

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-09532
Exam Date: 7/28/2017

1. Current Owner:
SCOTT HERNDON 246 OTTS RD SAGLE ID 83860 (208) 610-2680
And
ARLENE HERNDON 246 OTTS RD SAGLE ID 83860 (208) 610-2680
2. Accompanied by: Scott Herndon (Applicant)

3. **SOURCE:**
GROUND WATER

TRIBUTARY:

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 96-9352 (Domestic from drilled well)
2. Other water rights with the same point-of-diversion: None

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

GROUND WATER SW¼SE¼ Sec. 14, Twp 56N, Rge 03W, B.M. BONNER County

Method of Determination: Maps and GPS. POD location at 48° 11.835, 116° 39.590

2.

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
56N	03W	14															X	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	
56N	03W	14															1.8	0.7	2.5

Total Acres: 2.5

Method of Determination: Google Earth and Arc map.

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
HAND DUG WELL					

*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 FILLED IN 11 SECONDS

5 GAL / 11 SEC X 60 SECONDS = 27 GPM OR 0.06 CFS

E. FLOW CALCULATIONSMeasured Method: THEORETICAL PUMPING EQUATION
USED AS DOUBLE VERIFICATION. SEE ATTACHED.X Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.5 \text{ AC} \times 3.0 \text{ AF} = 7.5 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \text{ CFS} \times 214 \text{ DAYS} \times 1.9835 = 25.5 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 7.5 \text{ AF}$$

$$2. \text{ Volume Calculations for Other Uses: } 20 \text{ HEAD OF MIXED STOCK} \times 12 \text{ GPD} \times 365 \text{ DAYS} / 325,850 \text{ GAL/AF} = 0.3 \text{ AF}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam with applicant, Scott Herndon, showed a hand dug well that had a concrete cistern in place to protect pump and to fill with water. Applicant stated the pump was set 10 feet down and produced around 30 gpm. A 5 gallon bucket test was performed on frost free hydrant and was filled in 11 seconds which was equal to 28 gpm or 0.06 cfs. Applicant thought the pressure was somewhere between 45 to 50 psi. Psi gage was put on frost free hydrant and showed it was at 45 psi. A theoretical pumping equation was done as double verification of system capacity and showed the same diversion rate as what was measured.

Applicant had numerous frost free hydrants around property for irrigation and stockwater. One large pasture has sprinklers around but applicant had ceased irrigation earlier in season because noxious weeds had taken over and wasn't worth irrigating. A small orchard, large garden, and grass irrigation around house and property were all still being irrigated. Numerous stock were present in pasture land and other stock were grazing in forested area just east of applicant's house and numbered 20 head of mixed stock. During license review the irrigated areas measured 2.5 acres license will be issued for 2.5 acres of irrigation along with stockwater for 20 head of mixed stock.

During review prior to licensing it was noticed that the GPS location of the POD was on the neighbor's property. As verification of IDWR taxlot overlay I went to the Bonner County online parcel map which showed the same taxlot as IDWR overlay. Bonner County did have links to warranty deeds for each parcel. One of those links showed a property line adjustment in the form of a quitclaim deed. That deed had a map showing the POD was on the applicant's property. A phone call was placed to Mr. Herndon to discuss the taxlot confusion. He said the hand dug well was on his property and referenced the same 2008 quitclaim deed as being the correct property lines. License will be issued with condition 004 in case there are trespass issues.

The applicant also has a domestic license no 96-9352 which is from a well. License was issued for domestic use for 1 house and irrigation up to ½ acre. Because the area of irrigation is also part of the same area as this license, overlapping condition will be added to limit irrigation of both license to 2.5 acres.

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>
STOCKWATER	01/01 to 12/31	0.02 CFS	0.3 AF
IRRIGATION	04/01 to 10/31	0.06 CFS	7.5 AF
	<u>Totals:</u>	0.060 CFS	7.80 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 ☒ None

I. AUTHENTICATION

Field Examiner's Name Adam Funder Date 10/4/2017

Reviewer _____ Date _____

THEORETICAL PUMPING EQUATION FOR WATER RIGHT 96-9532

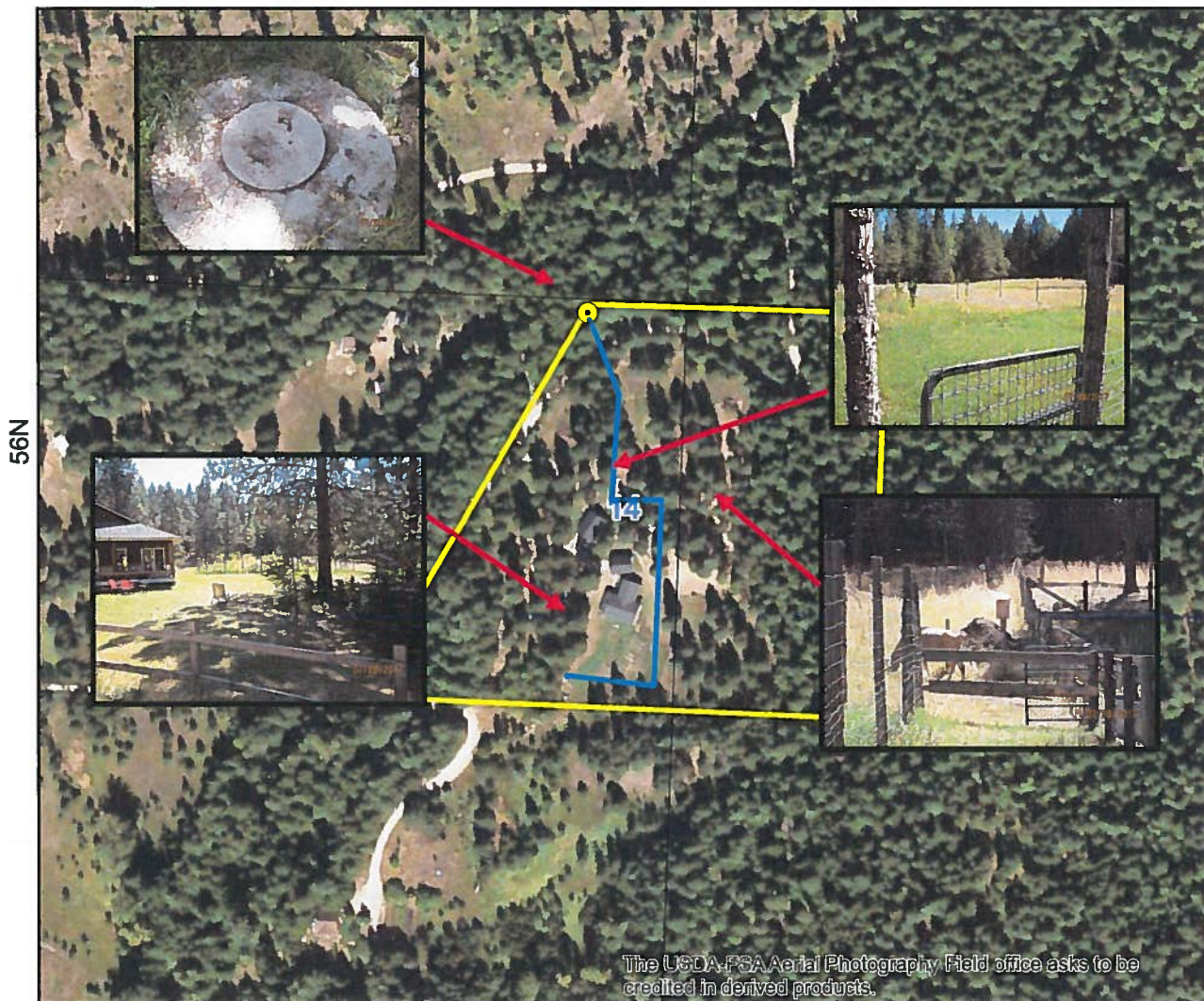
Pumping equation shown as double verification for 5 gallon bucket test performed during exam.

PUMP EQUATIONS WATER RIGHT No. 96-9532						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	1	114.0816	0.8	10	45
Q =		0.062 cfs	27.7 gpm			

State of Idaho
Department of Water Resources
Attachment to Field Exam
96-9532

STOCKWATER and IRRIGATION / SYSTEM DIAGRAM

03W



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

0 0.035 0.07 0.14 Miles



744863

QUITCLAIM DEED Boundary Line Adjustment

FILED BY
Scott Herndon
2008 JAN 22 P 4:28
MARIE SCOTT
BONNER COUNTY RECORDER
MS DEPUTY

This QUITCLAIM DEED executed this 22nd day of January, 2008,

By first party, Grantors, Scott Herndon and Arlene Herndon, husband and wife
Whose post office address is 246 Otts Road, Sagle, ID 83860

The purpose of this deed is to affect a boundary line adjustment between adjoining tracts of land owned in fee simple by the Grantors by describing the resulting tract of land. No new tracts of land are created and tract size remains the same as before the adjustment.

Grantors do hereby convey, remise, release and quitclaim unto the said first party forever all the right, title, interest and claim which the Grantors have in the following described tract of land, and improvements and appurtenances thereto in the County of Bonner, State of Idaho, for the purpose of boundary line adjustment to form one tract, to wit:

A tract of land located in the southeast quarter of Section 14, Township 56 North, Range 3 West, Boise Meridian, Bonner County, Idaho, more particularly described as follows:

Beginning at the northeast corner of the West Half of the Northwest Quarter of Southeast Quarter of said Southeast Quarter (W2 NW SE SE);

Thence west along the north line of said West Half to the northwest corner of said West Half;

Thence west along the north line of the North Half of the Southwest Quarter of said Southeast Quarter (N2 SW SE) a distance of 155.00 feet to point A;

Thence southwesterly along a line, a distance of 234.22 feet (said southwesterly line is described as follows: Beginning at said point A; Thence southwesterly to a point on the south line of said North Half, said point is 505 feet west of the southeast corner of said North Half);

Thence southeasterly to a point that is 250 feet north and 200 feet east of the southeast corner of said North Half;

Thence south a distance of 250 feet to a point on the south line of said West Half that is 200 feet east of the southwest corner of said West Half;

Thence east, along said south line a distance of 130 feet to the southeast corner of said West Half;

Thence north, along the east line of said West Half, a distance of 660 feet to the Point of Beginning.

The described tract of land is the North Tract on the Land Description Exhibit attached hereto and made a part hereof.

IN WITNESS WHEREOF, we have here unto set our hands on this 22nd day of January, 2008:

IN WITNESS WHEREOF, we have here unto set our hands on this 22nd day of January, 2008:

Scott Herndon
Scott Herndon

Arlene Herndon
Arlene Herndon

STATE OF IDAHO,)
County of Bonner.)

On this 22nd day of January, 2008, before me, the undersigned Notary Public, personally appeared Scott and Arlene Herndon, known to me (or proven to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacity, and that by their signatures on the instrument, the persons executed the instrument.

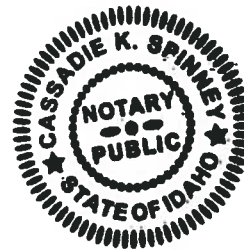
WITNESS my hand and official seal.

Cassadie K. Sperry
Signature of Notary

Affiant _____ Known ☒ Produced ID

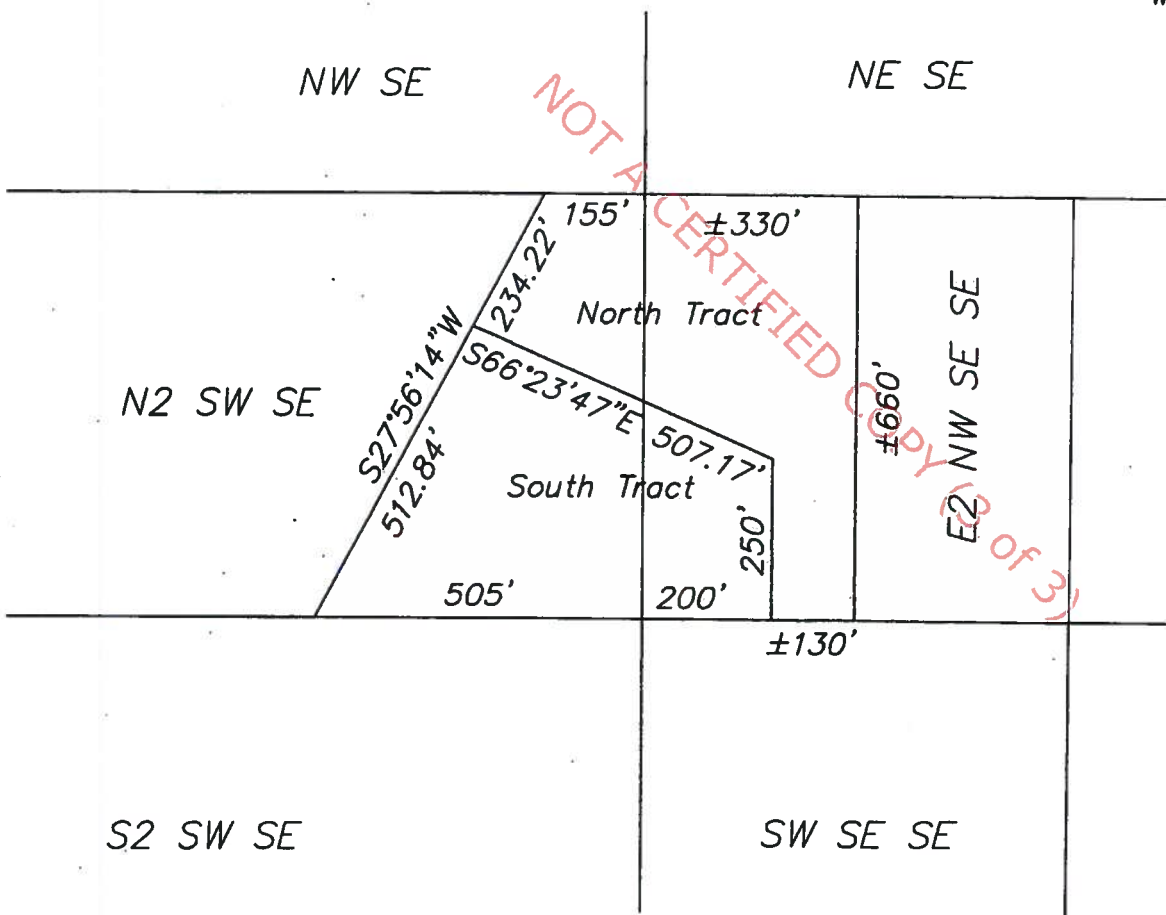
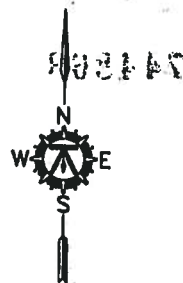
Type of ID ID D.L.

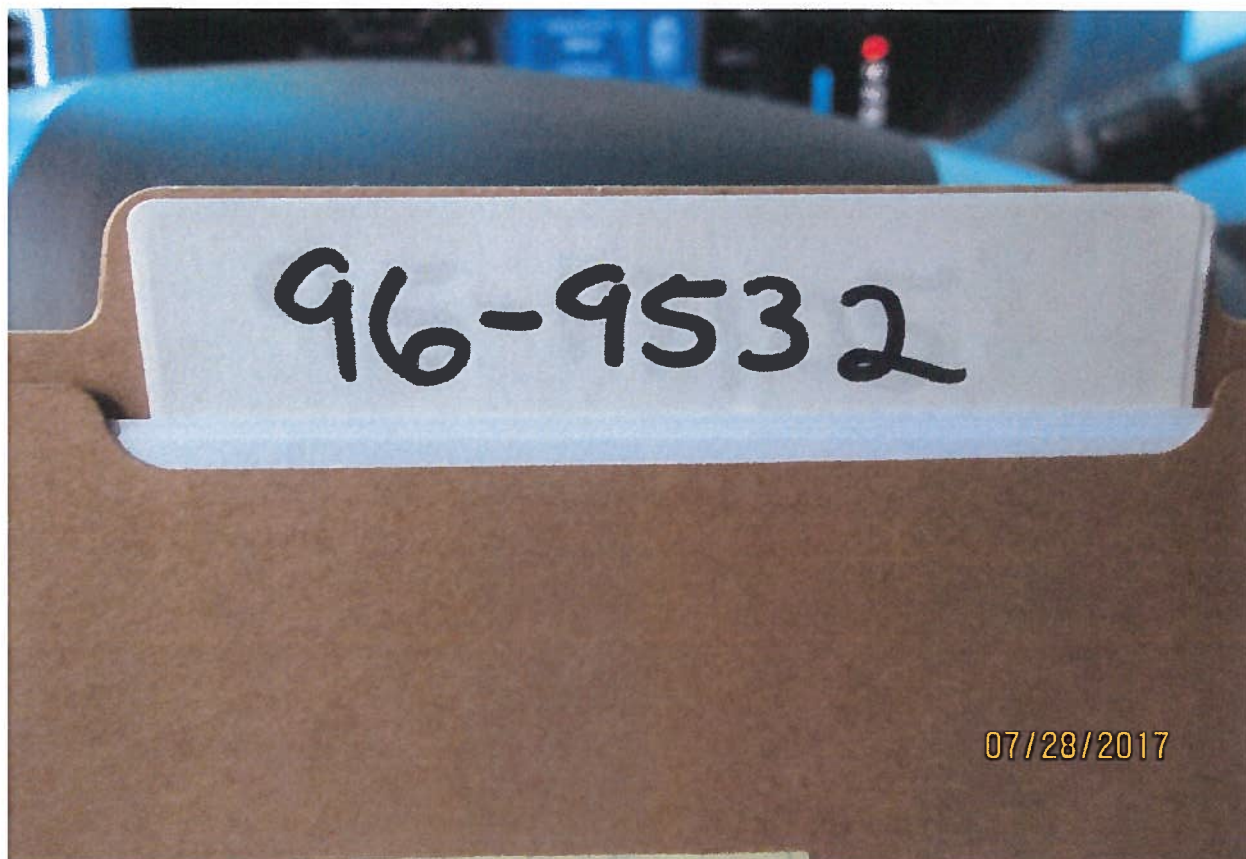
Commission Expires 6-12-09



LAND DESCRIPTION EXHIBIT

LOCATED IN SECTION 14, TOWNSHIP 56 NORTH, RANGE 3 WEST,
BOISE MERIDIAN, BONNER COUNTY, IDAHO





POD, hand dug well with pump set at 10 feet.



5 gallon bucket test performed filling in 11 seconds which is equal to 27 gpm or 0.06 cfs.



Place of use for irrigation and stockwater.



Orchard.



Frost free hydrant.



Stock.



Irrigation.



Frost free hydrant.



Irrigation and stockwater place of use.