

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-11066
Exam Date: 09/26/2023

1. Current Owner:
ROBERT RUST 10851 W PINE ST SANDPOINT ID 83864-7347 AND/OR
MARIAN RUST 10851 W PINE ST SANDPOINT ID 83864-7347
2. Accompanied by: Robert Rust
Phone No: 208-290-3567
Address: Same as above
Relationship to permit Holder: Permit holder.

3. **SOURCE:**
GROUND WATER

Method of Determination: ArcMap & DRG.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
96-9543	Pend Oreille River	Municipal	License w/Claim submitted
96-11458	Groundwater	Domestic	B.U. Claim

Comments: Licensed Right 96-9543 is owned by the City of Dover which uses surface water to serve water from their municipal system with a POU service area that overlaps this right's POU. The applicant's residences is currently served water by the City of Dover, and maintains their private well as a back-up water source which is connected to the home. Condition X35 was recommended during licensing to mitigate overlap concern between the two Right(s) for domestic use at the primary residence.

96-11458 is a beneficial use claim filed by Daniel Lister in the ongoing CFPRBA process. The claim designates a separate groundwater source than this Permit's well and is for domestic use with a portion of the POU that covers the applicant's residence. Review of the B.U. Claim identifies the POD well lot for Mr. Daniel Lister is RPD00000216372A, located in Section 20, SE1/4SE1/4 & Section 21, SW1/4SW1/4. This claim was filed using the online claim program and likely introduced error assigning POU location with invalid coverage at the applicant's parcel. There is no concern for overlap between the two filing(s).

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

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

GROUND WATER NW¼ SE¼, Sec. 20, Twp 57N, Rge 02W, B.M. BONNER County

Method of Determination: GPS. POD is located at -116°35.9353, 48°16.3208; well D-TAG D0072146.

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	
57N	02W	20														X			

Method of Determination: Beneficial use field examination and ArcMap aerial imagery.

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 Model No. or Discharge Size
D0072146	CENTRIPRO	1		CENTRIPRO	CB10412

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Unable to perform flow measurements due to inadequate pipe requirements. Water line from well routes direct to a storage reservoir co-located within 10 feet of well head prior to distribution to frost-free hydrants and water uses.

E. FLOW CALCULATIONS

☒ X Additional Computation Sheets Attached

Measured Method: Theoretic pump equation estimates flow as follows:

- D0072146 - 1 hp pump at 280 ft with 45 PSI operating pressure equals 6.5 gpm or **0.02 cfs** considering department rounding standards.
- Well driller report identifies a 8 gpm yield rate at time of construction, which supports the theoretic pump equation diversion rate.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: None
2. Volume Calculations for Other Uses: Maximum diversion rate for domestic use 1 home with ½ ac irrigation included equals **1.2 af**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 9/26/2023 with the applicant, Robert Rust, showed a groundwater well being used for domestic use. At the POD, GW well D0072146 routes a buried main service line direct to a co-located buried storage reservoir prior to distribution for water uses. The pump control panel is located on a wood tree frame co-located with the well and identifies a 1 HP Centripro pump & motor. I was unable to perform a flow measurement due to inadequate pipe requirements and a theoretic pump equation derives flow rate for 1 HP pump at 380 ft depth with 45 PSI operating pressure equaling 6.5 gpm or **0.02 cfs** considering department rounding standards. The theoretic derived flow rate is supported by the well driller report, which illustrated an 8.0 gpm rate over 240 minutes at time of well construction.

The Permit designated ground water source & POD in location: Twp 57N, Rge 02W, Sec 20, **NE** $\frac{1}{4}$ SW $\frac{1}{4}$. Beneficial use field exam using a Garmin GPS identified a separate groundwater cased well with legal description: Twp 57N, Rge 02W, Sec 20, **NW** $\frac{1}{4}$ SW $\frac{1}{4}$. Department staff mailed an Application for Amendment (For Licensing Purposes) to the applicant on 11/2/2023, which was received back from the applicant on 11/9/2023. The amendment corrects the legal description for the POD at time of licensing.

The permit was approved with a 5-year development window – Proof of Beneficial Use proof due date of August 01, 2027. It's unclear why the applicant submitted the proof on 10/27/2022, but due to this action the development window closed at the time the Statement of Completion was received by the Department. During the exam, I observed that the POU and beneficial use of water was not fully developed as permit approved. The permit authorized development of 5 homes, with $\frac{1}{2}$ acre irrigation covered under domestic use per platted lot. At time of exam the applicant owned two lots and plans to complete a minor subdivision into 6 total lots had not been finalized. This results in a reduction of beneficial use of water authorized to recommend for licensing purposes.

The domestic POU includes one residence and authorized $\frac{1}{2}$ acre of irrigation included with the single residence. During the exam I used field maps to trace out the domestic POU as developed; during licensing review ArcMap aerial imagery was used to designate the domestic POU & POD. The annual and maximum diversion volume recommended for licensing equals **1.2 af**, the department standard for 1 home with $\frac{1}{2}$ ac irrigation included.

At time of licensing review, I worked to secure the amendment of permit forms while congruently assisting Mr. Rust prepare a new application for permit related to the proposed future subdivision of land and addition of homes & irrigation on the combined property(s) owned by Mr. Rust. At the time of B.U.'s report finalization the new application had not been received by IDWR. Current irrigation practices by Mr. Rust exceed the $\frac{1}{2}$ acre I'm able to recommend for licensing and a new application is necessitated to comply with code.

Condition 046 was removed during licensing review. Condition X04 was replaced with X01 to accurately describe 1 home's domestic use. Condition 070 was replaced with 187 to describe $\frac{1}{2}$ acre irrigation covered under domestic use for the 1 home developed at time of exam. Condition X35 was added to describe overlap in POU between Rights 96-9543 and 96-11066 as discussed above on PG1. All other conditions on the permit shall be carried forward to licensing. Aside from overlap identified between the City of Dover's municipal service area (applicant's home is connected currently), and the private well under this right, there are no other overlap concerns for this water right.

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>
DOMESTIC	01/01 to 12/31	0.02 CFS	1.2 AF
<u>Totals:</u>		0.02 CFS	1.2 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

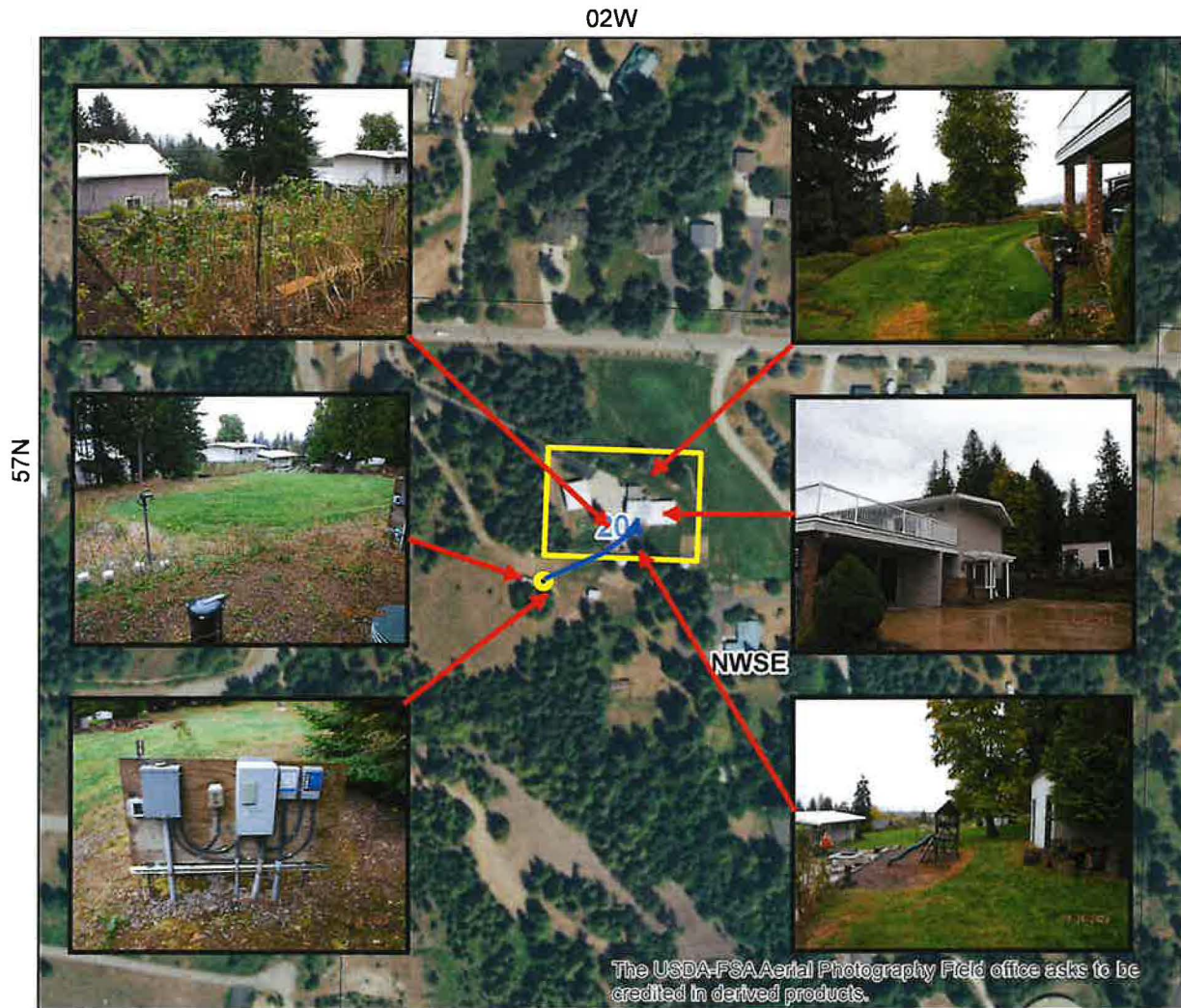
I. AUTHENTICATION

Luke Bates -

Field Examiner's Name  Date 11/13/2023Reviewer  Date 5/23/24

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-11066

This map depicts the DOMESTIC system diagram.



0 0.035 0.07 0.14 Miles

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



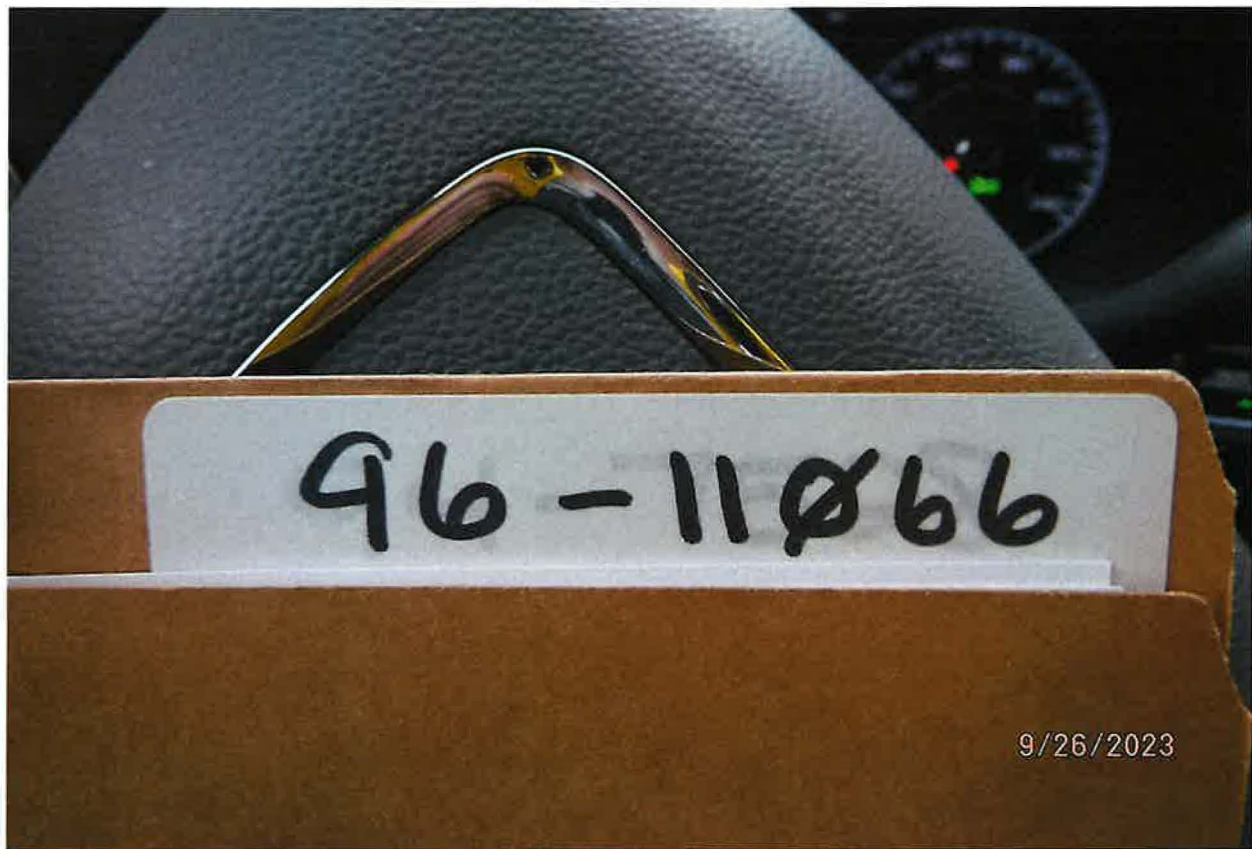
THEORETICAL PUMPING EQUATION(S) FOR WR# 96-11066

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 380 ft, and running at 45 psi.

PUMP EQUATION

WATER RIGHT No. 96-11066

D0072146	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = $HP * 8.8 * Eff / H$	1	484.0816	0.8	380	45
Q = 0.015 cfs 6.5 gpm					



BENEFICIAL USE FIELD EXAM DATE 9/26/2023



POD – GROUNDWATER WELL



WELL D-TAG D0072146



DIVERTING WORKS CONTROL PANEL TREE



1 HP CENTRIPRO PUMP MOTOR RELAY CONTROL BOX





POU - DOMESTIC USE 1 HOME



IRRIGATION OF GARDEN OCCURING UNDER DOMESTIC USE



IRRIGATION UP TO ½ ACRE OCCURING AROUND RESIDENCE





SHALLOW WELL (SURFACE WATER WELL) – DESIGNATED ON PERMIT APPROVAL BUT NOT SERVICE CONNECTED AT TIME OF EXAM





INOPERABLE SHALLOW WELL HOUSE LOCATION

