

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-09439

Exam Date: 8/12/2016

1. Current Owner:
SHOSHONE COUNTY FIRE DIST NO 2 14 W MARKET ST KELLOGG ID 83837 (208) 784.1188
2. Accompanied by: Mark Aamodt
Relationship to Permit Holder: Fire Chief

3. **SOURCE:**
GROUND WATER

TRIBUTARY:**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: None
2. Other water rights with the same point-of-diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW¼NE¼ Sec. 4, Twp 47N, Rge 02W, B.M. KOOTENAI County

Method of Determination: GPS and maps. POD location D0054544 at 47° 27.492, 116° 35.540 (A002001)

2.

PLACE OF USE: INDUSTRIAL

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
47N	02W	4			X														

Method of Determination: Google Earth and Arc map

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X Indicate weir size/pipe as applicable.X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.X Aerial Photo Attached (required for irrigation of 10+ acres).X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0054544		2			

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements:

E. FLOW CALCULATIONSX Additional Computation Sheets Attached

Measured Method: UNABLE TO PERFORM FLOW MEASUREMENT. THEORETICAL PUMPING EQUATION ESTIMATES FLOW RATE AT 15 GPM OR 0.03 CFS. SEE ATTACHED.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses: 4 VOLUNTEERS X 50 GPD X 365 DAYS / 325,850 GAL/AF = 0.2 AF

G. NARRATIVE/REMARKS/COMMENTS

Field exam with Fire Chief Mark Aamodt showed fire station supplied with water from a well. Well was given ID tag A0020011 and well tag was D0054544. A 2 hp pump was installed in well and was running at 45 psi. Field examiner was unable to perform a flow measurement because pipes were buried until they reached the pressure tanks inside fire station. Theoretical pumping equation estimates flow of 15 gpm or 0.03 cfs. Application had originally been filed to cover the fire station and the filling of the fire trucks for training purposes. Mr. Aamodt said that once the system was installed, it could not support the filling of the fire trucks in a fast enough time to even be an option. Water from the well is only used for the bathroom and a washing machine. Annual volume will be given for four volunteers using 50 gpd which the amount is given to semi-permanent work camps. License will be issued for Industrial use with a diversion rate of 0.03 cfs with annual volume of 0.2 af for the operation of a fire station.

Have conditions of permit approval been met? X Yes No**H. RECOMMENDATIONS****1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
INDUSTRIAL	01/01 to 12/31	0.03 CFS	0.2 AF
	<u>Totals:</u>	0.030 CFS	0.20 AF

2. Recommended Amendments
 Change P.D. as reflected above Add P.D. as reflected above X None

 Change P.U. as reflected above Add P.U. as reflected above X None
I. AUTHENTICATIONField Examiner's Name Aden Funder Date 1-3-17Reviewer Date

State of Idaho
Department of Water Resources
Water Right License
94-9439

INDUSTRIAL

02W

47N



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

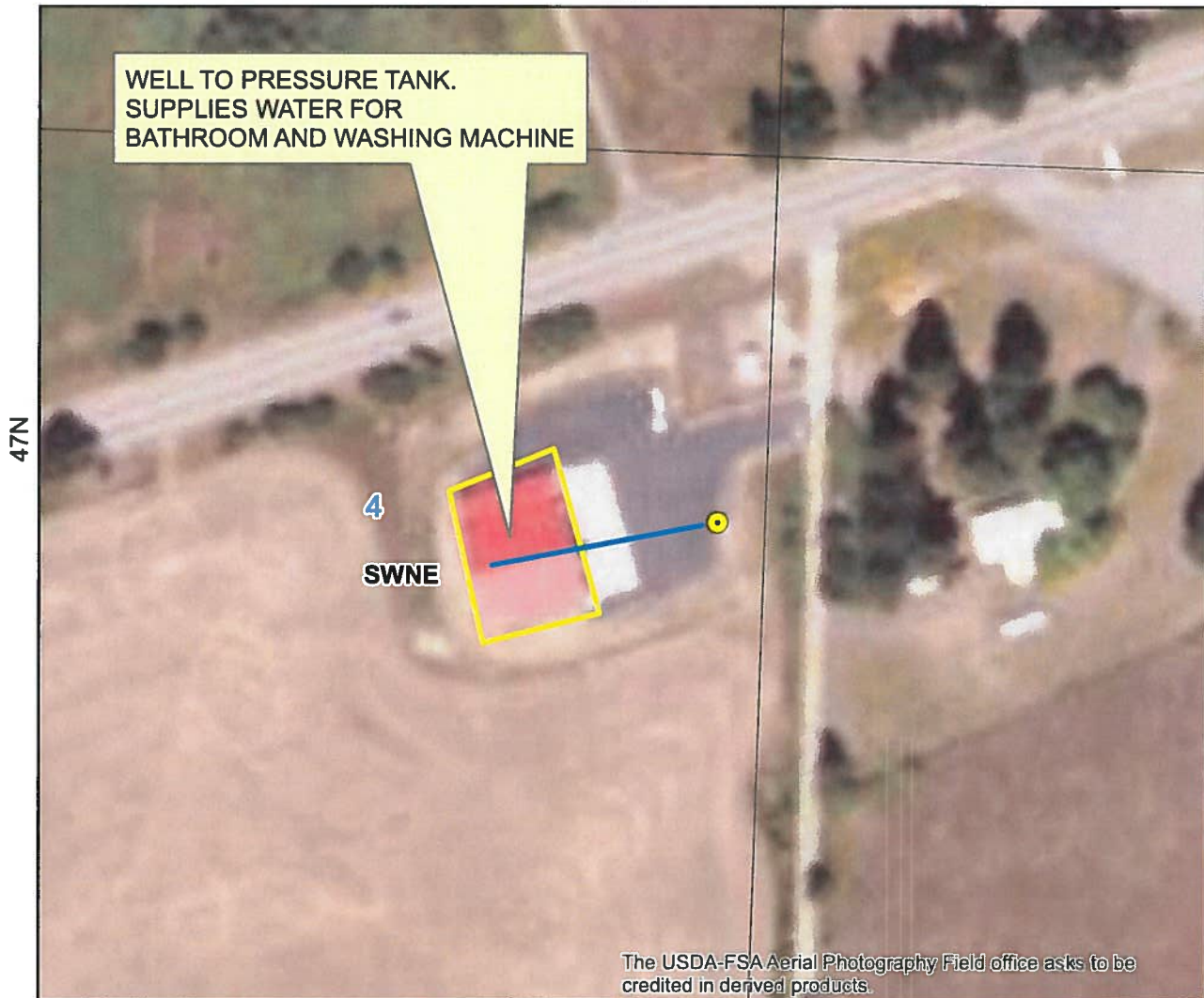
0 0.035 0.07 0.14 Miles



State of Idaho
Department of Water Resources
Water Right License
94-9439

SYSTEM DIAGRAM

02W



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

0 0.0125 0.025 0.05 Miles



THEORETICAL PUMPING EQUATION FOR WATER RIGHT 94-9439. WELL HAD 2 HP PUMP SET AT 45 PSI.
IDWR WILL ASSUME PUMP SET AT 319 FEET.

PUMP EQUATIONS WATER RIGHT No.						
						94-9439
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	2	423.0816	0.8	319	45
Q = 0.033 cfs 15.0 gpm						

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

1. WELL TAG NO. D D0054544

DRILLING PERMIT NO

Water Right or Injection Well No.

851981

2. OWNER:

Name SHOSHONE FIRE DISTRICT 2

Address 14 W. MARKET STREET

City KELLOG State ID Zip 83837

3. LOCATION OF WELL by legal description:

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

Twp. 47 North ☒ or South ☐Rge. 02 East ☐ or West ☒Sec. 4 $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$

Gov't Lot County SHOSHONE

Lat: Long:

Address of Well Site 31624 S. HWY3 MEDIMONT

City ST. MARIES

Lt. Blk. Sub. Name

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK check all that apply

☒ 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	40	12 SACKS	OVERBORE

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 334'Was drive shoe seal tested? ☒ Y ☐ N How? AIR PRESSURE

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Liner	Welded	Threaded
6"	2	334	.250	STEEL	☒	☐	☒

Length of Headpipe 336' Length of Tailpipe N/A

Packer ☐ Y ☒ N Type

9. PERFORATINS/SCREENS PACKER TYPE

Perforation Method		N/A					
Screen Type & Installation							
From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight/Volume	Placement Method
N/A				

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

107 Ft. below ground Artesian pressure lb.

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

STEEL CAP WELDED & BOLT ON CAP

Office Use Only

Well ID No.

Twp

R

Lat:

Lon

12. Well Tests:

☐ Pump ☐ Baller ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
50			

Water Temp. COLD

Bottom hole temp COLD

Water Quality test or comments:

APPEARS CLEAR W/NO ODOR

Depth first Water Encounter 9

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
10	0	9	CLAY, BROWN			X
10	9	24	SAND & GRAVEL		X	
10	24	38	CLAY, TAN			X
8	38	96	CLAY, TAN			X
8	96	107	CLAY, BROWN			X
8	107	122	CLAY, GRAY			X
8	122	128	CLAY, ORANGE, HARDPAN			X
8	128	155	BASALT BLACK			X
8	155	160	SAND & SILT, GRAY, FINE		X	
8	160	170	CLAY, GRAY			X
8	170	173	SAND & SILT, GRAY, FINE		X	
8	173	194	CLAY, BROWN			X
8	194	198	SAND & SILT, GRAY, FINE		X	
8	198	233	CLAY, BROWN			X
8	233	235	SAND & SILT, GRAY, FINE		X	
8	235	255	CLAY, TAN			X
8	255	326	CLAY, GRAY			X
8	326	338	SAND & GRAVEL		X	
8	338	340	CLAY, GRAY HARDPAN			X
			PULLED BACK AND DEVELOPED TO CLEAN 334'			
			RECEIVED			
			JUL 16 2008			
Completed Depth	334		(Measurable)			
Date:	Started 6/23/2008	Completed 6/26/2008				

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 AMERICAN WELL DRILLING Firm No. 675

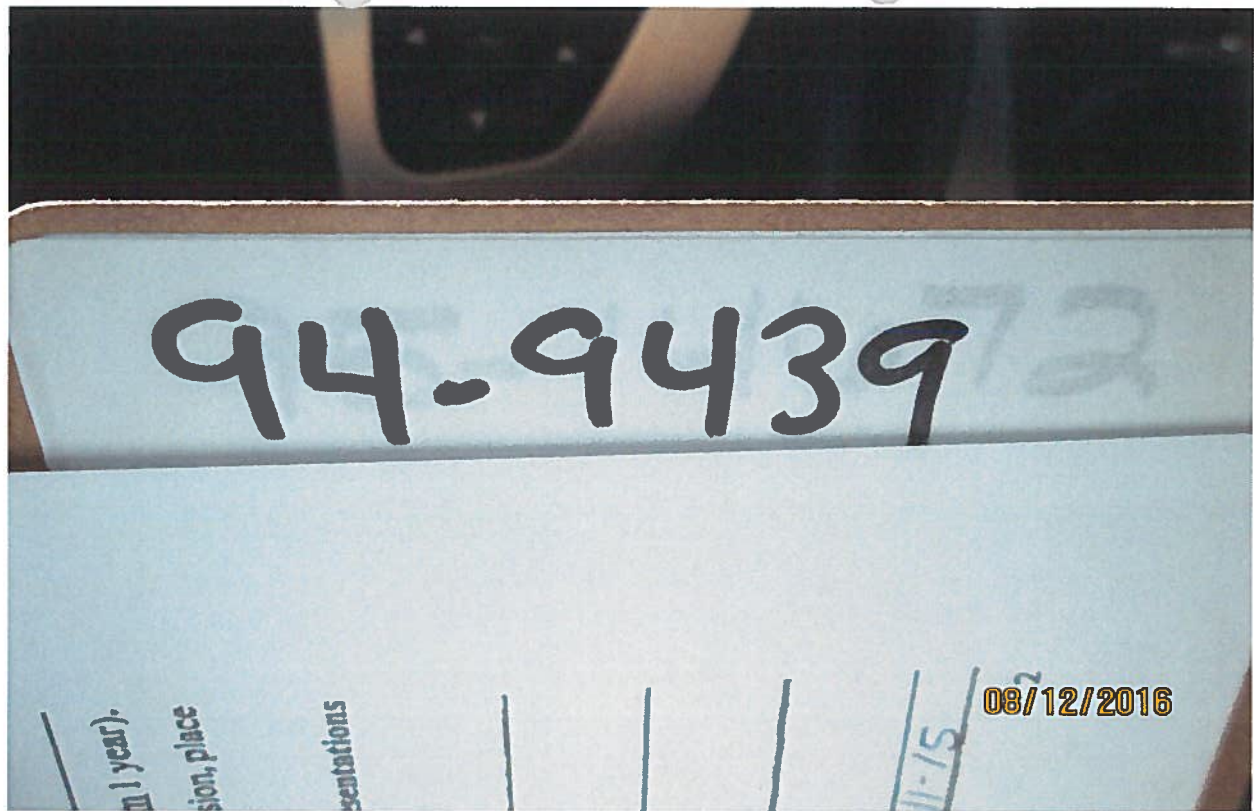
Principal Driller Date 6/27/2008

And Driller or Operator II Date

Operator I Date

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

47N 02W 04



View of well and its location in reference to fire station.



Well ID tag D0054544



IDWR GPS site tag given at time of exam A0020011.



Well control box in fire station. 2 hp pump.



System running at 45 psi.



Uses for fire station include restrooms and a washing machine.



View of fire station.