

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12319

Exam Date: 9/11/2012

1. Current Owner: GREG TROOST
30540 SABIN RD
PARMA ID 83660
(208)722-7325
2. Accompanied by: Greg Troost
Phone No: 208-722-7325
Address: 30540 Sabin Rd, Parma, ID 83660
Relationship to Permit Holder: Owner

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 SW1/4SE1/4 Sec. 21, Twp 06N, Rge 05W, B.M. PAYETTE County
GROUND WATER SW1/4SE1/4 Sec. 21, Twp 06N, Rge 05W, B.M. PAYETTE County

Method of Determination: GPS during field visit

2.

PLACE OF USE: COMMERCIAL

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
06N	05W	21															X		

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
06N	05W	21															X		

Method of Determination: Field inspection

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 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>
Primary well (D0053410)	Franklin	25	2366058120	Submersible	
Backup well	Franklin	10	2366029020	Submersible	

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>

2. Measurements: N/A

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: Theoretical – see attached sheets for both 10 (Backup) and 25 (Primary) hp pumps

10 hp pump is only used if 25 hp pump fails.

25 hp pump can provide an average of 0.56 cfs based on theoretical calculations. This is sufficient for the needs of this permit. The 10 hp pump can only provide 0.29 cfs based on theoretical calculations. The full diversion amount of the permit for Commercial use, 0.55 cfs, will be allowed for the license. The Stockwater and Commercial will be limited to this diversion amount.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses – See attached Dairy worksheet for calculated Stockwater and Commercial volumes. These calculations indicate a need for 3.8 af for the Commercial use of the permit and 24.9 af for the Stockwater use. The license will be limited to the combined 28.7 af for both uses.

G. NARRATIVE/REMARKS/COMMENTS

Originally House well (drilled in 1996) and Backup well (drilled in 1976) supplied water for dairy operations and domestic use. According to owner, House well is now only for domestic use. Primary well, drilled in 2009, is now main supply for dairy use. Backup well can be used if primary well fails. Both Backup and Primary wells are plumbed to milking barn with 6" metal pipe. Smaller lines go to other outbuildings.

House well has been removed from license per conversation with owner. This well is no longer a part of the stock and commercial 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>
COMMERCIAL	01/01 to 12/31	0.55 CFS	28.7 AF
STOCKWATER	01/01 to 12/31	0.46 CFS	28.7 AF
<u>Totals:</u>		0.55 CFS	28.7 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  Date 3/7/2014

Reviewer  Date 3-7-14

State of Idaho
Department of Water Resources
Field Exam of Water Right License
63-12319

This map depicts the COMMERCIAL and STOCKWATER places of use for this water right at the time of the field exam on 9/11/2012 and is attached to the Beneficial Use Report document solely for illustrative purposes.



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.045 0.09 0.18 Miles





DAILY FRESH WATER REQUIREMENT FOR DAIRY FACILITY

FOR: 63-12319
BY: Michael Ciscell
DATE: 9/11/2012

STOCKWATER VOLUME REQUIREMENT

TYPE OF ANIMAL	NUMBER	USE/DAY	TOTAL GAL/DAY	TOTAL GAL/YEAR
MILKING COWS	600.00	35.00	21,000.00	7,665,000.00
DRY COWS	80.00	14.00	1,120.00	408,800.00
HEIFERS	12.00	8.00	96.00	35,040.00
TOTAL GALLONS			22,216.00	8,108,840.00

STOCKWATER ANNUAL VOLUME NEEDED 24.89

COMMERCIAL VOLUME REQUIREMENT

WASH PEN ESTIMATE

GPM PER NOZZLE	NUMBER OF NOZZLES	TIME PER USE(IN MINUTES)	NUMBER OF USES	TOTAL GAL/DAY	TOAL GAL/YEAR
0.00	0.00	0.00	0.00	0.00	0.00

MILKING PARLOR ESTIMATES

ITEM	GALS/OP	X'S/DAY	GALS/DAY	GALS/YEAR
BULK TANK	244.00	1.00	244.00	89,060.00
COW PREP	0.00	0.00	0.00	0.00
PIPELINES	60.00	3.00	180.00	65,700.00
PARLOR CLEANUP	400.00	3.00	1,200.00	438,000.00
HOLDING PEN CLEANUP	400.00	1.00	400.00	146,000.00
TOTAL MILK PARLOR USE			2,024.00	738,760.00

MISCELLANEOUS USES

ITEM	GALS/OP	X'S/DAY	GALS/DAY	GALS/YEAR
TOWEL WASHING	50.00	6.00	300.00	109,500.00
EMPLOYEE SHOWERS & RESTROOMS	15.00	7.00	105.00	38,325.00
MAINTENANCE/TRUCK WASH	1,000.00	1.00	1,000.00	365,000.00
TOTAL MISCELLANEOUS USES			1,405.00	512,825.00

COMMERCIAL ANNUAL VOLUME NEEDED 3.84

STOCKWATER VOLUME REQUIREMENT =	24.89
COMMERCIAL REQUIREMENT =	3.84
TOTAL VOLUME REQUIRED =	28.73

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-12319
 Examiner: Michael Ciscell
 Date of Field Exam: 9/11/2012

	Option 1	OPTION 2	OPTION 3	
P/D No.: Primary well				
PUMP HORSEPOWER	25	25	25	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	163	163	163	
DISCHARGE PRESSURE	60	50	40	
FRICTION	0	0	0	
RATE OF FLOW (cfs)	0.51	0.55	0.60	AVE
(gpm)	229.2	248.2	270.6	0.56

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.

Examiners Notes:

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-12319
 Examiner: Michael Ciscell
 Date of Field Exam: 9/11/2012

	Option 1	OPTION 2	OPTION 3	
P/D No.: Backup well				
PUMP HORSEPOWER	10	10	10	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	100	100	100	
DISCHARGE PRESSURE	60	50	40	
FRICTION	0	0	0	
RATE OF FLOW (cfs)	0.26	0.29	0.32	AVE
(gpm)	115.9	128.3	143.7	0.29

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.

Examiners Notes:

TABLE 1, RECOMMENDED DIVERSION RATES FOR STOCKWATER

In cubic feet per second (cfs)

<u>No. of head</u>	<u>Dairy cows</u>	<u>Other cattle, horses & mules</u>	<u>Hogs</u>	<u>Sheep & goats</u>
0 - 25	0.02	0.02	0.02	0.02
26 - 50	0.04	0.02	0.02	0.02
51 - 100	0.07	0.03	0.02	0.02
101 - 200	0.13	0.05	0.02	0.02
201 - 300	0.20	0.07	0.02	0.02
301 - 400	0.26	0.09	0.03	0.02
401 - 500	0.33	0.12	0.04	0.02
501 - 600	0.39	0.14	0.05	0.03
601 - 700	0.46	0.16	0.05	0.03
701 - 800	0.52	0.19	0.06	0.03
801 - 900	0.58	0.20	0.07	0.04
901 - 1000	0.65	0.23	0.08	0.04

For chickens, round to the next highest 100 and multiply this number by 0.0000018.

For turkeys, round to the next highest 100 and multiply this number by 0.0000033.

If you have more than 1000 head of stock (other than poultry), round the number of head to the next highest 100, and multiply this number by one of the following factors:

For dairy cows, multiply by 0.00065

For other cattle, horses, or mules, multiply by 0.00022

For hogs, multiply by 0.000074

For sheep or goats, multiply by 0.000037

Round the amount you calculate to the nearest 0.01 cfs and enter this amount in the appropriate space on your claim. You may claim 0.01 cfs even if your calculated amount is less than 0.01 cfs.

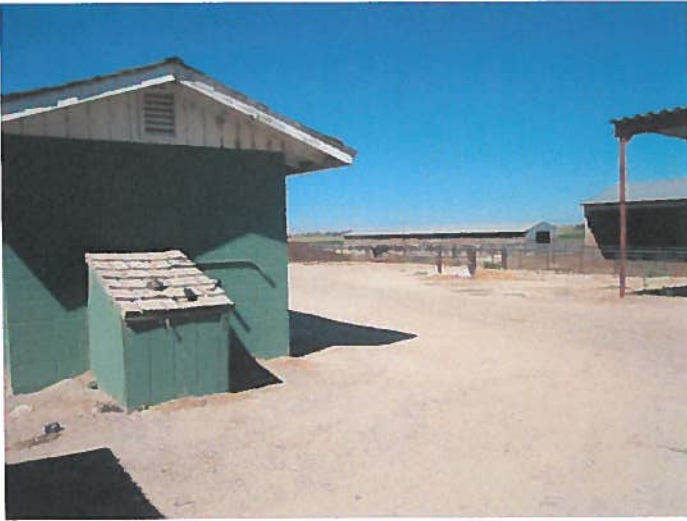
VOLUME FACTORS

<u>STOCK</u>	<u>GPD/HEAD</u>
dairy cattle	35
range cattle	12
horses	12
mules	12
hogs	4
goats & sheep	2

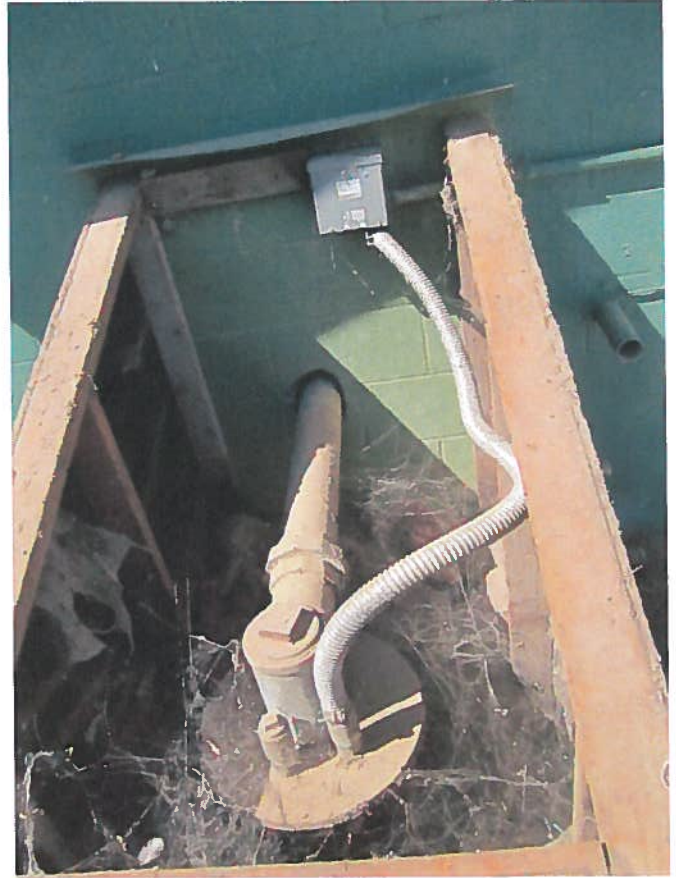
Sources of information for this page include SRBA Claim Instructions, revised 6/89, and Field Examiners Handbook, 1986, currently under revision.

SL 6/18/92

Field exam photos for license 63-12319 – taken 9/11/2012



Backup Well house looking NW. Primary well just right of center.



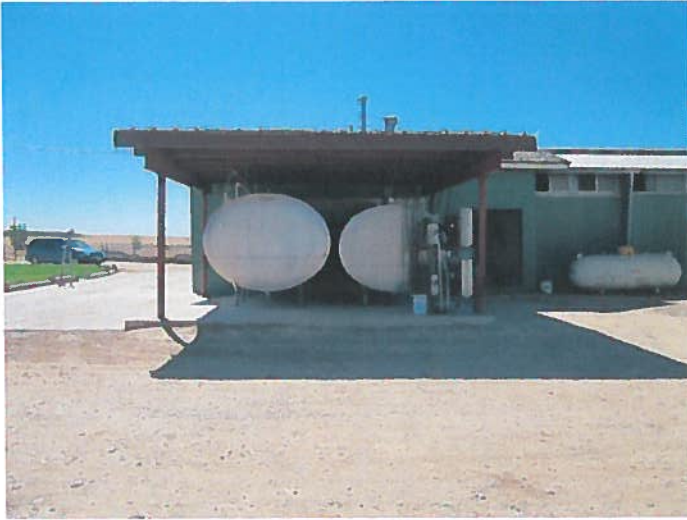
Backup Well



Primary well looking west



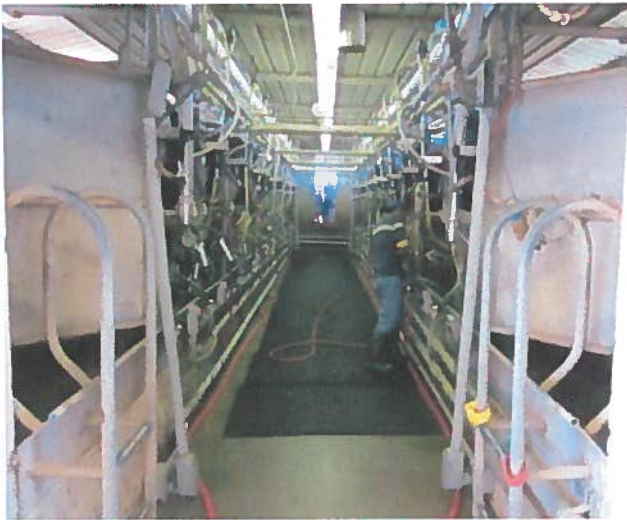
Inflow from Well into Milk Barn



Milk storage tanks outside of milk barn looking south



Same milk tanks inside milk barn



Looking west down milking parlor



Looking north from Pearl Rd up driveway to home