

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 72-16744

Exam Date: 9/10/2012

1. Current Owner: DAVID TEFERTILLER
286 N 700 E
KAYSVILLE UT 84037
(801) 726-4445

And

JOANNE PRO TEFERTILLER
286 N 700 E
KAYSVILLE UT 84037
(801) 726-4445

2. Accompanied by: Corey Skinner (IDWR)

3. SOURCE

SALMON RIVER

TRIBUTARY

SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 72-10258
2. Other water rights with the same point of diversion: None

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

SALMON RIVER

L1 SW1/4NE1/4NW1/4

Sec. 19, Twp 12N, Rge 19E, B.M.

CUSTER County

Method of Determination: Aerial photography and field verification.

2.

PLACE OF 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	
12N	19E	19					X												
							L 1												

Method of Determination: Aerial photography and field verification.

3.

Well or Diversion
ID No.***Motor Make****Hp****Motor Serial No.****Pump Make****Pump Serial No. or Discharge**
Size

N/A

Berkeley

1.5

C48L2EC11C3

Berkeley

S39522

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

D. FLOW MEASUREMENTS

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

Theoretical yield:
$$Q = \frac{8.8 \times (HP) \times (EFF)}{H}$$

Where: HP = 1.5 HP (acquired from plate on pump)

EFF = Pump Efficiency = 70% (assumed)

H = Total Dynamic Head = (total lift) + (2.31 x operating pressure). Total lift was estimated at 20 ft based on field observations. Operating pressure estimated at 30 psi based on typical lawn sprinkler.

$$H = 20 \text{ ft} + (2.31 \times 30.0 \text{ psi}) = 89.3 \text{ feet}$$

$$Q = \frac{8.8 \times (1.5) \times (0.70)}{89.3}$$

$$Q = 0.10 \text{ CFS}$$

Manufacture Pump Efficiency Curves

Where: Based on data acquired from Berkeley Pumps for a 1.5 hp motor/pump (model no. S39522), operating at a discharge pressure of 30 psi and 20 ft of dynamic suction lift will be able to produce 40 GPM (0.09 CFS).

Under either flow analysis, rate exceeds permitted amount of 0.02 CFS, therefore use permitted amount.

E. FLOW CALCULATIONS

Not required for permits with irrigation using natural stream flow from a stream or spring per new Beneficial Use Examination Rules implemented 3/29/2012.

F. NARRATIVE/REMARKS/COMMENTS

Application for Permit 72-16744 was filed on February 25, 2008 by David & Joanne Tefertiller to divert 0.02 cfs of water from the Salmon River for domestic purposes on parcel no. RP000830010062 in Custer County (12N 19E Sec. 19 Lot 1), AKA Block 1, Lot 6, Tunnel Rock Acres. The permit was approved on October 9, 2008 and proof of beneficial use was filed with the Department on September 3, 2009. On September 10, 2012, while in the area, Corey Skinner and I visited the location and conducted the licensing exam.

The system developed under permit 72-16744 consists of a 1.5 HP pump (Berkeley model no. S39522) that diverts water from the Salmon River into a 1.25 in. diameter PVC line. This line serves as a mainline for a small sprinkler irrigation system at the place of use, which was in place at the time of the examination. The property has a home, lawn, and trees. The western portion of the lawn slopes steeply towards the Salmon River, where the Point of Diversion (POD) is located. A theoretical estimate of the system and pump manufacturer data, indicates that a 1.5 HP pump can produce up to 0.1 CFS, which exceeds the permitted rate of 0.02 CFS. It is recommended that license 72-16744 be issued for domestic purposes with a rate of 0.02 CFS. The property is also covered by a domestic groundwater right, 72-10258, from a well located adjacent to the house. Therefore it is also recommended right 72-16744, along with any additional domestic rights, are limited to 13,000 GPD and no more than 0.5 acres of irrigation.

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>
DOMESTIC	04/01 to 10/31	0.020 CFS	N/A
	<u>Totals:</u>	0.020 CFS	N/A

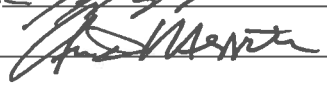
2. Recommended Amendments

☐ 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

I. AUTHENTICATION

Field Examiner's Name  Date 8/13/2013

Reviewer  Date 8/13/2013

Licensing Field Exam Photographs

Place of Use (POU) & Point of Diversion (POD) 72-16744



Figure 1. Pump (Berkeley 1.5 HP model no. S39522) in Salmon River.



Figure 2. Pump (Berkeley 1.5 HP model no. S39522).



Figure 3. 1.25 in delivery pipe from Berkeley Pump.



Figure 4. Pipe split to accommodate delivery of water to north and south side of home.



Figure 5. Irrigated lawn on southwest side of home. Black line (1.25 in) as conveyance from



Figure 6. Irrigated lawn on north west side of home. Black line (1.25 in) as conveyance from pump.



Figure 7. Irrigated lawn on north side of home.



Figure 8. Irrigated lawn on east side of home.