

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13972

Exam Date: 9/20/2012

1. Current Owner: KENNETH STEEN
22 PYLE CREEK RD
GARDEN VALLEY ID 83622
(208)859-8311
2. Accompanied by: Ken Steen
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCE

PYLE CREEK

TRIBUTARY

MIDDLE FORK PAYETTE RIVER

B. OVERLAP REVIEW

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

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

PYLE CREEK

NE1/4NE1/4

Sec. 34, Twp 10N, Rge 04E, B.M.

BOISE County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
10N	04E	34	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
			0.1			0.9													1.0

Total Acres: 1

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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>
N/A	Unknown	2		Unknown	Unknown

*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>
Pitot Tube						

2. Measurements: Pitot tube. Pressure measurement of 32 psi. Pitot tube nozzle did not fit sprinkler nozzles, creating considerable leakage. Therefore, estimated operating pressure of 40 psi.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 2/10 + (2.31 \times 40) = 12.32/102.40 = 0.12 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.12 \text{ cfs} < 0.14 \text{ cfs } Q(\text{permit})$$

$$Z = 10' \text{ (Estimated)}$$

$$P = 40 \text{ psi (Assumed)}$$

$$HP = 2$$

Appears that the current pumping system may be able to attain the permit irrigation diversion rate of 0.12 cfs. However, since only 1 acre of lawn and landscaping is being irrigated, not 4 acres as stated on the permit, and with the elimination of the stock water beneficial use, recommend a diversion rate of 0.03 cfs for irrigation.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.0 \times 3.5 = 3.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 214 \times 1.9835 = 12.7 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 3.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A – No stock water beneficial use.

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 2-hp pump, with a 1 ¼" suction line, diverts water from Pyle Creek to the right holder's irrigation system. A 5' high, 2' thick concrete dam, with check boards, creates a deep pool in which to pump water from Pyle Creek.

IRRIGATION SYSTEM:

Lawn and landscaping near the home and garage are irrigated by the right holder's domestic well. The lawn and landscaping areas not covered by the domestic well are irrigated by the Pyle Creek irrigation system. The irrigation system is comprised of five (5) stations. Each station has between 3 and 5 rotary sprinklers. The irrigated areas east, west, and south of the home are irrigated by rotary sprinklers attached to sprinkler risers mounted to fence posts.

STOCK WATER:

The right holder does not have livestock (4 horses and sheep), as stated on the permit. Therefore, the stock water beneficial use has been removed from the permit place of use.

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

CONDITION NO.4 (01H) – Prior to diversion of water, the right holder shall install a lockable device. The power control/junction box for the irrigation pump is located in a locked garage. Therefore, the right holder is in compliance with Condition No.4.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.14	&/or	N/A
Beneficial Use Limit	0.14	&/or	N/A
System Measurement	0.12 (theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.03	&/or	N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	04/01 to 10/31	0.030 CFS	3.5 AFA
<u>Totals:</u>		0.030 CFS	3.5 AFA

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

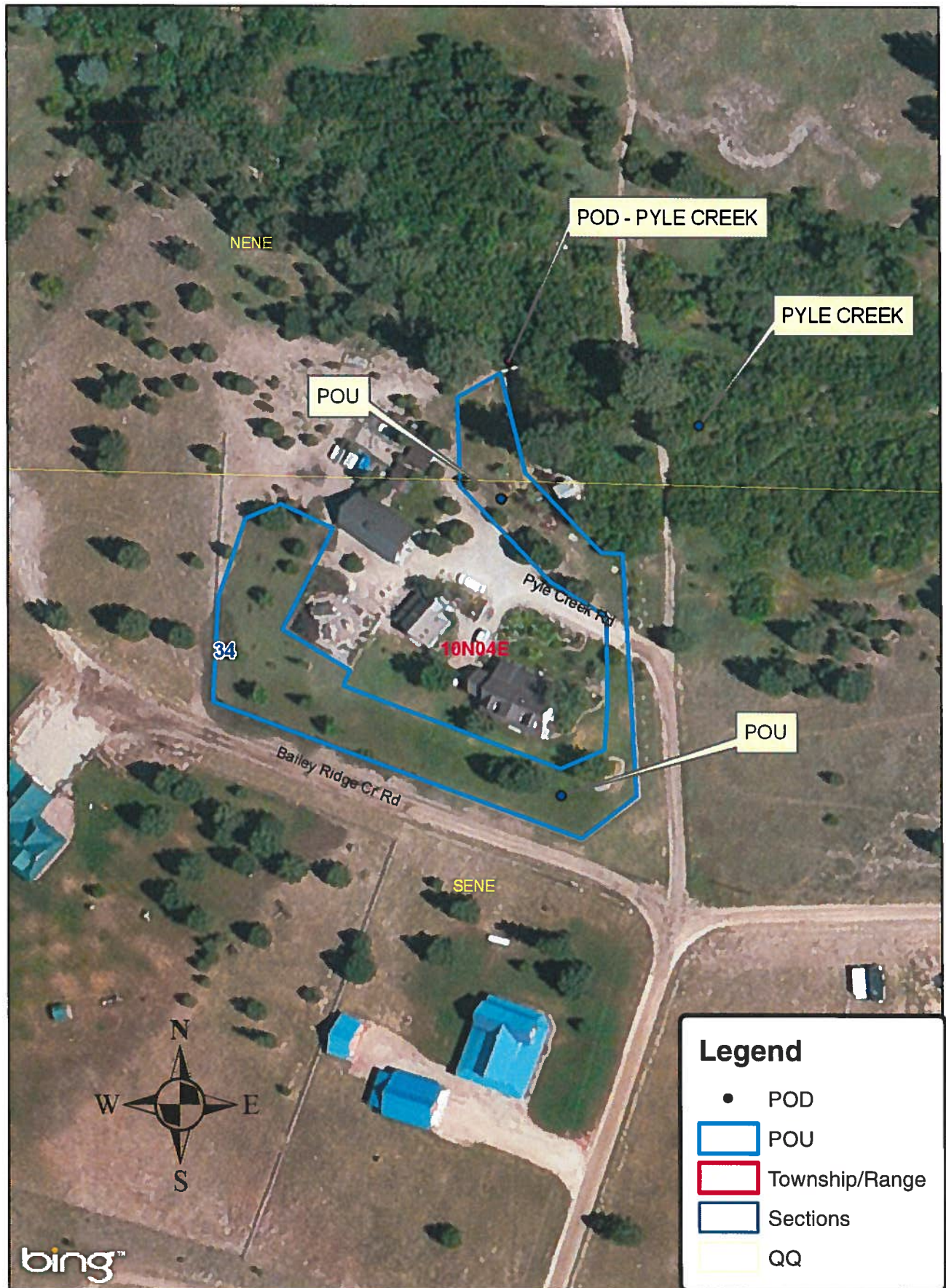
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 6/7/13

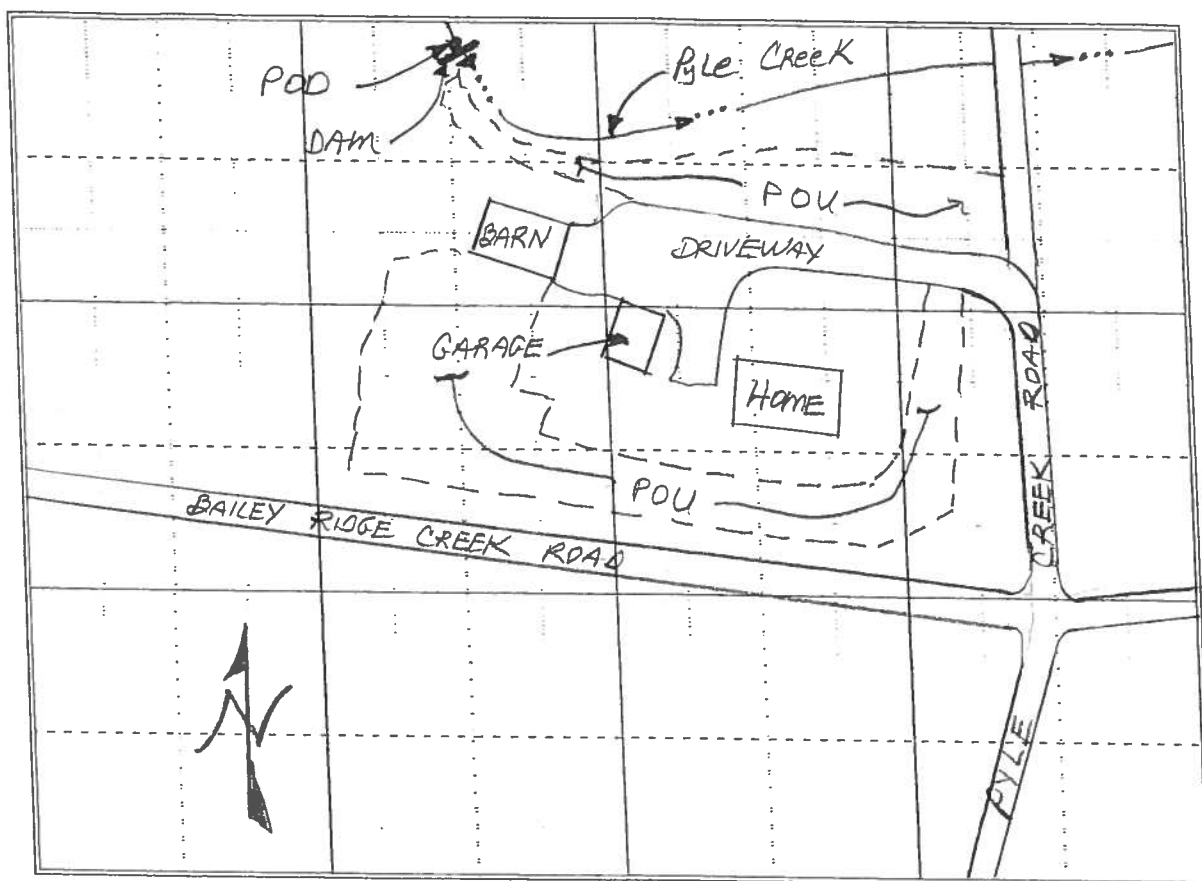
Reviewer _____ Date _____

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BING AERIAL PHOTO - 2011



- 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: 65-13972

Field Exam Date: 9-20-12

PLS: NE1/4, NE1/4 Section 34, T.10N, R.04E.

Field Examiner: RC



Point of Diversion: View of 1 1/4" suction line in Pyle Creek. A concrete dam, shown at the right, with boards, creates a pool upstream in which to pump water for irrigation.



View of 2 hp pump and 1 1/4" suction line from Pyle Creek. Pump is located at top of bank adjacent to Pyle Creek.



View upstream of concrete dam, slotted channel, and boards used to check up water.



Place of Use: View southeasterly of irrigation of lawn and landscaping.