

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9537
Exam Date: 09/19/2019

1. Current Owner:
KIRK DAVIDSON 990 SHINGLE MILL RD SANDPOINT ID 83864-7421
2. Accompanied by: Kirk Davidson
Phone No: 208-255-5215
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
96-7011	LAKE PEND ORIELLE	DOMESTIC	LICENSE
96-8953	LAKE PEND ORIELLE	MUNICIPAL	LICENSE

Comments: Both WRs 96-7011 and 96-8953 overlap this water right, but use water from Lake Pend Orielle and do not influence this water right.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SW¼ SE¼, Sec. 32, Twp 58N, Rge 01W, B.M. BONNER County

Method of Determination: Maps and GPS. POD located at -116°29.350, 48°19.845. Well D0072152.

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	
58N	01W	32															2.4	0.6	3.0

Total Acres: 3.0

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	
58N	01W	32															X		

Method of Determination: Arcmap and Field Exam.

3. Delivery System Diagram Attached (required). Indicate all major components and distances between components.
☒ Indicate weir size/pipe as applicable.
 Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be
☒ 1:24,000 or greater.
☒ Aerial Photo Attached (required for irrigation of 10+ acres).
☒ 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
D0072152	UNKOWN				

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5 GAL BUCKET TEST						

2. Measurements: 5 gallon bucket test was performed to determine diversion rates in units = gpm as listed below:
- Test 1 = (5 gal / 5.62 sec) x 60 sec = 53.4 gpm
 Diversion Rate for license = **0.12 cfs**.

E. FLOW CALCULATIONS

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.0 \text{ ac} \times 3.0 \text{ af} = \mathbf{9.0 \text{ af}}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = .12 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 50.9 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 9.0 \text{ af}$$

2. Volume Calculations for Other Uses:

Domestic use one home = 0.6 af

Combined annual volume = 0.6 af (domestic) + 9.0 af (irrigation) = **9.6 af** Maximum diversion volume.

Maximum Diversion Rate = 0.12 CFS which is 0.04 cfs Domestic + 0.09 cfs Irrigation UP TO maximum applicant's pump can produce = **0.12 cfs**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed with the applicant, Kirk Davidson, showed a well being used for domestic and irrigation purposes. The well, D0072152, diverted water directly into a pressure tank. A 5 gallon bucket test was completed to determine the diversion rate equaling $(5 \text{ gal} / 5.62 \text{ sec}) \times 60 \text{ sec} = 53.4 \text{ gpm}$, which equates to a maximum diversion rate of 0.12 cfs which will be carried forward to licensing.

WR 96-9800 was split from this water right, and the STOCKWATER and INDUSTRIAL components were removed from this license. Splitting of license did not enlarge the original permit authorized diversion rate. For WR 96-9537, only 1 home was applied to the domestic component, and the rate of diversion was changed to 0.04 cfs on license to reflect reducing from two-to-one home.

There was one home identified during field exam, and the domestic volume will be licensed for 0.6 af. Irrigation was observed during field exam, and was traced out during licensing review equaling 3.0 acres. The irrigation was from hoses and above ground tripod moveable sprinklers. The irrigation diversion rate equals $3.0 \text{ acres} \times 0.03 \text{ cfs} = 0.09 \text{ cfs}$. The irrigation volume will be licensed 9.0 af ($3.0 \text{ acre} \times 3.0 \text{ af per acre}$). The overall license will be approved with a diversion rate of 0.12 cfs, which is smaller than the domestic and irrigation component diversion rates that equal 0.13 cfs, but Maximum diversion rate is limited to the amount applicant's pump can produce which equals 0.12 cfs. The maximum diversion volume of 9.6 af (0.6 af domestic + 9.0 af irrigation) will be applied to license.

At time of licensing, the permitted POU for irrigation component, and the irrigation Period of Use were found to be inaccurate, see below:

POU: authorized on permit = Irrigation 58N01W32SWSE.
POU: verified at time of licensing = Irrigation 58N01W32SWSE and 58N01W32SESE.

Season of Use: authorized on permit = 03/15 to 10/31 (for Irrigation component).
Season of Use: verified at time of licensing = 04/01 to 10/31 (corrected to standard use for irrigation component).

An Application for Amendment was initiated, and mailed with cover letter to applicant on 10 April 2020.

Condition WD8, X02, 26A, and 046 were removed from the license. Condition 132 was adapted to reflect domestic use for one home after the split of water right. Condition R62 was replaced with R66 to describe irrigation limitations of no more than 0.03 cfs per acre nor more than 3.0 afa per acre. Water Rights 96-7011 and 96-8953 overlap this water right, but use water from Lake Pend Orielle and do not influence this water right, and are not a concern for overlap.

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	04/01 to 10/31	0.12 CFS	9.0 AF
DOMESTIC	01/01 to 12/31	0.04 CFS	0.6 AF

Totals: 0.12 CFS 9.6 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 - Water Resource Agent

Field Examiner's Name Ad Fink Date 5/18/2020






Reviewer JQB Date 5/11/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-9537

DOMESTIC system diagram.

01W



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

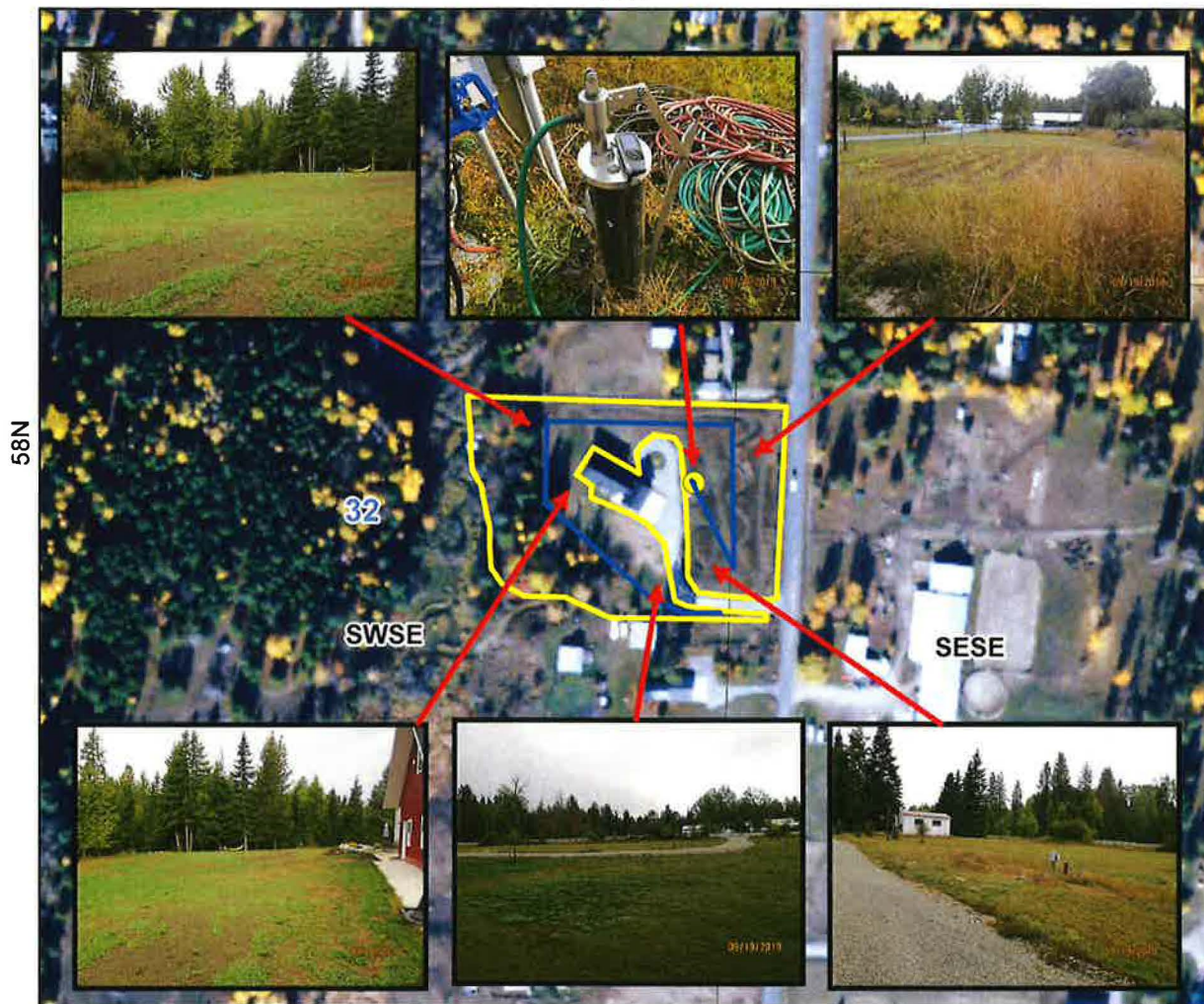
0 0.035 0.07 0.14 Miles








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96-9537

IRRIGATION system diagram.

01W



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

0 0.035 0.07 0.14 Miles



MEMORANDUM

To: Water Right Permit 96-9537

From: Luke Bates 

Date: 4/30/2020

Re: Application for a Permit to Appropriate Water within the State of Idaho.

An application for permit was received for domestic and irrigation use in the name of Kirk Davidson. The application was advertised with the season of use of 3/15-10/31. The department's standard season for the irrigation at the applicant's property is 4/1-10/31. Season of use will be changed on the license to reflect the department standard.



POD



POD – WELL TAG ID D0072152



DOMESTIC POU



DOMESTIC POU



IRRIGATION POU



IRRIGATION POU





IRRIGATION POU





IRRIGATION POU





IRRIGATION POU