

A. GENERAL INFORMATION

Exam Date: 9/26/2012

- | 3. <u>SOURCE</u> | <u>TRIBUTARY</u> |
|------------------|------------------|
| GROUND WATER | |

1. Other water rights with the same place of use: Emmett Irrigation District surface water
2. Other water rights with the same point of diversion: none

GROUND WATER NE1/4NE1/4
GEM County

Sec. 9, Twp 06N, Rge 01W, B.M.

2.

PLACE OF USE: IRRIGATION

[illegible]

Total Acres: 3

PLACE OF USE: DOMESTIC

[illegible]

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.

Well or Diversion

<u>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>
Well	Franklin motor	3	3823028310	unknown	1.25 – 1.5 inches

IDWR tag no. D0030897

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

D. FLOW MEASUREMENTS

1.

Measurement

<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: none taken

E. FLOW CALCULATIONS ☐ Additional Computation Sheets Attached

Measured Method:

[1] IDWR standard for internal domestic use is 0.08 cfs per the domestic use graph. IDWR standard for irrigation for less than 5 acres is 0.03 cfs/acre. $0.03 \times 3 = 0.09$ cfs for irrigation + 0.08 cfs for domestic = 0.17 cfs total for all uses.

[2] Theoretical calculation: $z = 76'$ bgl – the pumping level from the well log; 40 psi- the IDWR standard for domestic + irrigation; 3 hp pump; 70% efficiency – the IDWR standard.

$$\frac{[8.8] [3] [0.7]}{76 + [2.31] [40]} = \frac{18.48}{168.4} = 0.109 = 0.11 \text{ cfs}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3 \text{ acres} \times 4.5 = 13.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.09 \times 260 \times 1.9835 = 46.41$$

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

2. Volume Calculations for Other Uses: Domestic

IDWR standard is 0.6 afa per home x 3 homes = 1.8 afa

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days used}) \times 1.9835 = 0.08 \times 365 \times 1.9835 = 57.91 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.8 \text{ afa}$$

$$\text{Total volume} = 13.5 + 1.8 = 15.3 \text{ afa}$$

G. NARRATIVE/REMARKS/COMMENTS

Permittee, Marc Archambeau accompanied me on the field exam. He owns the home in the southeast corner of the place of use, which he rents out. The renter was present for part of the exam and answered questions about the water use. Mr. Archambeau purchased the property about 8 years ago. The permit was issued for internal domestic use of 4 homes and irrigation of 4.8 acres from groundwater, supplemental to Emmett irrigation District. The 4th home was never built, so there are 3 houses on the place of use. The physical addresses of the place of use parcels is 2736 E Main St, 2748 E Main St and 2742 E Main St, in Emmett.

The system was already in place when Mr. Archambeau purchased the house at 2742 E Main St and lot on which the well is located. He is not sure of the location of piping to the 3 homes. The 8-inch diameter well is about 6 feet south of the pump house. Water is pump via a 3 hp pump, to 1.25-inch plastic pipe, and then to steel pipe plumbed to three 180 gallon pressure tanks, one for each of the homes. The water is then pumped to each home via 3 underground pipes. The home in the northeast lot, 2748 E Main, is currently bank-owned.

The permittee and his renter said that they use the water as a primary source and were unaware that the well water was to be used supplementally. They said it would be no problem to use the surface water everywhere except his front lawn. The surface water cannot be delivered here.

The surface water gravity flows from a larger ditch along the northern place of use boundary [a tarp likely used to divert water was seen here], and then south in a series of smaller ditches. No sprinkler pipe or heads were seen. A maximum of about 2.5 acres is irrigated. Rounding up as is the IDWR standard, 3 acres of irrigation is recommended for licensing. The permittee could not provide pump specs or flow measurements. The IDWR standard for 3 homes, internal use only, is 0.08 cfs and the standard for 3 acres of irrigation is 0.09 cfs, for a total of 0.17 cfs.

A theoretical flow calculation using a Z = 76 feet below the ground surface, from the well log, and a pressure of 40 psi, the IDWR standard for a domestic system with irrigation. The result was 0.11 cfs, which is the rate recommended for licensing.

The volume recommended for licensing is the lesser of the Vir and Vdr results for each of the uses, 13.5 for irrigation and 1.8 for domestic, for a total of 15.3 afa to be licensed.

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

H. RECOMMENDATIONS

1) Permit amount	<u>0.20</u> cfs
2) Beneficial use limit	<u>0.17</u> cfs
3) System measurement	<u>0.11</u> cfs
4) Proof fee amount	<u>0.20</u> cfs
Recommended Amount	<u>0.11</u> cfs

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	0.090 CFS	13.5 AF
DOMESTIC	01/01 to 12/31	0.080 CFS	1.8 AF
<u>Totals:</u>		0.110 CFS	15.30 AF

2. Recommended Amendments

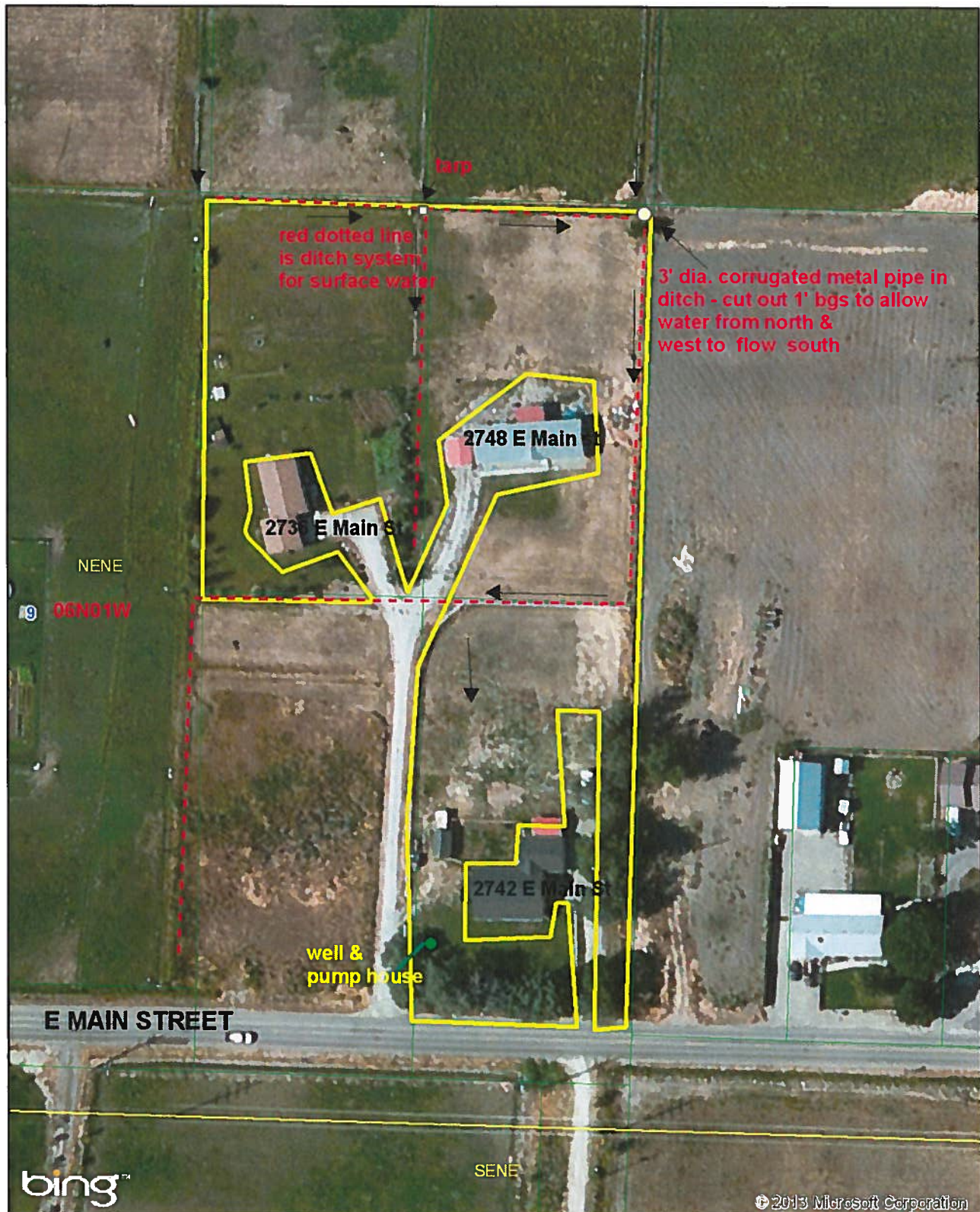
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

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

I. AUTHENTICATION

Field Examiner's Name Wong Wai Il Date 2-1-13

Reviewer _____ Date _____



65-22858 - map of POU and POU. POU outlined in yellow. Taxlots in green. Actual location of underground piping from well to houses is unknown.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

September 17, 2012

MARC ARCHAMBEAU
10953 HANLEY PL
EAGLE ID 83616

Re Permit To Appropriate Water No. 65-22858

Dear Mr. Archambeau:

The permit referenced above was issued for internal domestic use in 4 homes and the irrigation use for the irrigation of 4.8 acres. This letter is to request that you call me to schedule the field exam for this permit. A field exam is required by Idaho law before a license can be issued, at which time it becomes a water right. The license is the end product needed for continued water use.

The system must be operating the day of the exam and you will need to provide information regarding diversion and delivery works, such as pump and motor specs, number of sprinkler lines. As built drawings are preferable.

I will be conducting exams in the Emmett area on September 26 and 27, 2012. Please call me at 208.334.2190, by **September 21, 2012**, to set an appointment for the exam. Failure to respond to this letter request may result in the permit being voided or a license issued for less than the permitted amount. Thank you.

Sincerely,

Vicky Music
Sr. Water Resource Agent

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only			
Well ID No.	<u>809845</u>		
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat:	:	Long:	:

1. WELL TAG NO. D 0030897
DRILLING PERMIT NO. _____
Water Right or Injection Well No. _____

2. OWNER:
Name Michael Moser
Address 1803 Lavendale
City Meridian State Id Zip 83642

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 6 North ☒ or South ☐
Rge. 1 East ☐ or West ☒
Sec. 9 1/4 NE 1/4 NE 1/4
Gov't Lot _____ County Gem

Lat: _____ Long: _____
Address of Well Site 2742 E Main
City Emmet
(Give at least name of road & Distance to Road & Landmark)
Lt. _____ Blk. _____ Sub. Name _____

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☒ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
<u>Ben-tonight</u>	<u>0</u>	<u>18</u>	<u>550#</u>	<u>12" over bore</u>

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 70'
Was drive shoe seal tested? ☒ Y ☐ N How? Dry Hole

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>8" + 1</u>	<u>TD</u>	<u>250</u>	<u>Steel</u>	☒	☐	☒	☐	☐
<u>5" 60</u>	<u>70</u>	<u>280</u>	<u>Steel</u>	☐	☒	☐	☐	☐

Length of Headpipe 10' Length of Tailpipe 0
Packer ☒ Y ☐ N Type K packer

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method JSS Factory Port
Screen Type & Method of Installation JSS pull Back

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
70	76	80#		5	SS	☐	☒
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

13 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: well cap

12. WELL TESTS:

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian			
Yield gal./min.	Drawdown	Pumping Level	Time
4/0	60	76	4 hr

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: 30
Depth first Water Encounter _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
	<u>12</u>	<u>0</u>	<u>Top Soil on</u>			
	<u>12</u>	<u>7</u>	<u>Clay</u>			
	<u>12</u>	<u>16</u>	<u>30 Cemented Gravel</u>			
	<u>8</u>	<u>30</u>	<u>45 Sand + Gravel</u>	☒		
	<u>8</u>	<u>45</u>	<u>50 Blue Clay</u>			
	<u>8</u>	<u>50</u>	<u>60 Blue Clay + Sand Strips</u>	☒		
	<u>8</u>	<u>60</u>	<u>70 Blue Clay</u>			
	<u>8</u>	<u>70</u>	<u>76 Blue + white Sand</u>	☒		

RECEIVED

JAN 28 2004

WATER RESOURCES
WESTERN REGION

Completed Depth 76' (Measurable)

Date: Started 1-20-04 Completed 1-25-04

14. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Krip Pump Drilling Firm No. 417

Principal Driller Mike Krip Date 1-27-04

Driller or Operator II _____ Date _____

Operator I _____ Date _____

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES



Well located about 6" south of pump house.



Photo of interior of pump house shows the black plastic pipe from the well [far left pipe] to the 1.25" steel pipe that goes to each of 3 pressure tanks, then back underground to the 3 black pipes that carries water to each of the homes.



Looking south at permittees house and pasture irrigated from the surface and well water.



Irrigation of the lot in the northwest.



Corrugated pipe located in the northeast corner of the 4 lots.