STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86-12079
Exam Date: 09/01/2020

1. Current Owner:
SCOT BUESSOW 1004 KATNOOK LN MOSCOW ID 83843-0939 AND
LIANE SAWYER 1004 KATNOOK LN MOSCOW ID 83843-0939

2. Accompanied by: Scot Buessow
Phone No: 208-889-1767
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER NE¼ NW¼ ¼, Sec. 29, Twp 39N, Rge 04W, B.M. LATAH County

Method of Determination: GPS. POD located at -116°52.032, 46°42.073. Well D-TAG D0079616.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
39N	04W	20												X					
39N	04W	29					X												

Method of Determination: Field exam, photographs taken during exam, and Arcmap aerial imagery.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.
X 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
X 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
D0079616		1.5			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: Unable to perform flow measurement because system pumped directly into pressure tank.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at **0.02 cfs** considering department rounding standards, with pump depth of 525 ft and system operating pressure of 45 PSI.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$V_{I.R}$ = (Acres Irrigated) x (Irrigation Requirement) =

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

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

2. Volume Calculations for Other Uses:

Domestic annual volume = 1 home with ½ acre irrigation included = **1.2 af**

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 9/1/2020 with the applicant, Scot Buessow, showed groundwater from a well serving domestic purposes. The well had a 1.5 HP pump that diverted water directly to a pressure tank, and as such flow measurements were not attainable. Theoretic Pump Equation derived a diversion rate of 0.02 cfs considering Department rounding standards, with pump at depth of 525 ft, and system operating pressure of 45 psi. The theoretic pumping equation equals the permit approved diversion rate of **0.02 cfs**, which will be carried forward to license as the maximum diversion rate.

One home with garage and a separate garage shop was observed during the field exam. The applicant routed water from the well direct to the separate shop, where the applicant's pressure tank and water conveyance system was located. Hose bibs on the home and a frost free hydrant were observed at time of field exam, and the ground was wet from the morning of irrigation. Applicant irrigated trees and grass along the drive way, as well as small yard areas between the shop to house, and around the home. Current Arcmap aerial imagery does not show a home on the parcel, as it was newly built in the spring of 2020 prior to applicant submitting his Statement of Completion. Using field notes and photographs, Arcmap 2019 year imagery was used to trace out the POU, consisting of approximately 0.75 acres to account for 1 home, separate shop, and ½ acre irrigation. The overall license will be issued for a maximum diversion volume of **1.2 af**.

Condition 046 was removed from permit at time of licensing. All other conditions on permit will remain on license. There are no overlap concerns for this water right.

Have conditions of permit approval been met? __X__ Yes ____ No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
DOMESTIC	01/01 to 12/31	0.02 CFS	1.2 AF
	Totals:	0.02 CFS	1.2 AF

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

Luke Bates - Water Resource Agent

Field Examiner's Name _____ Date 9/14/2020

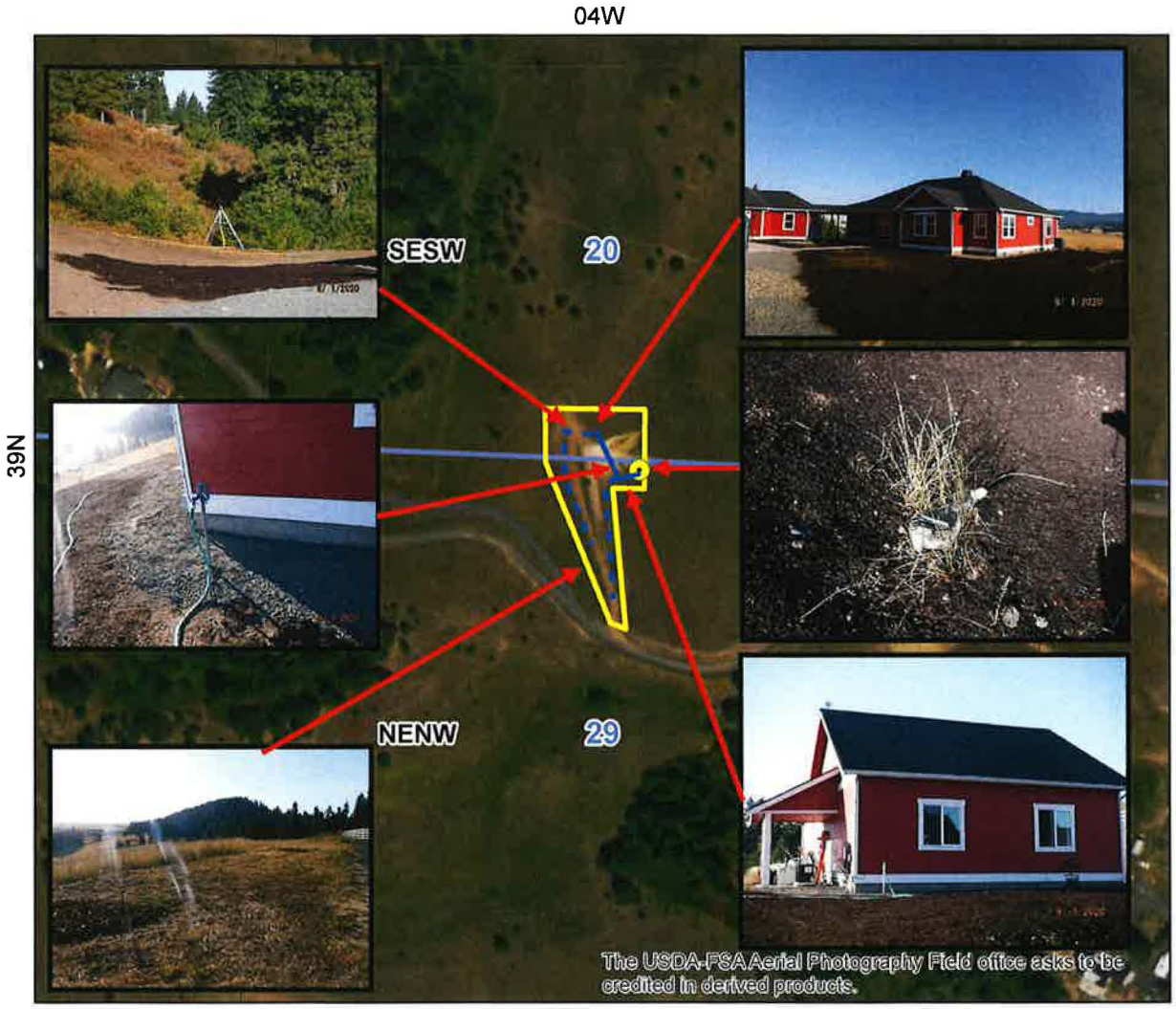
Reviewer Adam Fritz Date 9/15/2020

State of Idaho
Department of Water Resources

Attachment to Field Exam

86-12079

DOMESTIC system diagram.



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

0 0.035 0.07 0.14 Miles

N

THEORETICAL PUMPING EQUATION FOR WR# 86-12079

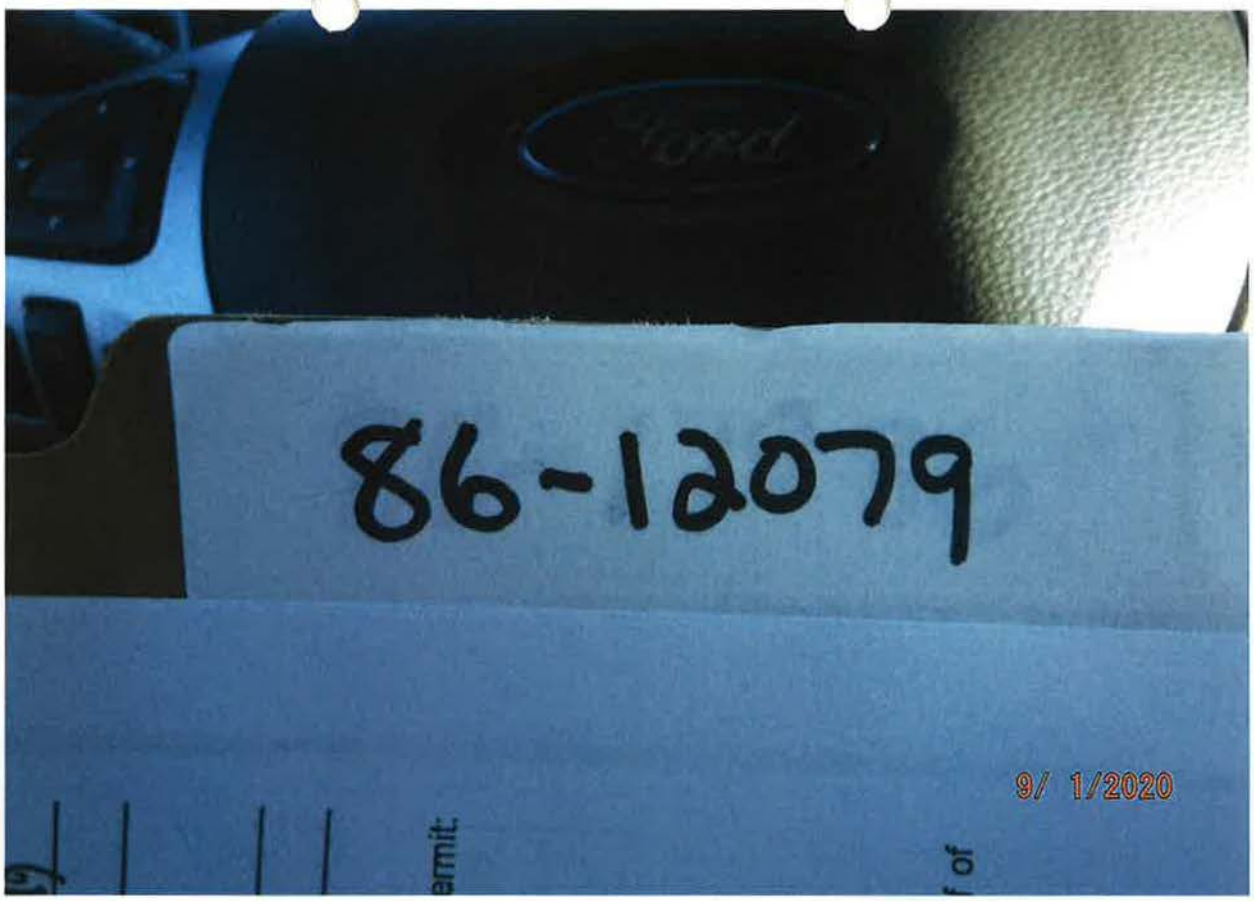
Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 525 ft, and running at 45 psi.

PUMP EQUATIONS

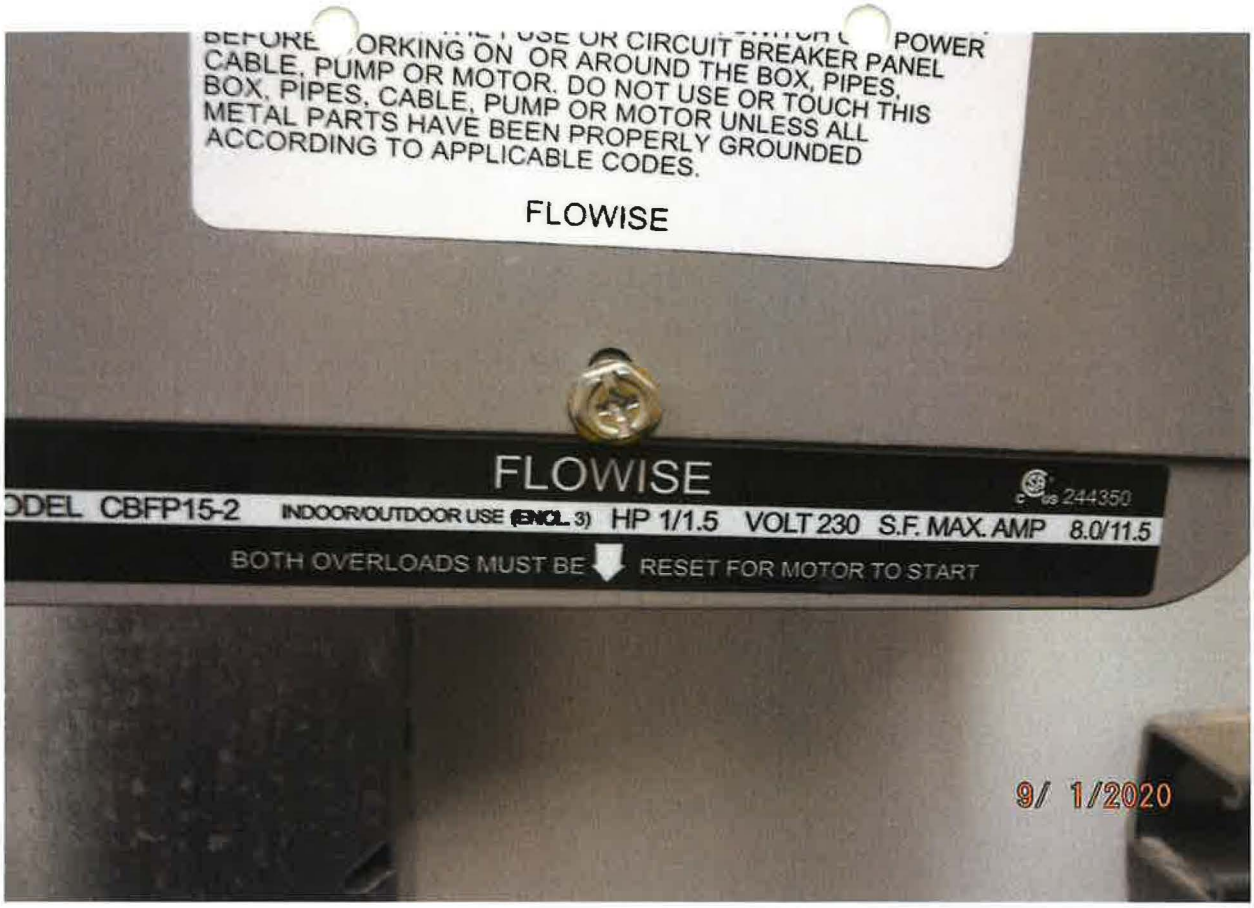
WATER RIGHT No. 86-12079

		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	1.5	629.0816	0.8	525	45

Q = **0.017 cfs** **7.5 gpm**



POD – WELL D0079616

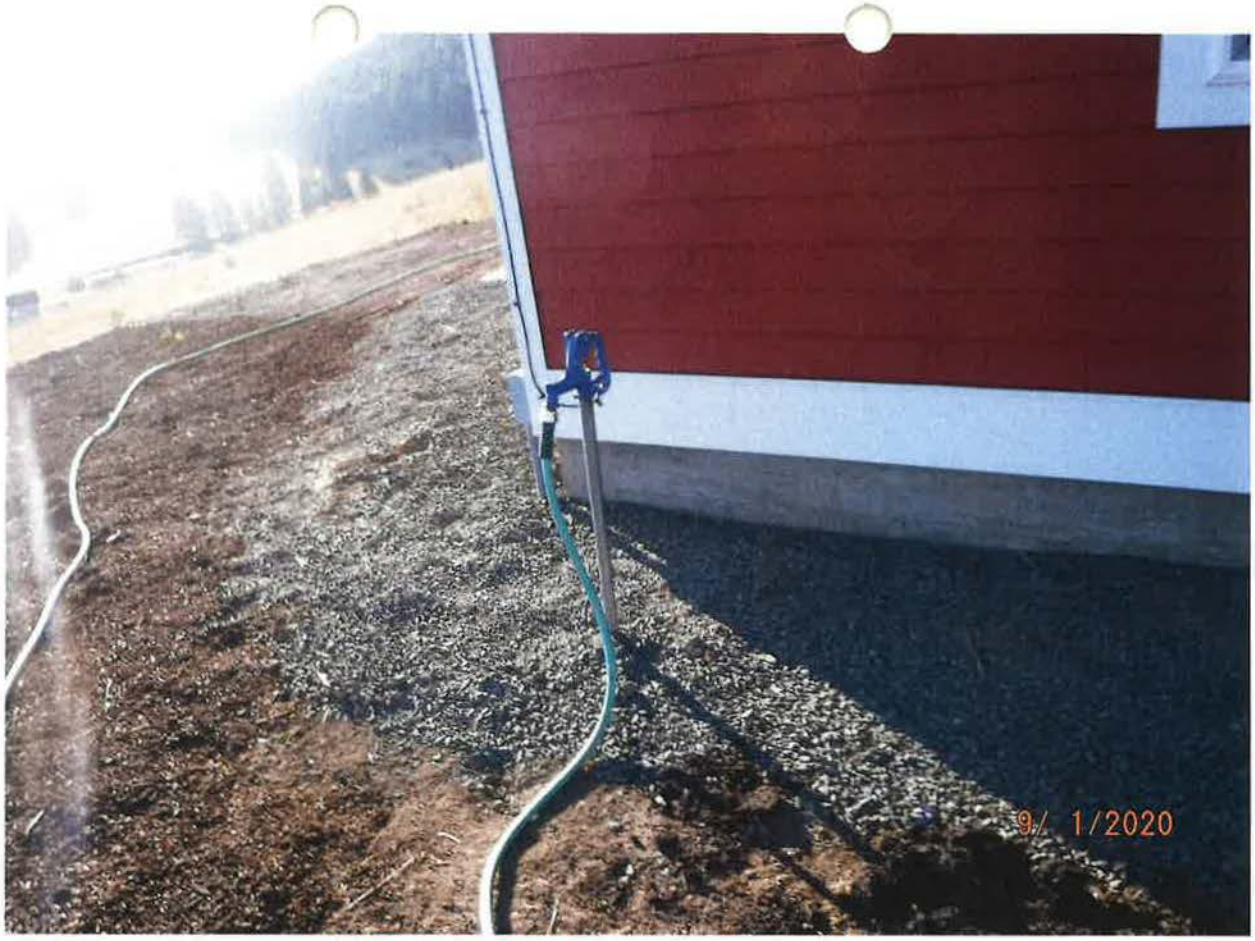


1.5 HP WELL PUMP

45 PSI SYSTEM OPERATING PRESSURE

WATER CONVEYANCE SYSTEM

DOMESTIC POU



DOMESTIC POU

DOMESTIC POU