

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22647

Exam Date: 9/20/2012

1. Current Owner: PILOTS LANDING HOMEOWNERS ASSOC INC
PO BOX 113
PAYETTE ID 83661
(208) 642-2504
2. Accompanied by: Susie and John Probst
Phone No: (208) 642-2504
Address: PO Box 113, Payette, ID 83661
Relationship to Permit Holder:

3. SOURCETRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use:
2. Other water rights with the same point of diversion:

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

GROUND WATER SW1/4SW1/4 Sec. 26, Twp 09N, Rge 05W, B.M. PAYETTE County

Method of Determination: GPS

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
09N 05W 26	<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>	3.2
											3.0	0.2					
											3.2						

Total Acres: 3.2

Method of Determination:

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</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
#D0029613	Franklin Electric	10	#2366029020	6-inch

*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>
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2. Measurements:

Pressure reading from power control box = 59.4 psi

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

Theoretical pump flow rate (using 10 HP, 70% efficiency, 78 feet of lift, and 59.4 psi):
 $Q = (8.8 \times 10 \times 0.7) / (78 + (59.4 \times 2.31)) = 0.29 \text{ cfs (130 gpm)}$

The diversion rate to be licensed under this right will be limited to ~~0.15~~ cfs

$$(3.2 \text{ ac} \times \frac{0.03 \text{ cfs}}{\text{acre}}) = 0.09 \text{ cfs}$$

C. Smith
6-18-13

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.2 \text{ acres} \times 4.5 \text{ AF/acre} = 14.4 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.29 \text{ cfs} \times 259 \text{ days} \times 1.9835 = 148.98 \text{ AF}$$

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

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

This permit was field examined on 09/20/12 by myself, Craig Tesch, and Jennifer Cuhacian of IDWR. The Pilots Landing Home Owner Association (HOA) President, Susie Probst, and her husband, John Probst, accompanied us on the exam. This permit authorizes the diversion of ground water to be used for supplemental irrigation purposes. The Pilots Landing HOA has eight shares of Lower Payette Ditch Company irrigation water. Ground water is supplied by a 215-foot, 8-inch well with a screened interval of 185-feet to 215-feet below ground surface; static water level is 78-feet below ground surface.

Water is pumped from the well to a pressure tank in a concrete vault immediately adjacent to the well. Water is then sent to sprinklers to irrigate lawns for 32 houses over a total area of approximately 3 acres. The well is located in the southwest corner of the subdivision at the end of the southwest corner culdesac.

The pump in the well has a Franklin Electric Model #2366029020, 6-inch, 10 HP motor. The system was running at the time of the field exam. The electronic pressure gauge inside the power control box read 59.4 PSI during pumping. Theoretical pump flow rate was calculated using 10 HP, 70% efficiency, 78 feet of lift, and 59.4 psi resulting in a discharge rate of 0.29 cfs (130 gpm). Pump discharge is greater than the requested diversion rate of 0.15 cfs.

On average, the owner irrigates when needed during the irrigation season from March 1st through November 15th. Water that is released onto the property is consumptively used by vegetation or seeps into the subsurface. In summary, the beneficial use of this water right includes irrigation of 3.2 acres. No overlapping water rights exist on the place of use.

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

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	0.150 CFS 0.09	
	<u>Totals:</u>	0.150 CFS 0.09	

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 Craig Trach Date 1/17/2013

Reviewer _____ Date _____

Photos taken by Craig Tesch on 09/20/2012



Licensed POD – Looking northwest at the concrete vault with pressurized tank, 8-inch well (#D0029613), and power control box. Water is pumped to sprinklers through buried pipes.

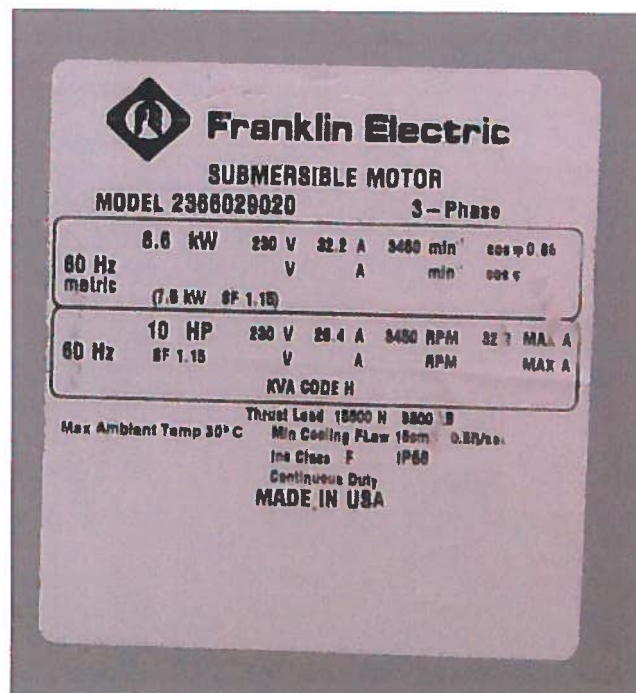


Licensed POD – Looking inside the power control box while the pump is running.

Photos taken by Craig Tesch on 09/20/2012



Close-up of the pressure gauge, 59.4 PSI during pumping.



Close-up of the pump sticker, Franklin Electric Model #2366029020, 6-inch, 10 HP motor.



8" well, concrete vault
w/ pressure tank, and
power control box

Arrows=buried pipe
flow direction to sprinklers

0 30 60 120 Feet

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