

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 92-10166
Exam Date: 06/22/2021

1. Current Owner:
ALVIN BALDWIN 590 LOST CABIN TRL SAINT MARIES ID 83861-5007 AND
NORMA BALDWIN 590 LOST CABIN TRL SAINT MARIES ID 83861-5007
2. Accompanied by: Alvin Baldwin
Phone No: 208-245-1789
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:**
SPRING

Tributary
ALDER CREEK

Method of Determination: Arcmap and DRG.

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:**

SPRING L7 (SE¼ SW¼ SW¼), Sec. 25, Twp 45N, Rge 03W, B.M. BENEWAH County

Method of Determination: GPS; POD located at -116°40.1108, 47°12.6225

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	
45N	03W	25											0.1 L7						0.1

Total Acres: 0.1

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	
45N	03W	25											X L7						

Method of Determination: Field examination 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
SPRING					

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. Field examination observation of low flow spring entering the applicant's 50-gal drum shows flows less than 4 gpm, resulting in the recommendation of **0.01 cfs** as the maximum diversion rate for licensing purposes.

E. FLOW CALCULATIONS

Measured Method: field examination observation. Small consistent trickle from spring box pipe to 50-gal drum demonstrated flow of less than 4 gpm, which equates to 0.01 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.1 \text{ ac} \times 3.0 \text{ afa} = 0.3 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.1 \text{ ac} \times 214\text{-day} \times 1.9835 = 4.2 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 0.3 \text{ af}$$

2. Volume Calculations for Other Uses:

- Domestic annual volume = **0.6 af** for in-home use only.
- This right uses a spring water source and does not receive an irrigation beneficial use annual volume nor maximum diversion volume.

G. NARRATIVE/REMARKS/COMMENTS

Right 92-11123 has been split from this permit during licensing review due to the Alder Creek water source & irrigation system portion of the developed water uses being separate from the applicant's spring source system. 92-10166 captures small acreage irrigation & domestic use(s) from the spring source used by the applicant.

Field exam performed on 6/22/2021 with the applicant, Alvin Baldwin, showed spring water being diverted for domestic and irrigation uses. At the POD, the applicant has a spring box and small poly pipe that gravity flows into two 50-gal drums. I was unable to perform flow measurements due to inadequate pipe requirements. Field examination observation of the low flow spring entering the applicant's 50-gal drum shows flows less than 4 gpm, resulting in the recommendation of **0.01 cfs** as the maximum diversion rate for licensing purposes.

During licensing review the GPS location of the spring POD was found to be in a different quarter-quarter designation than permit approved to develop. Additionally, the applicant's domestic and irrigation POU's had been developed in a different quarter-quarter designation than permit approved for development. An Amendment to Permit (For Licensing Purposes) was mailed to the applicants on 11/17/2021 and was received back at the Northern Regional Office on 11/24/2021. The amendment of permit was finalized prior to splitting Right 92-10166.

Field maps were used during the exam to sketch out the domestic POU and irrigation POU, which consists of small log home and small acreage irrigation around the home. The applicant uses a 4-wheeler & trailer towed water tank to transport water from the POD to two buried 50-gal tanks co-located with the house. Water is then pumped to home & irrigation uses. The water system is semi-off grid, and the applicant states they have adequate water to use in the home and to water around the house. The annual volume associated with the applicant's domestic beneficial use equals **0.6 af** for in-home use only. The irrigation annual volume for the 0.1 ac traced out using Arcmap aerial imagery during licensing review equals 0.1 ac x 3.0 afa = 0.3 af. This right uses a spring water source and does not receive an irrigation beneficial use annual volume nor maximum diversion volume. Annual volume limitations are accounted for in the conditions of approval on the license.

Conditions 26A, X15, & X16 were removed from this permit during licensing review; X15 & X16 are included for split right 92-11123. Condition 227 was removed, as the minimum stream flow Right 92-7200's end reach is located above the confluence where Alder Creek flows into the St. Maries River. Condition X31 was added to describe irrigation of less than 1 acre occurring. All other conditions shall be carried forward to the license. There are no 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	0.01 CFS	
DOMESTIC	01/01 to 12/31	0.01 CFS	0.6 AF

Totals: 0.01 CFS

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 11/30/2021

Reviewer  Date 12/30/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
92-10166

IRRIGATION system diagram.

03W



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

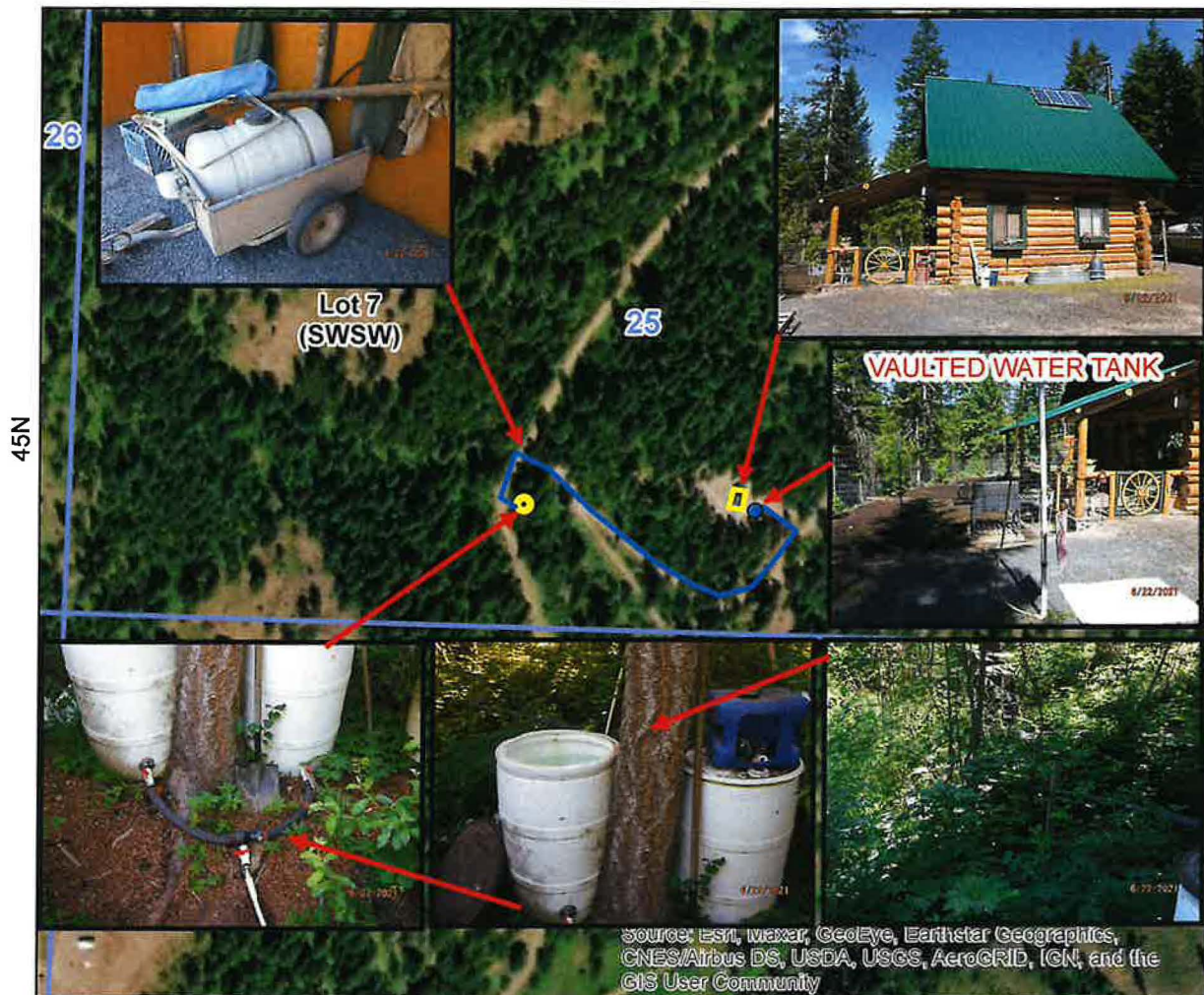
0 0.035 0.07 0.14 Miles



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DOMESTIC system diagram.

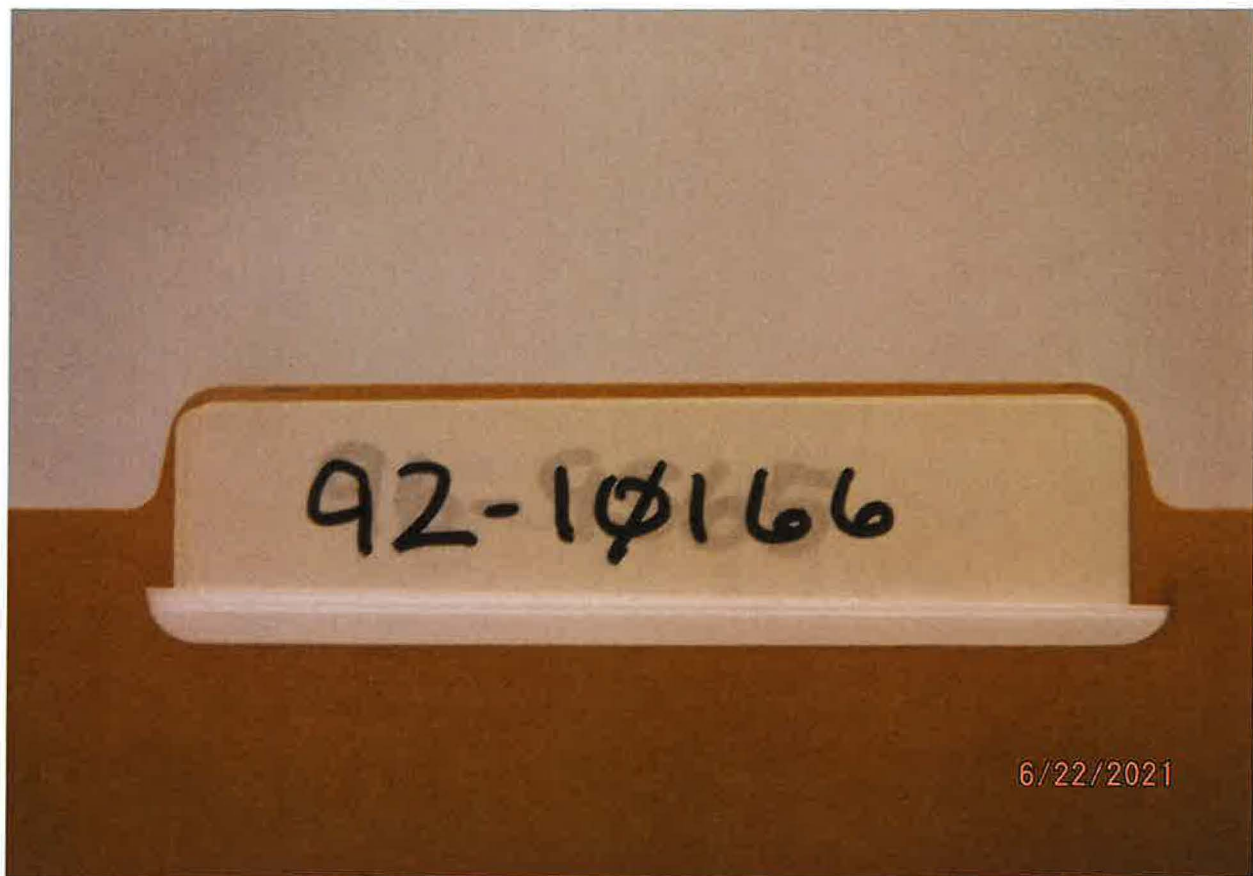
03W



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

0 0.035 0.07 0.14 Miles





FIELD EXAM DATE 6/22/2021



POD – SPRING SOURCE WITH SPRING BOX AND 2 INCH POLY PIPE DIVERSION TO TANK(S)



AT POD – 2EA 50 GAL DRUMS USED TO CAPTURE SPRING WATER



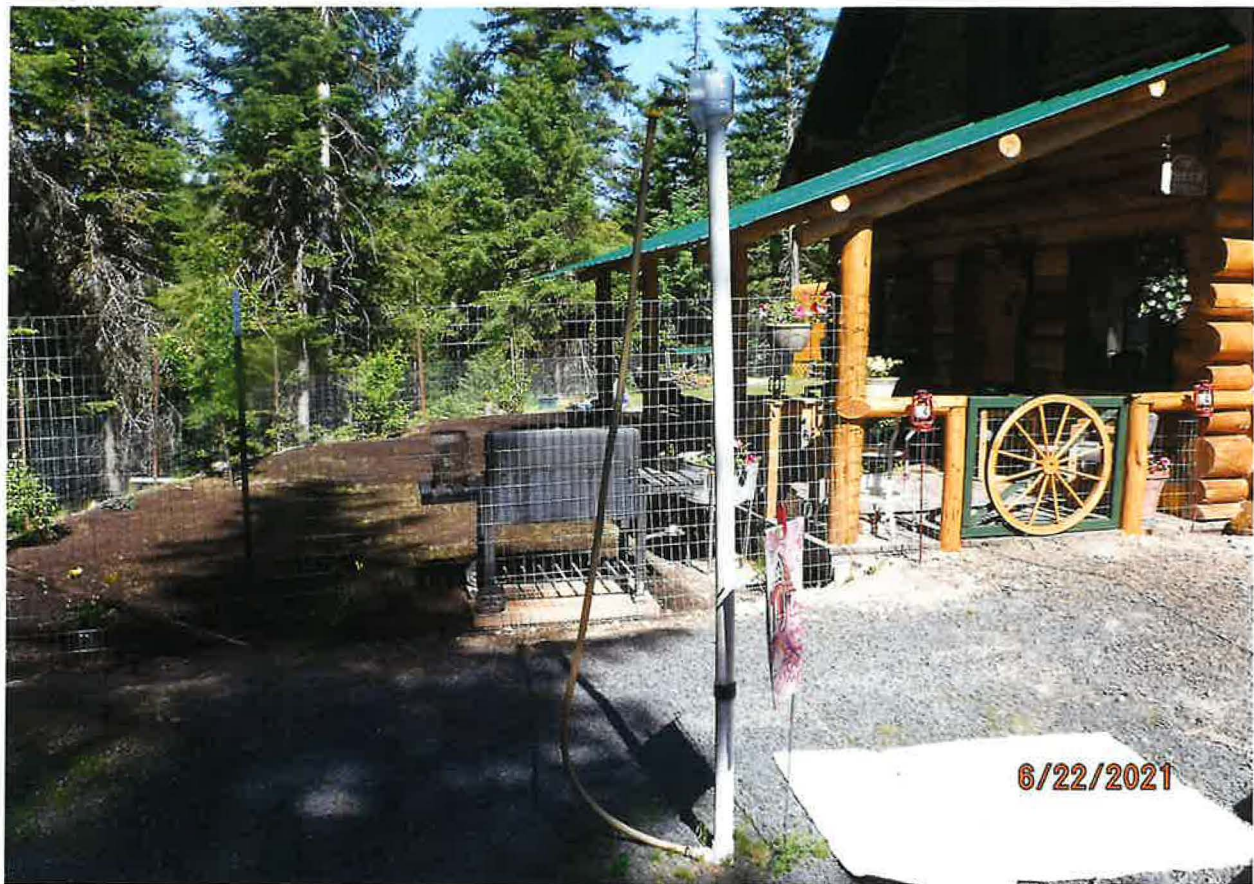
WATER TRANSPORTED TO DOMESTIC POU FROM 2 TANKS



DIVERSION FROM SPRING SOURCE AT INTAKE TO STORAGE TANK – LOW FLOW SPRING



UTILITY TRAILER AND TANK USED TO TRANSPORT WATER FROM POD TO POU



DOMESTIC POU – 2EA 50 GAL DRUMS BURIED, WITH PIPES ROUTING TO IN HOME AND LAWN USE



DOMESTIC POU



IRRIGATION POU – NEWLY SEEDD LAWN SPACE AROUND HOUSE & LANDSCAPE PLANTS

