

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 81-11997

Exam Date: 10/2/2012

1. Current Owner: ALEX BARATH And/Or
BARBARA BARATH
172 SUTTLE CREEK RD
KOOSKIA ID 83839
(208)926-0998
2. Accompanied by: Permit holders
3. SOURCE TRIBUTARY
MIDDLE FORK CLEARWATER RIVER CLEARWATER RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NONE--Note that the house receives domestic water from ground water right 81-10171 (no irrigation included).
2. Other water rights with the same point of diversion: NONE

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

MIDDLE FORK CLEARWATER RIVER L3 NE1/4NW1/4 Sec. 4, Twp 32N, Rge 05E, B.M. IDAHO County

Method of Determination: GPS and Field Visit (46.147235, -115.839172)

2.

<u>PLACE OF USE:</u>			<u>IRRIGATION</u>																
Twp	Rge	Sec	NE				NW				SW				SE				
			<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>	<u>Totals</u>
32N	05E	4					0.5												0.5
							L 3												

Total Acres: 0.5

Method of Determination: Field visit

3. ☒ Delivery System Diagram Attached (required).
- ☐ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required).
- ☐ 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>
Nowhere to attach tag		1.5		GOULDS 7GS	1 1/4"

D. FLOW MEASUREMENTS

1.

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

No measurement obtained—flow will be estimated based on pump curve and hp equation

2. Measurements:

- Pressure- 60 psi was measured at the top of the hill
- ft of lift - I asked the permit holder what the elevation is between his property and the river and he thought it was 220'. I checked the DRG and found that the difference in elevation is ~250'. I then checked Google Earth and found that the elevation change was ~260'. I will use 250' for the hp equation.

E. FLOW CALCULATIONS

___x___ Additional Computation Sheets Attached

Measured Method:

$$0.7 \times 1.5 \times 8.8 / 250 + (2.31 \times 60) = 9.24/388.6 = 0.02 \text{ cfs}$$

Also, see the attached performance curve for a secondary check of flow.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.5 \text{ acre} \times 3 = 1.5 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 246 \text{ days} \times 0.02 \times 1.9835 = 9.8 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.5 \text{ afa}$$

2. Volume Calculations for Other Uses: NA

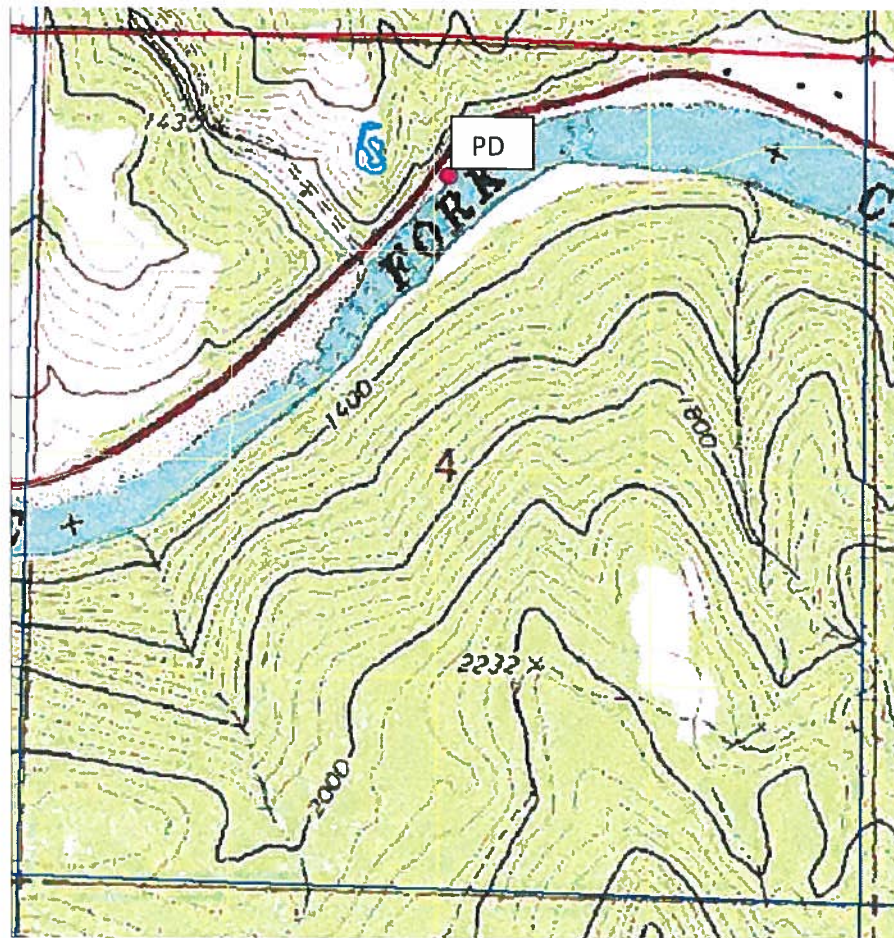
G. NARRATIVE/REMARKS/COMMENTS

The permit holder diverts water from a portable pump in the Clearwater River. He controls the pump by an electrical panel in the shop. Once the water is lifted from the river it goes through another screen at the top of the hill before going to a small pressure tank. The water then goes to 4 hydrants on the property. The irrigation is accomplished by simply dragging a garden hose and sprinkler to various patches of lawn. The permit holder states that they mostly irrigate around the house but I noticed that the grass north and south of the shop is also watered and along the driveway.

12/3/12 - I spoke with Joe Nuxoll from Aqua Source, who installed the system, to find out if there was a fish screen at the intake. He said there was a 1/8" screen inside the pump that is not visible. I also asked if there was a way to lock the system. He said that he could easily remove the handles rendering the system locked. It appears that there is not a lockable device on this system; however, I found that the right holder is only diverting 0.02 cfs for the irrigation of 0.5 acre. Basin 81 is not in a water district and IDWR is not planning on placing it in a water district at this time. Currently, IDWR would place an "upon specific notification" condition regarding a lockable device so long that the right meets 42-111 domestic definition. Even though this right is authorized to divert surface water, I believe that we can follow the above directive. I will change the permit's condition that requires a lockable device to "upon specific notification" a lockable device shall

be installed.

Note about point of diversion: The DRG map confirms that the gps'd PD is in the NENW. The PLSS layer is shifted and incorrectly places the PD in the NE1/4. For the purposes of licensing, I will place the PD shape near the QQ line but for the real location please go by the GPS coordinates I recorded in this report.



Have conditions of permit approval been met? ____ Yes ____x____ No (see above discussion)

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.020 CFS	1.5 af
<u>Totals:</u>		0.020 CFS	1.5 AFA

2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above ____x____ None

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

I. AUTHENTICATION

Field Examiner's Name Cheri Palmer Date 10/3/12

Reviewer _____ Date _____

2 attachments
 # 1 - overlap analysis
 # 2 - pump performance curve (2)

System Diagram







Photo is facing the
SE direction

location of pressure reading
addition screen
Bleeder valve



Pressure
reading
60 psi



Photo taken
while looking north



Pressure tank



Place of use
north of the
Shop



Sprinkler control
box.



Photo taken
while looking SW

hydrant



Photo of back porch and irrigation hoses.



Facing south at the Clearwater River at the property boundary



1 1/4" rubber hose
going up to
POU — runs
under the highway
from the river.



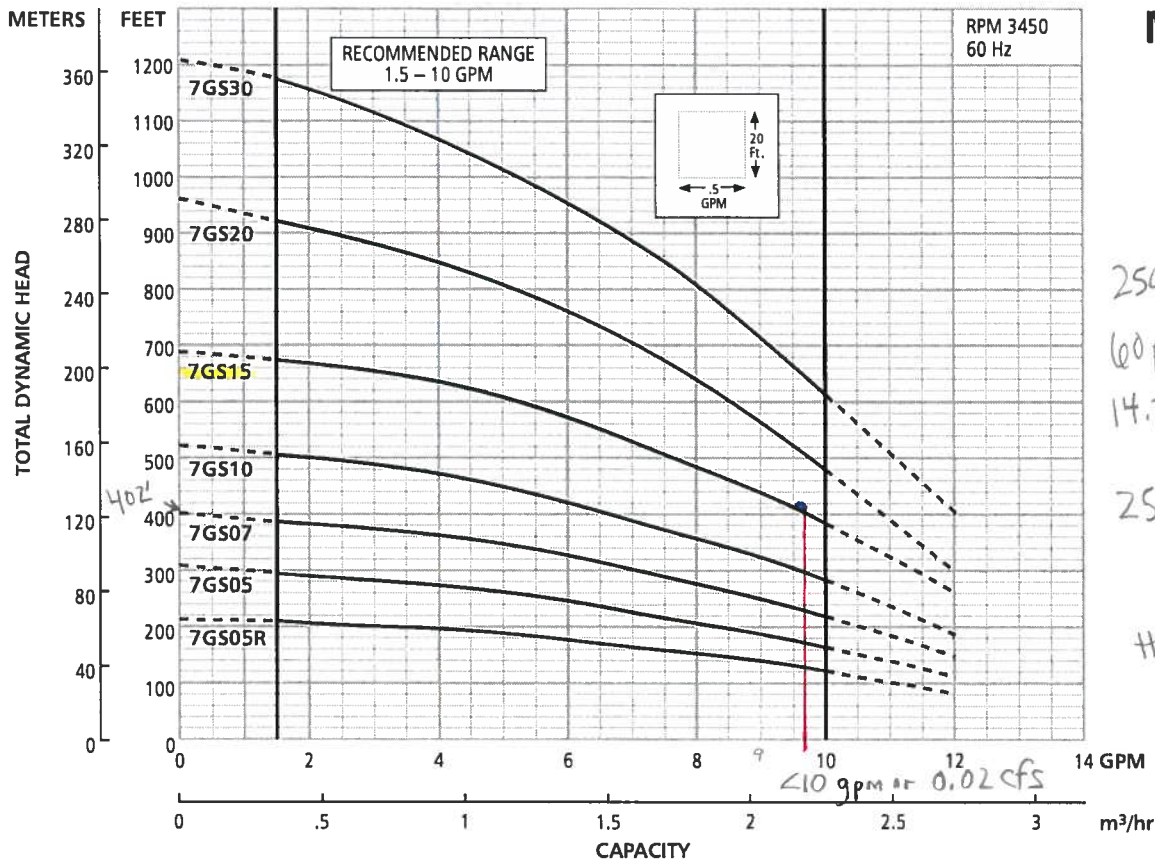
Culvert on the
river-side of the
highway



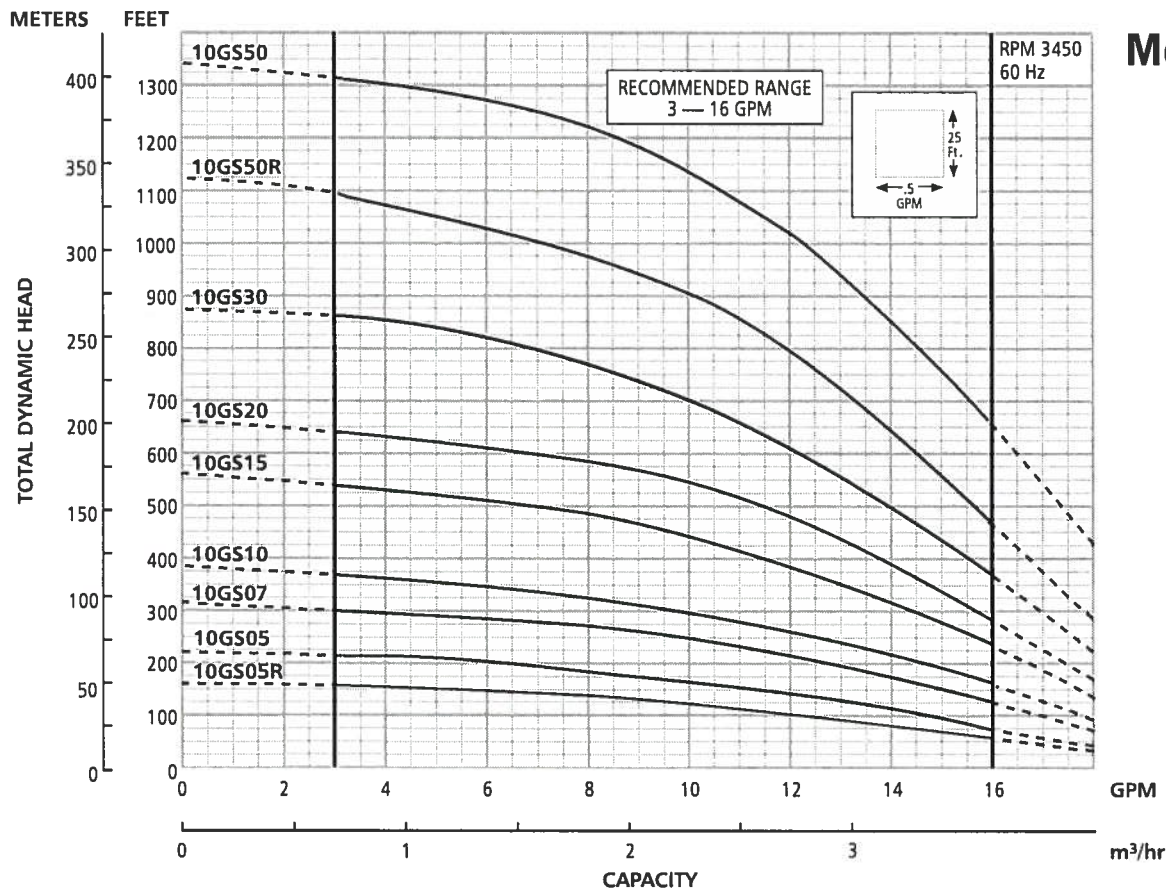
Attachment #1

Type	WR #	Owner	Source	TRS	NENW	Significant Overlap? Y/N		
Permit	81 11997	ALEX BARATH, BARBARA BARATH,	CLEARWATER RIVER	32N05E4	2	NA		
Right	81 10171	ALEX BARATH, MARGARET D BARATH,	GROUND WATER	32N05E4	X	Y-DOMESTIC IN-HOUSE ONLY		
Right	81 10155	VICTORIA LYNN GARCIA, WALTER BAILEY III,	GROUND WATER	32N05E4	X	N-Neighbors Property		
Right	81 7015	VICTORIA LYNN GARCIA, WALTER BAILEY III,	SUTTLE CREEK	32N05E4	X	N-Neighbors Property		
Right	81 7162	STATE OF IDAHO,	CLEARWATER RIVER	32N05E4	X	N-MSF		
CONCLUSION: There are no significant overlaps with the irrigation use under 81-11997. The groundwater is used for in-house use only per permit holder during the field examination.								

Attachment #2



Model 7GS



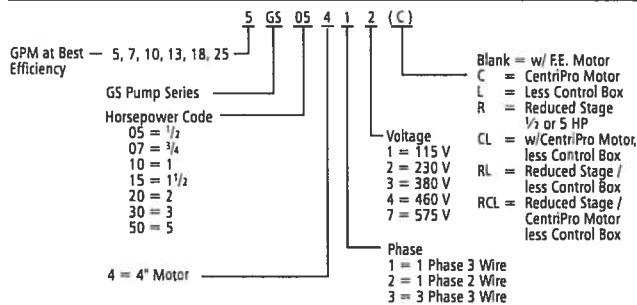
Model 10GS

WATER END DATA

Series	Model	Required H.P.	Stages	Water End	
				Length (in)	Wt (lbs)
5GS	5GS05R	.5	9	12.9	8
	5GS05	.5	12	15.0	9
	5GS07	.75	15	17.0	11
	5GS10	1	20	21.7	13
	5GS15	1.5	26	25.8	15
	5GS20	2	33	31.6	19
7GS	7GS05R	.5	7	11.7	6
	7GS05	.5	10	13.8	7
	7GS07	.75	13	16.0	8
	7GS10	1	17	18.8	9
	7GS15	1.5	22	23.6	12
	7GS20	2	27	27.2	13
10GS	10GS05R	.5	5	10.1	6
	10GS05	.5	7	11.5	7
	10GS07	.75	10	13.6	8
	10GS10	1	12	15.0	9
	10GS15	1.5	17	18.4	12
	10GS20	2	20	21.7	13
13GS	13GS05	.5	5	10.1	6
	13GS07	.75	7	11.5	7
	13GS10	1	10	13.6	8
	13GS15	1.5	12	15.0	9
	13GS20	2	17	18.4	12
	13GS30	3	21	22.3	15
18GS	18GS07	.75	6	11.8	7
	18GS10	1	8	13.5	8
	18GS15	1.5	11	16.1	10
	18GS20	2	14	18.6	11
	18GS30	3	19	24.1	15
	18GS50R	5	24	28.3	17
25GS	25GS10	1	7	13.4	8
	25GS15	1.5	9	15.3	9
	25GS20	2	11	17.2	10
	25GS30	3	15	20.9	14
	25GS50R	5	22	28.7	17
	25GS50	5	26	33.4	21

NOMENCLATURE

See price book for complete order numbers.



SPECIFICATIONS

Model	Flow Range GPM	Horsepower Range	Best Efficiency GPM	Discharge Connection	Minimum Well Size	Rotation ^①
5GS	1.2 – 7.5	1/2 – 2	5	1 1/4"	4"	CCW
7GS	1.5 – 10	1/2 – 3	7	1 1/4"	4"	CCW
10GS	3 – 16	1/2 – 5	10	1 1/4"	4"	CCW
13GS	4 – 20	1/2 – 3	13	1 1/4"	4"	CCW
18GS	6 – 28	3/4 – 5	18	1 1/4"	4"	CCW
25GS	8 – 33	1 – 5	25	1 1/4"	4"	CCW

① Rotation is counterclockwise when observed from pump discharge end.

"GS" SERIES MATERIALS OF CONSTRUCTION

Part Name	Material
Discharge Head	AISI 303 SS
Check Valve Poppet	AISI 304 SS
Check Valve Seal	BUNA, FDA compliant
Check Valve Seat	AISI 304 SS
Check Valve Retaining Ring	AISI 302 SS
Bearing Spider – Upper	Noryl® GFN2
Bearing	Proprietary Engineered Polymer
Klipring	AISI 301 SS
Diffuser	Lexan®
Impeller	Noryl®
Bowl	AISI 304 SS
Intermediate Sleeve*	AISI 304 SS, Powder Metal
Intermediate Shaft Coupling*	AISI 304 SS, Powder Metal
Intermediate Bearing Spider*	Glass Filled Engineered Composite
Intermediate Bearing Spider*	AISI 303 SS
Shim	AISI 304 SS
Screws – Cable Guard	AISI 304 SS
Motor Adapter	AISI 303 SS
Casing	AISI 304 SS
Shaft	
Coupling	AISI 304 SS, Powder Metal
Cable Guard	AISI 304 SS
Suction Screen	AISI 304 SS

*See repair parts for where used.

