

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22702

Exam Date:
7/22/2014

1. Current Owner: JOHNSON E SMITH
617 AIRPORT RD
EMMETT ID 83617
(208)365-5585

And/Or

CRYSTAL A SMITH
617 AIRPORT RD
EMMETT ID 83617
(208)365-5585

2. Accompanied by: Johnson and Crystal Smith
Phone No: same as above
Address: same as above
Relationship to Permit Holder: same

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: ~~none~~ 65-5558
2. Other water rights with the same point of diversion: none

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

GROUND WATER

SE1/4SE1/4

Sec. 11, Twp 06N, Rge 02W, B.M.

GEM County

Method of Determination: aerals and Garmin GPS 43.86806, W -116.53312

2. **PLACE OF USE:** IRRIGATION

TwpRgeSec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06N02W11													2.0			2.5	4.5
													L 8				

Total Acres: 4.5

PLACE OF USE: STOCKWATER

TwpRgeSec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06N02W11													X			X	
													L 8				

Method of Determination:

3. x Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

 x Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

 x Aerial Photo Attached (required for irrigation of 10+ acres).

 x Photo of Diversion and System Attached

4.

<u>Well or Diversion</u>					<u>Pump Serial No. or Discharge</u>
<u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Size</u>
"shallow well"	illegible	7.5	unknown	Berkeley	7732047

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u>						
<u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>

2. Measurements: none taken

E. FLOW CALCULATIONS _____ Additional Computation Sheets Attached

1] THEORETICAL CALCULATION: open discharge so assume 10 psi, 7.7 hp pump, well is 17 feet deep so assume Q is 15 feet

$$8.8 \times 7.5 \times 0.7 / 15 \text{ feet} + [2.31 \times 10 \text{ psi}] = 46.2 / 38.1 = 1.2 \text{ cfs}$$

2] IDWR STANDARD: 4.5 acres irrigated x 0.03 cfs per acre = 0.135 cfs = 0.14 cfs recommended for licensing

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.5 \times 4.5 = 20.25 = 20.3 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.14 \times 1.9835 \times 265 = 73.58 = 73.6 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 20.3 \text{ af}$$

2. Volume Calculations for Other Uses: not applicable

G. NARRATIVE/REMARKS/COMMENTS

The permit was issued for 0.15 cfs for 5 acres of irrigation, 0.02 cfs for stockwater for a total 0.17 cfs. The point of diversion is a 17 foot, 24 inch diameter "shallow well". There is no well log on record because a hole has to be 18 feet deep for IDWR regulations to consider it a well. The irrigation and stockwater uses are supplemental to surface water right 65-5558 for 5 acres of irrigation from the Payette River via a private ditch called the "Smith Ditch". Evidently the ditch washes out in areas, although the permittees said that they have not yet had to use the supplemental water.

There was gated pipe for the surface water. Mr. Smith showed me the Berkeley 7.5 hp pump that he has available to use in the shallow well if needed. He has sprinklers he would use to irrigate and would pump water to stockwater troughs. The stockwater is for 20 head of cattle, goats and sheep, according to the permit. They have had cattle and goats until a few years ago so there were no stock on site the day of the exam. I recommend that that stockwater use be deleted because it cannot be verified. If the Smiths need stockwater in the future for 20 head of mixed stock, it would be exempt from licensing, because the quantity is much less than 2500 gpd.

The field exam and a 2004, 2009, 2011 and 2013 aeriels verified 4.5 maximum acres irrigated. I recommend that 4.5 acres be licensed. A theoretical flow calculation indicted that the shallow well can produce 1.2 cfs. I recommend for licensing a diversion rate of 4.5 acres x 0.03 cfs per acre = 0.14 cfs. The volume recommended for licensing is 20.3 af, the smaller of the Vir and Vdr calculations.

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

H. RECOMMENDATIONS

Permit:	0.17 cfs
b/u limit	0.14 cfs
system meas	1.2 cfs
proof limit	0.2 cfs

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.140 CFS	20.30 AF
	<u>Totals:</u>	0.140 CFS	20.30 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

I. AUTHENTICATION

Field Examiner's Name Wing Macc Date 7-22-14

Reviewer _____ Date _____



Both photographs on this page are views of the 24 –inch diameter, 17-foot deep “shallow well”





Looking north at a portion of the place of use.



The 7.5 hp Berkeley pump for the shallow well.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

April 8, 2014

JOHNSON & CRYSTAL SMITH
617 AIRPORT RD
EMMETT, ID 83617

Re Permit To Appropriate Water No. 65-22702

Dear MR AND MRS SMITH:

The permit referenced above was issued for 0.17 cfs from ground water for stockwater for approximately 20 head of mixed stock and 5 acres irrigation. The irrigation was to be supplemental to Last Chance Ditch Do. surface water.

This letter is to request that you call me to schedule the field exam for this permit. A field exam is required by Idaho law before a license can be issued, at which time it becomes a water right. The license is the end product needed for continued water use.

Please have available at the exam someone familiar with the water use, the system and its construction, as well as the pump and motor specs.

Please call me at 208.334.2190, to set an appointment for the exam that I hope to conduct in May or June of 2014. Failure to respond to this letter request by **May 8, 2014**, may result in the permit being voided or a license issued for less than the permitted amount. Thank you.

Sincerely,

Vicky Music
Sr. Water Resource Agent