

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9470

Exam Date: 07/20/2021

1. Current Owner:
KIMBERLY MOORE 106 EARLY BREAKFAST CREEK RD SANDPOINT ID 83864-5257
2. Accompanied by: Aaron Fister
Phone No: 208-217-1628
Address: Same as above
Relationship to permit Holder: Permit holder's husband

3. **SOURCE:**
GROUND WATER

Tributary
FLUME CREEK

Method of Determination: Arcmap, DRG, and Field Exam.

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 SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER NE¼ SW¼, Sec. 13, Twp 58N, Rge 01E, B.M. BONNER County

Method of Determination: GPS. POD is a hand dug well located at -116° 16.8607, 48° 22.6952

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	01E	13									1.0								1.0

Total Acres: 1.0

Method of Determination: field exam and Arcmap aerial imagery.

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
HAND DUG WELL		1.0			

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Three 5 gallon bucket tests were completed from an in-line blowout port, direct from well, with average of three resulting in a diversion rate of 5 gal / 23.36 sec x 60 sec/min = 12.84 gpm = **0.03 cfs**, considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: 5 GAL Bucket Test = (5 gal / 22.62 sec) x 60 sec/min = 13.26 gpm
 = (5 gal / 24.04 sec) x 60 sec/min = 12.48 gpm
 = (5 gal / 23.43 sec) x 60 sec/min = 12.80 gpm

Average of 3ea 5 GAL Bucket Tests = (13.26 gpm + 12.48 gpm + 12.80 gpm) / 3 = 12.85 gpm = 0.03 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

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

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

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

2. Volume Calculations for Other Uses:

Irrigation annual volume and maximum diversion volume = **3.0 af**

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 7/20/2020 with the permit holder's husband, Aaron Fister, showed a hand dug well located on the bank of an unnamed stream tributary to Flume Creek, being used for irrigation purposes. The approved permit designated the water source as groundwater, but did not specify a tributary. Following the field exam, it has been determined that due to close proximity of the stream channel to the hand dug well, there likely hydraulic connectivity between the two. The water level in the groundwater well is similar the water level in the stream, identifying that any groundwater flow captured by the hand dug well is most likely hydraulically connected, and tributary to the stream & additionally tributary to Flume Creek. The water source tributary has been clarified and added to the permit during licensing review.

The applicant's POD incorporates a 1 HP well pump situated in the hand dug well with concrete cistern cap. A 1.5 inch poly pipe main line routes water from the well to the irrigation POU. The pump control panel is located below the applicant's house, and a sprinkler blow out port is co-located with the control panel. Three 5 gallon bucket tests were completed from an in-line blowout port, direct from well, with average of three resulting in a diversion rate of 5 gal / 23.36 sec x 60 sec/min = 12.84 gpm = **0.03 cfs**, considering department rounding standards which is recommended for licensing this right. The permit approved irrigation diversion rate of 0.09 cfs is being reduced, as the applicant had only developed 1 acre of irrigation versus the 3 acres applied for. The stockwater and domestic beneficial uses were not developed in under this permit, and have been removed from the permit during licensing review.

During the field exam, the irrigation POU was observed with photographs taken and irrigation acreage sketched out on field exam maps. During licensing review, Arcmap aerial imagery was used to accurately trace out the irrigation POU equal to 1.0 acres. The annual volume associated with 1.0 acres of irrigation equals **3.0 af**, which is recommended as the maximum diversion volume for licensing purposes. The applicant's irrigation system is two-fold, and uses pressurized sprinklers for the immediate area around the house which is easily seen using any year of Arcmap aerial. The applicant also uses hose to tripod sprinklers to irrigate portions of the property outside the initial driveway area within which the house resides. At time of exam, the applicant had not developed all the area they want to irrigate below the home, and the irrigation acreage was reduced down to reflect the actual developed acreage. Irrigation occurring above and below the house is not to golf course standards, but rather to keep grass alive and provide water to trees being grown on the property.

Condition X02, 26A, and 132 were removed from the permit during licensing review. All other conditions will be carried forward to the license. There are no overlap concerns for this water right. During the field exam the new groundwater well found to be used by the applicant for domestic in home use does not have a recorded water right. Department staff recommended the applicant wait until the adjudication of basin 96 commences to file a claim for the domestic beneficial use.

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>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	04/01 to 10/31	0.03 CFS	3.0 AF
<u>Totals:</u>		0.03 CFS	3.0 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. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name *L. Bates* Date 8/4/2021

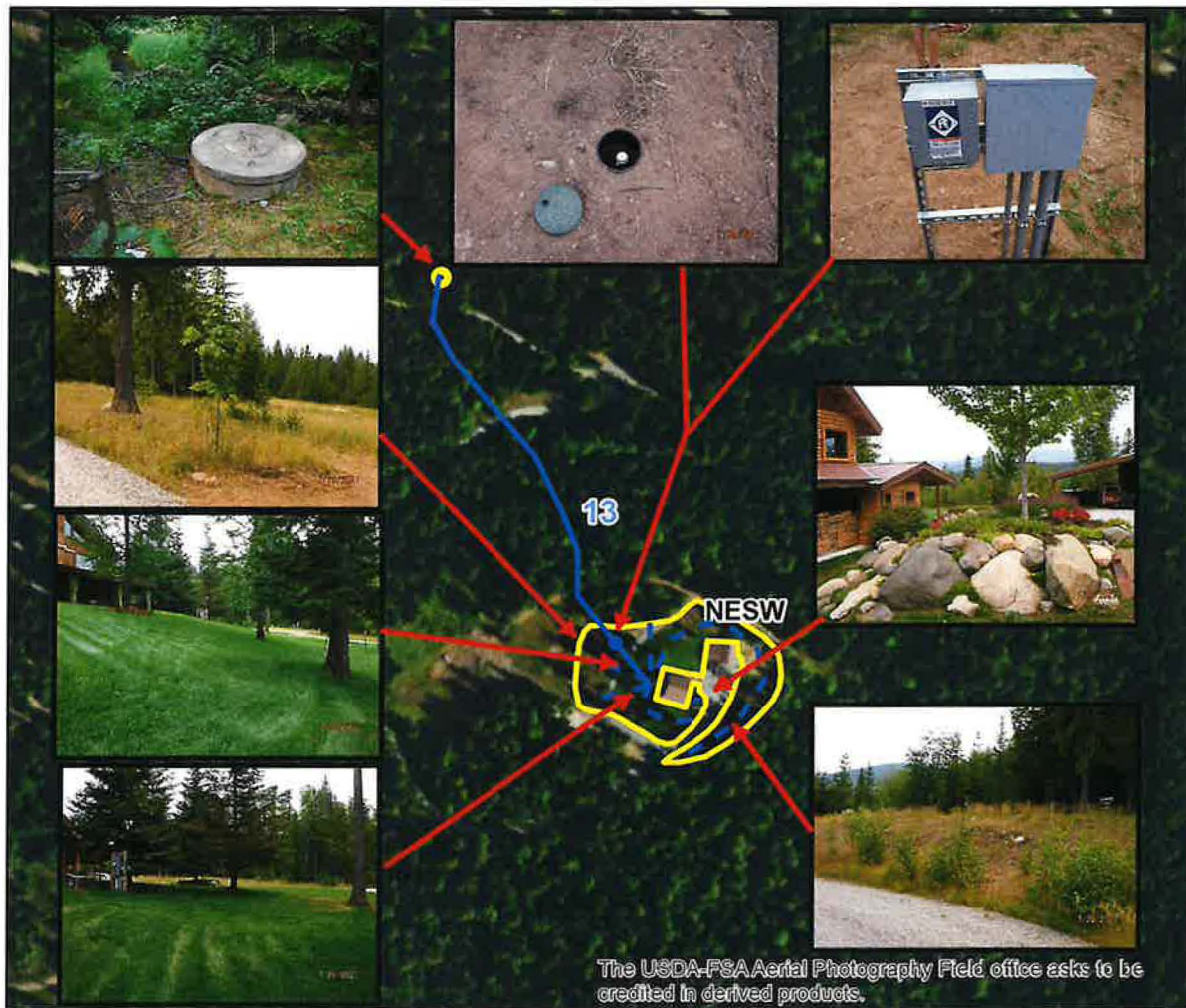
Reviewer *Adm. Fink* Date 8/5/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-9470

IRRIGATION system diagram.

01E

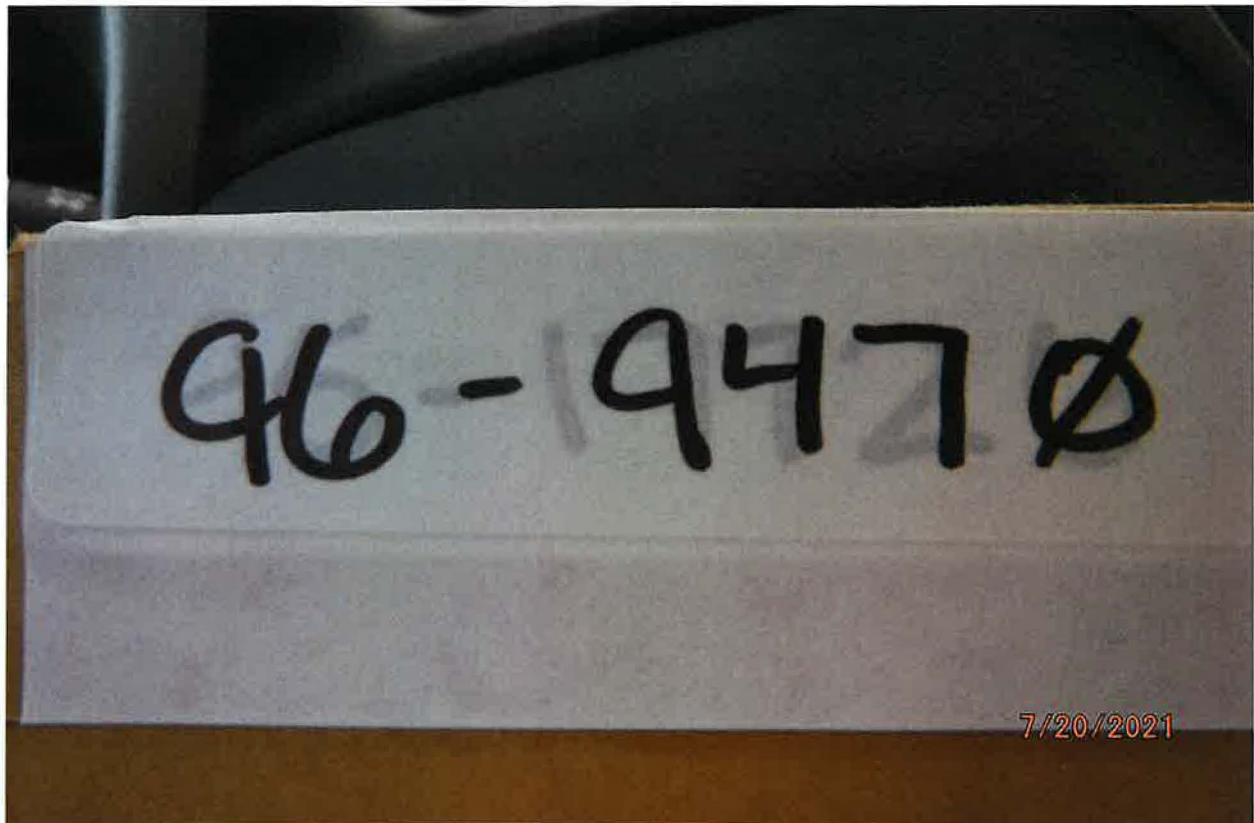
58N



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

0 0.035 0.07 0.14 Miles





FIELD EXAM DATE 7/20/2021



POD – HAND DUG WELL



POD – HAND DUG WELL, SITUATED ALONG SIDE CREEK

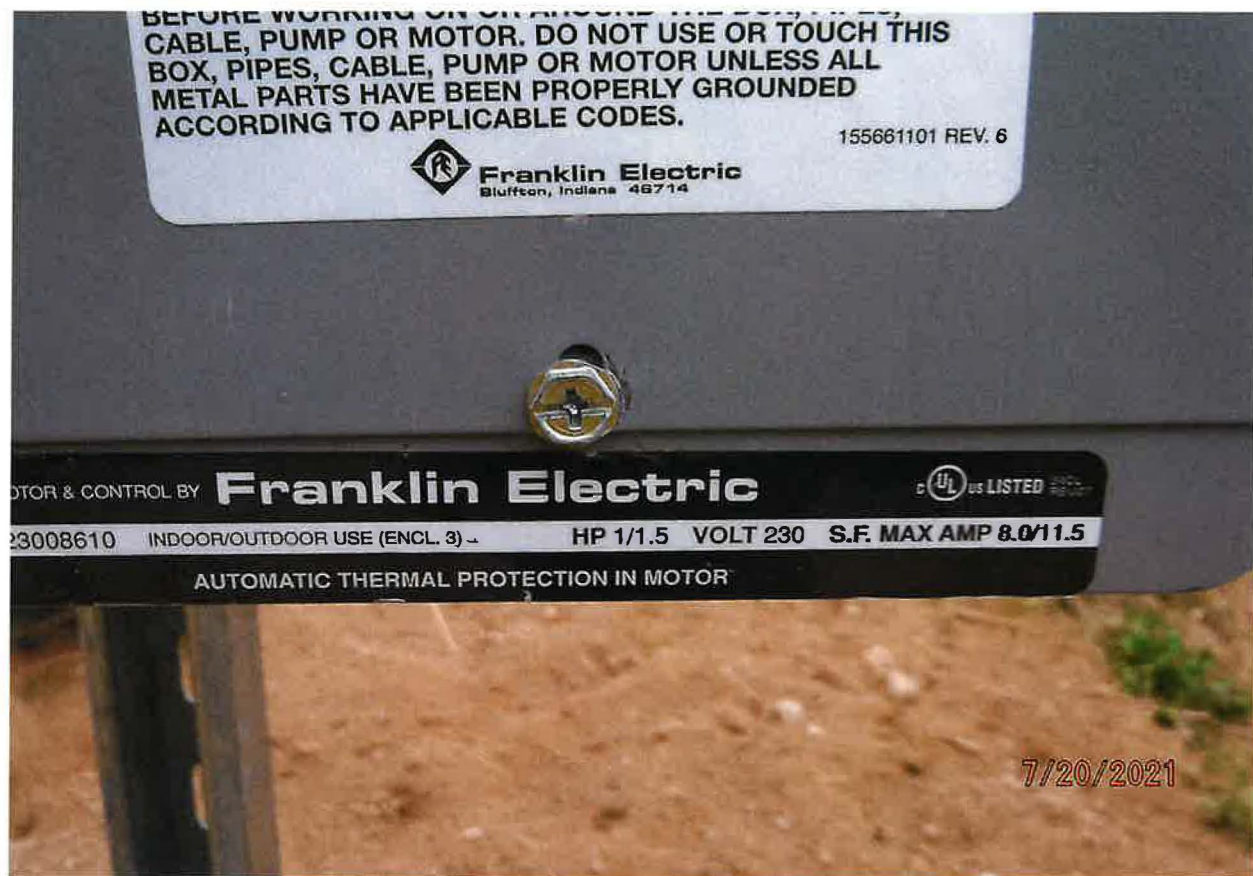




1.5 INCH SERVICE LINE ROUTED FROM POD-TO-POU



WATER SYSTEM PUMP CONTROL PANEL – LOCATED AT POU



1 HP PUMP INSTALLED IN WELL



5 GAL BUCKET TESTS COMPLETED FROM INLINE HOSE PORT NEAR PUMP CONTROL PANEL



IRRIGATION POU





IRRIGATION POU





IRRIGATION POU





IRRIGATION POU

