

[illegible]

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09S	42E	19		11.4															11.4

Total Acres: 11.4

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09S	42E	19		X															

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>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
A0018276		1.5			

D. FLOW MEASUREMENTS

1. Measurement Equipment: Fuji Ultrasonic Flowmeter
2. Measurements: Maximum measured flow rate = 19.75 gpm

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

Theoretical Flow Rate = $8.8 \times 0.7 \times 1.5 / 70 + 2.13 \times 50 = 0.05$ cfs

Measured Flow Rate = 19.75 gpm = 0.04 cfs

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.4 \text{ acres} \times 3.5 \text{ af/acre} = 11.9 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 21.2 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 11.9 \text{ af}$$

2. Volume Calculations for Other Uses:

$$\text{Domestic (standard vol for inside use + } \frac{1}{2} \text{ acre lawn and garden)} = 1.2 \text{ afa}$$

$$\text{Stockwater} = 3 \text{ horses} \times 12 \text{ gpd} \times 365 / 325850 = 0.04 \text{ af} = 0.1 \text{ afa}$$

G. NARRATIVE/REMARKS/COMMENTS

Two ground water wells located in the NWNE of Section 19. The well developed under 11-7312 is pumped into the same mainline as the well developed under 11-7313. Both water rights provide water for stock, irrigation, and domestic uses. Water for stock is provided by one portable and one fixed stock tank. Two to three horses are watered on the premises. Farm ground is watered by handlines. The irrigation POU for this water right, 11-7312, and water right 11-7313 are the same and together total 11.4 acres; this right is for 3.4 acres within the combined POU. IDWR site tag A0018276 on pipe near wellhead.

PLS grid in this area is not accurate. Caribou County shows the entire Empey property is located within the NWNE of Section 19. Roadways match the QQ lines recognized by the county property records. Water rights 11-7312 and 11-7313 will be licensed to describe the entire place of use as located within the NWNE of Section 19.

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>
DOMESTIC	01/01 to 12/31	0.040 CFS	1.20 AF
IRRIGATION	04/01 to 10/31	0.050 CFS	11.90 AF
STOCKWATER	01/01 to 12/31	0.020 CFS	0.10 AF
<u>Totals:</u>		0.050 CFS	13.20 AF

2. Recommended Amendments

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

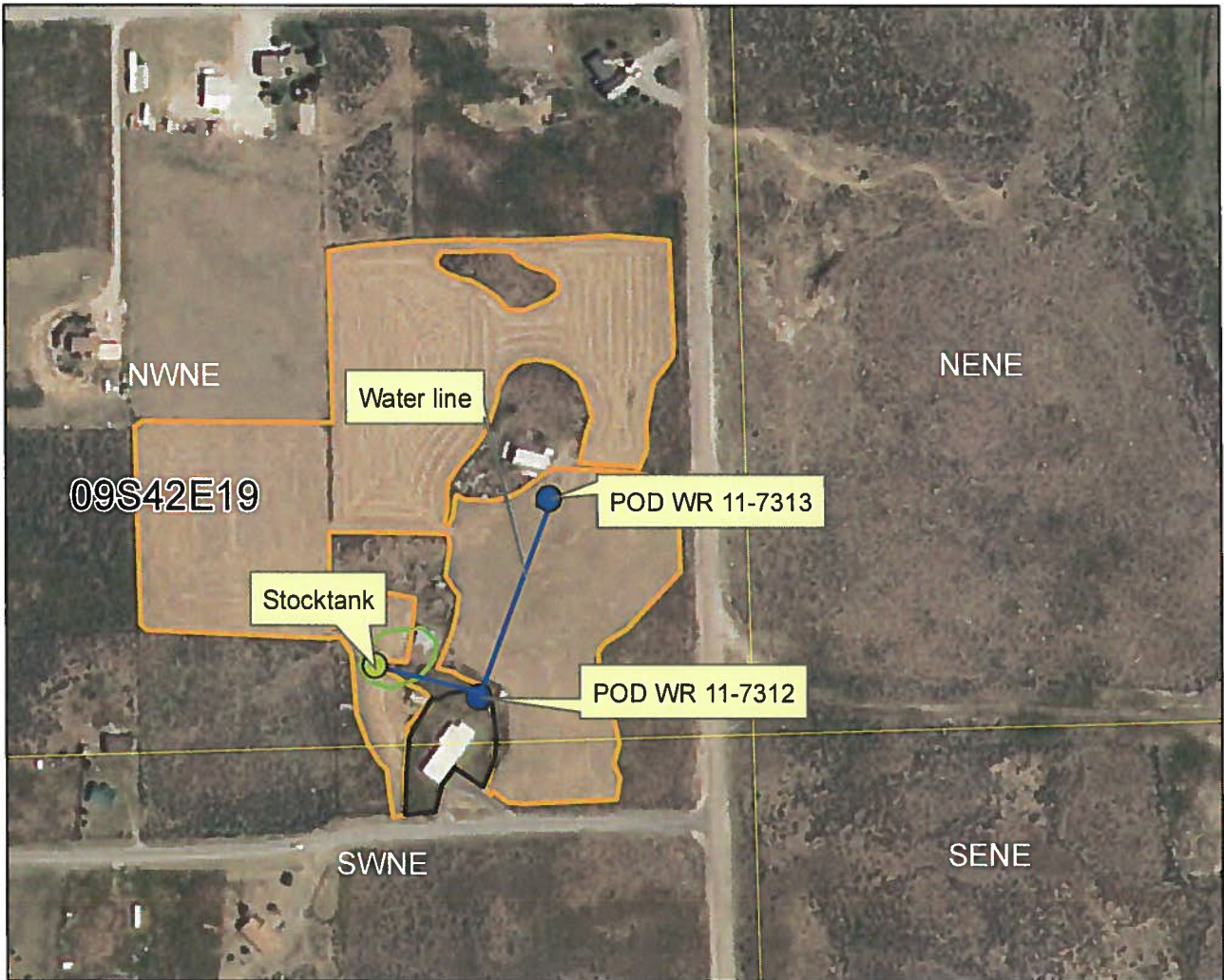
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name JB Date 9/2011

Reviewer _____ Date _____

Idaho Department of Water Resources



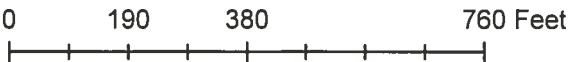
Empey
11-7312

Legend

- 11-7312 Stockwater
- 11-7312 Domestic
- 11-7312 Irrigation
- Township/Range
- Sections
- QQ

2011 Aerial Photography

1 inch = 307 feet

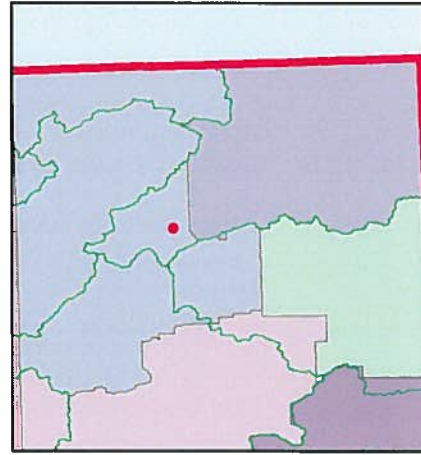




Idaho Department of Water Resources

Water Right
11-7312
(STOCKWATER)

- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Caribou County
IDWR Basin 11

Prepared by Bitzenburg, James
On October 25, 2012
2009 Aerial Photography

R42E



T9S

0 0.01 0.02 0.04 Miles

Owner: Virgil Empey

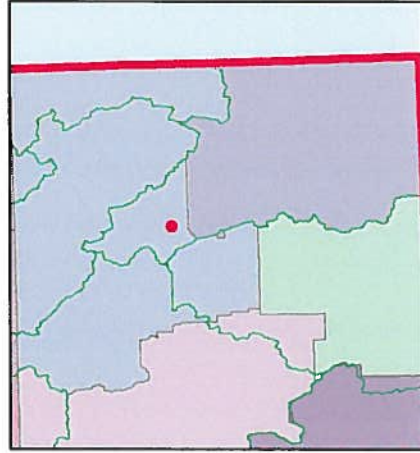
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.



Idaho Department of Water Resources

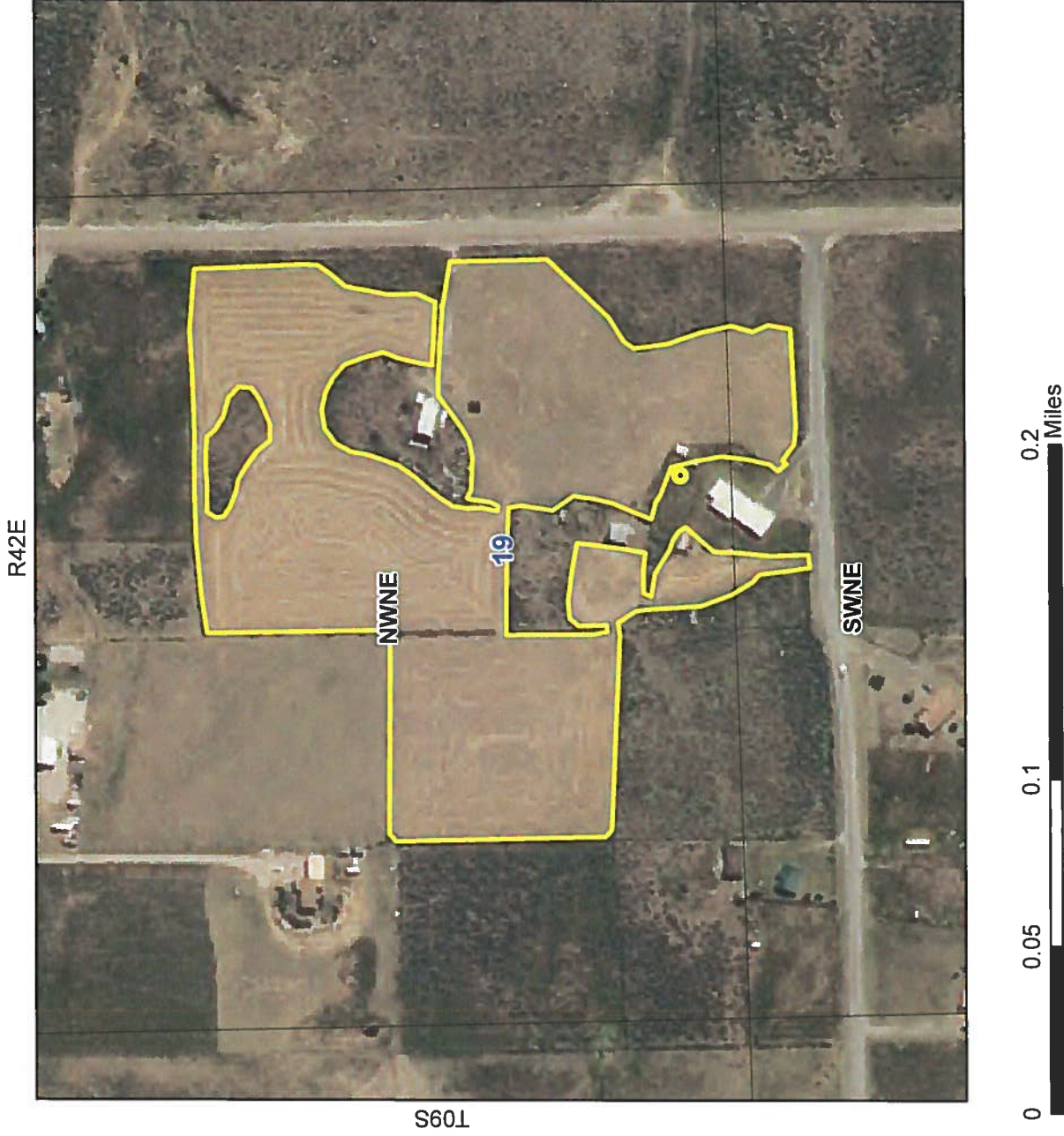
Water Right
11-7312
(IRRIGATION)

- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Caribou County
IDWR Basin 11

Prepared by Bitzenburg, James
On October 25, 2012
2009 Aerial Photography



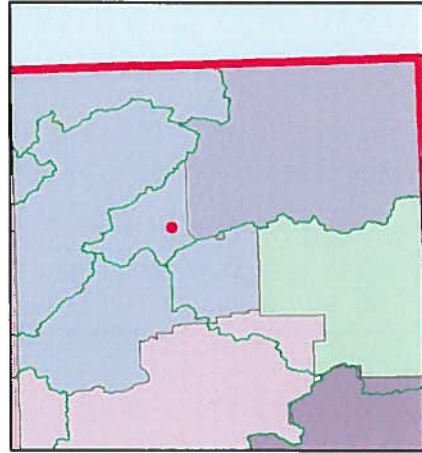
Owner: Virgil Empey
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.



Idaho Department of Water Resources

**Water Right
11-7312
(DOMESTIC)**

- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



**Caribou County
IDWR Basin 11**

Prepared by Bitzenburg, James
On October 25, 2012
2009 Aerial Photography



Owner: Virgil Empey
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.



wellhouse 11-7312



Water trough on Empey Farm



well house 11-7213



Late season - hay field on Empey Farm



Lawn and home-supplied by Both 11-7312 and 11-7313



Inside well house- 11-7212



Irrigation pipe used on Empey Farm



Water trough on Empey Property

	6 'VELOCITY ft/s	'FLOW RAT gal/min	'FLOW RAT %	'TOTALIZE gal	'-TOTALIZER gal
9/26/2011 10:45	3.066	19.7488	19.635	2000.811	-2344.5
9/26/2011 10:46	3.058	19.7003	19.587	2020.018	-2344.5
9/26/2011 10:47	2.992	19.2755	19.164	2039.412	-2344.5
9/26/2011 10:48	2.959	19.0575	18.947	2058.6	-2344.5
9/26/2011 10:49	2.937	18.9217	18.812	2077.612	-2344.5
9/26/2011 10:50	2.923	18.8262	18.717	2096.611	-2344.5
9/26/2011 10:51	2.87	18.4857	18.379	2115.315	-2344.5
9/26/2011 10:52	2.886	18.5876	18.48	2133.776	-2344.5
9/26/2011 10:53	2.883	18.5702	18.463	2152.308	-2344.5
9/26/2011 10:54	2.853	18.3798	18.274	2170.758	-2344.5
9/26/2011 10:55	2.839	18.2877	18.182	2189.003	-2344.5

Empey domestic well - 11-7312

188.192 gallons

18.8192 gpm