

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-20628

Exam Date: 6/28/2012

1. Current Owner: WILLIAM FRUEHLING
PO BOX 4508
KETCHUM ID 83340
(208)720-5856
2. Accompanied by: William (Bill) Fruehling
Phone No: cell (208)720-5856; home:726-4320
Address: PO Box 4508, Ketchum, ID 83340
Relationship to Permit Holder: self

3. SOURCE

GROUND WATER

TRIBUTARY**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: A37-7282B and A37-7333B for wildlife, recreation and aesthetic (ponds).
2. Other water rights with the same point of diversion: A37-7282B and A37-7333B, and 37-13251 (which is for only one of the 2 points of diversion for this water right; also 37-13251 has been in CRP since 1986).

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

GROUND WATER NE1/4SW1/4 Sec. 10, Twp 01S, Rge 15E, B.M. CAMAS County

Method of Determination: Garmin GPS Map 76S, and ArcMap 2009 Imagery

2.

PLACE OF USE: AESTHETIC STORAGE, RECREATION STORAGE and WILDLIFE STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
01S	15E	10	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
											X	X		X					

PLACE OF USE: AESTHETIC, RECREATION and WILDLIFE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
01S	15E	10	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
											X	X		X					

DIVERSION TO STORAGE same as AESTHETIC STORAGE

Method of Determination: Garmin GPS Map 76S, and ArcMap 2009 Imagery

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 (Original pictures taken at the 6/28/2012 field examination were lost when my computer crashed; pictures attached to this field examination were retaken on 10/17/2013 when a physical measurement was taken on the well, due to discrepancies on the Hp of the well, and the unavailability of obtaining a physical measurement during the 6/28/2012 field examination).

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>
A0018536 (pump was changed, and owner did not know current information)	unknown				10 inch

*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>
Intake: McCrometer Flowmeter				02-05737-10	10-inch	12 years ago
(the flow meter for the entire time bounced around, but averaged 2000 gpm)						

Output for 37-7282B and 37-7333B irrigation to wheel line and hand line, located at the south end of all the interconnected ponds: McCrometer Flowmeter 02-05738-8 8-inch calib. 12 years

2. Measurements: Intake McCrometer Flowmeter: 2000 gpm (but calibrated 12 years ago, so this was used as an indicator, instead of an actual measurement).

E. FLOW CALCULATIONS

Measured Method:

Theoretical: not used, since there was a discrepancy on the size of the pump (pump had been replaced, and the current owner did not have the information).

Physical Measurement (system capacity):

Tyme Flyte (S.O #1) collected by Sandy Thiel: **4.17 cfs average** (see attached flow measurement tape)

RECOMMEND:

Aesthetic 4.0 CFS

Recreation 4.0 CFS

Wildlife 4.0 CFS

Total Diversion Rate: 4.0 CFS as permitted

Diversion to storage 4.0 cfs *glt*
12/31/2013

*Combined Limit of 4.17 cfs (capacity of the system) with 37-20628, 37-7282B and 37-7333B

F. VOLUME CALCULATIONS

1. Volume Calculations Aesthetic Storage, Recreation Storage, and Wildlife Storage. To calculate this, the shapefile submitted by Brockway Engineering was used (8.4 acres), and also adjusting the average depth to 3 ft, instead of the original plans of 2 ft (per 11/6/2013 email from Brockway):

Average Depth 3+ ft X 8.4 acres (ponds) = 25.5 AF*

***No ET is included in this calculation, since it was covered by the transfer that involved irrigation rights. See the 11/6/2013 Calculation of As-Built Pond Volume sheet submitted by Brockway Engineering for the individual depths of each pond.**

2. Volume for Other Uses

Per a 7/16/1996 Memo from Shelley Keen, in reference to Wildlife Volume Recommendation: "...wildlife volume recommendations for licensing shall be recommended as equal but not additive to the recommended stockwater volume unless the wildlife volume has been specifically quantified."

This would be the same with the volume recommended for the above storage components. Wildlife was not quantified.

Aesthetic	652.0 af
Recreation	652.0 af
Wildlife	652.0 af

RECOMMEND:

Aesthetic Storage	25.50 af
Recreation Storage	25.50 af
Wildlife Storage	25.50 af
Aesthetic	652.0 af
Recreation	652.0 af
Wildlife	652.0 af
Total Annual Volume:	652.0 af*

*Combined Limit of 652.0 AF with 37-20628, 37-7282B and 37-7333B

2. Volume Calculations for Other Uses: None

G. NARRATIVE/REMARKS/COMMENTS

At the time of the 6/28/2012 field examination, the pump was off, but it was evident that water had been diverted to the ponds (water in the ponds), and historically confirmed via ArcMap Imagery that the ponds had been filled. The shapefile used for the ponds is the shapefile submitted by Brockway Engineering, which calculated to be 8.4 acres X 3 +ft average depth = 25.5 af (see 11/6/2013 individual pond calculation sheet submitted by Brockway Engineering). The well A0018536, was drilled for Bar H Bar Inc, on 4/25/1974 by Lightning C Bar Drilling. The well is a 16 inch casing, 185 ft deep, 20 ft static, with at one time a 200 Hp Bearing Upper CAT Number 629A219G1 turbine pump (per Gordon Schmidt, but not sure what size pump it is now); a 10 inch discharge through a McCrometer Flowmeter af X 0.001, 359607 measurement on the meter, serial number 02-05737-10 (10 inch meter), to a 12 inch buried line that makes a 90 degree to the south and open discharges into pond #1 at the north end. The interconnected ponds have a 6 - 8 inch overflow piping between ponds till they reach the south pond #6, where there is a gravel pit pond, with no overflow leaving the property (with return to the aquifer partially via seepage from each of the ponds, and via the gravel pit). These ponds are part of the Wildlife Habitat Project.

Just west of the pond overflow gravel pit, is located a 40 Hp Baldor turbine Cat JPM 2538T with 8 inch discharge to a McCrometer Flowmeter 02-05738-8, which is used to connect to handline and wheel line for irrigating the acreage surrounding the ponds, covered by water right 37-7333B and 37-7282B.

Evaporation losses under this right are mitigated by the reduction of irrigation under water rights 37-7282B and 37-7333B as approved in Transfer No. 69650. One of the conditions is that all water diverted under rights 37-7282B, 37-7333B and 37-20628 shall be maintained on the property for the beneficial uses associated with these right and/or allowed to recharge back to ground water and not allowed to leave the property as runoff.

The ponds are excavated approximately 24 inches below grade, with a 6-inch berm above the natural grade. The average

water depth is 3+ ft. Per notes in the file for Transfer 69650, written by Brockway Engineering, the ponds are lined with compacted select native material to reduce seepage losses. Aerial maps show an existing channel of Daugherty Creek running through the northwest pond, but this channel does not enter the ponds. Mr. Fruehling stated on 9/10/2013 via a phone conversation that there are no other sources or supplemental water discharged into the ponds.

The additional flow sought with water right 37-20628 is to maintain water quality in the ponds only during the hottest periods of

the season. The rate of flow and cumulative volume diverted from the well to the ponds and to irrigation is monitored using flow meters with totalizers (at the well, and directly south of pond #6), to ensure no expansion of the water right occurs, and that all the conditions are met.

Pictures were taken at the time of the field examination, but were not printed off immediately, and were lost when my computer Crashed and had to be rebuilt. At the time of the 6/28/2012 field examination, Mr. Fruehling indicated that there was a 35 Hp pump, and using the theoretical calculation, the diversion was too low. For this reason, on 10/17/2013, Mr. Fruehling, Gordon Schmidt (the original owner and driller), and Chuck Brockway Jr. met with us to conduct a physical measurement. The flowmeter had not been calibrated for 12 years (2000 gpm). The running physical measurements conducted using a Tyme Flyte were averaged to obtain 1871.2 gpm (4.17 cfs). New pictures were taken, to make up for the ones previously lost with my computer crash.

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>
WILDLIFE STORAGE	04/01 to 10/31		25.20 AF
RECREATION STORAGE	04/01 to 10/31		25.20 AF
WILDLIFE	04/01 to 10/31	4.000 CFS	652.00 AF
RECREATION	04/01 to 10/31	4.000 CFS	652.00 AF
AESTHETIC	04/01 to 10/31	4.000 CFS	652.00 AF
DIVERSION TO STORAGE	04/01 to 10/31	4.000 CFS	~~652.00 AF~~
AESTHETIC STORAGE	04/01 to 10/31		25.20 AF
<u>Totals:</u>		4.000 CFS*	652.00 AF*

SH
12/31/2013

*Combined Limit of 4.17 cfs and 652.0 AF with 37-20628, 37-7282B and 37-7333B

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 Judy Hemenway Date: 10/23/2013 and 12/31/2013 updated with additional information.

SPACING
7.524 IN U

10-17 10:2600 *H
+0003.00 % AI2

10-17 10:2600 *H
+0003.00 % AI2

751.56 % T0

0371.9 MMSEC
101.56 % T0

0371.9 MMSEC
101.56 % T0

START TIME
10-17 10:33

-----+00000 *10 G 00R
-00000 *10 G 00R

10:34+ 1.328E.36PM 00R

AD SPAN RANGE
2-RANGE

10:35+ 1.873E 36PM 00R
+ 7.969E 0FFS 00R
+00392 *10 G 00R
-00000 *10 G 00R

10:36+ 1.873E 36PM 00R
+ 7.998E 0FFS 00R
+00569 *10 G 00R
-00000 *10 G 00R

-----+ 8.116E 0FFS 00R
+00734 *10 G 00R
-00000 *10 G 00R

10:38+ 1.820E 36PM 00R
+ 7.992E 0FFS 00R
+00949 *10 G 00R
-00000 *10 G 00R

10:39+ 1.878E 36PM 00R
+ 7.992E 0FFS 00R
+01138 *10 G 00R
-00000 *10 G 00R

10:40+ 1.838E 36PM 00R
+ 7.821E 0FFS 00R
+01327 *10 G 00R
-00000 *10 G 00R

-----+01517 *10 G 00R
-00000 *10 G 00R

system capacity:

1871.2 average X 0.00223 = 4.17 cfs

Precipitation Loss Calculation

Date: September 12, 2013
Prepared by: Sandy Hemenway
Water Right No: 37-20628

P = Precipitation
ET = Evapotranspiration
 P_d = Precipitation deficit
 $P_d = P - ET$

P_d

Found at: <http://www.kimberly.uidaho.edu/ETIdaho/>

P_d = convert to AFA: (mm/yr) / (convert to feet) x # acres =
515 / 304.8 x 7.9
(From ET Idaho)

$P_d = 13.3$ AFA

* Use the Precipitation Deficit for 'P' value

ET_{Idaho} 2009: Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robison@kimberly.uidaho.edu Copyright 2010, University of Idaho.

Fairfield (NWS --103108)

Statistics based on thirty

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Open water - shallow systems (ponds, streams)															
Precipitation Deficit (Click here for a graph)															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b	Annual
Mean	mm/day												mm		
Monthly ^c	-1.43	-0.78	0.42	1.82	2.92	3.63	4.31	3.73	2.55	1.76	-0.83	-1.35	515	0	515
15-Day Moving Average ^d	-1.61	-1.10	0.39	1.90	2.85	3.64	4.41	3.64	2.43	1.73	-0.89	-1.39			
7-Day Moving Average ^e	-1.54	-0.93	0.41	1.85	2.88	3.61	4.38	3.72	2.47	1.72	-0.90	-1.39			
3-Day Moving Average ^f	-1.46	-0.78	0.42	1.84	2.91	3.63	4.32	3.73	2.52	1.75	-0.86	-1.34			
Standard Deviation	mm/day												mm		
Monthly	1.92	1.19	1.17	0.86	1.50	0.97	0.97	1.42	1.13	1.13	1.37	2.22	127	0	127
15-Day Moving Average	2.16	1.77	1.16	1.07	1.60	1.32	0.84	1.44	1.49	1.10	1.69	2.22			
7-Day Moving Average	2.80	2.48	1.52	1.60	1.99	1.84	1.24	1.63	1.85	1.62	2.19	2.86			
3-Day Moving Average	3.66	3.05	2.14	2.23	2.51	2.40	1.89	2.04	2.38	2.06	2.97	3.58			
20% Exceedance	mm/day												mm		
Monthly	-0.37	0.22	0.83	2.47	3.55	4.42	4.87	4.43	3.47	2.44	0.08	-0.36	594	0	594
15-Day Moving Average	0.59	0.93	1.67	3.34	4.65	5.15	5.33	4.77	4.00	2.94	1.06	0.52			
7-Day Moving Average	0.87	1.29	1.97	3.90	5.31	5.61	5.52	5.09	4.43	3.47	1.62	0.78			
3-Day Moving Average	0.97	1.50	2.47	4.77	5.76	6.05	5.82	5.36	4.68	3.94	2.03	1.04			

80 % Exceedance	mm/day												mm		
Monthly	-2.40	-1.88	-0.28	0.88	2.31	2.67	3.72	3.42	1.22	0.97	-2.18	-2.93	399	0	399
15-Day Moving Average	-4.62	-3.77	-1.45	0.40	1.55	1.10	3.02	2.28	0.11	0.39	-4.01	-4.57			
7-Day Moving Average	-9.10	-7.95	-3.51	2.43	-0.22	1.36	1.37	0.75	2.21	3.19	-6.50	-6.87			
3-Day Moving Average	17.29	12.45	-7.66	6.53	-3.78	4.86	2.29	-1.91	6.30	6.15	11.23	11.05			
Ave Highest P_{def}	mm/day												--		
15-Day Moving Average ^g	0.30	0.49	1.29	2.79	3.85	4.58	4.95	4.28	3.20	2.59	0.54	0.26			
7-Day Moving Average ^h	0.68	1.03	1.74	3.46	4.72	5.29	5.29	4.83	3.94	3.12	1.09	0.60			
3-Day Moving Average ⁱ	0.86	1.33	2.18	4.10	5.31	5.78	5.64	5.12	4.40	3.54	1.64	0.82			
Ave Lowest P_{def}	mm/day												--		
15-Day Moving Average ^g	-2.90	-1.98	-0.48	1.02	1.95	2.70	3.74	3.03	1.55	0.92	-2.00	-2.74			
7-Day Moving Average ^h	-5.47	-4.14	-1.59	0.52	0.48	1.14	2.61	2.01	0.29	0.38	-3.68	-4.99			
3-Day Moving Average ⁱ	10.32	-7.27	-4.09	3.22	-2.07	1.27	0.50	0.04	2.18	2.46	-6.79	-8.89			
Special normal distribution parameters for monthly, seasonal, and annual intervals													--		
Skew	-0.40	-0.71	-0.28	0.24	-0.61	0.44	0.30	-0.65	0.88	0.03	-0.46	-0.52	0.00	0.00	0.00
Kurtosis	1.03	3.40	0.90	2.43	1.86	2.66	0.83	1.53	2.81	0.62	3.16	1.53	3.21	0.00	3.21

^a Growing Season: This is usually the time from green up or planting in the spring to a killing frost or harvest in the fall. It is not applicable for entries without a growing season and will be blank.

^b Nongrowing Season: This is usually the time from a killing frost or harvest in the fall to the of green up in the spring. It is not applicable for entries without a growing season.

^c Mean of the average daily value for month

^d Mean of the fourteen 15-day period averages contained in the month

^e Mean of the twenty three 7-day period averages contained in the month

^f Mean of the twenty seven 3-day period averages contained in the month

^g Mean of the highest/lowest 15-day period average in month

^h Mean of the highest/lowest 7-day period average in month

ⁱ Mean of the highest/lowest 3-day period average in month

This work and report were prepared by the University of Idaho Research and Extension Center at Kimberly, Idaho under contract with the Idaho Department of Water Resources. Work was supported by funding from IDWR and the Idaho Agricultural Experiment Station and Idaho Engineering Experiment Station. The authors gratefully acknowledge the long-term evapotranspiration data collection and long-standing advice provided by Dr. James L. Wright, USDA-ARS Kimberly (ret.), the more than two decades of high quality agricultural weather data collection by the U.S. Bureau of Reclamation AgriMet system, and the very long-standing, routine data collection by the hundreds of cooperative weather station volunteers across the state who, for more than one-hundred years, have faithfully observed daily air temperature and precipitation.

The citation for the evapotranspiration data used from this site should be: *Allen, Richard G. and Clarence W. Robison, 2009. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho: Supplement updating the Time Series through December 2008, Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, ID.*

Questions regarding the data should be addressed to [Clarence W. Robison](#) or [Richard G. Allen](#), University of Idaho, Kimberly Research and Extension Center, 3793 North 3600 East, Kimberly, ID 83341. Telephone (208)-423-6610



Water Right: 37-20628

Overlap Review By: Sandy Hemenway

Date: 10/23/2013

POD:

Basin Sequence

37 20628

37 7282B

37 7333B

37 13251 (this water right has 2 PODs, and has been in CRP since 1986)

POU:

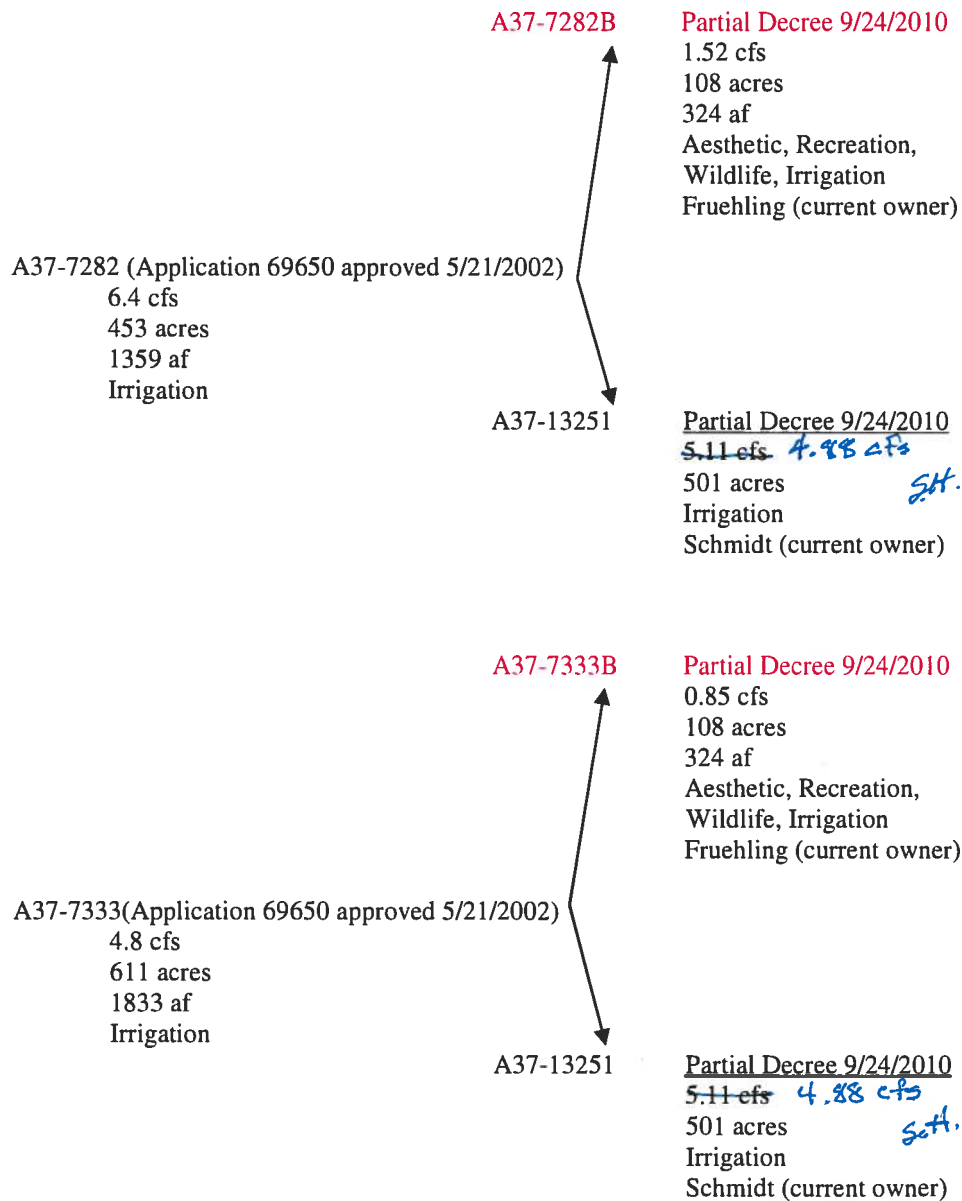
Basin	Sequence	Process	Basis	Status	Dr. Right	ID	Priority	Date	Diversion	Source	List	Water Use	Current	On	Leased to	Total Acre	Limit	Volume
37	7282 B	Water Right	Decreed	Active	N	354207	9/19/1973	1.520	GROUND W/	AESTHETIC, FRUEHLING	No					108.0	86.6	324.0
37	7333 B	Water Right	Decreed	Active	N	354208	1/14/1974	0.850	GROUND W/	AESTHETIC, FRUEHLING	No					108.0	86.6	324.0
37	20628	Water Right	License	Active	Y	656339	10/15/2001	1.690	GROUND W/	AESTHETIC, FRUEHLING, No								29.1
37	7282 B	Recommend	License	Closed		354207	9/19/1973	1.520	GROUND W/	AESTHETIC, FRUEHLING	No					108.0	86.6	324.0
37	7333 B	Recommend	License	Closed		354208	1/14/1974	0.850	GROUND W/	AESTHETIC, FRUEHLING	No					108.0	86.6	324.0

Water right 37-20628 is for additional rate of diversion. The physical measurement conducted 10/17/2013, was 4.17 cfs, but will be recommended at 4.0 cfs as permitted.

Since 37-13251 has the capability of pumping out of one or both wells, there will be a combined limit on water rights

37-20628, 37-7282B, and 37-7333B of 4.0 cfs.

Pedigree Search (History of Water Right Number Splits)



Transfer 69650, combined limit for 37-7282B and 37-7333B shall not exceed a total diversion rate of 1.52 cfs, 324.0 af, and the Irrigation of 86.6 acres (within the 108 acres). The wildlife, recreation and aesthetics uses listed under these rights are for refill of ponds due to losses associated with storage authorized under Right 37-20628.

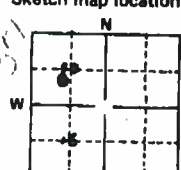
9/10/2013

S. Hemenway

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration May 30
days after the completion or abandonment of the well.

RECEIVED

1. WELL OWNER Name <u>Bar H Bar, Inc.</u> Address <u>RFD, Fairfield, Idaho</u> Owner's Permit No. <u>37-2333</u>		7. WATER LEVEL Static water level <u>20'</u> feet below land surface Flowing? ☐ Yes ☒ No G.P.M. flow _____ Temperature _____ ° F. Quality _____ Artesian closed-in pressure _____ p.s.i. Controlled by ☐ Valve ☐ Cap ☐ Plug																																																																													
2. NATURE OF WORK <u>37-20628</u> ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe method of abandoning)		8. WELL TEST DATA ☐ Pump ☐ Bailer ☐ Other <table border="1"><thead><tr><th>Discharge G.P.M.</th><th>Draw Down</th><th>Hours Pumped</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>		Discharge G.P.M.	Draw Down	Hours Pumped																																																																									
Discharge G.P.M.	Draw Down	Hours Pumped																																																																													
3. PROPOSED USE ☐ Domestic ☒ Irrigation ☐ Test ☐ Other (specify type) ☐ Municipal ☐ Industrial ☒ Stock ☐ Waste Disposal or Injection		9. LITHOLOGIC LOG <u>033517</u> <table border="1"><thead><tr><th rowspan="2">Hole Diam.</th><th colspan="2">Depth</th><th rowspan="2">Material</th><th colspan="2">Water</th></tr><tr><th>From</th><th>To</th><th>Yes</th><th>No</th></tr></thead><tbody><tr><td>16</td><td>0</td><td>10</td><td>Top Soil</td><td> </td><td> </td></tr><tr><td>16</td><td>10</td><td>15</td><td>Gravel</td><td> </td><td> </td></tr><tr><td>16</td><td>15</td><td>40</td><td>Blue Clay</td><td> </td><td> </td></tr><tr><td>16</td><td>40</td><td>70</td><td>Blue Clay</td><td> </td><td> </td></tr><tr><td>16</td><td>70</td><td>90</td><td>Blue Clay</td><td> </td><td> </td></tr><tr><td>16</td><td>90</td><td>110</td><td>Grey Sand</td><td> </td><td> </td></tr><tr><td>16</td><td>0</td><td>100</td><td>S&S Pipe</td><td> </td><td> </td></tr><tr><td>16</td><td>110</td><td>134</td><td>Sand Grey</td><td> </td><td> </td></tr><tr><td>16</td><td>134</td><td>149</td><td>Sand Grey</td><td> </td><td> </td></tr><tr><td>16</td><td>149</td><td>152</td><td>Cinders</td><td> </td><td> </td></tr><tr><td>16</td><td>152</td><td>185</td><td>Cinders (Bottom)</td><td> </td><td> </td></tr></tbody></table>		Hole Diam.	Depth		Material	Water		From	To	Yes	No	16	0	10	Top Soil			16	10	15	Gravel			16	15	40	Blue Clay			16	40	70	Blue Clay			16	70	90	Blue Clay			16	90	110	Grey Sand			16	0	100	S&S Pipe			16	110	134	Sand Grey			16	134	149	Sand Grey			16	149	152	Cinders			16	152	185	Cinders (Bottom)		
Hole Diam.	Depth		Material		Water																																																																										
	From	To		Yes	No																																																																										
16	0	10	Top Soil																																																																												
16	10	15	Gravel																																																																												
16	15	40	Blue Clay																																																																												
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16	110	134	Sand Grey																																																																												
16	134	149	Sand Grey																																																																												
16	149	152	Cinders																																																																												
16	152	185	Cinders (Bottom)																																																																												
4. METHOD DRILLED ☒ Cable ☐ Rotary ☐ Dug ☐ Other																																																																															
5. WELL CONSTRUCTION Diameter of hole <u>16</u> inches Total depth <u>185</u> feet Casing schedule: ☒ Steel ☐ Concrete <table border="1"><thead><tr><th>Thickness</th><th>Diameter</th><th>From</th><th>To</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table> Was a packer or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch Size of perforation _____ inches by _____ inches <table border="1"><thead><tr><th>Number</th><th>From</th><th>To</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table> Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>20'</u> Material used in seal ☐ Cement grout ☐ Pudding clay ☒ Well cuttings Sealing procedure used ☐ Slurry pit ☐ Temporary surface casing ☐ Overbore to seal depth		Thickness	Diameter	From	To																					Number	From	To																																																			
Thickness	Diameter	From	To																																																																												
Number	From	To																																																																													
6. LOCATION OF WELL Sketch map location must agree with written location.  Subdivision Name _____ Lot No. _____ Block No. _____ County <u>Camas</u> <u>NE SW</u> Sec. <u>10</u> T. <u>15</u> S. R. <u>15</u> E. E.W.		10. Work started <u>Nov. 11, 73</u> finished <u>April 25, 74</u> 11. DRILLERS CERTIFICATION USGS Firm Name <u>Lighting C Bar Drilling</u> Firm No. <u>268</u> Address <u>Fairfield, Idaho</u> Date _____ Signed by (Firm Official) <u>[Signature]</u> and (Operator) <u>[Signature]</u>																																																																													

Remain II
371-7333

Information hand written by Gordon Schmidt 10/17/2013

well #1 well a 1/4 corner at P661. ~~well~~
16" casing. North East 1/4 of SW 1/4 Sec 10 T1 15 E

Nov 11

Drilled 15 to 20' from top soil surface water fine gravel
drill another 5' Set casing 20' of 22" surface pipe

Nov 20

20' hit blue clay drilled to 40'

} snowed out

Jan 5

drilled from 40' to 70' Blue clay

Feb 10 - drilled 70' to 90' Blue clay

Feb 15th drilled 90' to 110' Gray sand

March 9th Set casing to 110 ft. level
drilled from 110 to 134' Sand (Gray)

March 11

Drilled from 134' to 149' (Gray sand)
Set casing to 150' level

Drilled 149' to 152' cinders

Drilled 152' to 185' cinders
185'

Drill casing Set casing to 180

10/12/81 Set 10' of Pump + Column today.

Depth of water 10/12/81 water depth 22'

POD Overlap: A37-7282B (1.52 cfs, irr), 37-7333B 0.85 cfs, irr),
37-20628 (4.0 cfs aesthetic, wildlife, rec., wildlife/rec/aesthetic storage) and 37-13251 Schmidt (4.88 cfs, irr. property to south and to the east).

CRP since 1986

McCrometer Flowmeter

12-inch mainline

POU Overlap (7.9 total acres of ponds):
A37-7282B & A37-7333B wildlife, recreation, aesthetic
37-20628 wildlife, wildlife stor., rec., rec. stor., aest., aest stc

6" - 8" line interconnecting the ponds

POU: A37-7333B, A37-7282B irrigation use for area surrounding ponds

gravel pit for pond overflow

A37-7333B and A37-7282B (valve and McCrometer Flowmeter)
Turbine pump that runs wheel line and hand line for irrigation use

POD for: A37-13251 Schmidt irrigation use for property to the east, and to the south

CRP since 1986



Property
surrounding
ponds is
irrigated
with wheel
line +
hand line
using
water rights
37-7333 B +
37-7382 B,
diverted
from the
south
pond

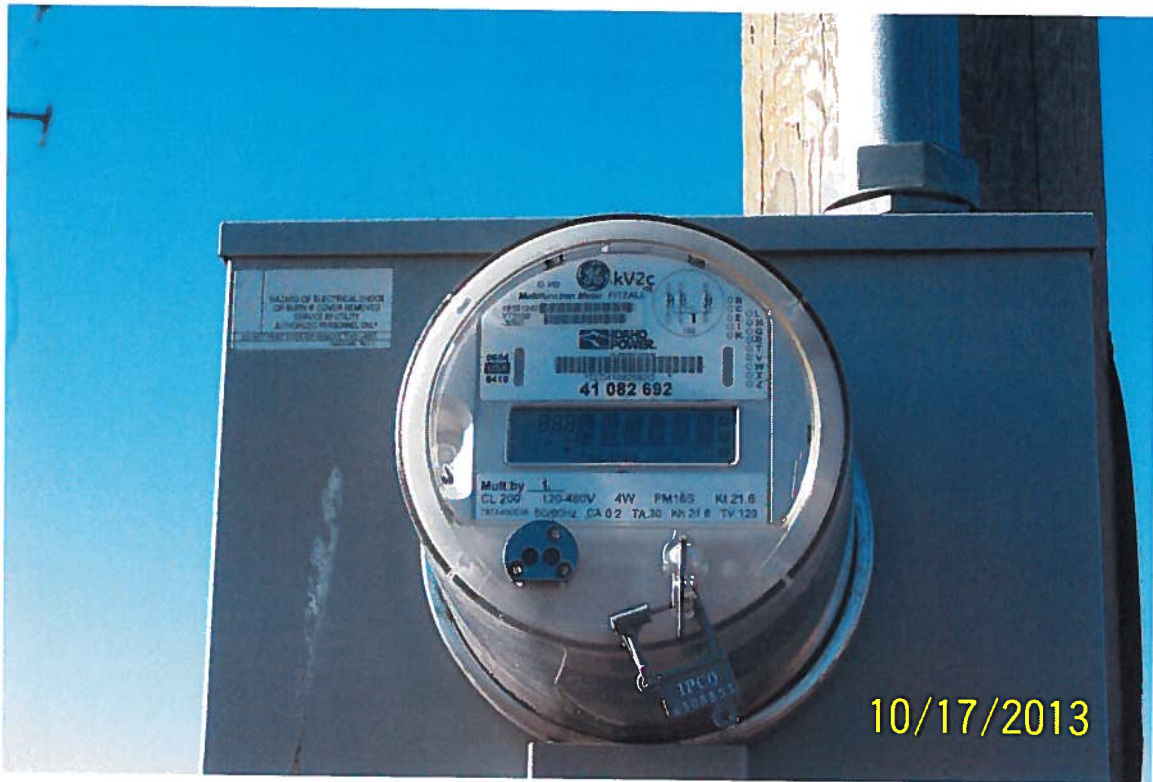


A0018536
POD
unknown
make, model,
Hp, turbine
pump; 16"
casing,
10" discharge
thru a
McCrometer
10" flowmeter
02-05737-10
AF X.001,
to 12" buried
pipe

37-20628 Fruehling

S. Hemerway

(pictures were retaken on 10/17/2013
due to computer crash losing pictures + taking photo. measure)



The PDD
Tag ID
A0018536
is located
on the
power pole
power to
the south
of the
well



McCrometer
02-05737-11
Flowmeter
at the
well

37-20628 Fruehling

S. Hemerly



PDU:
series of
interconnected
ponds



Flowmeter
was
calibrated
12 yrs. ago.
Measuring
2000 gpm

37-20628 Fruehling

S. Hemerway



12" discharge
into
Pond #1,
on the
north
end

10/17/2013



POU:
Pond #1

10/17/2013

37-20628 Fruehling

S. Hernerway



POU

Ponds have
flow-thru
system
via 6-8"
overflow
pipes



McCrometer
02-05738-8
Flow meter
(for WP's
37-7333B+
37-7282B Irr.)

gravel
pit for
pond
overflow
(located
at south-
eastern
end)

37-20628 Fruehling

S. Hemerway



McCrometer
02-05738-8
8" flowmeter
for water
rights
37-7333B
+ 37-7282B
to run the
wheel line
+ handline
for irrigating
the grounds
surrounding
the ponds -



AF x .001

37-20628 Fruehling

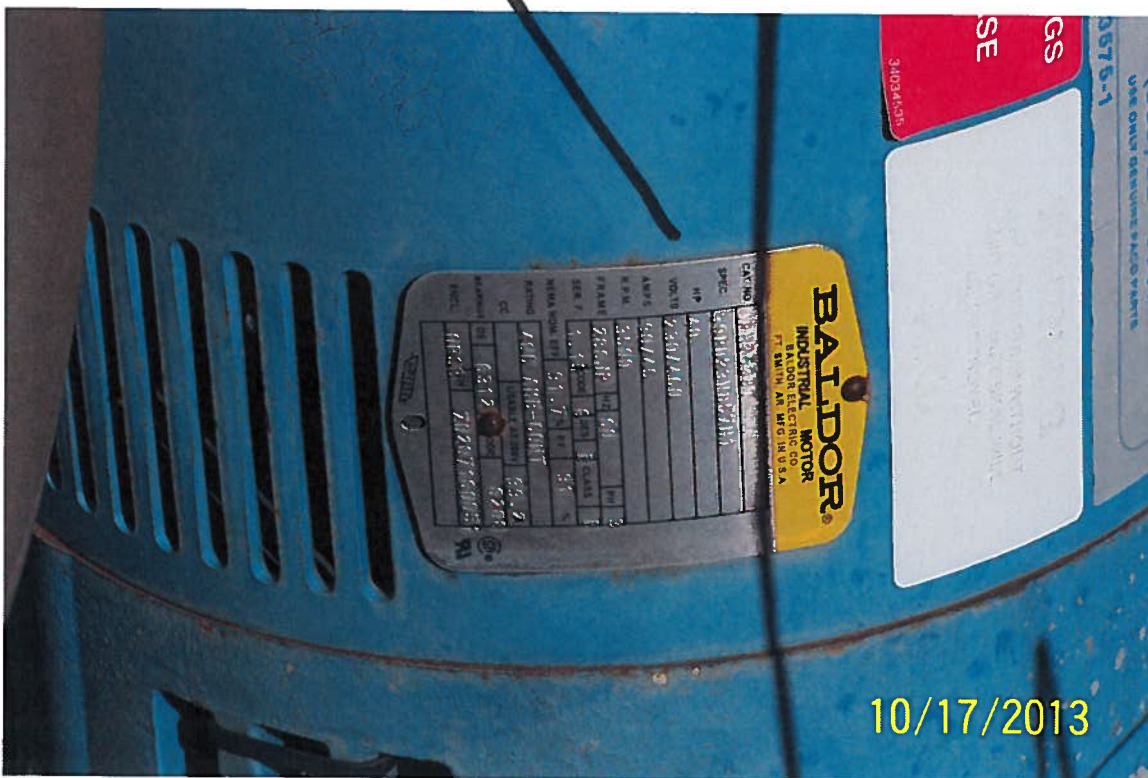
S. Hemenway

For: 37-7242B
+ 37-7333B
Baldon 40Hf

Cat. #
JPM 2538T

8"
Mcrometer
Flowmeter

Gravel
Pit for
pond
overflow



37-20628 Fruehling

S. Hemerway