

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17338
Exam Date: 08/07/2023

1. Current Owner:
SANDI LYNN GOGGIN 1515 E RED BARN RD HARRISON ID 83833
2. Accompanied by: Sandi Lynn Goggin
Phone No: (208) 660-0646
Address: Same as above
Relationship to permit Holder: Permit holder.

3. SOURCE:
GROUND WATER

Method of Determination: GPS LOCATOR. POD is located at -116°46.2351, 47°32.2093; Well Tag # D0069388

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap
2. Other water rights with the same point-of-diversion: NO Overlap

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L2 (NW¼ NE¼), Sec. 6, Twp 48N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS. POD is located at -116°51.8709, 47°45.7536; well D-TAG D0079434.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
48N	03W	6		0.6 L2															0.6

Total Acres: 0.6

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
48N	03W	6		X L2															

Method of Determination:

3.
 - X 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 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
D0069388	Franklin Electric	1.5		A Y McDonald 4"	20 GPM

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
None						

2. Measurements: Measurements: Unable to perform flow measurements due to inadequate pipe requirements. Main water line from well routed direct to home prior to water distribution.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Measured Method: Theoretic pump equation estimates flow as follows:

- D0069388 – 1.5 hp pump at 165 ft with 45 PSI operating pressure equals **0.06 cfs** considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.6 \text{ ac} \times 3.0 \text{ afa} = 1.8 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ cfs} \times 246\text{-days} \times 1.9835 = 14.6 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \mathbf{1.8 \text{ af}}$$

2. Volume Calculations for Other Uses: Domestic annual volume = in-home water usage for 1 home = **0.6 af**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 8/7/2023 with the applicant, Sandi Lynn Goggin, showed a groundwater well being used for domestic and irrigation uses. At the POD, GW well D0069388 and the control panel for the 1.5 HP pump motor installed in the well as part of the diverting works routes a buried main service line south a short distance (90 ft) to a home. The irrigation lines go out from the home for irrigation use. I was unable to perform a flow measurement due to inadequate pipe requirements. A theoretic pump equation derives flow rate for 1.5 HP pump at 165 ft depth with 45 PSI operating pressure equaling 17.6 gpm or 0.04 cfs considering department rounding standards.

Permit approved development for 1 home with utility building with a wash basin and 1 acre of irrigation; department standard diversion rates for these uses were permit approved, but due to pump performance determined at time of exam and the actual acres irrigated, the maximum diversion rate for licensing equals **0.04 cfs**. The domestic component diversion rate equals 0.04 cfs which is the standard for 1 home with utility building with a wash basin.

The domestic POU was observed during the exam consisting of a custom-built home and utility building with a wash basin. Photographs of the domestic use were taken and are clearly visible in Arcmap aerial imagery, which was used to trace out the domestic POU during licensing review. Annual volume for domestic in-home use only 1 home with utility building with a wash basin equals **0.6 af** as recommended for licensing.

The applicant applied for 1 acre of irrigation but at time of field exam, was irrigating 0.6 acres. The Irrigation POU was sketched on field maps consisting of landscape trees, plants, hanging flowers, garden beds, and a lawn space around the residence. During licensing review Arcmap aerial imagery was used to trace out the irrigation POU which consists of 0.6 acre authorized 1.8 af annually. The applicant's irrigation system is primarily sprinklers for lawn areas, but there are driplines used for landscape, flower pots and plants around structures with hoses to sprinkler use for a garden. The maximum diversion volume recommended for licensing equals the sum of two beneficial uses or 2.4 af.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/15 to 11/15	0.03 CFS	1.8 AF
DOMESTIC	01/01 to 12/31	0.04 CFS	0.6 AF

Totals: 0.04 CFS 2.4 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

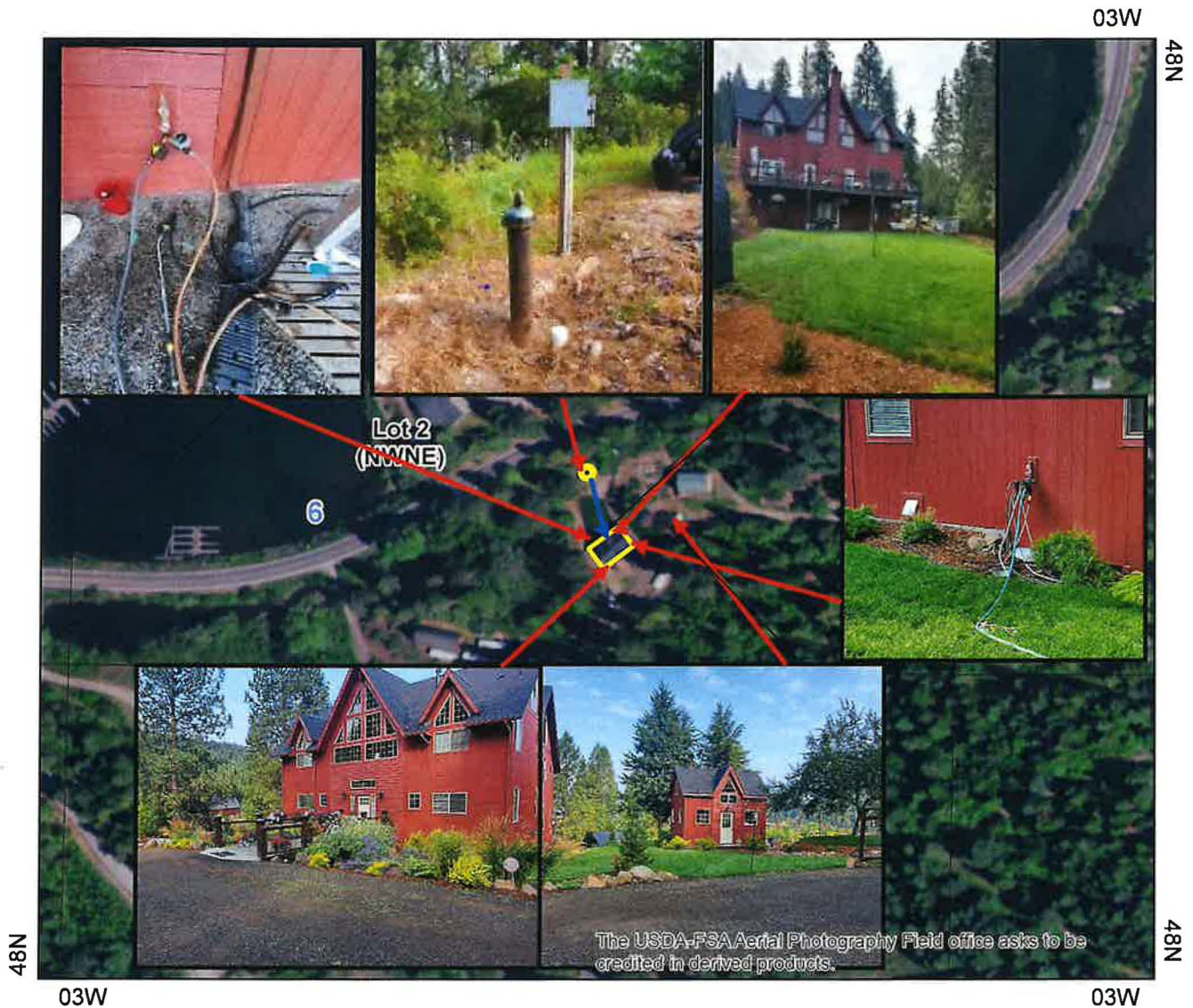
I. AUTHENTICATION Tammy Alleman -

Field Examiner's Name Tammy Alle Date 3/27/24

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17338

This map depicts the DOMESTIC system diagram.



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

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This map depicts the IRRIGATION system diagram.



0 0.02 0.04 0.08 Miles

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



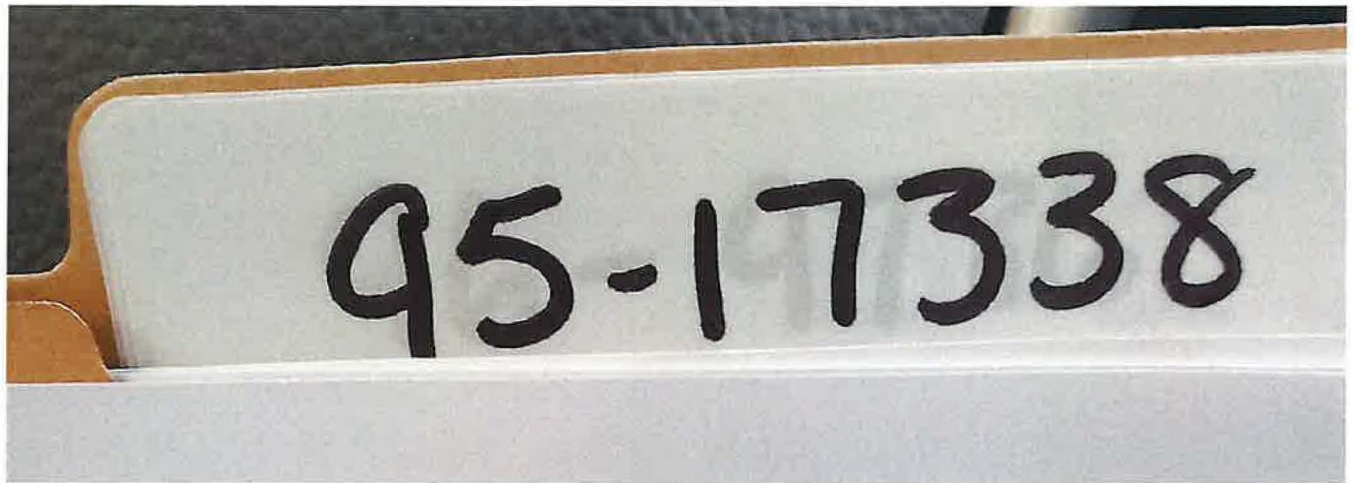
THEORETICAL PUMPING EQUATION(S) FOR WR# 95-17338

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 165 ft, and running at 45 psi.

PUMP EQUATION

WATER RIGHT No. 95-17338

D0069388	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = $HP \cdot 8.8 \cdot \text{Eff} / H$	1.5	269.0816	0.8	165	45
Q = 0.039 cfs 17.6 gpm					



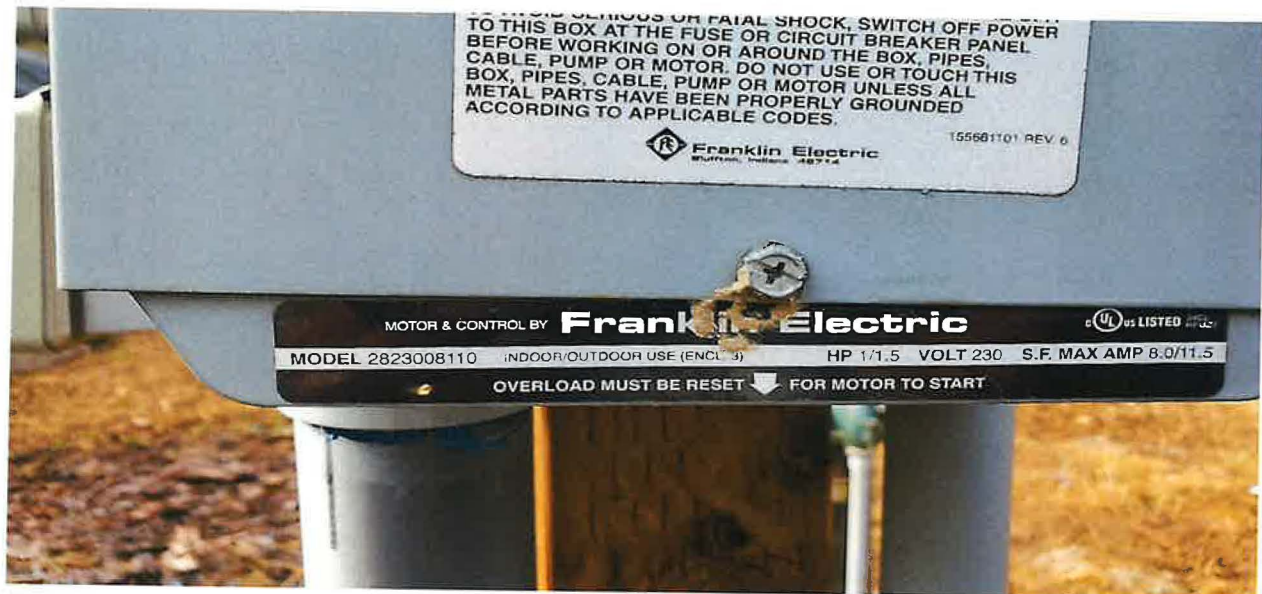
BENEFICIAL USE FIELD EXAM DATE 8/7/2023



POD GROUND WATER WELL



POD GROUND WATER WELL TAG#D0069388



PUMP MODEL #2823008110 HORSEPOWER 1 TO 1.5 & PUMP PURCHASED

R.C. Worst & Co.
EXPECT THE BEST FROM R.C. WORST

R.C. Worst & Company Inc.
625 E. Best Avenue
Coeur d'Alene, ID 83814

SALES QUOTATION
Quote Number: 30896
Quote Date: 6/15/2015
Quote Valid Date: 8/14/2015
Account Number: C01-CASH

CUSTOMER		ADDRESS	
Cash Customer - Coeur d'Alene Coeur d'Alene, ID		*PICKUP* Coeur d'Alene - Office 625 Best Avenue Coeur d'Alene, ID 83814-3740	

Reference: **HGW - SANDI GOGGIN WELL PUMP**
Terms: **Cash, Check, or Credit Card**
Employee: **Greg Hushman**
Shipping Method: **-Not Defined-**

Item Number	Description	Quantity	Unit Price	Total
AYM23150P31H	A.Y. McDonald 4" SS Submersible Pump 20 GPM 1.5 HP 230V 3- Wire 1 sec. Rpx	1.00	\$800.00	\$800.00
FEC2823008110	Franklin Electric Standard Control Box 1.5 HP 230V	1.00	\$98.28	\$98.28
PVCDP12012TSC	PVC DROP PIPE SCH120 1-1/4" THREADED W/SS COUPLING - MAX 2HP 520'	105.00	\$1.96	\$205.80
FTC4033	FLOMATIC 80 CHK VLV DRZ 1 1/2	1.00	\$69.05	\$69.05
GI VB1512	GALV BUSHING 1-1/2"X1 1/4"	2.00	\$7.38	\$14.76
WTRSP124	CABLE SUB TWISTED PVC CU 12/4	130.00	\$0.78	\$101.40
HSKA4C	ADVANCE HEAT SHRINK 4W #14-10	1.00	\$3.95	\$3.95
MSN1S48	MARTNSN TORQUE ARRES FOR 1"1-1/4"P 4-BC	1.00	\$7.00	\$7.00

10-11 pump



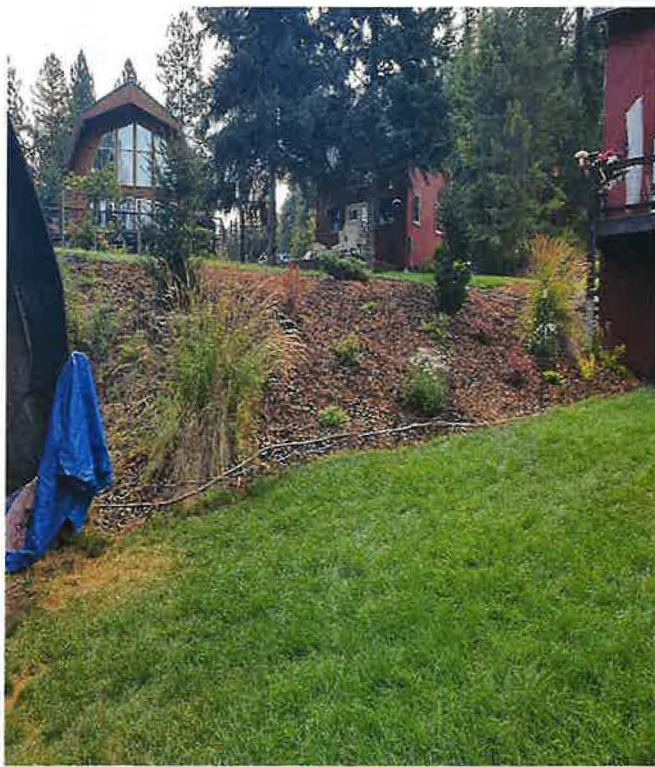
POU - FRONT OF HOME WITH IRRIGATION AND DRIP SYSTEM





POU - IRRIGATION LINES INCLUDING DRIP SYSTEM FOR HANGING BASKETS





POU - BACKYARD IRRIGATION TO INCLUDE DRIP SYSTEM FOR HANGING POTS



POU - SIDE OF HOME WITH IRRIGATION TO PLANTS AND TREES



POU - IRRIGATION FOR TREES OUTLINING PROPERTY



POU - IRRIGATION SPRINKLER SYSTEM RUNNING



POU - Garden, utility building with sink from side hoses in picture

