official & Operator)

**SWNW 13 SWN 4W**

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11/97  
NOV 24 1998

IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

Office Use Only  
Inspected by TOK  
Twp 52N Rge 4W Sec 13  
1/4 SE 1/4 SE 1/4  
Lat: : : Long: : :

77875

IDWR/North  
WELL TAG NO. D0005526  
DRILLING PERMIT NO. 95-98-N-215  
Other IDWR No. \_\_\_\_\_

2. OWNER:  
Name Mike Hommerding  
Address 5995 W. Hwy 53  
City Rathdrum State ID Zip 83858



3. LOCATION OF WELL by legal description:  
N Twp 52N North  or South   
Rge 04W East  or West   
Sec 13 1/4 SW 1/4 SE 1/4  
Gov't Lot \_\_\_\_\_ County Kootenai 10 Ac 40 Ac 160 Ac  
Lat \_\_\_\_\_ Long \_\_\_\_\_  
Address of Well Site: (see next line)  
95 North to Ohio Match, go right City Rathdrum  
Lot \_\_\_\_\_ Blk \_\_\_\_\_ Sub. Name (see next line)

4. USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			Amount	Method
Material	From	To	Sacks/Lbs	
Bentonite	0	18	10 sacks	pour in

Drive Shoe Used?  Y  N Shoe Depth(s) Ring bit - 219'  
Drive Shoe Seal Tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER

Diam	From	To	Gauge	Material	Casng	Liner	Weld	Thrded
6"	1	219	0.025	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Length Headpipe \_\_\_\_\_ Length Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS  
 Perforations? Method air perforator  
 Screens? Screen Type \_\_\_\_\_

From	To	Slot	Nmbr	Diam	Material	Casng	Liner
185	200	1"	300		Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL or ARTESIAN PRESSURE  
185 ft. below ground. Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered 185 ft. Describe access port or control devices: steel cap welded

11. WELL TESTS

Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pump Level	Time
20+	100%	217	2 hrs.

Water Temp. cold Bottom hole temp. cold  
Water Quality test or comments: (below) clear, no smell Depth first Water Encountered 185

12. LITHOLOGIC LOG (Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality and Temperature	Water	
				Y	N
8	0	1	topsoil	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	1	18	Sand & gravel & cobbles	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	18	79	Sand & gravel - 3/4 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	70	126	Shale layer - blue/gray	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	126	210	Sand & gravel - 3/4 minus	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	210	219	Sand & gravel-1/2 minus with some fines	<input checked="" type="checkbox"/>	<input type="checkbox"/>

T = 21.10  
K = 966/15  
K = 96.11/13

Completed Depth 219 (Measurable)  
Date: Started 11/10/98 Completed 11/11/98

13. DRILLERS CERTIFICATION  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
Firm Name United Drilling Inc. Firm No. 414  
Firm Official and Jason C. Beckham Date 11/20/98  
Supervisor or Operator Jason C. Beckham Date 11/20/98

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

USE TYPEWRITER OR BALLPOINT PEN

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.



WELL OWNER Name Richard GRANT Address R# 4 Box 36606 Coeur d'Alene Id. Owner's Permit No. 95-78-N-41

7. WATER LEVEL Static water level \_\_\_ feet below land surface. Flowing? [ ] Yes [ ] No G.P.M. flow \_\_\_ Temperature \_\_\_ °F. Quality \_\_\_ Artesian closed-in pressure \_\_\_ p.s.i. Controlled by: [ ] Valve [ ] Cap [ ] Plug

2. NATURE OF WORK [X] New well [ ] Deepened [ ] Replacement [ ] Abandoned (describe method of abandoning)

8. WELL TEST DATA [ ] Pump [ ] Bailer [X] Other AIR Discharge G.P.M. 14 G.P.M. Drawdown Hours Pumped

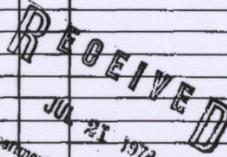
3. PROPOSED USE [X] Domestic [ ] Irrigation [ ] Test [ ] Other (specify type) [ ] Municipal [ ] Industrial [ ] Stock [ ] Waste Disposal or Injection

9. LITHOLOGIC LOG

4. METHOD DRILLED [ ] Cable [X] Rotary [ ] Dug [ ] Other

Lithologic log table with columns: Hole Diam., Depth (From, To), Material, Water (Yes, No). Entries include Top Soil, Gravel & Sand, Boulder's & Gravel, Clay Gray, Sand, Clay Gray, Granite Black & White, Granite Black & White Hard, Granite Gray Hard, Granite Black & White Hard, Granite with Quartz Scams Hard, Granite Black & White Hard, Granite Gray Hard & Soft Quartz Scams - Water.

5. WELL CONSTRUCTION Diameter of hole 6 inches Total depth 325 feet Casing schedule: [X] Steel [ ] Concrete Thickness 2.50 inches Diameter 6 inches From 1 feet To 104'6" feet Was casing drive shoe used? [X] Yes [ ] No Was a packer or seal used? [ ] Yes [X] No Perforated? [ ] Yes [X] No How perforated? [ ] Factory [ ] Knife [X] Torch Size of perforation \_\_\_ inches by \_\_\_ inches



Department of Water Resources Northern District Office

6. LOCATION OF WELL Sketch map location must agree with written location. 95 Subdivision Name Lot No. Block No. County Kootenai SW 1/4 SW 1/4 Sec. 13, T. 52 N, R. 4 W

10. Work started 7/17/78 finished 7/19/78

11. DRILLERS CERTIFICATION Firm Name American Drilling Firm No. 269 Address PO Box 14977 Spokane Date 7/20/78 Signed by (Firm Official) [Signature] and [Signature] (Operator)

USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Resources

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER
Name: Jim Geddes
Address: PO Box 451 Hayden Lake
Owner's Permit No: 95-78-N-131-300

7. WATER LEVEL
Static water level: \_\_\_\_\_ feet below land surface
Flowing? [ ] Yes [ ] No G.P.M. flow: \_\_\_\_\_
Temperature: \_\_\_\_\_ ° F. Quality: \_\_\_\_\_
Artesian closed-in pressure: \_\_\_\_\_ p.s.i.
Controlled by [ ] Valve [ ] Cap [ ] Plug

2. NATURE OF WORK
[X] New well [ ] Deepened [ ] Replacement
[X] Abandoned (describe method of abandoning)
on back

8. WELL TEST DATA
[ ] Pump [ ] Bailer [X] Other
Discharge G.P.M. Draw Down Hours Pumped

3. PROPOSED USE
[X] Domestic [ ] Irrigation [ ] Test [ ] Other (specify type)
[ ] Municipal [ ] Industrial [ ] Stock [ ] Waste Disposal or Injection

9. LITHOLOGIC LOG

4. METHOD DRILLED
[ ] Cable [X] Rotary [ ] Dug [ ] Other

Lithologic log table with columns: Hole Diam., Depth (From, To), Material, Water (Yes, No). Includes handwritten entries: 0-1 Clay, 1-3 broken basalt, 3-90 gray basalt, 90-95 black clay + mica, 95-130 brown clay, 130-180 gray basalt, 180-200 gray shale, 200-240 hard brown shale, 240-265 soft brown shale.

5. WELL CONSTRUCTION
Diameter of hole: 6 inches Total depth: 265 feet
Casing schedule: [X] Steel [ ] Concrete
Thickness: 250 inches Diameter: 6 inches From: 1 feet To: 20 feet
Was casing drive shoe used? [X] Yes [ ] No
Was a packer or seal used? [ ] Yes [X] No
Perforated? [ ] Yes [X] No
How perforated? [ ] Factory [ ] Knife [ ] Torch
Size of perforation: \_\_\_\_\_ inches by \_\_\_\_\_ inches
Well screen installed? [ ] Yes [X] No
Manufacturer's name: \_\_\_\_\_
Type: \_\_\_\_\_ Model No.: \_\_\_\_\_
Diameter: \_\_\_\_\_ Slot size: \_\_\_\_\_ Set from: \_\_\_\_\_ feet to: \_\_\_\_\_ feet
Gravel packed? [ ] Yes [X] No Size of gravel: \_\_\_\_\_
Placed from: \_\_\_\_\_ feet to: \_\_\_\_\_ feet
Surface seal depth: 20 Material used in seal: [ ] Cement grout [ ] Pudding clay [X] Well cuttings
Sealing procedure used: [ ] Slurry pit [ ] Temporary surface casing [X] Overbars to seal depth

6. LOCATION OF WELL
Sketch map location must agree with written location.
Subdivision Name: \_\_\_\_\_
Lot No.: \_\_\_\_\_ Block No.: \_\_\_\_\_
County: Kootenai
NW 1/4 NW 1/4 Sec. 19, T. 52 N., R. 3 E/W

10. Work started 19 Dec 78 finished 22 Dec 78

11. DRILLERS CERTIFICATION
Firm Name: Hendricks Drilling Firm No. 322
Address: Hayden Lake Id Date: \_\_\_\_\_
Signed by (Firm Official): Richard A. Hendricks
and (Operator): Same







Form 238-7  
7/98  
Starships Consulting and  
Management Services

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

RECEIVED

Office Use Only		
Inspected by _____	_____	
Twp. <u>1/4</u>	Rge. <u>1/4</u>	Sec. <u>1/4</u>
Lat: : : _____	Long: : : _____	

1. WELL TAG NO. D0035482 SEP 22 2004  
Drilling Permit No: 824371  
Other IDWR No. \_\_\_\_\_  
IDWR/North

2. OWNER  
Name Adams, Daniel G Well Number: 828  
Address 3009 Leta Lane  
City Sacramento State CA Zip 95821

3. LOCATION OF WELL by legal description  
sketch map location must agree with written location

N		Twp. <u>52</u> <input checked="" type="checkbox"/> North or <input type="checkbox"/> South	
E		Rge. <u>03</u> <input type="checkbox"/> East or <input checked="" type="checkbox"/> West	
W		Sec. <u>18</u> <u>SE 1/4 NW 1/4 SE 1/4</u>	
S		Gov't Lot _____ County <u>KOOTENAI</u>	

Lat: : : \_\_\_\_\_ Long: : : \_\_\_\_\_

Address of Well Site 19712 N Williams Roa  
City Hayden

(Give at least name of road + Distance to Road or Landmark)

Lt. \_\_\_\_\_ Bik. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. USE:

Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement, etc.)

New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD

Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	20	500 lbs	Overbore

Was drive shoe used?  Y  N Shoe Depth(s) RB

Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	199	.250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

Perforations Method \_\_\_\_\_  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

80 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

52N 3W 18

11. WELL TESTS:

Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
15			1hr

Water Temp. Cold Bottom Hole Temp Cold

Water Quality test or comments: Clear

Depth first Water encountered 170

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality, Temperature	Water	
				Y	N
8	0	2	Top Soil	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	2	99	Gravels Sand & Small Boulders	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	99	107	Basalt	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	107	113	Broken Basalt w/ Clay	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	113	147	Clay w/Shale Gravels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	147	153	Broken Basalt w/Clay	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	153	170	Clay w/Basalt	<input type="checkbox"/>	<input type="checkbox"/>
8	170	189	Broken Basalt w/clay & h2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	189	194	Basalt Hard	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	194	203	Broken Basalt w:h2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Completed Depth 203 (Measurable)  
Date: Started 9/10/2004 Completed 9/14/2004

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name H2O WellService, Inc Firm No. 448  
Firm Official Mark Penick Date 09/16/04  
and  
Supervisor or Operator Mark Penick Date 09/15/04  
(Sign Once if Firm Official and Operator)

Mark Penick

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

USE TYPEWRITER OR  
BALLPOINT PEN

RECEIVED  
JUN 24 1983  
CLOSURE

1. WELL OWNER

Name JIM L. PARNEY

Address Rt 1 Box 106A Arden, Id 53801

Owner's Permit No. 95-83-N-101

7. WATER LEVEL

Static water level 75 feet below land surface.

Flowing?  Yes  No G.P.M. flow 2

Artesian closed-in pressure \_\_\_\_\_ p.s.i.

Controlled by:  Valve  Cap  Plug

Temperature 60°F. Quality Good

2. NATURE OF WORK

New well  Deepened  Replacement

Abandoned (describe method of abandoning) \_\_\_\_\_

8. WELL TEST DATA

Pump  Bailor  Air  Other \_\_\_\_\_

Discharge G.P.M.	Pumping Level	Hours Pumped
<u>3</u>		<u>1</u>

3. PROPOSED USE

Domestic  Irrigation  Test  Municipal

Industrial  Stock  Waste Disposal or Injection

Other \_\_\_\_\_ (specify type)

9. LITHOLOGIC LOG

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
<u>8</u>	<u>1</u>	<u>60</u>	<u>Sand + Gravel</u>		<input checked="" type="checkbox"/>
<u>6</u>	<u>60</u>	<u>65</u>	<u>Sand</u>		<input checked="" type="checkbox"/>
<u>6</u>	<u>65</u>	<u>93</u>	<u>Gravel w/ sand + clay</u>		<input checked="" type="checkbox"/>
<u>6</u>	<u>93</u>	<u>114</u>	<u>Gravel</u>		<input checked="" type="checkbox"/>
<u>6</u>	<u>114</u>	<u>125</u>	<u>Shale 3 g p m</u>		<input checked="" type="checkbox"/>

*I'll suggest that the bottom casing not be perforated*

3 g p m AT 141 TO 125

RECEIVED  
JUN 15 1983  
Department of Water Resources  
Northern District Office

4. METHOD DRILLED

Rotary  Air  Hydraulic  Reverse rotary

Cable  Dug  Other \_\_\_\_\_

5. WELL CONSTRUCTION

Casing schedule:  Steel  Concrete  Other \_\_\_\_\_

Thickness	Diameter	From	To
<u>250</u> inches	<u>6</u> inches	<u>1</u> feet	<u>141</u> feet

Was casing drive shoe used?  Yes  No

Was a packer or seal used?  Yes  No

Perforated?  Yes  No

How perforated?  Factory  Knife  Torch

Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed?  Yes  No

Manufacturer's name \_\_\_\_\_

Type \_\_\_\_\_ Model No. \_\_\_\_\_

Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Gravel packed?  Yes  No  Size of gravel \_\_\_\_\_

Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Surface seal depth 20 Material used in seal:  Cement grout  Puddling clay

Sealing procedure used:  Slurry pit  Temp. surface casing  Overbore to seal depth

Method of joining casing:  Threaded  Welded  Solvent Weld

Cemented between strata

Describe access port \_\_\_\_\_

6. LOCATION OF WELL

Sketch map location must agree with written location.

N			
W	<u>α</u>		E
			S

Subdivision Name NW GOVERNMENT

Lot No. 1 Block No. \_\_\_\_\_

County KOOTENAI

NW 1/4 NW 1/4 Sec. 18 T. 52N N. 3 R. 3 W.

10. Work started 5/16/83 finished 5/17/83

11. DRILLERS CERTIFICATION ll

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Associated Firm No. 245

Address PO Box 223 CDA Date 5/17/83

Signed by (Firm Official) Frank J. Nelson

and (Operator) Frank J. Nelson

USE TYPEWRITER OR BALL POINT PEN

State Idaho Department of Water Resources



WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

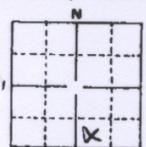
**1. WELL OWNER**  
 Name STEPHEN A. SOUTHER  
 Address 421 N 20th Coa Ida 83814  
 Owner's Permit No. 95-2713 Chico Hatch, Inc.

**2. NATURE OF WORK** 95-77-N-88  
 New well  Deepened  Replacement  
 Abandoned (describe method of abandoning)  
SEALED & CAPPED

**3. PROPOSED USE**  
 Domestic  Irrigation  Test  Other (specify type)  
 Municipal  Industrial  Stock  Waste Disposal or Injection

**4. METHOD DRILLED**  
 Cable  Rotary  Dug  Other

**5. WELL CONSTRUCTION**  
 Diameter of hole 6 inches Total depth 200 feet  
 Casing schedule:  Steel  Concrete  
 Thickness 1.50 inches Diameter 6 inches From 1 feet To 79 feet  
 \_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
 Was casing drive shoe used?  Yes  No  
 Was a packer or seal used?  Yes  No  
 Perforated?  Yes  No  
 How perforated?  Factory  Knife  Torch  
 Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches  
 Number From To  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
 Well screen installed?  Yes  No  
 Manufacturer's name \_\_\_\_\_  
 Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Gravel packed?  Yes  No Size of gravel \_\_\_\_\_  
 Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Surface seal depth 20 Material used in seal  Cement grout  
 Pudding clay  Well cuttings  
 Sealing procedure used  Shurry pit  Temporary surface casing  
 Overbore to seal depth

**6. LOCATION OF WELL** 95  
 Sketch map location must agree with written location.  
  
 Subdivision Name \_\_\_\_\_  
 Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
 County KOOSANAI  
SW 1/4 Sec. 18, T. 53, N. 48, R. 3

**7. WATER LEVEL** Department of Water Resources  
 Static water level 0 feet below land surface  
 Flowing?  Yes  No G.P.M. flow \_\_\_\_\_  
 Temperature \_\_\_\_\_ ° F. Quality \_\_\_\_\_  
 Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
 Controlled by  Valve  Cap  Plug

**8. WELL TEST DATA**  
 Pump  Bailer  Other  

Discharge G.P.M.	Draw Down	Hours Pumped
<u>0</u>	<u>0</u>	<u>0</u>

**9. LITHOLOGIC LOG**

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
<u>8</u>	<u>0</u>	<u>24</u>	<u>Sandy Gravel</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>6</u>	<u>74</u>	<u>77</u>	<u>Coarse Sand</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>6</u>	<u>77</u>	<u>90</u>	<u>Coarse Gravel</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>6</u>	<u>90</u>	<u>146</u>	<u>Gravel w/ clay</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>6</u>	<u>146</u>	<u>148</u>	<u>Gravel</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>6</u>	<u>148</u>	<u>194</u>	<u>Clay w/ Gravel</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>6</u>	<u>194</u>	<u>200</u>	<u>Gravel</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**10.** Work started 6-21-77 finished 6-23-77

**11. DRILLERS CERTIFICATION**  
 Firm Name Associated Well Firm No. 205  
 Address P.O. Box 713 C. Idaho 83417 Date 6/24/77  
 Signed by (Firm Official) Bill Thompson  
 and  
 (Operator) Chris Smith





STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

USE TYPEWRITER  
BALLPOINT PEN

RECEIVED

MAR 24 1993

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.



<p><b>WELL OWNER</b></p> <p>Name <u>Dale Haney</u></p> <p>Address <u>Rt 1 Athol, Idaho 83801</u></p> <p>Drilling Permit No. <u>95-92-N-240-000</u></p> <p>Water Right Permit No. _____</p>	<p><b>7. WATER LEVEL</b></p> <p>Static water level <u>80</u> feet below land surface.</p> <p>Flowing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No G.P.M. flow _____</p> <p>Artesian closed-in pressure _____ p.s.i.</p> <p>Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug</p> <p>Temperature _____ °F. Quality _____</p> <p><i>Describe artesian or temperature zones below.</i></p>																																								
<p><b>2. NATURE OF WORK</b></p> <p><input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement</p> <p><input type="checkbox"/> Well diameter increase</p> <p><input type="checkbox"/> Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)</p>	<p><b>8. WELL TEST DATA</b></p> <p><input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input checked="" type="checkbox"/> Air <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2.5</td> <td style="text-align: center;">175</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped	2.5	175	2																																		
Discharge G.P.M.	Pumping Level	Hours Pumped																																							
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<p><b>3. PROPOSED USE</b></p> <p><input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Test <input type="checkbox"/> Municipal</p> <p><input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Waste Disposal or Injection</p> <p><input type="checkbox"/> Other _____ (specify type)</p>	<p><b>9. LITHOLOGIC LOG</b> <span style="float: right;">104553</span></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>1</td> <td>40</td> <td>large gravel</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>40</td> <td>70</td> <td>cemented gravel</td> <td></td> <td></td> </tr> <tr> <td></td> <td>70</td> <td>95</td> <td>basalt</td> <td></td> <td></td> </tr> <tr> <td></td> <td>95</td> <td>125</td> <td>brown clay</td> <td></td> <td></td> </tr> <tr> <td></td> <td>125</td> <td>200</td> <td>grey clay&amp;fine sand</td> <td style="text-align: center;">X</td> <td></td> </tr> </tbody> </table>	Bore Diam.	Depth		Material	Water		From	To	Yes	No	8	1	40	large gravel			6	40	70	cemented gravel				70	95	basalt				95	125	brown clay				125	200	grey clay&fine sand	X	
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<p><b>4. METHOD DRILLED</b></p> <p><input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Air <input type="checkbox"/> Hydraulic <input type="checkbox"/> Reverse rotary</p> <p><input type="checkbox"/> Cable <input type="checkbox"/> Dug <input type="checkbox"/> Other _____</p>	<div style="border: 2px solid black; padding: 5px; text-align: center;"> <p><b>RECEIVED</b></p> <p>JAN 19 1993</p> <p>NORTHERN REGION I.D.W.R.</p> </div>																																								
<p><b>5. WELL CONSTRUCTION</b></p> <p>Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>250 inches</td> <td>6 inches</td> <td>1 feet</td> <td>71 feet</td> </tr> <tr> <td>PVC 160 inches</td> <td>4 inches</td> <td>-8 feet</td> <td>147 feet</td> </tr> </tbody> </table> <p>Was casing drive shoe used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Was a packer or seal used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch <input type="checkbox"/> Gun</p> <p>Size of perforation _____ inches by _____ inches</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> <p>Well screen installed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Manufacturer's name <u>Aardvark</u></p> <p>Type <u>PVC</u> Model No. _____</p> <p>Diameter <u>4</u> Slot size <u>10</u> Set from <u>155</u> feet to <u>175</u> feet</p> <p>Diameter _____ Slot size _____ Set from _____ feet to _____ feet</p> <p>Gravel packed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Size of gravel _____</p> <p>Placed from _____ feet to _____ feet</p> <p>Surface seal depth <u>18</u> Material used in seal: <input type="checkbox"/> Cement grout</p> <p><input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Puddling clay <input type="checkbox"/> _____</p> <p>Sealing procedure used: <input type="checkbox"/> Slurry pit <input type="checkbox"/> Temp. surface casing</p> <p><input checked="" type="checkbox"/> Overbore to seal depth</p> <p>Method of joining casing: <input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Solvent Weld</p> <p><input type="checkbox"/> Cemented between strata</p> <p>Describe access port <u>well cap</u></p>	Thickness	Diameter	From	To	250 inches	6 inches	1 feet	71 feet	PVC 160 inches	4 inches	-8 feet	147 feet	Number	From	To	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	<p><b>10.</b> Work started <u>11-24-92</u> finished <u>11-28-92</u></p>																
Thickness	Diameter	From	To																																						
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<p><b>6. LOCATION OF WELL</b></p> <p>Sketch map location <u>must</u> agree with written location</p> <div style="text-align: center;"> </div> <p>Subdivision Name _____</p> <p>Lot No. _____ Block No. _____</p> <p>County <u>Kootenai</u></p> <p>SW <input type="checkbox"/> SE <input type="checkbox"/> Sec. <u>8</u>, T. <u>52</u> S <input type="checkbox"/> R. <u>3</u> W <input checked="" type="checkbox"/></p>	<p><b>11. DRILLERS CERTIFICATION</b></p> <p>I/We certify that all minimum well construction standards were complied with at the time the rig was removed.</p> <p>Firm Name <u>Bronson Water Well</u> Firm No. <u>360</u></p> <p>Address <u>Spirit Lk, Id</u> Date <u>12-1-92</u></p> <p>Signed by (Firm Official) <u>ADD</u></p> <p>and _____</p> <p>(Operator)</p>																																								

Well #25

MICROFILMED  
AUG 09 1993



**RECEIVED**

Form 238-7  
 JUN 12 1995  
 POSTED  
 IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**  
 Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 95-95-N-71-000  
 Other IDWR No. \_\_\_\_\_

2. OWNER:  
 Name Ambrage Roerick  
 Address 3512 171st Pl N.W.  
 City Starwood State WA Zip 98292

3. LOCATION OF WELL by legal description:  
 Sketch map location must agree with written location.

N		Twp. <u>52</u> North <input checked="" type="checkbox"/> or South <input type="checkbox"/>	
E		Rge. <u>3</u> East <input type="checkbox"/> or West <input checked="" type="checkbox"/>	
S		Sec. <u>7</u> NE 1/4 SW 1/4	
W		Gov't Lot _____ County <u>Kootenai</u>	

Address of Well Site Edwin Road  
and Highway 95 City Coum'daine  
 (Give at least name of road distance to Road or Landmark)

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. PROPOSED USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK  
 New Well  Modify or Repair  Replacement  Abandonment

6. DRILL METHOD  
 Mud Rotary  Air Rotary  Cable  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From To	Sacks or Pounds		
<u>Bentonite</u>	<u>0 35</u>	<u>1000</u>		<u>Surface Casing</u>

Was drive shoe used?  Y  N Shoe Depth(s) 95  
 Was drive shoe seal tested? Y  N  How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>6</u>	<u>0</u>	<u>95</u>	<u>.350</u>	<u>Steel</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS  
 Perforations Method \_\_\_\_\_  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:  
70 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
 Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices:  
NE SW 7 52N 3W

11. WELL TESTS:  
 Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>30</u>			

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_  
 Water Quality test or comments: \_\_\_\_\_

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
<u>10</u>	<u>0</u>	<u>2</u>	<u>Top Soil</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>2</u>	<u>35</u>	<u>Hard gravel and boulders</u>		<input checked="" type="checkbox"/>
<u>6</u>	<u>35</u>	<u>47</u>	<u>Large boulders</u>		<input checked="" type="checkbox"/>
<u>6</u>	<u>47</u>	<u>78</u>	<u>Soft clay and gravel</u>	<input checked="" type="checkbox"/>	
<u>6</u>	<u>78</u>	<u>95</u>	<u>Wash gravel and water</u>	<input checked="" type="checkbox"/>	

Completed Depth 95 (Measurable)  
 Date: Started 5 19 95 Completed 5 19 95

13. DRILLER'S CERTIFICATION  
 I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
 Firm Name ME Quality Drilling DBA Blue Water Drilling Firm No. 452  
 Firm Official John Carman Date 5 20 95  
 and \_\_\_\_\_  
 Supervisor or Operator \_\_\_\_\_ Date \_\_\_\_\_  
 (Sign once if Firm Official & Operator)

Form 238-7  
6/02

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

RECEIVED

1. WELL TAG NO. D 0033854

DRILLING PERMIT NO. 816244

Water Right or Injection Well No.

JUN 25 2004

2. OWNER:

Name Greg Johnson  
Address 25037 Cedar Mountain Road  
City Athol State ID Zip 83801

IDWR/North

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 52 North  or South   
Rge. 3 East  or West   
Sec. 7 1/4 NE 1/4 NW 1/4  
Gov't Lot \_\_\_\_\_ County Kootenai

Lat: 47° : 52 : 128 Long: 116° : 44 : 719  
Address of Well Site Estates Road & Old Hwy 95

City Chilco  
Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. USE:

Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement etc.)

New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD:

Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Bentonite	0	18	350#	dry granular

Was drive shoe used?  Y  N Shoe Depth(s) 130'

Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	+2	130	250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

Packer  Y  N Type \_\_\_\_\_

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method \_\_\_\_\_

Screen Type & Method of Installation \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

83 ft. below ground Artesian pressure \_\_\_\_\_ lb.

Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

52N 3W 7

Office Use Only	
Well ID No.	
Inspected by	RFP
Twp	52N Rge 3W Sec 7
1/4	1/4 SE 1/4 NE 1/4
Lat: : : Long: : :	

12. WELL TESTS:

Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
40+			

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

Water Quality test or comments: Very silty, mostly clear after 4 hrs air development Depth first Water Encounter 85'

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
10	0	7	Gravel, cobbles, silt			
	7	18	Gravel, fine, brn silt			
8	18	32	Gravel			
	32	34	Sand, coarse			
	34	39	Gravel, cobbles			
	39	55	Gravel, coarse cobbles			
	55	78	Gravel, silt, clay			
	78	85	Gravel, fine, sand, silt			
	85	96	Gravel, fine, silt, brown			
	96	115	Gravel, fine, silt, sand			X
	115	126	Gravel, clay, brown			X
	126	132	Gravel, fine, silt			X
	132	136	Gravel, fine clay			X
NOTE: Pulled casing back to 130', developed well with air.						
Completed Depth <u>130'</u> (Measurable)						
Date: Started <u>06/07/04</u> Completed <u>06/08/04</u>						

14. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name McCarty Drilling & Pump Inc Firm No. 586

Principal Driller Burt McCarty Date 6-14-04

Driller or Operator II Mike Mitchell Date 6-14-04

Operator I \_\_\_\_\_ Date \_\_\_\_\_

Principal Driller and Rig Operator Required.  
Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES



Form 238-7  
7/94



IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

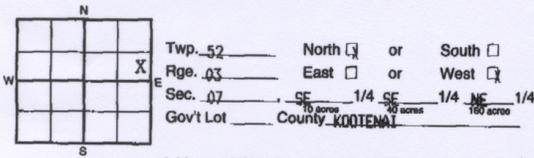
Use Typewriter  
or  
Ball Point Pen

95-94-N-0257-000

1. DRILLING PERMIT NO. 95-94-N-0257-000  
Other IDWR No. 95-07827

2. OWNER:  
Name HAYDEN PINES WATER CO  
Address PO BOX 992  
City HAYDEN State ID Zip 83835

3. LOCATION OF WELL by legal description:  
Sketch map location must agree with written location.



Address of Well Site ACROSS STREET FROM  
21800 ESTATES DR City ATHOL

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name CHILCO ESTATES

4. PROPOSED USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK  
 New Well  Modify or Repair  Replacement  Abandonment

6. DRILL METHOD  
 Mud Rotary  Air Rotary  Cable  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From To	Sacks or Pounds		
CEMENT	0 80	300 LBS	SLURRY	

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested? Y  N  How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12	+2	147	.250	STEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

Perforations Method SAW CUT  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
130	145	1/16	160	12	STEEL	<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

90 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices:  
SE56NE 7 52N 3W

11. WELL TESTS:

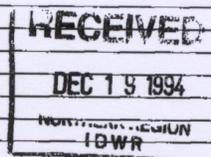
Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
100+			4 HRS

Water Temp. COLD Bottom hole temp. \_\_\_\_\_  
Water Quality test or comments: LITTLE CLOUDY

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
14	0	1	TOPSOIL BROWN SOFT			X
14	1	10	LARGE COBBLES W/CLAY TAN SOFT			X
14	10	14	GRAVEL W/COBBLE BROWN SOFT			X
14	14	18	LARGE COBBLES W/LITTLE GRAVELS TAN MED.			X
12	18	20	BOULDER DARK MED. HARD			X
12	20	40	LARGE GRAVELS W/COBBLE TAN SOFT			X
12	40	68	GRAVEL CEMENT GRAYISH MED.			X
12	68	102	GRAVEL W/SAND TAN MED. SOFT			X
12	102	128	GRAVEL W/CLAY LENSES GRAYISH MED SOFT			X
12	128	145	PEA GRAVEL BROWN MED. SOFT			X
12	145	147	CEMENT GRAVEL TAN SOFT			X
			1x12" Welded on cap			



Completed Depth 147 (Measurable)  
Date: Started 11/26/94 Completed 11/29/94

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name H2O WELL SERVICE, INC. Firm No. 449  
Firm Official \_\_\_\_\_ Date 12/14/94  
and \_\_\_\_\_  
Supervisor or Operator \_\_\_\_\_ Date 12/14/94  
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

RECEIVED  
JAN 16 1989

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

USE TYPEWRITER OR  
BALLPOINT PEN

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

Department of Water Resources

1. WELL OWNER  
Name L.P.  
Address N. 13455 Government Way  
HAYDEN LAKE, ID 83835  
Owner's Permit No. 95-88-N-114

2. NATURE OF WORK 95-08354  
 New well  Deepened  Replacement  
 Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE  
 Domestic  Irrigation  Test  Municipal  
 Industrial  Stock  Waste Disposal or Injection  
 Other \_\_\_\_\_ (specify type)

4. METHOD DRILLED  
 Rotary  Air  Hydraulic  Reverse rotary  
 Cable  Dug  Other \_\_\_\_\_

5. WELL CONSTRUCTION  
Casing schedule:  Steel  Concrete  Other \_\_\_\_\_  
Thickness \_\_\_\_\_ inches Diameter \_\_\_\_\_ inches From \_\_\_\_\_ feet To \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ inches \_\_\_\_\_ inches \_\_\_\_\_ feet \_\_\_\_\_ feet  
Was casing drive shoe used?  Yes  No  
Was a packer or seal used?  Yes  No  
Perforated?  Yes  No  
How perforated?  Factory  Knife  Torch  
Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches  
Number \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
\_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
\_\_\_\_\_ perforations \_\_\_\_\_ feet \_\_\_\_\_ feet  
Well screen installed?  Yes  No  
Manufacturer's name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Gravel packed?  Yes  No  Size of gravel natural max  
Placed from 96 feet to 107 feet  
Surface seal depth 20 Material used in seal:  Cement grout  
 Bentonite  Puddling clay  \_\_\_\_\_  
Sealing procedure used:  Slurry pit  Temp. surface casing  
 Overbore to seal depth  
Method of joining casing:  Threaded  Welded  Solvent  
Weld \_\_\_\_\_  
 Cemented between strata  
Describe access port none

6. LOCATION OF WELL  
Sketch map location must agree with written location.  
N  
W E  
S  
County KOOTENAI  
Subdivision CHILCO Mill Sealchaise  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
SE ¼ SW ¼ Sec. 7, T. 52 N, R. 3 E

7. WATER LEVEL  
Static water level 96 feet below land surface.  
Flowing?  Yes  No G.P.M. flow \_\_\_\_\_  
Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
Controlled by:  Valve  Cap  Plug  
Temperature \_\_\_\_\_ of. Quality good  
Describe artesian or temperature zones below.

8. WELL TEST DATA  
 Pump  Bailor  Air  Other \_\_\_\_\_  
Discharge G.P.M. 90 to 100 Pumping Level 95 Hours Pumped 4 HRS

9. LITHOLOGIC LOG  
Bore Diam. Depth From To Material Water Yes No  
8 0 1 topsoil X  
6 1 27 clay boulder-large X  
6 27 72 clay gravel X  
6 72 100 sand and gravel X  
6 100 103 clay brown X  
6 103 107 granite X  
8" over bore to 20'  
NOTE: surge method gravel pack 96-107'  
Well developed & has prior to well test.

10. Work started \_\_\_\_\_ finished 1988

11. DRILLERS CERTIFICATION  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
Firm Name United Drillers Inc Firm No. 414  
Address P.O. Box 2499 Date \_\_\_\_\_  
Signed by (Firm Official) Ed R. Welch  
and \_\_\_\_\_  
(Operator) Tom Volking



STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**



USE TYPEWRITER OR  
BALLPOINT PEN

State law requires that this report be filed with the Director, Department of Water Resources  
within 30 days after the completion or abandonment of the well.

**1. WELL OWNER**  
Name TOM BRUNNER  
Address E 7900 BRUNNER RD RAITHRUM IDA  
Owner's Permit No. 96-85-N-7

**2. NATURE OF WORK**  
 New well  Deepened  Replacement  
 Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

**3. PROPOSED USE**  
 Domestic  Irrigation  Test  Municipal  
 Industrial  Stock  Waste Disposal or Injection  
 Other \_\_\_\_\_ (specify type)

**4. METHOD DRILLED**  
 Rotary  Air  Hydraulic  Reverse rotary  
 Cable  Dug  Other \_\_\_\_\_

**5. WELL CONSTRUCTION**  
Casing schedule:  Steel  Concrete  Other \_\_\_\_\_

Thickness	Diameter	From	To
<u>264</u> inches	<u>8</u> inches	<u>1</u> feet	<u>145</u> feet
<u>250</u> inches	<u>6</u> inches	<u>2</u> feet	<u>316</u> feet
<u>247</u> inches	<u>4</u> inches	<u>232</u> feet	<u>400</u> feet

Was casing drive shoe used?  Yes  No  
Was a packer or seal used?  Yes  No  
Perforated?  Yes  No  
How perforated?  Factory  Knife  Torch  
Size of perforation 6 inches by 1/4 inches

4 1/2" casing number \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

perforations	feet	feet
<u>64</u>	<u>370</u>	<u>390</u>
_____	_____	_____
_____	_____	_____

Well screen installed?  Yes  No  
Manufacturer's name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Gravel packed?  Yes  No  Size of gravel \_\_\_\_\_  
Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Surface seal depth 20 Material used in seal:  Cement grout  
 Bentonite  Puddling clay  \_\_\_\_\_  
Sealing procedure used:  Slurry pit  Temp. surface casing  
 Overbore to seal depth  
Method of joining casing:  Threaded  Welded  Solvent  
Weld \_\_\_\_\_  
 Cemented between strata  
Describe access port \_\_\_\_\_

**6. LOCATION OF WELL**  
Sketch map location must agree with written location.  
Subdivision Name \_\_\_\_\_  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
County KOOTENAI  
NE 1/4 SW 1/4 Sec. 36, T. 53 N., R. 4 W.

**7. WATER LEVEL**  
Static water level \_\_\_\_\_ feet below land surface.  
Flowing?  Yes  No G.P.M. flow \_\_\_\_\_  
Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
Controlled by:  Valve  Cap  Plug  
Temperature \_\_\_\_\_ of. Quality \_\_\_\_\_  
Describe artesian or temperature zones below.

**8. WELL TEST DATA**  
 Pump  Bailor  Air  Other \_\_\_\_\_

Discharge G.P.M.	Pumping Level	Hours Pumped
<u>NONE</u>		

**9. LITHOLOGIC LOG**

Bore Diam.	Depth		Material	Water	
	From	To		Yes	No
8"	0	144	SAND & GRAVEL		X
	144	163	HARD GRANITE		
	163	169	GRAVEL		
6"	169	176	BROKEN GRANITE (WET)		
	176	204	MEDIUM GRAVEL		
	204	232	LARGE "		
	232	242	SAND & "		
	242	273	GRANITE BOULDERS		
	273	311	SAND & GRAVEL		
	311	338	MIXED ROCK MOSTLY GRANITE 90%		X
	338	393	" " " 95%		X
4"	393	396	DECOMPOSED GRANITE		X
	396	415	FIRM "		X

WAS WET BUT NO WATER AT 169-176.  
OWNER STOPPED WORK AFTER WE HAD LOST BIT & 546 IN BOTTOM OF HOLE. SAID NOT TO WORRY ABOUT FISHING IT OUT. PULLED 56 OF 8" CASING WILL NOT COME ANY MORE

RECEIVED RECEIVED  
MAR 5 1985 MAR 6 1985  
Department of Water Resources Northern District Office 100659  
Department of Water Resources

**10.** Work started 11-5-84 finished 2-26-85

**11. DRILLERS CERTIFICATION**  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
Firm Name BRANDXWATER WELLS Firm No. 289  
Address RAITHRUM, IDA Date 3-3-85  
Signed by (Firm Official) Ludon Cordor  
and (Separator) Ludon Cordor

**MICROFILMED**

Form 238-7  
7/98  
Starships Consulting and  
Management Services

IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

Office Use Only			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat	:	:	Long
:	:	:	:

1. WELL TAG NO. D0033850  
Drilling Permit No: 815677  
Other IDWR No. \_\_\_\_\_  
2. OWNER Deeter, Linda Well Number: 758  
Name Deeter, Linda  
Address 522 N 17th  
City Coeur d'Alene State ID Zip 83814

3. LOCATION OF WELL by legal description  
sketch map location must agree with written location

N			
W			
		X	
			S

Twp. 53  North or  South  
Rge. 03  East or  West  
Sec. 19 1/4 SW 1/4 SE 1/4  
Gov't Lot \_\_\_\_\_ County KOOTENAI  
Lat: : : Long: : :  
Address of Well Site Seasons Rd off Clagst  
City Athol  
(Give at least name of road + Distance to Road or Landmark)  
Lt. 2 Bk. 1 Sub. Name Nycum

11. WELL TESTS:  
 Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
15	100	440	3 hrs

Water Temp. Cold Bottom Hole Temp Cold  
Water Quality test or comments: Brown color  
Depth first Water encountered 400

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality, Temperature	Water	
				Y	N
8	0	3	Top Soil	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	3	81	Large Cobble & Gravels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	81	87	Boulder	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	87	207	Gravels & Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	207	224	Stacked Boulders & Cobble	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	224	312	Gravels & Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	312	440	Gravels & Sand w/Brown Clayish w/h2	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RECEIVED JUN 16 2004 IDWR/North  
RECEIVED JUL 16 2004 IDWR/North

Completed Depth 440 (Measurable)  
Date: Started 5/27/2004 Completed 5/29/2004

4. USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_  
5. TYPE OF WORK check all that apply (Replacement, etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_  
6. DRILL METHOD  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	18	300 lbs	Overbore

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+2	440	.250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

Perforations Method \_\_\_\_\_  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:  
400 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered 400 ft. Describe access port or control devices: Steel cap welded

53N 3W 19

13. DRILLER'S CERTIFICATION  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
Firm Name H2O WellService, Inc. Firm No. 448  
Firm Official Mark Penick Date 06/02/04  
and  
Supervisor or Operator Mark Penick Date 06/01/04  
Mark Penick (Sign Once If Firm Official and Operator)

RECEIVED 6/11/98 db

Form 238-7  
11/97 JUN 02 1998

IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

077900 Only  
Inspected by \_\_\_\_\_  
Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Lat : : Long: : :



NORTHERN REGION

1. WELL TAG NO. D0003412  
DRILLING PERMIT N 96-97-N-0200-000

Other IDWR No \_\_\_\_\_

2. OWNER:  
Name Bob Van Zile  
Address 21017 Country Park Road  
City Salinas State CA Zip 93908

3. LOCATION OF WELL by legal description:

N		Twp	53N	North	<input checked="" type="checkbox"/>	or	South	<input type="checkbox"/>
W		Rge	04W	East	<input type="checkbox"/>	or	West	<input checked="" type="checkbox"/>
E		Sec	28	1/4	NW	1/4	NW	1/4
S				10 Ac	40 Ac	160 Ac		
		Gov't Lot	County		Kootenai		Long	

Address of Well Site: (see next line)  
Off Hw #41, .5 miles N off Seasons Road, City Spirit Lake  
Lot \_\_\_\_\_ Blk \_\_\_\_\_ Sub. Name (see next line)

4. USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other 10 Home Domestic

5. TYPE OF WORK check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			Amount	Method
Material	From	To	Sacks/Lbs	
Bentonite	0	-40	20 Sacks	pour in

Drive Shoe Used?  Y  N Shoe Depth(s) 580'  
Drive Shoe Seal Tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER

Diam	From	To	Gauge	Material	Casng	Liner	Weld	Thrded
6"	2	578	0.025	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length Headpipe \_\_\_\_\_ Length Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS  
 Perforations? Method Air perforator  
 Screens? Screen Type \_\_\_\_\_

From	To	Slot	Nmbr	Diam	Material	Casng	Liner
565	575	1"	200		Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL or ARTESIAN PRESSURE  
530 ft. below ground. Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered 530 ft. Describe access port or control devices: Steel cap welded

11. WELL TESTS:

Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pump Level	Time
20-25	100%	575	1 hr.

Water Temp. \_\_\_\_\_ Cold \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

Water Quality test or comments: (below) Depth first Water Encountered 530  
Clean and Clear

12. LITHOLOGIC LOG (Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality and Temperature	Water	
				Y	N
10"	0	18	Sand & gravel - 3/4 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6"	18	205	Sand & gravel - 3/4 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6"	205	360	Sand & gravel - 3/8 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6"	360	530	Sand & gravel - 3/8 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6"	530	585	Sand & gravel - 3/4 minus	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*T = 65.03*  
*G = 10*  
*K = 65.71/d*  
*2448*  
*530*

Completed Depth 578 (Measurable)  
Date: Started 5/18/98 Completed 5/22/98

13. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name United Drilling, Inc. Firm No 414  
Firm Official Jason C. Beckham Date 5/28/98  
Supervisor or Operator Jason C. Beckham Date 5/28/98

53N 4W 28 N44NW

FORWARD WHITE COPY TO WATER RESOURCES

USE TYPEWRITER OR BALL POINT PEN

State of Idaho  
Department of Water Administration  
**WELL DRILLER'S REPORT**



State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

<p><b>WELL OWNER</b> Dept of Agriculture U.S. Forest Service Name <u>Lone Mountain Seed Orchard</u></p> <p>Address <u>Region 1, Missoula, Montana</u></p> <p>Owner's Permit No. <u>96-72-N-22</u></p>	<p><b>7. WATER LEVEL</b></p> <p>Static water level <u>420</u> feet below land surface Flowing? <input type="checkbox"/> Yes <input type="checkbox"/> No G.P.M. flow _____ Temperature <u>46</u> ° F. Quality <u>Good</u> Artesian closed-in pressure _____ p.s.i. Controlled by <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug</p>																																																																																																																																																				
<p><b>2. NATURE OF WORK</b></p> <p><input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement</p> <p><input type="checkbox"/> Abandoned (describe method of abandoning)</p>	<p><b>8. WELL TEST DATA</b> Tested July 8th</p> <p><input checked="" type="checkbox"/> Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Other</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Draw Down</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td>1100-1905</td> <td>6"</td> <td>8Hrs.</td> </tr> </tbody> </table>	Discharge G.P.M.	Draw Down	Hours Pumped	1100-1905	6"	8Hrs.																																																																																																																																														
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<p><b>3. PROPOSED USE</b></p> <p><input type="checkbox"/> Domestic <input checked="" type="checkbox"/> Irrigation <input type="checkbox"/> Test</p> <p><input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Stock</p>	<p><b>9. LITHOLOGIC LOG</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Hole Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>+ 2</td> <td>0</td> <td>above ground</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>0</td> <td>overburden</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>3</td> <td>20</td> <td>Gravel clay boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>20</td> <td>28</td> <td>Gravel fine to large boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>28</td> <td>43</td> <td>Gravel and Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>43</td> <td>93</td> <td>Conglomerate</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>93</td> <td>114</td> <td>Gravel with Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>114</td> <td>118</td> <td>Conglomerate</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>118</td> <td>155</td> <td>Dirty sand &amp; gravel</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>155</td> <td>176</td> <td>Sand and gravel</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>176</td> <td>201</td> <td>Sand gravel boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>201</td> <td>211</td> <td>Gravel and Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>211</td> <td>216</td> <td>Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>216</td> <td>290</td> <td>Gravel and Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>290</td> <td>308</td> <td>Clay and Gravel</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>308</td> <td>343</td> <td>Sand and Gravel</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>343</td> <td>365</td> <td>Sand Gravel Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>365</td> <td>380</td> <td>Sand Gravel Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>380</td> <td>427</td> <td>Gravel and Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>427</td> <td></td> <td>Fine sand and Water</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>427</td> <td>451</td> <td>Gravel and Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>451</td> <td>497</td> <td>Gravel and Boulders</td> <td></td> <td>X</td> </tr> <tr> <td></td> <td>497</td> <td></td> <td>Red Rock</td> <td></td> <td></td> </tr> </tbody> </table>	Hole Diam.	Depth		Material	Water		From	To	Yes	No	16	+ 2	0	above ground					0	overburden		X		3	20	Gravel clay boulders		X		20	28	Gravel fine to large boulders		X		28	43	Gravel and Boulders		X		43	93	Conglomerate		X		93	114	Gravel with Boulders		X		114	118	Conglomerate		X		118	155	Dirty sand & gravel		X		155	176	Sand and gravel		X		176	201	Sand gravel boulders		X		201	211	Gravel and Boulders		X		211	216	Boulders		X		216	290	Gravel and Boulders		X		290	308	Clay and Gravel		X		308	343	Sand and Gravel		X		343	365	Sand Gravel Boulders		X		365	380	Sand Gravel Boulders		X		380	427	Gravel and Boulders		X		427		Fine sand and Water		X		427	451	Gravel and Boulders		X		451	497	Gravel and Boulders		X		497		Red Rock		
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<p><b>5. WELL CONSTRUCTION</b></p> <p>Diameter of hole <u>16</u> inches Total depth <u>497</u> feet</p> <p>Casing schedule: <input type="checkbox"/> Steel <input type="checkbox"/> Concrete</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>3/8</u> inches</td> <td><u>16</u> inches</td> <td><u>+ 2</u> feet</td> <td><u>464</u> feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> <p>Was a packer or seal used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch</p> <p>Size of perforation _____ inches by _____ inches</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> <p>Well screen installed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Manufacturer's name <u>Johnson</u></p> <p>Type <u>Stainless Steel</u> Model No. <u>304</u></p> <p>Diameter <u>16</u> Slot size <u>100</u> Set from _____ feet to _____ feet</p> <p>Diameter <u>16</u> Slot size <u>100</u> Set from <u>464</u> feet to <u>494</u> feet</p> <p>Gravel packed? <input type="checkbox"/> Yes <input type="checkbox"/> No Size of gravel _____</p> <p>Placed from _____ feet to _____ feet</p> <p>Surface seal? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No To what depth _____ feet</p> <p>Material used in seal <input checked="" type="checkbox"/> Cement grout <input type="checkbox"/> Puddling clay</p>	Thickness	Diameter	From	To	<u>3/8</u> inches	<u>16</u> inches	<u>+ 2</u> feet	<u>464</u> feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	Number	From	To	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet																																																																																																																					
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<p><b>6. LOCATION OF WELL</b></p> <p>Sketch map location must agree with written location.</p> <div style="text-align: center;"> </div> <p>County <u>Kootana</u></p> <p><u>NE</u> <math>\frac{1}{4}</math> <u>NW</u> <math>\frac{1}{4}</math> Sec. <u>27</u>, T. <u>53</u> N. <u>R. 4</u> <u>XNW</u></p>	<p><b>10.</b> Work started <u>April 18, 1972</u> finished <u>July 8, 1972</u></p>																																																																																																																																																				
	<p><b>11. DRILLER'S CERTIFICATION</b></p> <p>This well was drilled under my supervision and this report is true to the best of my knowledge.</p> <p style="text-align: right;">Fisher Supply Co. 221 Driller's or Firm's Name Number</p> <p>Rt #1 Box 53 Deer Park, Wash 99006 Address</p> <p>Signed By <u>Andrew Fisher</u> 7-19-72 Date</p>																																																																																																																																																				

Form 238-7  
3/95  
Starships Consulting and  
Management Services

RECEIVED

IDAHO DEPARTMENT OF WATER RESOURCES

JUN 04 1997



WELL DRILLER'S REPORT 097241

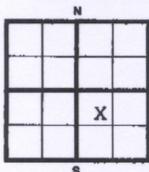
Use Typewriter or Ballpoint Pen

Office Use Only  
Inspected by \_\_\_\_\_  
Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Lat: : : Long: : :

DRILLING PERMIT NO. 96-97-N-024-000  
Other IDWR No. \_\_\_\_\_

2. OWNER Well Number: 554  
Name ALLEN, JOE  
Address 917 10TH  
City CLARKSTON State WA Zip 99403

3. LOCATION OF WELL by legal description  
sketch map location must agree with written location



Twp. 53  North or  South  
Rge. 04  East or  West  
Sec. 25 1/4 NW 1/4 SE 1/4

Gov't Lot \_\_\_\_\_ County KOOTENAI

Lat: : : Long: : :  
Address of Well Site BRUNNER RD  
City ATHOL

(Give at least name of road + Distance to Road or Landmark)

Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. USE:

- Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement, etc.)

- New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD

- Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	18	400 LBS	OVERBORE

Was drive shoe used?  Y  N Shoe Depth(s) 445

Was drive shoe seal tested?  Y  N How? AIR

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+2	445	.250	STEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

- Perforations Method \_\_\_\_\_  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

415 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

NWSE 25 53N 4W

11. WELL TESTS:

- Pump  Bailer  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
20		240	1 HR

Water Temp. GOLD Bottom Hole Temp. COLD

Water Quality test or comments: GOOD

Depth first Water encountered 215

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

Core Diam	From	To	Remarks: Lithology, Water Quality, Temperature	Water	
				Y	N
8	0	18	Sand Gravels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	18	122	Gravel & Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	122	144	Granite	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	144	235	Gravel & Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	235	260	Cobbles & Gravels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	260	400	Gravels & Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	400	415	Boulders & Gravels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	415	445	Gravels & Cobbles	<input checked="" type="checkbox"/>	<input type="checkbox"/>

T = 11.39  
pH = 7.00  
p = 0.89 / 114

Completed Depth 445' (Measurable)  
Date: Started 5/19/97 Completed 5/27/97

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name H2O WellService, Inc. Firm No. 448

Firm Official \_\_\_\_\_ Date 5/27/97

and \_\_\_\_\_

Supervisor or Operator \_\_\_\_\_ Date 5/27/97

(Sign Once / Firm Official and Operator)

(ROGER KELLY)



REPORT OF WELL DRILLER  
State of Idaho

FEB 10 1969

State law requires that this report shall be filed with the State Reclamation Department within 30 days after completion or abandonment of the well.

WELL OWNER:  
Name SAN FRANCISCO RANCH (L.V. BROWN)  
Address ATHAL IDAHO  
96-69-N-13

Size of drilled hole: 1 1/8" Total  
depth of well: 570 Standing water  
level below ground: 409 Temp.  
Fahr.          Test delivery: 20 gpm  
or          cfs Pump?  Bail   
Size of pump and motor used to make test:

Owner's Permit No. 96-7012  
NATURE OF WORK (check): Replacement well   
New well  Deepened  Abandoned

Length of time of test: 0 Hrs. 30 Min.  
Drawdown: 430 ft. Artesian pressure: ft.  
above land surface Give flow          cfs  
or          gpm. Shutoff pressure:  
Controlled by: Valve  Cap  Plug   
No control  Does well leak around casing?  
Yes  No

Water is to be used for: IRRIGATION  
METHOD OF CONSTRUCTION: Rotary  Cable   
Dug  Other          (explain)

CASING SCHEDULE: Threaded  Welded   
1 1/8" Diam. from 0 ft. to 570 ft.  
"Diam. from          ft. to          ft.  
"Diam. from          ft. to          ft.  
"Diam. from          ft. to          ft.

DEPTH MATERIAL WATER  
FROM TO YES OR NO  
FEET FEET

Thickness of casing: .375 Material:  
Steel  concrete  wood  other

DEPTH FROM FEET	DEPTH TO FEET	MATERIAL	WATER YES OR NO
0	2	TOP SOIL	NO
2	9.5	GRAVEL 3" MINUS	NO
9.5	11.8	GRAVEL + BOULDERS 10" MINUS	NO
11.8	16.7	GRAVEL 3" MINUS COMPACTED	NO
16.7	18.5	GRAVEL + BOULDERS	NO
18.5	20.7	GRAVEL 1" MINUS	NO
20.7	23.1	GRAVEL 3" MINUS	NO
23.1	23.4	BOULDER	NO
23.4	24.9	GRAVEL + CLAY 2" MINUS	NO
24.9	26.0	BOULDERS	NO
26.0	27.7	GRAVEL 3" MINUS	NO
27.7	32.2	GRAVEL + CLAY 3" MINUS	NO
32.2	32.7	CLAY (SANDY) BROWN	NO
32.7	33.8	GRAVEL 1" MINUS	NO
33.8	39.6	GRAVEL + CLAY 1" MINUS	NO
39.6	35.9	GRAVEL 6" MINUS + SAND	NO
35.9	36.2	GRAVEL 3" MINUS	NO
36.2	36.8	BOULDER	NO
36.8	37.0	GRAVEL 1" MINUS	NO
37.0	37.9	BOULDERS	NO
37.9	40.9	GRAVEL 6" MINUS + CLAY	NO
40.9	43.0	BASALT (BLACK) FRACTURED	NO
43.0	43.4	BASALT (BLACK)	YES
43.4	46.4	CLAY (BROWN)	NO
46.4	48.6	CLAY (BLUE)	NO
48.6	49.6	CLAY (BROWN) (STICKY)	NO
49.6	50.9	CLAY (BROWN)	NO
50.9	57.0	CLAY (GREY)	NO

CASING WAS SALVAGED FROM WELL (explain)  
PERFORATED? Yes  No  Type of perforator used:         

Size of perforations:         " by         "  
perforations from          ft. to          ft.  
perforations from          ft. to          ft.  
perforations from          ft. to          ft.  
perforations from          ft. to          ft.

SCREEN INSTALLED? Yes  No   
Manufacturer's name         

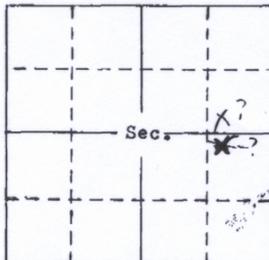
Type          Model No.           
Diam.          Slot size          Set from          ft. to          ft.  
Diam.          Slot size          Set from          ft. to          ft.

CONSTRUCTION: Well gravel packed? Yes   
No  size of gravel          Gravel  
placed from          ft. to          ft. Surface seal  
provided? Yes  No  To what depth?  
         ft. Material used in seal:         

Did any strata contain unusable water? Yes   
No  Type of water:           
Depth of strata          ft. Method of sealing  
strata off:         

Surface casing used? Yes  No   
Cemented in place? Yes  No

Locate well in section



Work started: Aug 20 1968  
Work finished: JAN 1 1969  
Well Driller's Statement: This well was drilled under my supervision and this report is true to the best of my knowledge.  
Name: HOLMAN DRILLING CORP.  
Address: E 3410 9TH SPOKANE WID.  
Signed by: Arnold E. Holman PRES  
License No. 108 Date: FEB 4 1969

LOCATION OF WELL: County KOOTENAI  
E 1/4 SE 1/4 Sec. 24 T. 53 S. R. 4 E/W

3E NE  
(See map) 106

Use other side for additional remarks

USGS *[initials]*

USE TYPEWRITER OR BALL POINT PEN

State of Idaho  
Department of Water Administration  
**WELL DRILLER'S REPORT**

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

<p><b>1. WELL OWNER</b></p> <p>Name <u>Holiday Ac. Gas. Water Sewer</u> Address <u>P.O. Box 1216 Hotel Ida.</u> Owner's Permit No. <u>96-75-N-62</u></p>	<p><b>7. WATER LEVEL</b></p> <p>Static water level <u>440</u> feet below land surface Flowing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No G.P.M. flow _____ Temperature _____ ° F. Quality _____ Artesian closed-in pressure _____ p.s.i. Controlled by <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug</p>																																																																																																																																																																												
<p><b>2. NATURE OF WORK</b></p> <p><input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement <input type="checkbox"/> Abandoned (describe method of abandoning)</p>	<p><b>8. WELL TEST DATA</b></p> <p><input type="checkbox"/> Pump <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Other</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Draw Down</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">0</td> <td style="text-align: center;">9</td> </tr> </tbody> </table>	Discharge G.P.M.	Draw Down	Hours Pumped	10	0	9																																																																																																																																																																						
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<p><b>5. WELL CONSTRUCTION</b></p> <p>Diameter of hole <u>8</u> inches Total depth <u>505</u> feet Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>3/2</u> inches</td> <td><u>8</u> inches</td> <td><u>0</u> feet</td> <td><u>505</u> feet</td> </tr> </tbody> </table> <p>Was a packer or seal used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Perforated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No How perforated? <input type="checkbox"/> Factory <input checked="" type="checkbox"/> Knife <input type="checkbox"/> Torch Size of perforation <u>3/8</u> inches by <u>3/16</u> inches</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>205</u> perforations</td> <td><u>481</u> feet</td> <td><u>501</u> feet</td> </tr> </tbody> </table> <p>Well screen installed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet</p> <p>Gravel packed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Size of gravel _____ Placed from _____ feet to _____ feet</p> <p>Surface seal depth <u>150</u> Material used in seal <input type="checkbox"/> Cement grout <input checked="" type="checkbox"/> Pudding clay <input type="checkbox"/> Well cuttings Sealing procedure used <input type="checkbox"/> Sherry pit <input checked="" type="checkbox"/> Temporary surface casing <input type="checkbox"/> Overbars to seal depth</p>	Thickness	Diameter	From	To	<u>3/2</u> inches	<u>8</u> inches	<u>0</u> feet	<u>505</u> feet	Number	From	To	<u>205</u> perforations	<u>481</u> feet	<u>501</u> feet	<p><b>11. DRILLERS CERTIFICATION</b></p> <p>Firm Name <u>E.H. Holman Drilling Co</u> Firm No. <u>105</u> Address <u>401 S. Pine St. Spokane, WA</u> Date <u>May 31-75</u> Signed by (Firm Official) <u>John Holman</u> and (Operator) <u>Bill Romanus</u></p>																																																																																																																																																														
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USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Resources



WELL DRILLER'S REPORT

AUG 16 1976

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER  
Name Hunters Mobile Home Park  
Address Gen. Del. Spirit Lake, Idaho 83862  
Owner's Permit No. 96-740

7. WATER LEVEL  
Static water level 56 feet below land surface  
Flowing?  Yes  No G.P.M. flow \_\_\_\_\_  
Temperature \_\_\_\_\_ ° F. Quality \_\_\_\_\_  
Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
Controlled by  Valve  Cap  Plug

2. NATURE OF WORK 96-76-N-75  
 New well  Deepened  Replacement  
 Abandoned (describe method of abandoning)

8. WELL TEST DATA  
 Pump  Bailor  Other  

Discharge G.P.M.	Draw Down	Hours Pumped
18 To 20	NONE	4 Hrs

3. PROPOSED USE  
 Domestic  Irrigation  Test  Other (specify type)  
 Municipal  Industrial  Stock  Waste Disposal or Injection

4. METHOD DRILLED  
 Cable  Rotary  Dug  Other

5. WELL CONSTRUCTION  
Diameter of hole 8 inches Total depth 592 feet  
Casing schedule:  Steel  Concrete  

Thickness	Diameter	From	To
.250 inches	10 inches	1 feet	195 feet
.365 inches	10 inches	195 feet	342 feet
.750 inches	8 inches	342 feet	552 feet
.265 inches	8 inches	552 feet	592 feet

Was casing drive shoe used?  Yes  No  
Was a packer or seal used?  Yes  No  
Perforated?  Yes  No  
How perforated?  Factory  Knife  Torch  
Size of perforation 3/8 inches by 3 inches  

Number	From	To
26 perforations	577 feet	585 feet

Well screen installed?  Yes  No  
Manufacturer's name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Gravel packed?  Yes  No Size of gravel \_\_\_\_\_  
Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Surface seal depth 18 Material used in seal  Cement grout  
 Pudding clay  Well cuttings  
Sealing procedure used  Sherry pit  Temporary surface casing  
 Overbore to seal depth

6. LOCATION OF WELL  
Sketch map location must agree with written location. (96)  

N			

Subdivision Name \_\_\_\_\_  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
County Kootenai  
SW 1/4 SW 1/4 Sec. 21 T. 53 N. R. 4 E/W

9. LITHOLOGIC LOG  

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
10	0	5	Top Soil		x
"	5	28	Boulders		x
"	28	50	Sand & Gravel		x
"	50	70	Cemented Gravel		x
"	70	108	Sand & Gravel		x
"	108	120	Boulders		x
"	120	150	Cemented Gravel		x
"	150	190	Gravel & Boulders		x
"	190	205	Large Boulders		x
"	205	245	Gravel & Sand		x
"	245	280	Boulders		x
"	280	335	Gravel		x
8	335	375	Large Boulders		x
"	375	450	Cemented Gravel		x
"	450	490	Large Boulders		x
"	490	555	Gravel & Clay		x
"	555	575	Gravel & Clay		x
"	575	590	Sand & Gravel & Water	x	
"	590	592	Granite Rock	x	

10. Work started 5-6-76 finished 8-10-76

11. DRILLERS CERTIFICATION  
Firm Name Carman Dev. Company Firm No. 228  
Address E 6010 Broadway, SPO. WN. 99206 Date 8-10-76  
Signed by (Firm Official) John Carman  
and (Operator) John Carman

Form 238-7  
7/98  
Starships Consulting and  
Management Services

IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**

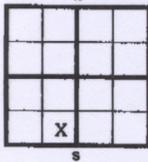
Office Use Only			
Inspected by _____			
Twp _____	Rge _____	Sec _____	
Lat: _____	_____	_____	_____

78156

1. WELL TAG NO. D5555  
Drilling Permit No: 96-98-N-251  
Other IDWR No. \_\_\_\_\_

2. OWNER Fisher, Jeff Well Number: 810  
Name Fisher, Jeff  
Address 31648 Riffle  
City SPIRIT LAKE State ID Zip 83869

3. LOCATION OF WELL by legal description  
sketch map location must agree with written location



Twp. 53  North or  South  
Rge. 04  East or  West  
Sec. 12 1/4 SE 1/4 SW 1/4  
Gov't Lot \_\_\_\_\_ County KOOTENAI  
Lat: \_\_\_\_\_ Long: \_\_\_\_\_

Address of Well Site HWY 54 & RIFFLE  
City SPIRIT LAKE

(Give at least name of road + Distance to Road or Landmark)

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. USE:

- Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement, etc.)

- New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD

- Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	18	4 BAGS	SLURRY

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	581	.250	STEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

- Perforations Method \_\_\_\_\_  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

500 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

53N 4W 12

11. WELL TESTS:

- Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
20			1.5

Water Temp. COLD Bottom Hole Temp \_\_\_\_\_  
Water Quality test or comments: CLEAR  
Depth first Water encountered 500

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

True Depth	From	To	Remarks: Lithology, Water Quality, Temperature	Water	Y	N
10	0	2	TOPSOIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10	2	18	Gravels W/Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8	18	261	Gravels W/Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8	261	264	Boulder	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8	264	500	Gravels W/Sand	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8	500	581	Gravels W/Sand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

RECEIVED

NOV 27 1998  
NORTHERN REGION  
IDWR

Completed Depth 581' (Measurable)  
Date: Started 11/10/98 Completed 11/13/98

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name H2O WellService, Inc. Firm No. 448

Firm Official [Signature] Date 11/13/98

and Supervisor or Operator [Signature] Date 11/13/98

(Sign Once if Firm Official and Operator)

(Todd Morgan)



**RECEIVED**  
Form 238-7  
3/95  
SEP 29 1995  
IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**  
Use Typewriter or Ballpoint Pen

Office Use Only  
Inspected by \_\_\_\_\_  
Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Lat: : : Long: : :

1. **DRILLING PERMIT NO.** 96 - 95 - N - 70  
Other IDWR No. 96-08834

2. **OWNER:**  
Name City of Spirit Lake, ID  
Address P.O. Box 309  
City Spirit Lake State ID Zip 83869

3. **LOCATION OF WELL by legal description:**  
Sketch map location must agree with written location.  

N				
W				E
S				

 Twp. 53 North  or South   
 Rge. 4 East  or West   
 Sec. 5 NE 1/4 SW 1/4 SE 1/4  
 Gov't Lot \_\_\_\_\_ County Kootenai  
 Lat: : : Long: : :  
 Address of Well Site corner of Main & 12th  
 City Spirit Lake  
 (Give at least name of road + Distance to Road or Landmark)  
 Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. **USE:**  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. **TYPE OF WORK** check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_

6. **DRILL METHOD**  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. **SEALING PROCEDURES**

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From To	Sacks or Pounds		
bentonite	0 20	20		overbore

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
 Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. **CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
10	+1 1/2	597	250	steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe 11 1/2' Length of Tailpipe 5'

9. **PERFORATIONS/SCREENS**  
 Perforations Method \_\_\_\_\_  
 Screens Screen Type Johnson (stainless)  
8" pipe size

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
606	626	100		8	steel	<input type="checkbox"/>	<input type="checkbox"/>

10. **STATIC WATER LEVEL OR ARTESIAN PRESSURE:**  
547 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
 Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_ cap

11. **WELL TESTS:**  
 Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
No/test			

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_  
 Water Quality test or comments: \_\_\_\_\_  
 Depth first Water Encountered \_\_\_\_\_

12. **LITHOLOGIC LOG: (Describe repairs or abandonment)**

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	
				Y	N
14	0	12	sand & large gravel		
	12	21	cobbles		
	21	75	sand & gravel		
	75	85	cobbles		
	85	98	sand & gravel		
	98	110	cobbles		
	110	130	sand & gravel		
	130	135	cobbles		
	135	200	sand & gravel		
	200	230	cobbles		
	230	265	sand & gravel		
	265	280	cobbles & boulders		
	280	335	sand & gravel		
	335	360	cobbles		
	360	410	sand & gravel		
	410	425	sand & gravel, cobbles		
	425	435	sand & gravel		
	435	442	cobbles		
	442	476	sand & gravel		
	476	480	cobbles		
	480	520	sand & gravel		
	520	525	sand & gravel, cobbles		
	525	580	sand & gravel		X
	580	587	boulders		X
	587	607	sand & gravel, some tan clay		X
	607	632	sand & gravel, some boulders		X

MICROFILMED  
 1982 11 15 1982

Completed Depth 631 (Measurable)  
 Date: Started 5-10-95 Completed 8-28-95

13. **DRILLER'S CERTIFICATION**  
 I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Bronson Water Wells Firm No. 360  
 Firm Official H.D. Bronson Date 7-15-95  
 and  
 Supervisor or Operator Cliff Bronson Date \_\_\_\_\_  
 (Sign once if Firm Official & Operator)

NESWSE 5 53N 4W  
 FORWARD WHITE COPY TO WATER RESOURCES

Form 288-7  
4/92

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STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

L

USE TYPEWRITER OR  
BALLPOINT PEN

Well #44

This report requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

**1. WELL OWNER**  
 Name BILL TURK  
 Address 4151 TURK LANE ATHOL ID 83801  
 Drilling Permit No. 96-93-N-50-000  
 Water Right Permit No. \_\_\_\_\_

**7. WATER LEVEL**  
 Static water level 335 feet below land surface.  
 Flowing?  Yes  No G.P.M. flow \_\_\_\_\_  
 Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
 Controlled by:  Valve  Cap  Plug  
 Temperature \_\_\_\_\_ °F. Quality \_\_\_\_\_  
Describe artesian or temperature zones below.

**2. NATURE OF WORK**  
 New well  Deepened  Replacement  
 Well diameter increase  Modification  
 Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)

**8. WELL TEST DATA**  
 Pump  Bailer  Air  Other \_\_\_\_\_

Discharge G.P.M.	Pumping Level	Hours Pumped
15-18	600	1

**3. PROPOSED USE**  
 Domestic  Irrigation  Monitor  
 Industrial  Stock  Waste Disposal or Injection  
 Other \_\_\_\_\_ (specify type)

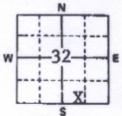
**9. LITHOLOGIC LOG**  
 104583

Bore Diam.	Depth		Material	Water	
	From	To		Yes	No
12	0	2	TOPSOIL, CLAY		X
12	2	19	GRAVEL, BOULDERS		X
8	19	36	GRAVEL, BOULDERS		X
8	36	206	SAND, GRAVEL, BOULDERS		X
8	206	234	SAND, GRAVEL, COMPACTED		X
8	234	242	CLAY, GREY, SAND		X
8	243	276	AND, SILT, GRAVEL	X	
8	276	281	CLAY, GRAY, SAND, WOOD		x
8	281	295	CLAY, GREEN, SAND, WHITE		x
8	295	317	CLAY, BROWN, SAND		x
8	317	344	CLAY, GRAY, SAND		x
8	344	347	BOULDER, GRANITE, BLK/WHT		x
8	347	385	CLAY, BROWN, SAND, WHT/BROWN		x
8	385	391	GRANITE, BRN/WHT DECOMPOSED		x
5	391	465	GRANITE, BLK/WHT, DECOMPOSED		x
5	465	468	GRANITE, BLK/WHT, FRACTURED	X	
5	468	595	GRANITE, BLK/WHT, MED HARD		x
5	595	603	GRANITE, BLK/WHT, FRACTURED	X	

**4. METHOD DRILLED**  
 Rotary  Air  Auger  Reverse rotary  
 Cable  Mud  Other \_\_\_\_\_  
(backhoe, hydraulic, etc.)

**5. WELL CONSTRUCTION**  
 Casing schedule:  Steel  Concrete  Other \_\_\_\_\_  
 Thickness 2.50 inches Diameter 6 inches From 2 feet To 391 feet  
160 psi inches 4 inches 383 feet 603 feet  
 Was casing drive shoe used?  Yes  No Odex  Yes  No  
 Perforated?  Yes  No Skill Saw  
 How perforated?  Factory  Knife  Torch  Gun  
 Size of perforation? 1/4 inches by 6 inches  
120 perforations 563 From feet 603 feet  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet  
 \_\_\_\_\_ perforations \_\_\_\_\_ feet  
 Well screen installed?  Yes  No  
 Manufacturer \_\_\_\_\_ Type \_\_\_\_\_  
 Top Packer or Headpipe \_\_\_\_\_  
 Bottom of Tailpipe \_\_\_\_\_  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Gravel packed?  Yes  No  Size of gravel \_\_\_\_\_  
 Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Surface seal depth 19 Material used in seal:  Cement grout  
 Bentonite  Puddling clay  \_\_\_\_\_  
 Sealing procedure used:  Slurry pit  
 Temp. surface casing  Overbore to seal depth  
 Method of joining casing:  Threaded  Welded  
 Solvent Weld  Cemented between strata  
 Describe access port \_\_\_\_\_

**10.**  
 Work started 04/30/93 finished 05/10/93

**6. LOCATION OF WELL**  
 Sketch map location must agree with written location.  
  
 Subdivision Name \_\_\_\_\_  
 Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_  
 County Kootenai  
 Address of Well Site SAME  
(give at least name of road)  
 SW 1/4 SE 1/4 Sec. 32, R. 3 E  or W   
 T. 53 N  or S

**11. DRILLER'S CERTIFICATION**  
 I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  
 Firm Name H2O WELL SVC. Firm No. #448  
 Address 582 W HAYDEN AVE Date 05/10/93  
 Signed by Drilling Supervisor [Signature]  
 and [Signature]  
 (Operator) [Signature]  
(If different than the Drilling Supervisor)

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Form 238-7  
7/94

JUL 24 1995

NORTHERN REGION  
IDWR

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Use Typewriter  
or  
Ball Point Pen

45

**1. DRILLING PERMIT NO.** 96-95-N-157

Other IDWR No. \_\_\_\_\_

**2. OWNER:**  
Name J. Hank Hester  
Address Rt 1 Box 147  
City Priest River State ID Zip 83856

**3. LOCATION OF WELL by legal description:**  
Sketch map location must agree with written location.

N			
W		E	
S			

Twp. 53 North  or South   
Rge. 3 East  or West   
Sec. 32 SE 1/4 NW 1/4 SE 1/4  
Gov't Lot \_\_\_\_\_ County KOOTENAI

Address of Well Site BRUCE RD City PR  
(Give at least name of road + Distance to Road or Landmark)

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

**4. PROPOSED USE:**  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

**5. TYPE OF WORK**  
 New Well  Modify or Repair  Replacement  Abandonment

**6. DRILL METHOD**  
 Mud Rotary  Air Rotary  Cable  Other \_\_\_\_\_

**7. SEALING PROCEDURES**

SEAL/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
<u>Bentonite</u>	<u>0</u>	<u>20</u>	<u>7</u>		<u>Overpacked</u>

Was drive shoe used?  Y  N Shoe Depth(s) 395 (cplx)  
Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>8 1/2</u>	<u>1 1/2</u>	<u>395</u>	<u>250</u>	<u>Steel</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

**9. PERFORATIONS/SCREENS**  
 Perforations Method N/P  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

**10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:**  
395 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

SE NW SE 32 53N 3W

FORWARD WHITE COPY TO WATER RESOURCES

**11. WELL TESTS:**  
 Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>50+</u>			<u>5 hours</u>

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_  
Water Quality test or comments: \_\_\_\_\_

**12. LITHOLOGIC LOG: (Describe repairs or abandonment)** Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
<u>10</u>	<u>0</u>	<u>2</u>	<u>Top Soil</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>20</u>	<u>30</u>	<u>SAND AND GRAVEL</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>30</u>	<u>34</u>	<u>SAND and fine GRAVEL</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>34</u>	<u>36</u>	<u>Boiler</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>36</u>	<u>120</u>	<u>Large Gravel and Boilers</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>120</u>	<u>315</u>	<u>SAND and GRAVEL</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>315</u>	<u>350</u>	<u>Large Gravel</u>		<input checked="" type="checkbox"/>
<u>10</u>	<u>350</u>	<u>390</u>	<u>SAND and Gravel</u>	<input checked="" type="checkbox"/>	
<u>10</u>	<u>390</u>	<u>395</u>	<u>Large Gravel</u>		<input checked="" type="checkbox"/>

OFFICE USE ONLY

Inspected by TDR  
Twp. 53N Rge. 3W Sec. 32  
SE 1/4 NW 1/4 SE 1/4

MICROFILMED

Completed Depth 395 (Measurable)  
Date: Started 6-12-95 Completed 6-14-95

**13. DRILLER'S CERTIFICATION**  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Hester Well Drilling Firm Firm No. 528  
Firm Official [Signature] Date 6-16-95  
and  
Supervisor of Operator C. Hank Hester Date 6-16-95  
(Sign once if Firm Official & Operator)



**RECEIVED**  
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3/95  
**JUL 02 1996**

IDAHO DEPARTMENT OF WATER RESOURCES  
**POSTED WELL DRILLER'S REPORT**  
Use Typewriter or Ballpoint Pen  
**097228**

Office Use Only  
Inspected by \_\_\_\_\_  
Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 1/4 1/4  
Lat: : : Long: : :  
 Pump  Bailer  
 Air  Flowing Artesian

**1. DRILLING PERMIT NO.** 88 - 28 - N - 110 - 000  
Other IDWR No. \_\_\_\_\_

**2. OWNER:**  
Name RALPH A. WHEELER  
Address 1205 N. IDAHO STREET  
City POST FALLS State ID Zip 83854-8815

**3. LOCATION OF WELL by legal description:**  
Sketch map location must agree with written location.

N				
	X			
S				

Twp 53N North  or South   
Rge 3W East  or West   
Sec 27 1/4 SE 1/4 NW 1/4  
Gov't Lot \_\_\_\_\_ County Kootenai  
Lat: : : Long: : :  
Address of Well Site NORTHEAST OF SILVERWOOD  
City \_\_\_\_\_  
(Give at least name of road + Distance to Road or Landmark)  
Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

**4. USE:**  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

**5. TYPE OF WORK** check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_

**6. DRILL METHOD**  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

**7. SEALING PROCEDURES**

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	20	10 sacks	dry - 50 lbs

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	+1	320	.250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

**9. PERFORATIONS/SCREENS**  
 Perforations Method \_\_\_\_\_  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

**10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:**  
310 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: cap welded

**11. WELL TESTS:**  
 Pump  Bailer  
 Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
60 est	100%	500	3 hrs

Water Temp. cold Bottom hole temp. cold  
Water Quality test or comments: clear  
Depth first Water Encountered \_\_\_\_\_

**12. LITHOLOGIC LOG: (Describe repairs or abandonment)** Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
8"	0	70	Sand & gravel & boulders		X
6"	70	80	Cemented gravel		X
6"	80	130	Sand & gravel - 3/4" with cobbles		X
6"	130	160	Sand & heavy boulders		X
6"	160	258	Sand & gravel & clay		X
6"	258	282	Rock Shelf granite		X
6"	282	312	Sand & gravel (310' - 60 GPM)	X	
6"	312	500	Broken Black & white granite		X

Completed Depth 500 (Measurable)  
Date: Started 6/10/96 Completed 6/13/96

**13. DRILLER'S CERTIFICATION**  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name United Drilling Inc. Firm No. 414  
Firm Official Tim D. Beckham Date 6/17/96  
and  
Supervisor or Operator Jason C. Beckham Date 6/17/96  
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

USE TYPEWRITER OR BALL POINT PEN

State of Idaho  
Department of Water Administration  
**WELL DRILLER'S REPORT**

State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

<p><b>1. WELL OWNER</b></p> <p>Name <u>Will M. Bruse</u></p> <p>Address <u>Box 73 Athol, Ida.</u></p> <p>Owner's Permit No. <u>96-71-N-16</u></p>	<p><b>7. WATER LEVEL</b></p> <p>Static water level <u>156</u> feet below land surface</p> <p>Flowing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No G.P.M. flow _____</p> <p>Temperature _____ ° F. Quality _____</p> <p>Artesian closed-in pressure _____ p.s.i.</p> <p>Controlled by <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug</p>																																																																																														
<p><b>2. NATURE OF WORK</b></p> <p><input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement</p> <p><input type="checkbox"/> Abandoned (describe method of abandoning)</p>	<p><b>8. WELL TEST DATA</b></p> <p><input type="checkbox"/> Pump <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Other</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Draw Down</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;"><u>2 hrs.</u></td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Discharge G.P.M.	Draw Down	Hours Pumped	<u>25</u>	<u>0</u>	<u>2 hrs.</u>																																																																																								
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<p><b>3. PROPOSED USE</b></p> <p><input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Test</p> <p><input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Stock</p>	<p><b>9. LITHOLOGIC LOG</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Hole Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>0</td> <td>1</td> <td>Top Soil</td> <td></td> <td>X</td> </tr> <tr> <td>10</td> <td>20</td> <td>20</td> <td>Gravel + Boulders</td> <td></td> <td>X</td> </tr> <tr> <td>10</td> <td>20</td> <td>35</td> <td>Gravel - Cemented</td> <td></td> <td>X</td> </tr> <tr> <td>10</td> <td>35</td> <td>45</td> <td>Gravel - 3" MINUS + Sand</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>45</td> <td>80</td> <td>Cemented Gravel</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>80</td> <td>100</td> <td>Boulders</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>100</td> <td>105</td> <td>Brn. Sand</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>105</td> <td>117</td> <td>Gravel + Sand 3" Minus</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>117</td> <td>127</td> <td>Boulders</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>127</td> <td>147</td> <td>Cemented Gravel</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>147</td> <td>157</td> <td>Tight Gravel + Sand</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>157</td> <td>162</td> <td>Coarse Gravel + Sand</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>162</td> <td>192</td> <td>Decomposed Granite - Brn</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>192</td> <td>198</td> <td>Clitche + clay - Brn</td> <td></td> <td>X</td> </tr> </tbody> </table>	Hole Diam.	Depth		Material	Water		From	To	Yes	No	10	0	1	Top Soil		X	10	20	20	Gravel + Boulders		X	10	20	35	Gravel - Cemented		X	10	35	45	Gravel - 3" MINUS + Sand		X	8	45	80	Cemented Gravel		X	8	80	100	Boulders		X	8	100	105	Brn. Sand		X	8	105	117	Gravel + Sand 3" Minus		X	8	117	127	Boulders		X	8	127	147	Cemented Gravel		X	8	147	157	Tight Gravel + Sand		X	8	157	162	Coarse Gravel + Sand		X	8	162	192	Decomposed Granite - Brn		X	8	192	198	Clitche + clay - Brn		X
Hole Diam.			Depth			Material	Water																																																																																								
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8	192	198	Clitche + clay - Brn		X																																																																																										
<p><b>4. METHOD DRILLED</b></p> <p><input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rotary <input type="checkbox"/> Dug <input type="checkbox"/> Other</p>	<p><b>10.</b></p> <p>Work started <u>5/6/71</u> finished <u>6/17/71</u></p>																																																																																														
<p><b>5. WELL CONSTRUCTION</b></p> <p>Diameter of hole <u>8</u> inches Total depth <u>198</u> feet</p> <p>Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>.025</u> inches</td> <td><u>8</u> inches</td> <td><u>0</u> feet</td> <td><u>164-4</u> feet</td> </tr> <tr> <td><u>.025</u> inches</td> <td><u>6</u> inches</td> <td><u>156</u> feet</td> <td><u>194</u> feet</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Liner</p> <p>Was a packer or seal used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Perforated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input checked="" type="checkbox"/> Torch</p> <p>Size of perforation <u>1/8"</u> inches by <u>3</u> inches</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>152</u> perforations</td> <td><u>156'</u> feet</td> <td><u>194'</u> feet</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Well screen installed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Manufacturer's name _____</p> <p>Type _____ Model No. _____</p> <p>Diameter _____ Slot size _____ Set from _____ feet to _____ feet</p> <p>Diameter _____ Slot size _____ Set from _____ feet to _____ feet</p> <p>Gravel packed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Size of gravel _____</p> <p>Placed from _____ feet to _____ feet</p> <p>Surface seal? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No To what depth <u>45'</u> feet</p> <p>Material used in seal <input type="checkbox"/> Cement grout <input checked="" type="checkbox"/> Puddling clay</p>		Thickness	Diameter	From	To	<u>.025</u> inches	<u>8</u> inches	<u>0</u> feet	<u>164-4</u> feet	<u>.025</u> inches	<u>6</u> inches	<u>156</u> feet	<u>194</u> feet													Number	From	To	<u>152</u> perforations	<u>156'</u> feet	<u>194'</u> feet																																																																
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<p><b>6. LOCATION OF WELL</b></p> <p>Sketch map location must agree with written location.</p> <div style="text-align: center;"> </div> <p>County <u>Kootenai</u></p> <p>SW <u>NE</u> 1/4 Sec. <u>21</u>, T. <u>53</u> N/S, R. <u>3</u> E/W</p>	<p><b>11. DRILLER'S CERTIFICATION</b></p> <p>This well was drilled under my supervision and this report is true to the best of my knowledge.</p> <p>J. A. HOLMAN DRILLING CO. <span style="float: right;">105</span></p> <p>Driller's or Firm's Name <span style="float: right;">Number</span></p> <p><u>601 So. Pines, Spokane, Wash. 99206</u></p> <p>Address</p> <p><u>J. A. Holman Jr.</u> <span style="float: right;">6/22/71</span></p> <p>Signed By <span style="float: right;">Date</span></p>																																																																																														

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Form 238-7  
3/95  
JUN 02 1997

IDAHO DEPARTMENT OF WATER RESOURCES



WELL DRILLER'S REPORT  
Use Typewriter or Ballpoint Pen 097014

Office Use Only  
Inspected by \_\_\_\_\_  
Twp. 1/4 Rge. 1/4 Sec. 1/4  
Lat: : : Long: : :

NORTHERN REGION  
1. DRILLING PERMIT NO. 98 - 97 - N - 035 - 000  
Other IDWR No. \_\_\_\_\_

2. OWNER:  
Name James & Diana Witherspoon  
Address 702 E 19th  
City Post Falls State ID Zip 83854

3. LOCATION OF WELL by legal description:  
Sketch map location must agree with written location.

Map grid showing well location. Twp. 53N, Rge. 3W, Sec. 15. County Kootenai. Address of Well Site Silvan Road. City \_\_\_\_\_

4. USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other \_\_\_\_\_

6. DRILL METHOD  
 Air Rotary  Cable  Mud Rotary  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	-20	12 sacks	pour in

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	+2	-418	.025	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

9. PERFORATIONS/SCREENS  
 Perforations Method \_\_\_\_\_  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:  
375 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered 375 ft. Describe access port or control devices: steel cap welded

11. WELL TESTS:

Yield gal./min.	Drawdown	Pumping Level	Time
30 gpm est	100 %	418	1 hr.

Water Temp. cold Bottom hole temp. cold  
Water Quality test or comments: slight color, no smell  
Depth first Water Encountered 375

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water
8"	0	1	Topsoil	X
8"	1	120	Sand & gravel - 3/4 minus	X
8"	120	180	Sand & gravel - 1/2 minus	X
8"	180	420	Sand & gravel - 3/4 minus	X
			375' water level	

13. DRILLER'S CERTIFICATION  
I/W/E certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name United Drilling Inc. Firm No. 414  
Firm Official [Signature] Date 5/21/97  
and Supervisor or Operator Jason C. Beckham Date 5/21/97

SENW 15 53N 3W

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6/93  
JUN 23 1995

**IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT**

Use Typewriter  
or  
Ball Point Pen

38

1. DRILLING PERMIT NO. 96-95-N-141

2. OWNER:  
Name JERRY BERRY  
Address 6555 E. REMINGTON ROAD  
City ATHOL State ID Zip 83801

3. LOCATION OF WELL by legal description:  
Sketch map location must agree with written location.

N
W
S

T. 53N North  or South   
E. R. 3W East  or West   
Sec. 15 1/4 40 acres 1/4 160 acres  
Gov't Lot \_\_\_\_\_ County SE SW

Address of Well Site SAME AS ABOVE  
(Give at least Direction + Distance to Road or Landmark)

Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_ Subd. Name \_\_\_\_\_

4. PROPOSED USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

5. TYPE OF WORK  
 New Well  Modify or Repair  Replacement  Abandonment

6. DRILL METHOD  
 Mud Rotary  Air Rotary  Cable  Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	19	400#	OVERBORE
10-20 SAND	540	560	150#	

Was drive shoe seal tested? Y  N  How? ATR

8. CASING/LINER:

Diameter	From	To	Gauge	Casting	Liner	Steel	Plastic	Welded	Threaded
8"	+1	274	.250			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6"	0	369	.250			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4"	-8	550	200 PSI			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoes 6"-369 8"-274  
Top Packer or Headpipe 550 Bottom Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS  
 Perforations Method \_\_\_\_\_  
 Screens Type WESTCO Material PVC

From	To	Slot Size	Number	Diameter	Tele/Pipe Size	Casting	Liner
550	560	10		4"	PVC	<input type="checkbox"/>	<input checked="" type="checkbox"/>

15 53N 3W

10. WELL TESTS:  
 Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Depth	Time
10		560	

Temperature of water \_\_\_\_\_ Was a water analysis done? Yes  No   
By whom? \_\_\_\_\_  
Water Quality (odor, etc.) \_\_\_\_\_  
Bottom Hole Temperature \_\_\_\_\_

11. STATIC WATER LEVEL:  
370 ft. below surface Depth artesian flow found \_\_\_\_\_  
Artesian pressure \_\_\_\_\_ lb. Describe access port \_\_\_\_\_  
Describe Controlling Devices: \_\_\_\_\_

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	GPM	SWL
10"	0	2	TOPSOIL		
10"	2	19	SAND AND GRAVEL		
8"	19	274	GRAVEL, COBBLES, BOULDERS		
6"	274	360	SAND, GRAVEL, COBBLES		
6"	360	540	GRANITE, (DECOM. SOFT)		x
6"	540	560	MEDIUM GRANITE		

**OFFICE USE ONLY**

Inspected by TDK

Twp 53N Rge 3W Sec 15

14 14 14

MICROFILMED

MAR 09 1999

Date: Started JUNE 13, 1995 Completed JUNE 20, 1995

13. DRILLER'S CERTIFICATION  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name PONDEROSA DRILLING Firm No. 228  
Firm Official [Signature] Date JUNE 20, 1995  
and W. SCOTT BARRATT  
Supervisor or Operator Brad Forman Date JUNE 20, 1995  
BRAD FORMAN (Sign once if Firm Official & Operator)

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Form 238-7  
11/97

IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

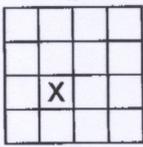
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JAN 20 1999

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Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Lat: : : Long: : :

1. WELL TAG NO. D0005715  
DRILLING PERMIT NO. 96-99-N-12  
Other IDWR No. \_\_\_\_\_

2. OWNER:  
Name Cynthia Rayborn - Cook  
Address 31120 N. Red Fir  
City Bayview State ID Zip 86603

3. LOCATION OF WELL by legal description:  
N Twp 53N North  or South   
Rge 03W East  or West   
Sec 12 1/4 NE 1/4 SW 1/4  
10 Ac 40 Ac 160 Ac  
Gov't Lot \_\_\_\_\_ County Kootenai  
Lat \_\_\_\_\_ Long \_\_\_\_\_  
Address of Well Site: (see next line)  
Athal to r to Red Fir n end of rd on r-31120 Red Fir City Athol \*  
Lot \_\_\_\_\_ Blk \_\_\_\_\_ Sub. Name (see next line)



11. WELL TESTS

Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pump Level	Time
15+	100%	450	1 hr.

Water Temp. cold Bottom hole temp. cold  
Water Quality test or comments: (below) Depth first Water Encountered 405  
slight color - no smell

12. LITHOLOGIC LOG (Describe repairs or abandonment)

Bore Diam	From	To	Lithology, Water Quality and Temperature	Remarks:	
				Water	Y N
8	0	2	Topsoil	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	2	18	Sand & gravel - 3/4 minus with clay	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	18	280	Sand & gravel - 3/4 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	280	315	Sand & gravel - 1/2 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	315	330	Clay - brown	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	330	400	Sand & gravel - 3/4 minus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	400	418	Sand & gravel - 3/4 minus with clay	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	418	438	Sand & gravel - 3/4 minus	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	438	459	Granite - green & white - medium	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4. USE:  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other

5. TYPE OF WORK check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other

6. DRILL METHOD  
 Air Rotary  Cable  Mud Rotary  Other

7. SEALING PROCEDURES

SEAL/FILTER PACK			Amount	Method
Material	From	To	Sacks/Lbs	
Bentonite	0	18	15 sacks	pour in

Drive Shoe Used?  Y  N Shoe Depth(s) \_\_\_\_\_ Ring bit  
Drive Shoe Seal Tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER

Diam	From	To	Gauge	Material	Casng	Liner	Weld	Thrded
6"	1	459	0.025	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Length Headpipe \_\_\_\_\_ Length Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS  
 Perforations? Method \_\_\_\_\_  
 Screens? Screen Type \_\_\_\_\_

From	To	Slot	Nmbr	Diam	Material	Casng	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL or ARTESIAN PRESSURE  
405 ft. below ground. Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered 405 ft. Describe access port or control devices: Steel cap welded

13. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name United Drilling Inc. Firm No 414  
Firm Official [Signature] Date 1/18/99  
and \_\_\_\_\_  
Supervisor or Operator Jason C. Beckham Date 1/18/99

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53N 3W 12

52

076833

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T = 41:00  
R = 41:20  
R = 3:05 1/4



USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Administration WELL DRILLER'S REPORT

RECEIVED NOV 10 1976

Well #54

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

Department of Water Resources Northern District Office

1. WELL OWNER Name Robert Canchia Address Athol Idaho Owner's Permit No. 96-76-N-103

7. WATER LEVEL Static water level 346' feet below land surface Flowing? No G.P.M. flow Quality Good

2. NATURE OF WORK New well

8. WELL TEST DATA Discharge G.P.M. 7 1/2 G.P.M. Draw Down 0 Hours Pumped 6 hours

3. PROPOSED USE Domestic

9. LITHOLOGIC LOG

4. METHOD DRILLED Cable

Table with columns: Hole Diam., Depth (From, To), Material, Water (Yes/No)

5. WELL CONSTRUCTION Diameter of hole 8" inches Total depth 369' feet Casing schedule: Steel Concrete

Lithologic log table with handwritten entries: 0' 3' Clay, 3' 4' Gravel, 4' 11' Boulders, 11' 15' Sand and Gravel, 15' 22' Boulders, 22' 29' Clay and Gravel, 29' 31' Sand and Gravel, 31' 38' Sand and Gravel, 38' 47' Sand and Gravel, 47' 52' Clay and Gravel, 52' 69' Clay and Gravel, 69' 87' Pea Gravel, 87' 92' Large Gravel, 92' 119' Pea Gravel, 119' 126' Clay and Gravel, 126' 139' Clay and Gravel, 139' 146' Clay and Gravel, 146' 168' Clay and Gravel, 168' 198' Boulders, 198' 226' Clay and Gravel, 226' 233' Clay and large Gravel, 233' 259' Clay and Gravel, 259' 279' Clay and Gravel, 279' 302' Clay and large Gravel, 302' 331' Clay and Gravel, 331' 346' Sand and Gravel, 346' 369' Sand and Washed Gravel

6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name, Lot No., Block No., County Kootenai

10. Work started Aug. 25, 1976 finished SAT. OCT 16, 1976 11. DRILLERS CERTIFICATION Firm Name BRAND & WATER WELLS Firm No. 289 Address Rathdrum Idaho Date Signed by (Firm Official) London Gordon and (Operator) Randy Jay Gordon

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Form 238-7  
11/97 APR 23 2002

IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

Office Use Only  
Inspected by \_\_\_\_\_  
Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Lat. : : Long: : :  
 Pump  Bailor  Air  Flowing Artesian

IDWR/North  
WELL TAG NO. D-0022115  
DRILLING PERMIT NO. 776398  
Other IDWR No. \_\_\_\_\_

POSTED

2. OWNER: MICHAEL A. MADSEN  
Name MICHAEL A. MADSEN  
Address 30701 PHEASANT RUN CRT.  
City ATHOL State ID Zip 83801

1. WELL TESTS:

Yield gal./min.	Drawdown	Pumping Level	Time
20	426'	420	1 HR.

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

Twp. 53N North  or South   
Rge. 3W East  or West   
Sec. 3 1/4 SW 1/4 SW 1/4  
Gov't Lot \_\_\_\_\_ County Kootenai  
Lat. \_\_\_\_\_ Long: \_\_\_\_\_  
Address of Well Site FOREST VIEW CRT.  
City ATHOL

(Give at least name of road + Distance to Road or Landmark)

Lt. 15 Blk. 1 Sub. Name \_\_\_\_\_

4. USE:

Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other

5. TYPE OF WORK check all that apply (Replacement etc.)

New Well  Modify  Abandonment  Other

6. DRILL METHOD

Air Rotary  Cable  Mud Rotary  Other

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From To	Sacks or Pounds		
BENTONITE	0 20	12 SACKS	POUR (DRY)	

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From To	Gauge	Material	Casing	Liner	Welded	Threaded
6	41.5' 424'	.25	STEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

Perforations Method STAR (AIR)  
Screens Screen Type \_\_\_\_\_

From To	Slot Size	Number	Diameter	Material	Casing	Liner
390 420	1/4	600			<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

340 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered 340 ft. Describe access port or control devices: \_\_\_\_\_

53N 3W 3

FORWARD WHITE COPY TO WATER RESOURCES

Water Temp. COLD Bottom hole temp. \_\_\_\_\_  
Water Quality test or comments: \_\_\_\_\_  
Depth first Water Encounter 387

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
10	0	1	TOP SOIL		X
10	1	20	COURSE SAND/GRAVEL w/ COBBLES		X
6	20	34	COURSE SAND/GRAVEL w/ COBBLES		X
6	34	64	COURSE SAND/GRAVEL		X
6	64	68	BOULDER		X
6	68	85	COURSE SAND/GRAVEL		X
6	85	179	COURSE GRAVEL/COBBLES		X
6	179	218	COURSE GRAVEL/SOME SAND		X
6	218	220	BOULDER		X
6	220	387	COURSE SAND/GRAVEL w/ WATER		X
6	387	391	BOULDERS		X
6	391	415	COURSE SAND/GRAVEL w/ WATER		X
6	415	426	GRANITE / BLACK/WHITE MKD		X

Completed Depth 426' (Measurable)  
Date: Started 4-18-02 Completed 4-22-02

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name FOGLE Pump Firm No. 537  
Firm Official J. L. L. L. Date 4/22/02  
and J. L. L. L. Date 4/22/02  
Driller or Operator (Sign once if Firm Official & Operator)

REPORT OF WELL DRILLER  
State of Idaho

Received  
6-13-69  
Dept of Reclamation

State law requires that this report shall be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

WELL OWNER:

Name State of Idaho  
Address Farragut State Park No. 10

Owner's Permit No. 96-69-N-10  
NATURE OF WORK (check): Replacement well   
New well  Deepened  Abandoned

Water is to be used for: Domestic  
METHOD OF CONSTRUCTION: Rotary  Cable   
Dug  Other

CASING SCHEDULE: Threaded  Welded   
20" Diam. from 1 ft. to 50 ft.  
16" Diam. from 1 ft. to 420 ft.  
"Diam. from     ft. to     ft.  
"Diam. from     ft. to     ft.  
Thickness of casing: 3/8 Material:  
Steel  concrete  wood  other

(explain)  
PERFORATED? Yes  No  Type of  
perforator used: Mills

Size of perforations: 3/8 " by 3 "  
500 perforations from 415 ft. to 370 ft.  
perforations from     ft. to     ft.  
perforations from     ft. to     ft.  
perforations from     ft. to     ft.  
SCREEN INSTALLED? Yes  No

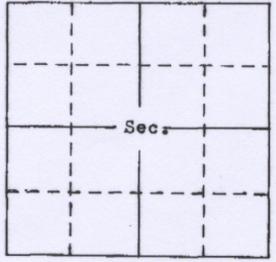
Manufacturer's name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

CONSTRUCTION: Well gravel packed? Yes   
No  size of gravel \_\_\_\_\_ Gravel  
placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Surface seal  
provided? Yes  No  To what depth?  
50 ft. Material used in seal: cement

Did any strata contain unusable water? Yes   
No  Type of water: \_\_\_\_\_  
Depth of strata \_\_\_\_\_ ft. Method of sealing  
strata off: \_\_\_\_\_

Surface casing used? Yes  No   
Cemented in place? Yes  No

Locate well in section



LOCATION OF WELL: County Kootenai  
SW x NW Sec. 70 T. 53 N. R. 2 W

Size of drilled hole: 16" Total  
depth of well: 420 Standing water  
level below ground: 315 Temp. \_\_\_\_\_  
Fahr. \_\_\_\_\_ Test delivery: 1500 gpm  
or \_\_\_\_\_ cfs Pump?  Bail   
Size of pump and motor used to make test:  
8"

Length of time of test: 24 Hrs.     Min.  
Drawdown: 1 ft. Artesian pressure: ft.  
above land surface \_\_\_\_\_ Give flow \_\_\_\_\_ cfs  
or \_\_\_\_\_ gpm. Shutoff pressure: \_\_\_\_\_  
Controlled by: Valve  Cap  Plug   
No control  Does well leak around casing?  
Yes  No

DEPTH FROM TO FEET FEET	MATERIAL	WATER YES OR NO
0 10	Boulders	
10 38	Boulders with some clay	
38 50	Boulders	
50 78	Gravel & small boulders	
78 89	clay & gravel	
89 109	Loose gravel	
109 128	cemented gravel	
128 138	Boulders	
138 230	Course Gravel	
230 250	Cemented gravel	
250 265	Course gravel	
265 275	Boulders	
275 295	Cemented gravel	
295 305	Course gravel	
305 315	Cemented gravel	
315 335	Course Gravel	
335 355	Course gravel some boulders	
355 420	Angular gravel no sand	

Work started: April 3, 1969  
Work finished: April 30, 1969  
Well Driller's Statement: This well was  
drilled under my supervision and this report  
is true to the best of my knowledge.  
Name: Russel Cowe  
Address: Boise, Idaho  
Signed by: Russel Cowe  
License No. 65 Date: June 12, 1969

Use other side for additional remarks

96  
9

Handwritten signature/initials

RECEIVED

WELL LOG AND REPORT TO THE  
STATE RECLAMATION ENGINEER OF IDAHO

027087

Log No. 3112  
Rec. \_\_\_\_\_, 19\_\_\_\_  
Well No. 96-56-N-1  
Permit No. \_\_\_\_\_

(DO NOT FILL IN)

Owner Alfred L. Raymond B. Larson Address Post 1 Athol Idaho  
Driller C. F. Waller Address Post Falls Ida Lic. No. 108

Location of Well: NE 1/4 NE 1/4 Sec. 16, T. 53 N, R. 2 W E/W B.M. 7 County, \_\_\_\_\_

and \_\_\_\_\_ feet N/S, and \_\_\_\_\_ feet E/W from \_\_\_\_\_ Corner of \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec.

Size of Drilled Hole Hand dug 32" x 32" Total depth of Well 242

Give depth of standing water from surface 228 Water Temp. 46 °Fahrenheit

On pumping test delivery was \_\_\_\_\_ g.p.m. or \_\_\_\_\_ c.f.s. Drawdown was \_\_\_\_\_ feet.

Size of pump and motor used to make the test \_\_\_\_\_

Length of time pumped during check was \_\_\_\_\_ hr., \_\_\_\_\_ minutes.

If flowing well, give flow in c.f.s. \_\_\_\_\_ or g.p.m. \_\_\_\_\_ and shut in pressure \_\_\_\_\_

If flowing well, describe control works \_\_\_\_\_ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for Dom. L. Perm Weight of casing per linear foot \_\_\_\_\_

Thickness of casing 2 in Casing material lumber with 2x4 boards  
E.G., PIPE, CONCRETE, WOOD.

Diameter, length and location of casing 9 3/8 ft Wood 16 ft 2 1/2" Riv steel 6 ft  
(CASING 12" IN DIAMETER AND UNDER GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER GIVE OUTSIDE DIAMETER.)

Number and size of perforations 84 x 1/2 x 1/4 slots located 230 feet to 242 feet from surface of ground.

Other perforations \_\_\_\_\_

Date of commencement of well Oct 10 56 Date of completion of well Dec 1 56

Type of well rig \_\_\_\_\_

CASING RECORD

DIAM. CASING	FROM FEET	TO FEET	LENGTH	"REMARKS" -- SEALS, GROUTING, ETC.
32x32	0	228	228	
2 1/2"	228	242	14	

GENERAL INFORMATION—Pumping Test, Quality of Water, Etc.

Hand dug at a conveyance of about 1' ft from bottom

NE NE S. 4 S3 N 2 W

027088

WELL LOG

From Foot	To Foot	Type of Material	Drilling Time		Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
			Hrs.	Min.		
0	10	Coarse gravel with rocks + silt				
10	20	" " " "				
20	30	" " " "				
30	40	" " " "				
40	50	" " " "				
50	60	" " " "				
60	70	" " " "				
70	80	" " " "				
80	90	" " " "				
90	100	" " " "				
100	110	" " " "				
110	120	" " " "				
120	130	" " " "				
130	140	" " " "				
140	150	" " " "				
150	160	" " " "				
160	170	" " " "				
170	180	3/4 inch gravel				
180	190	" " " "				
190	200	" " " "				
200	210	" " " "				
210	220	Coarse gravel with few large rocks				
220	230	" " " "				
230	240	" " " "				
240	242	" " " "			yes	yes

If more space is required use Sheet No. 2

WELL DRILLERS STATEMENT

This well was drilled under my jurisdiction and the above information is true and correct to the best of my knowledge and belief.

Signed: E. J. Waller

By \_\_\_\_\_

Dated Jan 14, 1960

License No. 108  
123

**RECEIVED**  
Form 238-7  
3/95  
**APR 08 1996**  
NORTHERN REGION  
IDWR

IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT 097057**  
Use Typewriter or Ballpoint Pen

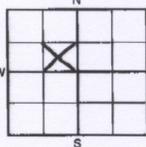
Office Use Only  
Inspected by \_\_\_\_\_  
Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Lat: : : Long: : :  
 Pump  Bailer  
 Air  Flowing Artesian

5

**1. DRILLING PERMIT NO.** 95 - 96 - N. 024 - 000  
Other IDWR No. \_\_\_\_\_

**2. OWNER:**  
Name **DAVID SHOVE**  
Address **1155 N HANEY RD.**  
City **RATHDRUM** State **ID** Zip **83858**

**3. LOCATION OF WELL by legal description:**  
Sketch map location must agree with written location.



Twp **52N** North  or South   
Rge **4W** East  or West   
Sec. **28** SE  or NW  1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Gov't Lot \_\_\_\_\_ County **Kootenai** acres \_\_\_\_\_ 160 acres  
-Lat: : : Long: : :  
**MT VIEW RD.**  
Address of Well Site \_\_\_\_\_  
City \_\_\_\_\_  
(Give at least name of road + Distance to Road or Landmark)

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

**4. USE:**  
 Domestic  Municipal  Monitor  Irrigation  
 Thermal  Injection  Other

**5. TYPE OF WORK** check all that apply (Replacement etc.)  
 New Well  Modify  Abandonment  Other

**6. DRILL METHOD**  
 Air Rotary  Cable  Mud Rotary  Other

**7. SEALING PROCEDURES**

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	40	10 sacks	pour in

Was drive shoe used?  Y  N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested?  Y  N How? \_\_\_\_\_

**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	0	298	0.25	steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

**9. PERFORATIONS/SCREENS**  
 Perforations Method **air perforator**  
 Screens Screen Type \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
278	298	1"	252		steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:**  
**280** ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: **steel cap welded**  
**SE NW 28 52N 4W**

**11. WELL TESTS:**  
 Pump  Bailer  
 Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<b>aquifer</b>			

Water Temp. **cold** Bottom hole temp. **Cold**  
Water Quality test or comments: **cold, no smell, slightly cloudy**  
Depth first Water Encountered \_\_\_\_\_

**12. LITHOLOGIC LOG: (Describe repairs or abandonment)**

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
6"	0	8	Top Soil & clay		X
6"	8	20	Gravel & clay - cobbles		X
6"	20	130	Sand & gravel - 3/4 minus		X
6"	130	170	Fine sand & gravel		X
6"	170	175	Clay & sand		X
6"	175	185	Sand & gravel - fine		X
6"	185	190	Clay & sand		X
6"	190	200	Cemented sand & gravel		X
6"	200	240	Gravel & sand - 3/4 minus		X
6"	240	260	Sand & gravel - 3/4 minus		X
6"	260	298	Sand & gravel - 3/4 minus	X	

Completed Depth **298** (Measurable)  
Date: Started **3/27/96** Completed **4/02/96**

**13. DRILLER'S CERTIFICATION**  
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name **United Drilling Inc.** Firm No. **414**  
Firm Official **Jim McWally pers.** Date **4/04/96**  
and  
Supervisor or Operator **Jason C. Beckham** Date **4/04/96**  
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

## Appendix B

Water Right Report

IDAHO DEPARTMENT OF WATER RESOURCES  
Water Permit Report

09/22/2005

WATER RIGHT NO. 95-8532

Owner TypeName and Address  
Current OwnerGARWOOD WATER COOPERATIVE  
PO BOX 1137  
HAYDEN LAKE, ID 83835  
(208)772-1723

Priority Date: 11/08/1986  
Status: Active

SourceTributary  
GROUND WATER

Beneficial UseFromToDiversion RateVolume  
IRRIGATION1/0112/310.33 CFS  
COMMERCIAL1/0112/310.01 CFS  
DOMESTIC1/0112/310.33 CFS  
Total Diversion 0.67 CFS

Location of Point(s) of Diversion:

GROUND WATERNWNESSESec. 24Township 52NRange 04WKOOTENAI County

Place(s) of use:

Place of Use Legal Description: IRRIGATION KOOTENAI County

TownshipRangeSectionLotTractAcresLotTractAcresLotTractAcresLotTractAcres  
52N03W19NENW1NWNW1SWNW1SENW1  
NESW1NWSW1SWSW1SESW1  
NESE1NWSE1SWSE1SESE1  
30NENE1NWE1SWNE1SENE1  
NENW1NWNW1  
04W24NESE1

Place of Use Legal Description: COMMERCIAL KOOTENAI County

TownshipRangeSectionLotTractAcresLotTractAcresLotTractAcresLotTractAcres  
52N04W24NESE

Place of Use Legal Description: DOMESTIC KOOTENAI County

Water Right Report.txt

TownshipRangeSectionLotTractAcresLotTractAcresLotTractAcresLotTractAcres  
52N03W19NENWNWNWSWNWSENE  
NESWNWSWSWSWSESW  
NESENESESESESESE  
30NENENWNESWNESENE  
NENWNWNW  
04W24NESE

Total Acres: 19

Conditions of Approval:

- 1.004The issuance of this right does not grant any right-of-way or easement across the land of another.
- 2.AC. IRR.=17.75.
- 3.026Permit holder shall commence the excavation or construction of diverting works within one year of the date this permit is issued and shall proceed diligently until the project is complete.

Dates:

Proof Due Date: 02/01/1992  
Proof Made Date: 01/21/1992  
Approved Date: 02/04/1987  
Moratorium Expiration Date:  
Enlargement Use Priority Date:  
Enlargement Statute Priority Date:  
Application Received Date:  
Protest Deadline Date:  
Number of Protests: 0  
Field Exam Date: 6/26/1998  
Date Sent to State Off: 8/10/1998  
Date Received at State Off: 8/12/1998

Other Information:

State or Federal:  
Owner Name Connector:  
Water District Number:  
Generic Max Rate per Acre:  
Generic Max Volume per Acre:  
Swan Falls Trust or Nontrust:  
Swan Falls Dismissed:  
DLE Act Number:  
Cary Act Number:  
Mitigation Plan: False

## Appendix C

Time(days): 1  
Output Time: 1  
Stress Period: 1

Cumulative Volumes Report [%s]

IN:

Storage = 0.00 [ft<sup>3</sup>/day]  
Constant Head = 0.00 [ft<sup>3</sup>/day]  
Wells = 0.00 [ft<sup>3</sup>/day]  
Drains = 0.00 [ft<sup>3</sup>/day]  
Recharge = 2093558.63 [ft<sup>3</sup>/day]  
ET = 0.00 [ft<sup>3</sup>/day]  
River Leakage = 0.00 [ft<sup>3</sup>/day]  
Stream Leakage = 0.00 [ft<sup>3</sup>/day]  
General-Head = 4856725.50 [ft<sup>3</sup>/day]  
Total IN = 6950284.00 [ft<sup>3</sup>/day]

OUT:

Storage = 0.00 [ft<sup>3</sup>/day]  
Constant Head = 0.00 [ft<sup>3</sup>/day]  
Wells = 57740.00 [ft<sup>3</sup>/day]  
Drains = 0.00 [ft<sup>3</sup>/day]  
Recharge = 0.00 [ft<sup>3</sup>/day]  
ET = 0.00 [ft<sup>3</sup>/day]  
River Leakage = 0.00 [ft<sup>3</sup>/d]

Rates for Time Step Report [%s]

IN:

Storage = 0.00 [ft<sup>3</sup>]  
Constant Head = 0.00 [ft<sup>3</sup>]  
Wells = 0.00 [ft<sup>3</sup>]  
Drains = 0.00 [ft<sup>3</sup>]  
Recharge = 2093558.63 [ft<sup>3</sup>]  
ET = 0.00 [ft<sup>3</sup>]  
River Leakage = 0.00 [ft<sup>3</sup>]  
Stream Leakage = 0.00 [ft<sup>3</sup>]  
General-Head = 4856725.50 [ft<sup>3</sup>]  
Total IN = 6950284.00 [ft<sup>3</sup>]

OUT:

Storage = 0.00 [ft<sup>3</sup>]  
Constant Head = 0.00 [ft<sup>3</sup>]  
Wells = 57740.00 [ft<sup>3</sup>]  
Drains = 0.00 [ft<sup>3</sup>]  
Recharge = 0.00 [ft<sup>3</sup>]  
ET = 0.00 [ft<sup>3</sup>]  
River Leakage = 0.00 [ft<sup>3</sup>]  
Stream Leakage = 0.00 [ft<sup>3</sup>]  
General-Head = 6842265.00 [ft<sup>3</sup>]

T