

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-8975

Exam Date: 4/18/2014

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? ☒ Yes ☐ No
- Irrigation of 5 acres or less
 - Storage of up to 14.6 AF for stockwater purposes only
 - Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - Other < >

2. Current Owner: Name: Robert & Bette Jo Case
Owner of Record Correct? ☒ Yes ☐ No
Address of Record Correct? ☒ Yes ☐ No
If No: Address

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: CO98337

4. SOURCE TRIBUTARY

Spring

Sinks

Method of Determination: Applicant submitted an aerial photo map that outlined POD & POU.

Change in Source: ☐ Yes ☒ No**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments: There are no other water rights that share POU.

2. Other water rights with the same point of diversion: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis
94-8490	Spring	Domestic	Decreed

Comments: Neighbors share the same pump from stream.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Spring		NE	SE	SW	25	48N	04E		Shoshone

Method of Determination: Legal Description described at time of permit was correct. Boundaries have changed since. See Narrative.

Change in POD? ☐ Yes ☒ NoAmendment Required? ☐ Yes ☒ No

2. **PLACE OF USE:** Use: Domestic

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
48N	04E	25												D					

Method of Determination: Map of property submitted by land owner identifies POU clearly. PLSS data through ArcMap match.

Change in POU? ☐ Yes ☒ No Amendment Required? ☐ Yes ☒ No☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

☒ Aerial Photo Attached (required for irrigation of 10+ acres).☐ Photo of Diversion and System Attached

4. Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Pump	Unk	1.5	Unk	Unk	Unk

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: In-office field exam so flow measurements are not applicable.**E. FLOW CALCULATIONS**☒ Additional Computation Sheets Attached

Measured Method:

Administrator memo #22 authorizes a flow rate of up to 0.04 cfs.

See the theoretical calculation sheet with a number of scenarios providing a calculated average flow rate of 0.04 cfs.

Measurement = 0.04 cfs**Permit allowed = 0.04 cfs****License recommend for 0.04 cfs.****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

 $V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$ $V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\hspace{2cm}}$ $V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$

2. Volume Calculations for Other Uses:

Administrator memo #22 authorizes a volume of up to 1.2 af

G. PURPOSE OF USEIrrigation ☒ Yes ☐ No # Stock 0 Domestic # of Homes 1

Other: < >

Change in Purpose of Use? ☐ Yes ☒ No

Method of Determination: Information in the water right file is consistent with aerial photography of the property.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

Permit 94-8975 authorized the use of 0.04 cfs from a spring for domestic water purposes. Based on the information provided in the water right file, this qualifies for an in-office field exam.

Initially there was a concern describing the legal descriptions. The map that was submitted with the application for permit for 94-8975 showed that the quarter-quarter boundary was correct and that the POU & POD was all within the same SESW. When I checked this on our PLSS data in ArcMap, the POD appeared to be north of this boundary in the NESW. The POD is located in the neighbors property and overlap review showed that they have a water right as well. So I pulled the neighbors file (WR 94-8490) to see how the system was described and hopefully gather more information on the actual POD location. In the 94-8490 field report, there is a comment that reads, "Property is located in two QQ, NESW and SESW with the house in the NESW. Craig and I discussed this and determined no amendment would be sent and we would adjust the POU and the POD as the GCDB lines have been adjusted since the original map was submitted." This was initialed by Mr. Saxton. I brought the POD legal description to Craig to confirm that we wanted to stay consistent on this for WR 94-8975 and he supported this for reasons previously stated. So, no amendment to change the POD description will be filed.

Theoretical calculations were completed to estimate system parameters. Lift was taken from DRG topo map to measure the point of diversion to the place of use or storage tank. I used 40-60 pressure using standard turn on shut off limits for domestic pressure tanks. Pumping level is minimal and may only divert water laterally. Horsepower in use came from a conversation with the home owner who confirmed the system uses a 1.5 hp pump. Average rate of flow in the theoretical is 0.08 cfs. This represents that the total combined use of 0.08 cfs under 94-8490 & 94-8975 is capable of being supplied to both places of use.

Because the theoretical shows that there are no limitations in the system to provide water to both water rights sharing this diversion, we do not need to place a combined use limit condition on the water right.

Have conditions of permit approval been met? ☒ Yes ☐ No**I. RECOMMENDATIONS****1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Domestic	01/01 – 12/31	0.04 cfs	1.2 af
	<u>Totals</u>	0.04 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

Other: < >

J. AUTHENTICATIONField Examiner's Name Patrick Miller Date 04/18/2014Reviewer David A. Nelson Date 4-22-14

State of Idaho
Department of Water Resources
Field Exam Map
94-8975

This map depicts the DOMESTIC place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

04E



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

0 0.05 0.1 0.2 Miles



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 94-8975
 Reviewer: Patrick Kelly
 Date of Review: 4/18/2014

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	1.5	1.5	1.5
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	5	5	5
DISCHARGE PRESSURE	40	50	60
RATE OF FLOW (cfs)	0.09	0.08	0.06 0.08

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

Lift was taken from DRG topo map to measure the point of diversion to the place of use or storage tank. I used 40-60 pressure using standard turn on shut off limits for domestic pressure tanks. Pumping level is minimal and may only divert water laterally. Horsepower in use came from a conversation with the home owner who confirmed the system uses a 1.5 hp pump. Average rate of flow is 0.08 cfs. This is an adequate water supply to fulfill both water rights 94-8490 & 94-8975 that share the same POD.

Process	Basin Sequence	Draft	Owner	Source	POD/ POU	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	Total Acres
Water Right	94-2016	N	TRIBOLET, MANFRED	WATSON GULCH CREEK	POU															X		0
Water Right	94-4071	N	BENTHAM, GEORGE W	DEXTER CREEK	POD													X				0
Water Right	94-4071	N	BENTHAM, GEORGE W	DEXTER CREEK	POU												X			X		0
Water Right	94-4094	N	CITIZENS UTILITIES CO	PLACER CREEK	POU					X	X											0
Water Right	94-4095	N	CITIZENS UTILITIES CO	PLACER CREEK	POU					X	X											0
Water Permit	94-7528	N	PFAHL, J CHRIS; RUST,	GROUND WATER	POU																X	0
Water Right	94-7528	Y	PFAHL, J CHRIS; RUST,	GROUND WATER	POU																X	0
Water Right	94-8490	N	RIHTARSHICH, KELLY C; RIHTARSHICH, SHANNON K	SPRING	POD									X								0
Water Right	94-8490	N	RIHTARSHICH, KELLY C; RIHTARSHICH, SHANNON K	SPRING	POU	Neighbor West, Share POD.								X			X					0
Water Permit	94-8975	N	CASE JR, ROBERT; CASE, BETTE	SPRING	POD												X					0
Water Permit	94-8975	N	CASE JR, ROBERT; CASE, BETTE	SPRING	POU												X					0