

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 92-10680

Exam Date: 6/13/2017

1. Current Owner:
DAVID BRAKEBILL PO BOX 224 SANTA ID 83866 (208) 245-6540
And/Or
LAURA BRAKEBILL PO BOX 224 SANTA ID 83866 (208) 245-6540

2. Accompanied by: David & Laura Brakebill

3. **SOURCE:**
SPRING

TRIBUTARY:
RENFRO CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point-of-diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**SPRING NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 13, Twp 44N, Rge 01W, B.M. BENEWAH CountySPRING NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 13, Twp 44N, Rge 01W, B.M. BENEWAH County

Method of Determination: Maps and GPS. PODs located at

Spring 1: -116° 24.675, 47° 09.716

Spring 2: -116° 24.611, 47° 09.754

2.

PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
44N	01W	13							X										

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
44N	01W	13					0.5		0.6	2.0									3.1

Total Acres: 3.1

Method of Determination: Google Earth and Arcmap.

3.

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

X Indicate weir size/pipe as applicable.X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.X Aerial Photo Attached (required for irrigation of 10+ acres).X 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

*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
5 GALLON BUCKET						

2. Measurements: 5 Gallon bucket test performed in 7 seconds.

5 gal / 7 sec x 60 sec = 42 gpm or 0.09 cfs

E. FLOW CALCULATIONS

Measured Method: Unable to perform flow measurement for _____ Additional Computation Sheets Attached
 domestic use. Recommended diversion rate similar to in office rules covered under IDAPA RULE 37.03.02.035.01.r.iii.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.1 \text{ AC} \times 3.0 \text{ AF} = 9.3 \text{ AF}$$

$$V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.09 \text{ CFS} \times 214 \times 1.9835 = 38.2$$

$$V = \text{Smaller of } V_{I,R} \text{ and } V_{D,R} = 9.3 \text{ AF}$$

2. Volume Calculations for Other Uses: Domestic use in shop

$$\text{Bathroom use} = 5 \text{ gal} \times 3 \times 365 \text{ days} = 5,475 \text{ gpy}$$

$$\text{Washing machine use} = 50 \text{ gal} \times 4 \text{ loads} \times 52 \text{ weeks} = 10,400 \text{ gpy}$$

$$5,475 + 10,400 = 15,875 \text{ gpy} / 325,850 = 0.05 \text{ AF rounded to 0.1 AF}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam with applicants, David & Laura Brakebill, showed 2 springs being used for domestic uses in a shop and irrigation. The domestic spring was covered with a piece of plywood and had plastic container dug into ground that filled from bottom where the spring was. From the spring box, water was piped to a 1,000 gallon buried storage tank next to shop. Water from the storage tank was used for a washing machine and a bathroom in the shop. There was no way to accurately measure the flow of the spring because it overflowed onto the land and was stored in tank. It is the recommendation of the field examiner to issue the license for 0.04 cfs for domestic use similar to how in office exams are licensed without measurements.

Applicant's said they spent a lot of time in the shop during the entire year and would on average use the bathroom 3 times per day. A similar use and volume was found on notes for a rest area. The recommended volume was 5 gallons per visit. Annual volume was determined using that volume times the numbers of uses. They said they would do 4 loads of laundry per week and a volume of 50 gallons per use was found for a laundromat. The 4 loads per week was times by 50 gallons and by 52 weeks in year. The total usage for the shop was equal to 10,400 gallons per year or 0.05 acre-feet. Because of rounding rules, the license will be issued for domestic use for 0.1 acre-feet.

The spring that was used for irrigation had a similar setup at the domestic spring. It had a plastic liner to store enough water for the pump hose to use. The spring was very productive at time of exam and overflowing a significant amount of amount. Applicant had channeled the overflow water in ditches around field to get additional irrigation from overflow before it returned to Renfro Creek. Applicant had installed a pump on an old lawnmower frame for easy transportation. From the pump, water was pumped to 8 different sprinklers. The setup had numerous sized hoses, valves, and sprinklers. There was no way to perform a psi test on sprinklers because they varied from isolating garden sprinklers to rain bird sprinklers. There was a spot where we could disconnect all lines and perform a 5 gallon bucket test. 5 gallon test was performed and filled in 7 seconds which is equal to 42 gpm or 0.09 cfs. The actual area of irrigation was equal to 3.1 acres that the applicant would irrigate to keep green for fire protection.

License will be issued for a diversion rate of 0.13 cfs with an annual volume for domestic use of 0.1 acre-feet. The irrigation component will be limited by condition R66. Condition 132 will be edited to describe only the shop use as a domestic use. Condition 004 will be left on license because there are numerous taxlots that the applicants own. The season of use was corrected at time licensing. There are no overlap concerns.

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>
DOMESTIC	01/01 to 12/31	0.04 CFS	0.1 AF
IRRIGATION	04/01 to 10/31	0.09 CFS	
	<u>Totals:</u>	0.130 CFS	

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 X None

I. AUTHENTICATION

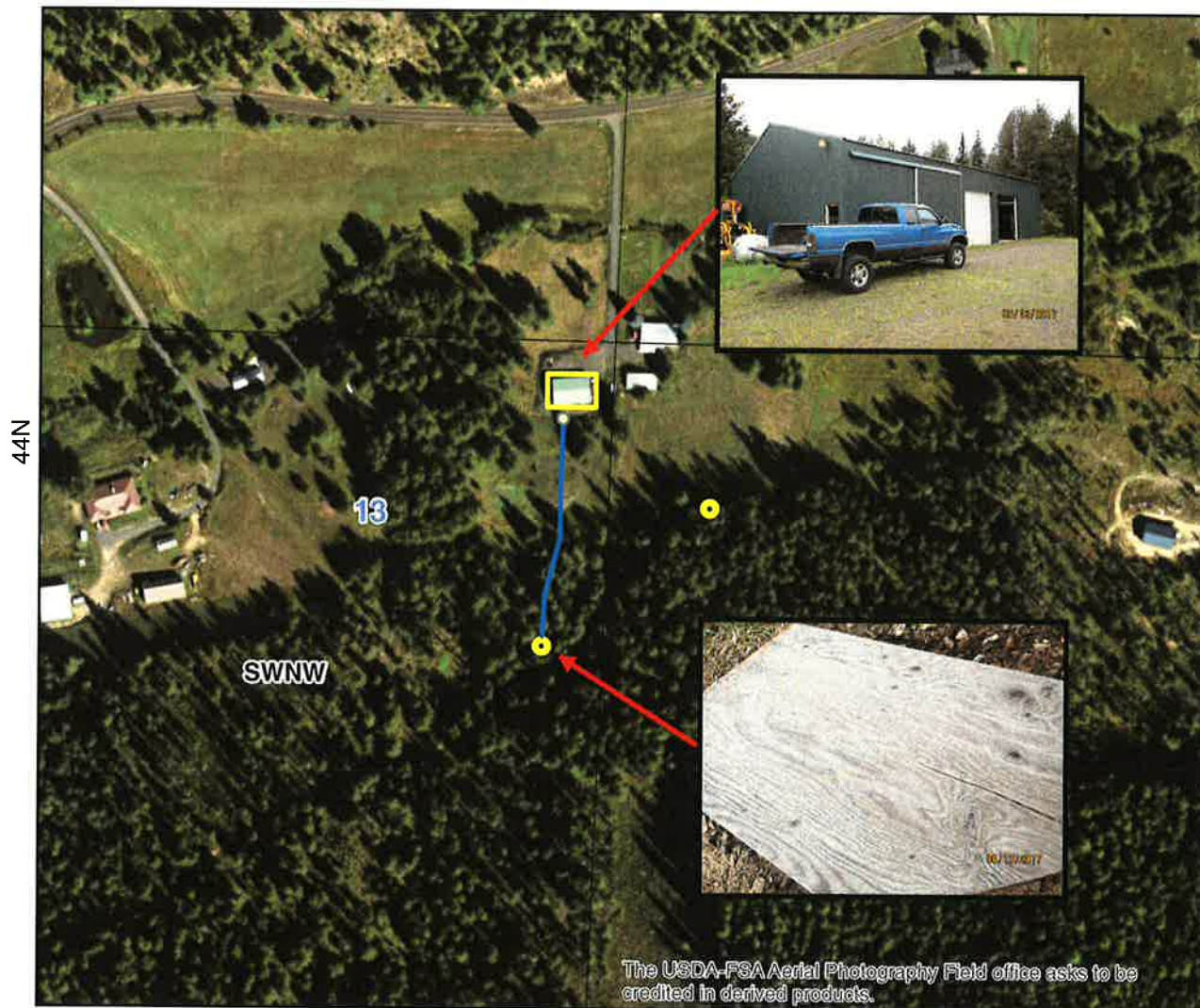
Field Examiner's Name Adam Fink Date 4/20/2018

Reviewer Douglas Jones P.E. Date 6/5/18

State of Idaho
Department of Water Resources
Attachment to Field Exam
92-10680

DOMESTIC / SYSTEM DIAGRAM

01W



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

0 0.035 0.07 0.14 Miles

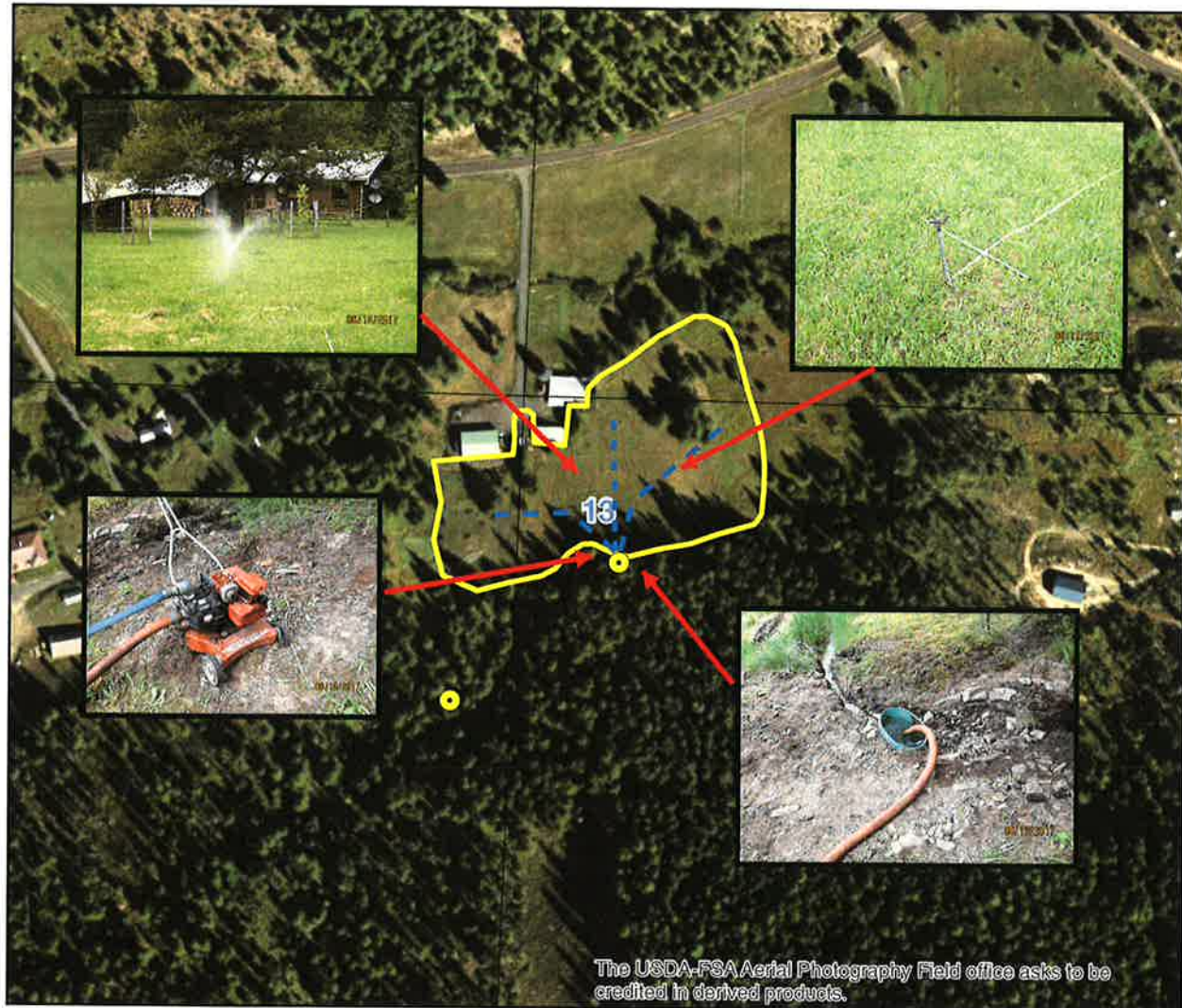


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IRRIGATION / SYSTEM DIAGRAM

01W

44N



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

0 0.035 0.07 0.14 Miles



92-10680

_____/yr. _____
_____-feet. _____
ditions of permit:

☒	☐	☒	☐	☒	☐
No	No	No	No	No	No

th your proof of

06/13/2017

No ☒



Spring that was used for bathroom and laundry in shop.



Shop where water from spring was used for bathroom and laundry.



Spring that was used for irrigation around house and shop.



Portable pump applicant had built for irrigation.



Irrigated area just below spring.



One of multiple sprinklers used for irrigation.



Sprinkler running during exam.



Test was performed again without nozzle because it was restricting flow. 5 gallon bucket was performed and filled in 7 seconds. A 5 gallon bucket test was performed because sprinklers were all different types and sizes and could not perform psi test.



Irrigation POU.



Irrigation POU.





Irrigation POU.

