

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 2-10304

Exam Date: 6/15/2012

1. Current Owner: ZOLA SMITH
5476 MARKET RD
MARSING ID 83639
(208)896-4324

M GARLAND SMITH
5476 MARKET RD
MARSING ID 83639
(208)896-4324

GARLAND SMITH TRUST
5476 MARKET RD
MARSING ID 83639
(208)896-4324
2. Accompanied by: Garland & Zola Smith
Phone No: (208) 896-4324
Address: 5476 Market Road, Marsing, ID 83639
Relationship to Permit Holder:

3. SOURCE SNAKE RIVER TRIBUTARY COLUMBIA RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Gem Irrigation District
2. Other water rights with the same point of diversion: 02-10303

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

SNAKE RIVER L7 NW1/4SE1/4 Sec. 18, Twp 03N, Rge 04W, B.M.
OWYHEE County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
03N	04W	18														2.0	1.0		3.0
																L 7			

Total Acres: 3

Method of Determination: Arc Map (Aerial Photo)

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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
	Century AC	2	246073	Red Lion	2708, Code #614673 (1 1/2")

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
5-Gallon Bucket						

2. Measurements: 5-Gallon Bucket. Measured flow of 43 gpm (0.10 cfs).

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (5-Gallon Bucket)

Q = 43 gpm (0.10 cfs)

Q(Pump Ratings): 10 psi = 89 gpm (0.20 cfs); 20 psi = 69 gpm (0.15 cfs); 30 psi = 60 gpm (0.13 cfs);
40 psi = 36 gpm (0.08 cfs).

Q(measured) = 0.10 cfs < 0.15 cfs Q(permit). Based on the measured flow and pump ratings, it appears that the selected pump can attain the permit requested flow of 0.15 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.0 \times 4.5 = 13.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.09 \times 260 \times 1.9835 = 46.4 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 13.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**PUMPING SYSTEM:**

A portable 2hp pump is used to divert water from the Snake River to irrigate approximately 3.0 acres of crop land. The surface water is captured in an intake structure (barrel) located approximately 40' from the river bank. Water is pumped from the intake structure through a 2-inch PVC suction line. The portable pump is operated by a portable generator.

CONVEYANCE SYSTEM:

The pump discharges water through a 1 ½" PVC pipe to an irrigation ditch. The irrigation ditch is dammed to flood irrigate the crops. The portion of land north of the irrigation ditch is not irrigated due to the proximity of the ditch to the river bank. The right holder has surface water rights from the Gem Irrigation District, but according to the right holder, their parcel is located at the end of the service area, and the water supply is inadequate to irrigate the 3.0 acres of crops. The ditch did contain a small amount of water during the field exam, which substantiates the right holders claim of an inadequate supply of water.

OVERLAP (POD):

A parcel of land to the west, associated with Water Right Permit No. 02-10303, is irrigated from the water diverted by the same pumping and conveyance system used for Water Right Permit No. 02-10304. When combining both water rights, the diversion rate of 0.17 cfs exceeds the system capacity of 0.10 cfs. Therefore, when the water rights are combined, they shall be limited to the system capacity of 0.10 cfs.

PLACE OF USE:

Approximately 3.0 acres of crop land is irrigated by the current pumping and conveyance system, not the 5.0 acres as indicated on the permit. The 5.0 acres relates to the entire size of Parcel No.2, which is comprised of the irrigated 3.0 acres. Since the actual size of irrigable land is 3.0 acres, not 5.0 acres, the recommended diversion rate shall be 0.09 cfs, not 0.15 cfs as requested on the permit.

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

CONDITION NO. 1 (046)

Permit holder did not proceed with drilling/excavation of sump for pumping of irrigation water. Only diversion is surface water from the Snake River.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.15	&/or	22.5
Beneficial Use Limit	0.09	&/or	13.5
System Measurement	0.10	&/or	13.5
Proof Fee Amount	0.20	&/or	20.0
Recommended Amount	0.09	&/or	13.5

H. RECOMMENDATIONS

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	0.09 CFS	13.5 AFA
<u>Totals:</u>		0.09 CFS	13.5 AFA

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X None

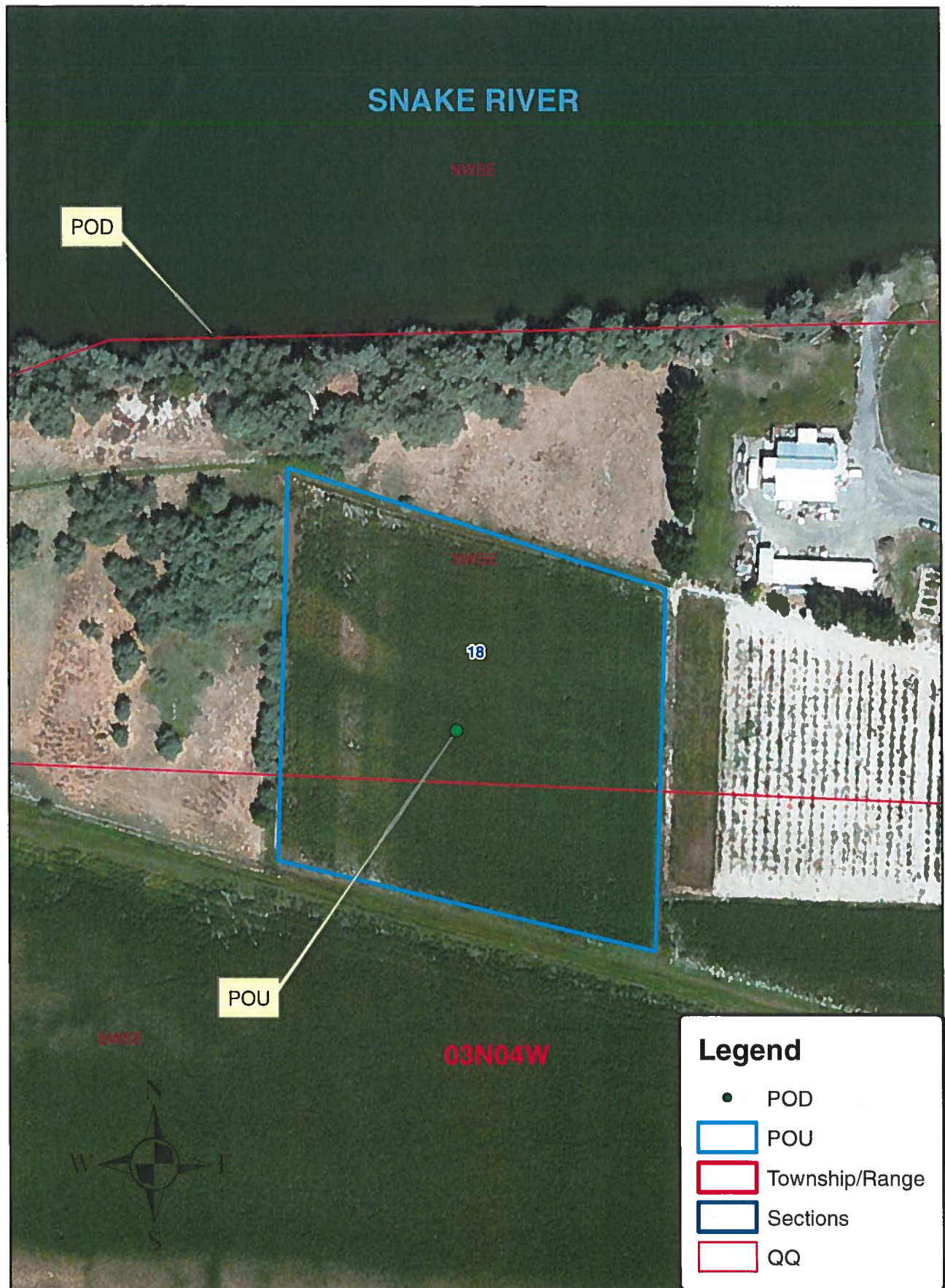
___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

I. AUTHENTICATION

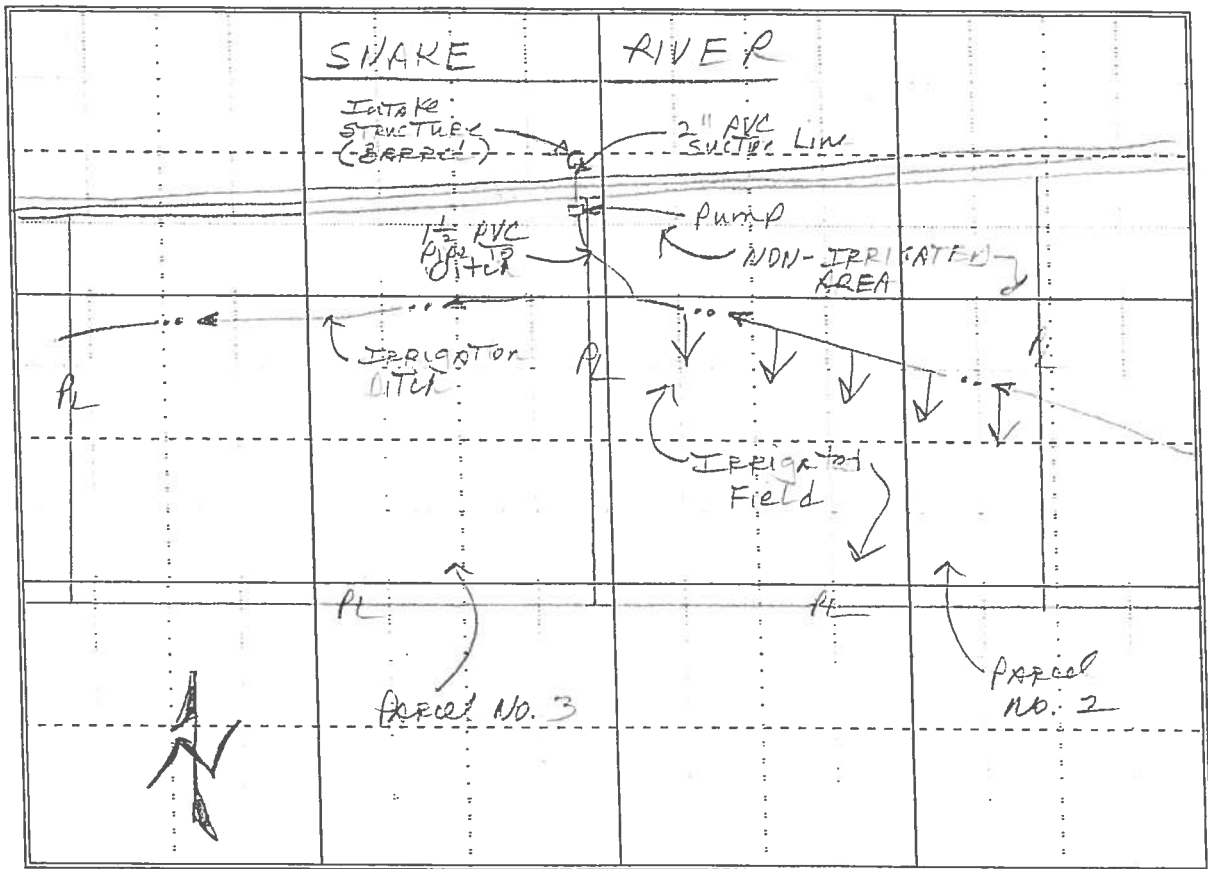
Field Examiner's Name Rick Collingwood Date 10-2-12

Reviewer _____ Date _____

02-10304
Gov't. Lot 7



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

FIELD EXAM PHOTOS

Water Right Permit: 02-10304

Field Exam Date: 6-15-12

PLS: NW1/4, SE1/4 Section 18, T.3N, R.4W.

Field Examiner: RC



Point of Diversion: View northerly of 2" PVC suction line to submerged intake structure (barrel), 2hp pump, and 1 ½" PVC discharge line.



Place of Use: View southeasterly of irrigated crop land.