

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9757

Exam Date: 08/27/2020

1. Current Owner:
PHILIP KINZLER 371 LIBERTY LN SAGLE ID 83860-8461 AND/OR
KARIN KINZLER 371 LIBERTY LN SAGLE ID 83860-8461
2. Accompanied by: Philip Kinzler
Phone No: 208-255-6624
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
96-7785	GROUNDWATER	DOMESTIC	LICENSE

Comments: right 96-7785 is a large tract license that uses groundwater for domestic purposes not associated with this applicant's parcel or well; right 96-7785 overlaps this right's POU, but is not a concern for overlap.

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 NW¼ NE¼, Sec. 27, Twp 56N, Rge 02W, B.M. BONNER County

Method of Determination: GPS. POD is well located at -116°33.313, 48°10.737 old well 96-93-N-246-000.

PLACE OF USE: IRRIGATION

[illegible]

Total Acres: 1.0

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	
56N	02W	27		X															

Method of Determination: Field exam and Arcmap.

3.

X Delivery System Diagram Attached (required). Indicate all major components and distances between components. 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
96-93-N-246-000	UNKOWN	1.5			

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Unable to perform flow measurement because system pumped directly into storage tank and pressure tanks.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at 13.4 gpm or **0.03 cfs** with pump installed at depth of approximately 262 ft and operating at 40 PSI.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.0 \text{ ac} \times 3.0 \text{ afa} = 3.0 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 12.7 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{3.0 \text{ af}}$$

2. Volume Calculations for Other Uses:

Domestic component annual volume = **0.6 af**.

Maximum diversion volume = 0.6 af (domestic component) + 3.0 af (irrigation component) = **3.6 af**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 8/27/2020 with the applicant, Philip Kinzler, showed a well using groundwater for domestic and irrigation purposes. Piping from the well (96-93-N-246-000) ran direct to the house and pressure tank, and there was inadequate piping to conduct a flow measurement. A theoretical pumping equation was used to derive a diversion rate of 0.03 cfs with pump installed at depth of approximately 262 ft and operating at 40 PSI. Applicant had permitted for 0.06 cfs and 0.04 cfs for irrigation and domestic beneficial use respectively. Applicant is limited to the pump performance derived at time of field exam, which equals **0.03 cfs** that will be applied to license. Each component will be assigned 0.03 cfs, which is not additive due to pump performance limitations derived at time of field exam.

Applicant permitted for domestic use for 1 home, and a two story home with daylight basement was observed during the field exam. Applicant permitted for an irrigation component; as such, the domestic component annual volume equals **0.6 af**. The applicant permitted for 2 acres of irrigation. During field exam, the irrigated area was sketched out on a field map, and active irrigation was observed. During licensing review, irrigated acreage was traced out equaling 1.0 acres. The irrigation annual volume equals 1.0 ac x 3.0 afa = **3.0 af**, which will be applied to license. Aerial imagery does not adequately illustrate the area that applicant irrigates, as the tree canopy covers much of the applicant's irrigated area. Applicant stated he was happy with the amount of water the well produced, but the fact that he irrigated using hose bibs from house and hose to sprinklers caused him to fall behind in the latter summer months; several portions of the lawn observed was dry, but the applicant watered enough to keep grass root from dying during the late summer period. Applicant stated he was working toward installing a pressurized irrigation system next spring to alleviate the time requirement of moving sprinklers. The maximum diversion volume applied to license equals 0.6 af (domestic component) + 3.0 af (irrigation component) = **3.6 af**.

Condition 046 was removed from permit at time of licensing. All other conditions on permit are carried forward to license. Water right 96-7785 is a large acreage tract license that uses groundwater for domestic purposes not associated with this applicant's parcel or well; right 96-7785 overlaps this right's POU, but is not a concern for overlap. 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>
IRRIGATION	04/01 to 10/31	0.03 CFS	3.0 AF
DOMESTIC	01/01 to 12/31	0.03 CFS	0.6 AF

Totals: 0.03 CFS 3.6 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 Luke Bates Date 8/28/2020

Reviewer Adam Fink Date 8/31/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-9757

DOMESTIC system diagram.



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

0 0.035 0.07 0.14 Miles



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IRRIGATION system diagram.

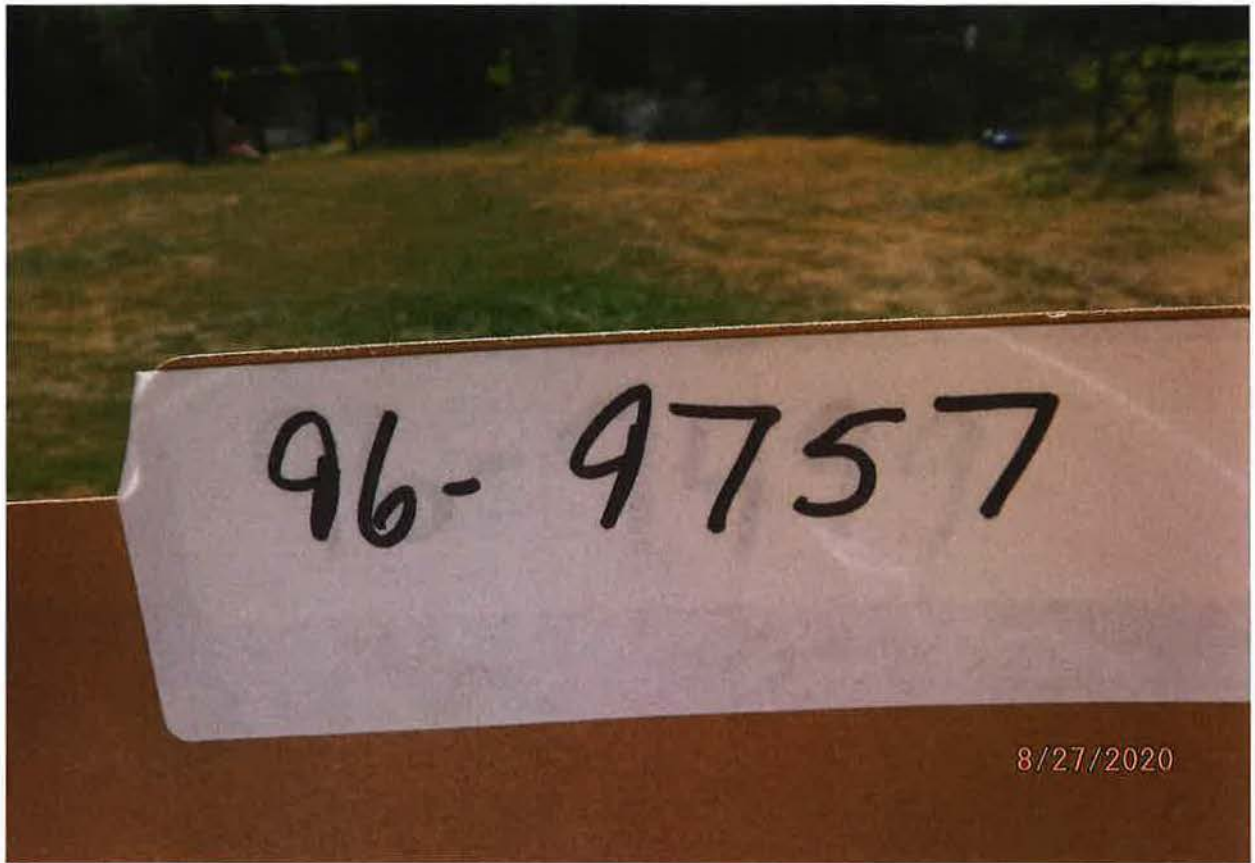
02W



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

0 0.035 0.07 0.14 Miles





POD - WELL (96-93-N-246-000)



1.5 HP PUMP



WATER SYSTEM PRESSURE TANK



DOMESTIC POU





IRRIGATION POU





IRRIGATION POU





IRRIGATION POU





IRRIGATION POU

