

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 15-7226

Exam Date: 6/18/2014

1. Current Owner: GEORGE E DEMOREST
1274 RD 5
POWELL WY 82435
2. Accompanied by: George Demorest
Phone No: 208-766-4618
Address: 3490 W. 500 S. Malad, ID
Relationship to Permit Holder:

3. **SOURCE** **TRIBUTARY**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Malad Valley Irrigation (3 shares)
2. Other water rights with the same point of diversion: None

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

GROUND WATER NW1/4SE1/4 Sec. 25, Twp 14S, Rge 35E, B.M.
ONEIDA County

Method of Determination: GPS and Aerial Photography.

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>	
14S	35E	25															17.0		17.0

Total Acres: 17

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**ID No.*****Motor Make****Hp****Motor Serial No.****Pump Make****Pump Serial No. or Discharge Size**

Submersible 10

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

D. FLOW MEASUREMENTS

1.

Measurement**Equipment****Type****Make****Model No.****Serial No.****Size****Calib. Date**

None

2. Measurements: Measurement not possible. Pump was not functioning at the time of exam. Owner said that he won't replace the pump until he can deepen well.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: Theoretical measurement based on well and pump capacity.

$$Q = (8.8 * (\text{pump efficiency}) * (\text{HP})) / ((\text{depth to water}) + (2.31 * \text{PSI}))$$

- Pump efficiency is assumed at .70.
- HP is 10.
- Depth to water 50 feet according to Well Driller's Report.
- PSI was reported by owner to be at around 40.

$$Q = 8.8 * .70 * 10 / (50 + (2.31 * 40)) = .43 \text{ cfs or } 194 \text{ gpm well and pump capacity.}$$

Place of use is 17 acres with a maximum instantaneous discharge rate at .02 cfs/ acre. Discharge rate will be limited to $(17 \text{ acres} * .02 \text{ cfs}) = .34 \text{ cfs}$.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = 17 \text{ (Acres Irrigated)} \times 3.5 \text{ (Irrigation Requirement)} = 59.5$$

$$V_{D.R.} = .34 \text{ [Diversion Rate (cfs)]} \times 214 \text{ (Days in Irrigation season)} \times 1.9835 = 144.3$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 59.5$$

2. Volume Calculations for Other Uses: none

G. NARRATIVE/REMARKS/COMMENTS

System runs off of a 10 HP submersible pump and consists of a wheel line of 12 sprinklers and hand lines. At the time of the field exam, the owner indicated that the pump did not function because of damage caused by drawdown below the pump level in the well and was planning on having the well deepened. Permit was for 30 acres and only 17 acres were irrigated. The owner stated that at one point during the development period more than 17 acres were developed and irrigated. However, land was sold and divided and some acres developed were fenced off and were no longer able to be irrigated by the system. At the time of field exam only 17 acres were able to be irrigated by the system.

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	04/01 to 10/31	0.340 CFS	59.5 AF
<u>Totals:</u>		0.340 CFS	59.5 AF

2. Recommended Amendments

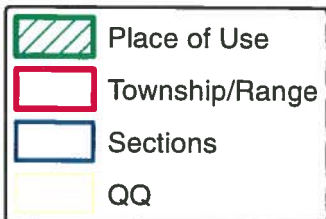
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

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

I. AUTHENTICATION

Field Examiner's Name Scott Bergendorf Date Jan 2015
 Reviewer _____ Date _____

Water Right License 15-7226



Onieda County
IDWR Basin 15

Idaho Department of Water Resources
Prepared by Scott Bergendorf
2013 Aerial photography







IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only			
Inspected by _____			
Twp _____	Rge _____	Sec _____	
_____ 1/4	_____ 1/4	_____ 1/4	
Lat: _____	Long: _____	_____	

1. WELL TAG NO. D 0026129
 DRILLING PERMIT NO. 286905
 Other IDWR No. 15-07226

11. WELL TESTS:

☐ Pump ☐ Bailor

☒ Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time
300 about			

 Water Temp. cold Bottom hole temp. cold

Water Quality test or comments: _____

 Depth first Water Encounter 20

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
12"	0	10	Brown clay		X
12"	10	20	Brown clay & Sand	X	
10"	20	60	Brown clay & Gravel		X
10"	60	80	Blue clay & Gravel		X
10"	80	100	Brown clay & Gravel	X	
10"	100	110	Blue clay		X
10"	110	115	Gravel & Brown clay	X	
10"	115	120	Brown clay & Gravel		X
10"	120	125	Gravel & Brown clay		X
10"	125	160	Gravel & Brown clay	X	
10"	160	180	Brown clay & Gravel		X
10"	180	195	Brown clay		X
10"	195	205	Gravel & Sand	X	
10"	205	207	Shell & Rock		X
10"	207	213	Shell		X
10"	213	215	Soft Shell		X
10"	215	220	Gravel & Sand	X	

2. OWNER:
 Name Donald C. Cardingly
 Address 3550 W. 500 S
 City Malad City State Id Zip 83252

3. LOCATION OF WELL by legal description:
 Sketch map location must agree with written location.

N				
		X		
S				

Twp. 14 North ☐ or South ☒
 Rge. 35 East ☒ or West ☐
 Sec. 25 1/4 NW 1/4 SE 1/4
 Gov't Lot _____ County Oneida
 Lat: _____ Long: _____
 Address of Well Site Same as above
 City Malad

(Give at least name of road + Distance to Road or 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/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	20	10	Over Bore

 Was drive shoe used? ☒ N ☐ Shoe Depth(s) 205
 Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
10"	0	205	20	Steel	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

 Perforations _____ Method _____
 Screens _____ Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
0	205	1/4x1	2500	10"	Steel	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

50' ft. below ground Artesian pressure _____ lb.
 Depth flow encountered _____ ft. Describe access port or control devices: _____

RECEIVED

NOV 26 2002

 Department of Water Resources
 Eastern Region

 Completed _____ Depth 220' (Measurable)
 Date: Started 9-27-02 Completed 10-30-02

13. DRILLER'S CERTIFICATION

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

 Company Name Mountain West Well Drilling Firm No. 543

 Firm Official Michael Frandson Date 10-31-02

 and Driller or Operator Miles Frandson Date 10-31-02
 (Sign once if Firm Official & Operator)