

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23265

Exam Date: 6/25/2013

1. Current Owner: W LEE HUDSON
858 MIDDLEFORK RD
GARDEN VALLEY ID 83622
(208)462-8082
2. Accompanied by: Lee Hudson
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE**

MIDDLE FORK PAYETTE RIVER

TRIBUTARY

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:**

MIDDLE FORK PAYETTE RIVER

NE1/4SW1/4

Sec. 13, Twp 10N, Rge 04E, B.M.

BOISE County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: DOMESTIC

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>	
10N	04E	13										X							

PLACE OF USE: FIRE PROTECTION

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>	
10N	04E	13										X							

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	Century	2	078073M	Red Lion	1 1/2"
N/A	Century	1.5	Unknown	Red Lion	1"

*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. Irrigation system not in operation during field exam.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 3.5 / 100 + (2.31 \times 30) = 21.56 / 169.30 = 0.13 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.13 \text{ cfs} < 0.20 \text{ cfs } Q(\text{permit})$$

$$HP = 2 + 1.5 = 3.5 \text{ (2 Pumps)}$$

$$Z = 100' \text{ (Estimated)}$$

$$P = 30 \text{ psi (Assumed)}$$

Appears that the current pumping system is not capable of attaining the permit diversion rate of 0.20 cfs.

Recommend the theoretical pumping capacity of 0.13 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses: N/A

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

A 2-hp centrifugal self-priming sprinkler pump diverts water from the Middle Fork of the Payette River through a 2" PVC suction line. Water is conveyed through 1 ½" PVC discharge pipe to a 1,000-gallon fiberglass water storage tank. Next to the 1,000-gallon storage tank is a 500-gallon fiberglass water storage tank. The two tanks are connected by a short section of 1 ½" PVC pipe near the top of the tanks. The 1 ½" PVC pipe performs as an overflow for the 1,000-gallon water storage tank to fill the 500-gallon water storage tank. The water tanks are manually filled by the right holder.

The water stored in the two storage tanks is used for irrigation of the lawn and landscaping areas, and fire suppression. Fire protection is being achieved by a fire break road along the northwest corner of the property, and sprinklers installed along the outer edge of the fire break road and the perimeter of the property. The irrigation and fire suppression systems are operated by a 1 ½-hp centrifugal self-priming sprinkler pump located near the water storage tanks.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-23265.

Place of Use: There are no place of use overlaps for Water Right Permit No. 65-23265.

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

CONDITION NO.6 (R43) – The right holder shall maintain a measuring device and lockable controlling works. The right holder has installed a Blue-White Pitot Tube Flow Meter on the 1 ½" PVC supply line near the top of the 1,000-gallon water storage tank. Likewise, the power/junction box near the river pump has a locking hasp for locking with a padlock. Right holder has complied with Condition No.6.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.20	&/or	N/A
Beneficial Use Limit	0.20	&/or	N/A
System Measurement	0.13(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.13	&/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>
DOMESTIC	01/01 to 12/31	0.040 CFS	N/A
FIRE PROTECTION	01/01 to 12/31	0.130 CFS	N/A
<u>Totals:</u>		0.130 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

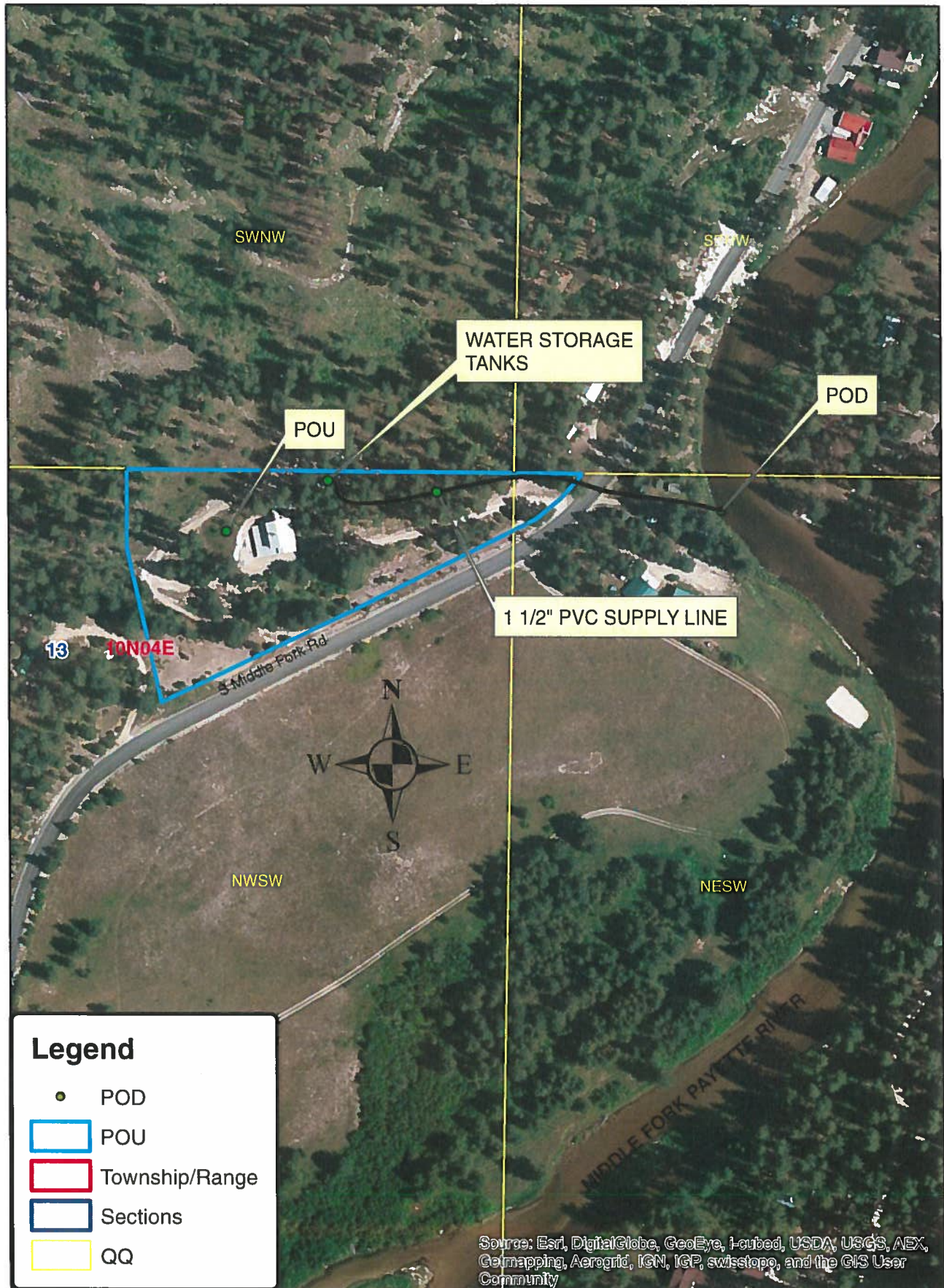
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/8/13

Reviewer _____ Date _____

65-23265

ESRI AERIAL PHOTO - 2012



0 65 130 260 390 520
Feet

FIELD EXAM PHOTOS

Water Right Permit: 65-23265

Field Exam Date: 6-25-13

PLS: NW1/4, SW1/4 Section 13, T.10N, R.04E.

Field Examiner: RC



Point of Diversion: View of the screened 2" PVC suction line near the westerly bank of the Middle Fork of the Pavette River.



View southeasterly of the 2-hp Red Lion lawn and turf pump. The 2" PVC suction line is shown extending from the river to the pump. The pump discharges water through 1 1/2" PVC pipe to the right holder's property. The discharge pipe remains above ground to the right holder's property where the water is discharged into two fiberglass storage tanks.



View of the 1 1/2" PVC discharge pipe exiting a culvert pipe crossing S. Middle Fork Road.

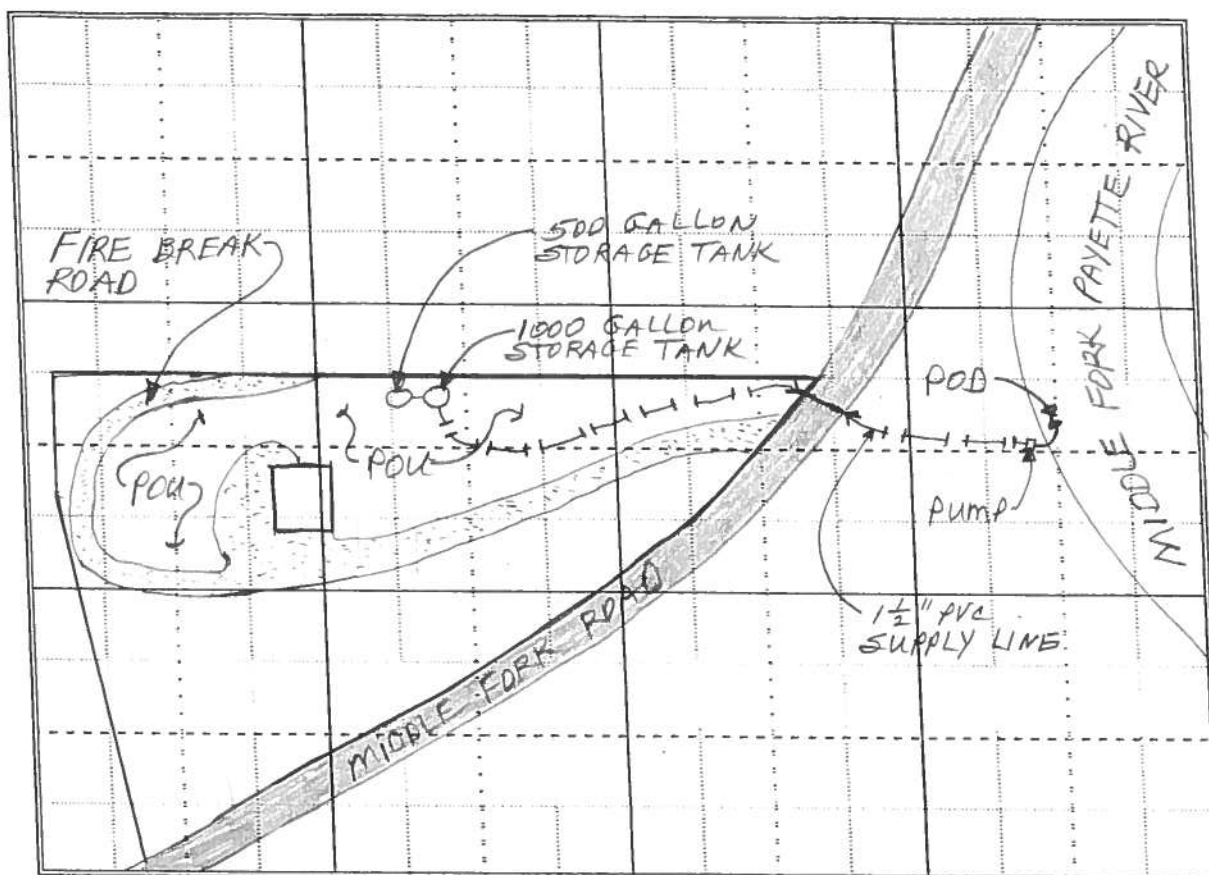


View northwesterly of a 500-gallon fiberglass storage tank and a 1,000-gallon fiberglass storage tank, which are designated for irrigation and fire protection. The 1 1/2" PVC discharge line is shown discharging through the top of the 1,000 gallon storage tank. Water levels in the storage tanks are manually operated. A 1 1/2-hp pump is connected to the 1 1/2" PVC discharge pipe from the 1,000-gallon fiberglass storage tank for irrigation and fire suppression. The solenoid valves shown are part of the properties irrigation system. The 1 1/2" PVC pipe connecting the two tanks is the fill line from the 1,000 gallon storage tank to the 500-gallon storage tank. The fire suppression system is comprised of sprinklers placed along the outer edge of a road which surrounds the home.



Place of Use: View southwesterly of the lawn and landscaping irrigated by the water stored in the two storage tanks.

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



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

June 12, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

W. Lee Hudson
858 Middlefork Road
Garden Valley, ID 83622

RE: Scheduling Field Exam for Water Right Permit No. 65-23265

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of June 24, 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 0.20 cfs of surface water from the Middle Fork of the Payette River for domestic use for 1 home and fire protection.

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 21, 2013, to conduct the exam during the week of June 24, 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.