

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 1-7106

Exam Date: June 25, 2014

1. Current Owner: SHELLEY COATS
443 S 100 E
RUPERT ID 83350
(208)670-1869

And/Or

SCOTT COATS
443 S 100 E
RUPERT ID 83350
(208)670-1869

2. Accompanied by: Scott Coats (permit holder) and Jana Reeder (IDWR)

3. SOURCE

SNAKE RIVER

TRIBUTARY

COLUMBIA RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Decreed domestic groundwater right 36-13303. Mr. Coats indicated that he pays assessments to the Minidoka Irrigation District, but water is not actually delivered to the property.

2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

SNAKE RIVER

L6 SE1/4NW1/4

Sec. 15, Twp 10S, Rge 24E, B.M.

MINIDOKA County

Method of Determination: Aerial photography, GIS, and field verification

2.

PLACE OF USE:

IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
10S	24E	15								1.6									1.6
										L 6									

Total Acres: 1.6

Method of Determination: Aerial photography, GIS, and field verification

D. FLOW MEASUREMENTS

Not required for permits with irrigation of less than five (5) acres per new Beneficial Use Examination Rules implemented 3/29/2012.

$$\text{Theoretical yield: } Q = \frac{8.8 \times (H_p) \times (\text{Eff})}{H}$$

Where: $H_p = 1.0$ Hp (from name plate on pump motor)

$\text{Eff} = 70\%$ (assumed)

$H = \text{elevation distance} + 2.31 \times \text{operating pressure}$ (assume elevation difference of 15.0 feet based on field observation and estimate of pumping height and assumed operating pressure of 30.0 psi based on lawn sprinkler).

$$H = 12.0 \text{ feet} + (2.31 \times 30.0 \text{ psi}) = 81.3 \text{ feet}$$

$$Q = 8.8 \times (1.0) \times (0.70)$$

$$Q = 0.075 \text{ cfs} \quad (\text{Note that only 1.6 acres were found to be irrigated. Using a duty of water of 0.03 cfs per acre for small acreages results in 0.048 cfs which rounds to 0.05 cfs}).$$

E. VOLUME CALCULATIONS

Not required for permits with irrigation using natural stream flow from a stream or spring (surface water source) per new Beneficial Use Examination Rules implemented 3/29/2012. However, due to the nature of this right and the requirement to obtain supplemental (possibly rental) water, it is recommended that this right be licensed with a diversion volume.

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (1.6 \text{ acres}) \times (4 \text{ AFA per acre}) = 6.4 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (0.05 \text{ cfs}) \times (246 \text{ days}) \times 1.9835 = 24.4 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 6.4 \text{ AFA}$$

F. NARRATIVE/REMARKS/COMMENTS

Application for Permit 01-7106 was filed on October 11, 1989 by Scott &/or Shelley Coats to appropriate 0.09 cfs of water from the Snake River for irrigation of 3.0 acres on property along the Snake River east of Heyburn. The permit was approved on March 23, 1990 and Proof of Beneficial Use was filed on April 1, 1991. On June 25, 2014, I conducted the licensing exam with Scott Coats' assistance. Jana Reeder (IDWR) also participated in the exam.

The system originally consisted of a pump with an intake to the Snake River with buried pipelines to various faucets on the property with garden hoses to sprinklers for irrigation. Mr. Coats indicated that he was in the process of modifying the system, but had not yet conducted the work. The original pump was no longer hooked into the system so water was not being pumped from the river. While the pump was being replaced, and the system was being modified, Mr. Coats had tied his domestic well (36-13303) into the system to provide irrigation water for the property. Enough of the original system was in place to document the original development under the permit. Mr. Coats was able to find the original pump (1 Hp Ace Pump model # C48L2PA103A2, serial # 8F97) in his shop. During the exam, it was clear that significantly less than three acres was actually irrigated. Based on field observations, Mr. Coats' statements, and using ARCMAP it appears that approximately 1.6 acres of the property is irrigated. Using the standard irrigation allowance of 0.03 cfs per acre for small acreages, 0.05 cfs could be licensed for the 1.6 acres of irrigation. A theoretical calculation indicates that the original system could have produced at least 0.05 cfs.

One item of note relating to the permit is the relatively late priority on the Snake River and a condition on the permit indicating that *"No water may be diverted under this right until adequate supplemental water is obtained for the irrigation season when the natural flow is not available."* Prior to the exam, I contacted Water District 01 personnel and they indicated that they had record of the owner(s) paying a \$50.00 fee to the district on an annual basis and they had not curtailed this particular diversion.. It appears that Water District 01 has been aware of the diversion and water use for several years. It is recommended that the condition indicating that *"No water may be diverted under this right until adequate supplemental water*

is obtained for the irrigation season when the natural flow is not available." be retained on the license. It is probably worth noting that Mr. Coats indicated that he also pays an annual assessment to the Minidoka Irrigation District (MID), but is not actually delivered MID water. Note that a MID waste stream enters the Snake River on the neighbor's property, just downstream of the Coats' diversion point from the Snake River. Mr. Coats indicated that he was told in 1989, that he should obtain a water right from the Snake River in lieu of trying to divert his MID water from the waste stream. It appears that the original filing, and the development of the permit, was almost some sort of an attempt at an exchange (pumping Snake River water instead of MID water that enters the Snake River just downstream of the diversion point).

Have conditions of permit approval been met? ☒ Yes ☐ No

G. RECOMMENDATIONS

1. Recommended Amounts

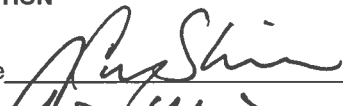
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.050 CFS	6.40 AF
<u>Totals:</u>		0.050 CFS	6.40 AF

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 ☐ Other

H. AUTHENTICATION

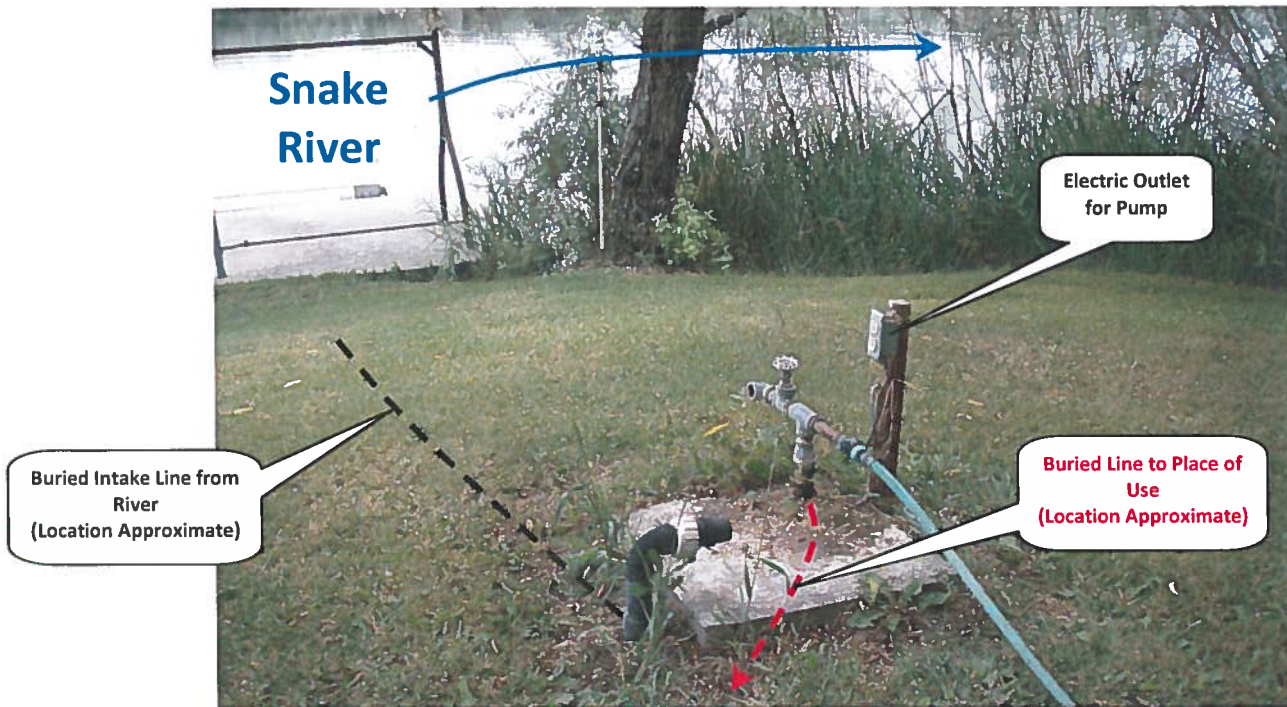
Field Examiner's Name  Date 6/30/2014

Reviewer  Date 7/15/14

01-7106 Point of Diversion and Place of Use Map



01-7106 Point of Diversion Photos



ABOVE: View of pump location near the south end of the property. The indicated black line runs underground to the Snake River in the background of the view. The other line leads to various faucets, including this site, around the property where irrigation can occur. Also note electric outlet for pump hookup.

BELOW: View of original pump that was used at location above. Pump is a 1 Hp Ace pump (model # C48L2PA103A2 / serial # 8F97).



01-7106 Place of Use Photos



ABOVE: View of place of use near the south end of the property.

BELOW: View of the place of use near the north end of the property, behind the house shown in view above. Note the hose and sprinkler visible in this view.

