

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22900

Exam Date: 7/19/2013

1. Current Owner: BLAINE BERGIN
10665 N HWY 52
HORSESHOE BEND ID 83629
(208)880-5851

And/Or

KIMBERLEE BERGIN
10665 N HWY 52
HORSESHOE BEND ID 83629
(208)880-5851

2. Accompanied by: Blaine Bergin
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE**

PAYETTE RIVER

TRIBUTARY

SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 65-13372B
2. Other water rights with the same point of diversion: 65-13372B

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

PAYETTE RIVER

L1 SW1/4SW1/4

Sec. 14, Twp 07N, Rge 01E, B.M.

GEM 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>	
07N	01E	14											5.0						5.0
													L 1						

Total Acres: 5

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	Franklin	5	Unknown	Franklin	4"

*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>
N/A						

2. Measurements: No field measurement. Sprinkler nozzles were too big for a pressure measurement with a Pitot Tube. Four (4) Rainbird impact sprinklers with 1 1/64" nozzles @ 40 psi = 4 x 5.54 gpm = 22.2 gpm. One (1) Komet Twin 100 Plus sprinkler @ 40 psi – 63 gpm. $Q = 22.2 + 63 = 85.2 \text{ gpm} \sim 0.19 \text{ cfs}$.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 5/70 + (2.31 \times 40) = 30.80/162.40 = 0.19 \text{ cfs}$$

$$Q(\text{sprinkler}) = (4 \times 5.54) + 63 = 85.2 \text{ gpm} \sim 0.19 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.19 \text{ cfs} = 0.19 \text{ cfs} \quad Q(\text{sprinkler}) > 0.10 \text{ cfs} \quad Q(\text{permit})$$

$$HP = 5$$

$$Z = 70' \text{ (Estimated)}$$

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

Appears that the current pumping system can attain the permit diversion rate of 0.10 cfs.

Recommend the permit diversion rate of 0.10 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5.0 \times 4.5 = 22.5 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.10 \times 260 \times 1.9835 = 51.6 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 22.5 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

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

A 5-hp submersible pump, placed in a 6" PVC perforated sleeve in the Payette River, diverts water through a 4" flexible rubber line to the 4" PVC supply line on the river bank. The 4" PVC supply line extends northeasterly to the southeasterly corner of the irrigated acreage. The 4" PVC supply line extends northerly along the right holder's easterly property line to a point near the right holder's northerly property line.

IRRIGATION SYSTEM:

The 5-acres of pine trees and field grass are irrigated by 3" hand lines and a Komet Twin 100 Plus Big Gun sprinkler. The 4" PVC supply line contains seven (7) 3" risers in which to connect the 3" hand lines. Each hand line section is comprised of four (4) Rainbird impact sprinklers with 11/64" nozzles. The Komet Twin 100 Plus Big Gun is connected to the 3" hand lines with a flexible hose, and is mounted on a wheeled frame to allow the right holder flexibility to irrigate the field grass located beyond the pine trees.

OVERLAP ANALYSIS:

Point of Diversion: Water Right Permit No. 65-22900 and Water Right 65-13372B have the same point of diversion.
Place of Use: Water Right Permit No. 65-22900 and Water Right 65-13372B have overlapping places of use.

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

CONDITION NO.4 (01H) – Prior to diversion of water under this right, the right holder shall install a lockable device. The irrigation pump can be operated from two locations. A control/junction box located near the pump on the river bank, has a locking hasp for locking with a padlock. Another irrigation pump control box is located near the home in a locked garage. 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	0.10	&/or	N/A
Beneficial Use Limit	0.10	&/or	N/A
System Measurement	0.19(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.10	&/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	03/01 to 11/15	0.100 CFS	22.5 AFA
<u>Totals:</u>		0.100 CFS	22.5 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

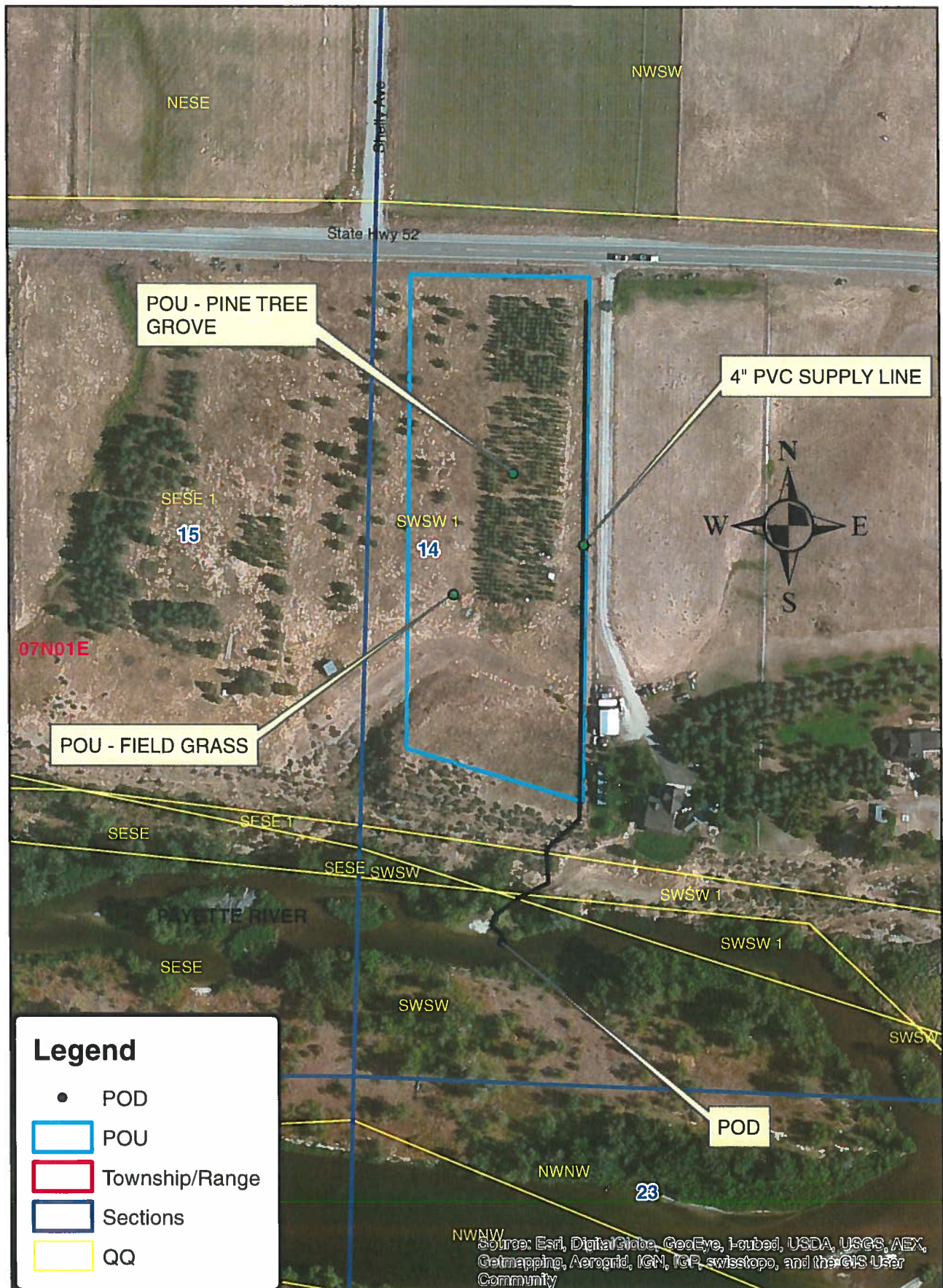
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/25/13

Reviewer _____ Date _____

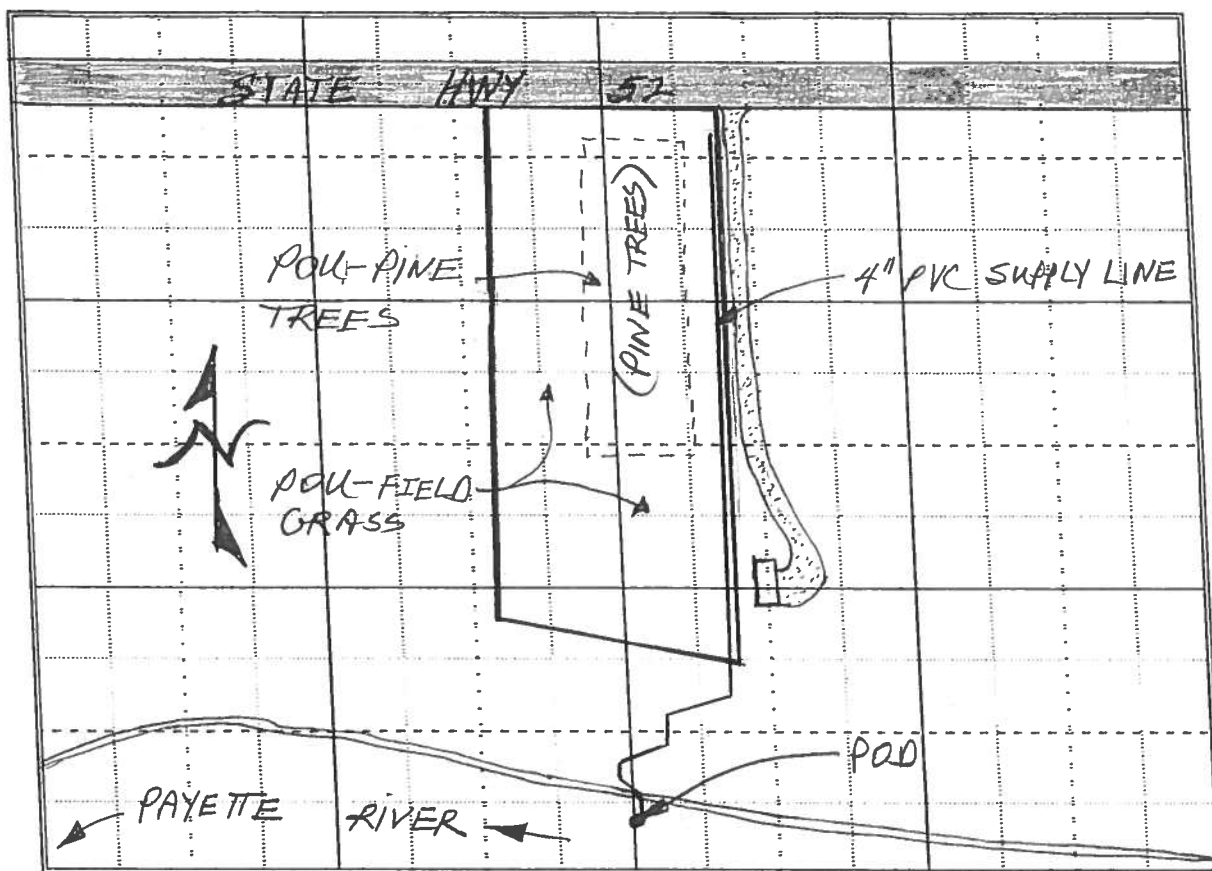
65-22900
GOV'T. LOT 1

ESRI AERIAL PHOTO - 2012



0 65 130 260 390 520
Feet

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: 65-22900

Field Exam Date: 7-19-13

PLS: SW1/4, SW1/4 Section 14, T.7N, R.01E.

Field Examiner: RC



Point of Diversion: View southerly of a 6" PVC perforated intake pipe and a flexible 4" rubber hose/pipe suction line in the Payette River. A 5-hp Jacuzzi submersible pump is located in the 6" PVC perforated intake pipe.



View northeasterly from the river bank of the 4" PVC supply line to the pressurized irrigation system. A portion of the 4" PVC supply line is shown extending up an embankment near the home.



Place of Use: View westerly of a 3" irrigation hand line extending to the west to irrigate a grove of pine trees and field grass for the wild animals. Several 3" risers are located on the 4" supply line extending northward along the easterly fence line for relocating the 3" hand line. The 3" hand line consists of four (4) Rainbird impact sprinklers with 11/64" nozzles. A Komet Twin 100 Plus mobile Big Gun is connected to the end of the hand line to allow irrigation of the field grass surrounding the grove of pine trees.



Place of Use: View northerly of the mobile Komet Twin 100 Plus Big Gun irrigating the field grass located westerly of the grove of pine trees.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

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June 6, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

Blaine & Kimberlee Bergin
10665 N. Hwy. 52
Horseshoe Bend, ID 83629

RE: Scheduling Field Exam for Water Right Permit No. 65-22900

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of June 17, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.10 cfs of surface water from the Payette River for irrigation of 5 acres.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by June 14, 2013, to conduct the exam during the week of June 17, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

Rick Collingwood, P.E.
Water Resource Agent, Sr.