

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33917
Exam Date: 07/24/2019

1. Current Owner:
DEBRA A GEBERT 24148 GOODSON RD PARMA ID 83660 AND/OR
ALLEN GEBERT 24148 GOODSON RD PARMA ID 83660-6740
2. Accompanied by: JOSH RIVEL
Phone No: (208) 880-44698
Address: 26596 GOTSCH RD PARMA ID 83660
Relationship to permit Holder: Employee of Bill Hartman of Hartman Farms, Renter

3. **SOURCE:**
GROUND WATER

Method of Determination: Site visit

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-4449	GROUNDWATER	DOMESTIC	DECREED
FARMERS COOPERATIVE DITCH CO	BOISE RIVER CONWAY DRAIN SAND HOLLOW DRAIN	IRRIGATION	DECREED

Comments: 63-4449 is for domestic use by the owner and does not include lawn irrigation, therefore it is not a direct overlap. Owner holds 25 shares from the Farmers Cooperative Ditch Company. Each share from the canal company is 2 irrigable acres and these rights are a direct overlap.

2. Other water rights with the same point-of-diversion: NO Overlap

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SE¼ SE¼, Sec. 13, Twp 05N, Rge 05W, B.M. CANYON County

Method of Determination: GPS, digital PLS map

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05N	05W	13																31.0	31.0

Total Acres: 31.0

Method of Determination: Aerial imagery

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Yes 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.

YesYes Aerial Photo Attached (required for irrigation of 10+ acres).Yes 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
D0071743		30		Eaton	

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
In-line flow meter	Ultrasonic	Octave	AWWA C750	64507966	4" 1000 GPM 175 psi	

2. Measurements:

A flow measurement was read from the in-line flow meter and double-checked with a manual 10 minute reading of totalized flows. The Octave flow meter fluctuated between 418 – 429 gpm during the duration of the test. Total gallons at the beginning of the test was 7,362,000 and 7,366,212 at the end of the 10 minute test, giving an average rate of 421 gpm, confirming the reading from the flow meter.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: Ultrasonic flow meter readout

$$Q_{\text{out}} = 421 \text{ gpm} = 0.93 \text{ cfs}$$

Measured Method: Ultrasonic flow meter 10 minute test

TIME (MINUTES)	TOTAL GALLONS	FLOW RATE (GPM)
0	2000	-
1	2429	429
2	2852	423
3	3288	436
5	4113	412.5
6	4527	414
7	4954	427
8	5374	420
9	5787	413
10	6212	425
	Mean	422.17
	Endpoint estimate	421.20

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 31 \times 4.5 = 139.5 \text{ afa}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.62 \times 260 \times 1.9835 = 319.7$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 139.5$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

The owners applied for water permit 63-33917 on ~~March 3rd, 2014~~ ^{FEBRUARY 10, 2014} and provided proof of beneficial use to the department on May 13th, 2019. We conducted the beneficial use field exam on July 24th, 2019. This permit provides supplemental water to 25 shares of Farmers Cooperative Ditch Company water diverted from the Sebree canal.

A well drilled in 2016, metal tag number D0071743, provides water for this permit. Water is pumped via a submersible Eaton variable speed pump to a distribution system that splits the water into three pathways: 1) A 4" pipe sends water into a lined ditch also used to collect canal water and irrigates a field of onions. 2) An underground pipe delivers water further west to a NW-SE trending canal that flows south and irrigates the remaining acreage, which is currently in alfalfa. 3) A drip system starts from the POD and irrigates onions. Excess water drains through an underground system or through the canal to the SE corner of the parcel.

A measurement of 421 gpm was read from the in-line flow meter and corresponds to a diversion rate of 0.93 cfs, higher than the 0.62 cfs rate of diversion requested in this permit. We performed another estimate by recording the total gallons pumped every minute for ten minutes and estimated a flow rate of 421-422 gpm. The water user estimated that the pump operated at 30 hp. Inspection of the electric meter at the power panel was 25.7 kw (34 hp) which confirms the water users' estimate. The variable speed pump will allow for diversion rates lower than the measured rate.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/01 to 11/15	0.62 CFS	140.0 AF
<u>Totals:</u>		0.62 CFS	140.0 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 ☒ None

I. AUTHENTICATION Alex Moody - Hydrogeologist, Staff

Field Examiner's Name *Alex Moody* Date 8/8/19
 Reviewer *Daniel A. Miller* Date 8/8/19

System Diagram

Right No. 63-33917





Point of diversion, metal tag D0071743. a) buried pipe that distributes water to NW-SE trending ditch in middle of the parcel b) Pipe to ditch c) Hose line to drip irrigation on NE field d) Hose to ditch.



Octave Ultrasonic flow meter read out.



POD to ditch on north eastern edge of POU.



Ditch heading west from POD. Looking East.



POD underground pipe to NW-SE and West trending ditches. Looking South.



Ditch heading west from point shown above.