

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATIONPermit No: 95-17197

Exam Date: 8/7/2017

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? X Y N
- a. Irrigation of 5 acres or less
 - b. Storage of up to 14.6 AF for stockwater purposes only
 - c. Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - d. Other < >

2. Current Owner: Name: Susan M. and Paul J. Finney
- Owner of Record Correct? X Y N
- Address of Record Correct? X Y N
- If No: Address

Tax Parcel shows Sky Hill LLC as the owner of the property. The Idaho Secretary of State Annual Report Form states that Paul and Sue Finney are the managers of Sky Hill LLC.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C0

4. **SOURCE** TRIBUTARY

Ground water

Method of Determination: Well Driller's Report, GIS, and Tax Parcel Data

Change in Source: Y X N

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: There are no direct overlapping water rights for this property. Water right 95-12397 is a recommendation for the property south of the county road, but is not linked to this permit in any way.

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: There are no direct overlapping water rights for this property. Water right 95-12397 is a recommendation for the property south of the county road, but is not linked to this permit in any way.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.		County
Well	1		NE	NE	7	48N	3W	B.M.	KOOTENAI
								B.M.	
								B.M.	

Method of Determination: GIS and Tax Lot ParcelChange in POD? X N Amendment Required? X N**2. PLACE OF USE:** 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	
48N	3W	7	D & S																
		Lot #	1																
Total Acres =																			

Method of Determination: GIS and Tax Parcel DataChange in POU? X N Amendment Required? X N Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

 X Aerial Photo Attached (required for irrigation of 10+ acres). Photo of Diversion and System Attached

4. Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Well	Unknown	1			

*Code to correspond with No. on map and aerial photo

PLEASE NOTE: The horsepower of this well was taken from the application for permit, but the well pump was in place when the application for permit was filed.

D. FLOW MEASUREMENTS

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

2. Measurements: No measurement is required for an in-house exam.

E. FLOW CALCULATIONSX Additional Computation Sheets Attached

Measured Method:

The application for permit states that the pump used on the system is a 1 Hp pump. The permit holder confirmed that the 1 Hp pump is still in the well in a telephone conversation on August 4, 2017. I used the attached theoretical calculation sheet to find out what the maximum capacity would be in an open discharge situation. The application for permit suggests that the pump open discharges into a storage tank or water trough. The diversion rate for domestic use is addressed in Processing Administrative Memo # 22, and the diversion rate for stockwater use is addressed in Processing Administrative Memo # 3.

Domestic Use:

Administrative Memo #22 = 0.04 cfs
Permit allowed = 0.04 cfs

Stockwater:

Administrative Memo #3 = 0.02 cfs
Permit Allowed = 0.02 cfs

Theoretical Calculation = 0.04 cfs.

I am recommending a diversion rate of 0.04 cfs for domestic use and 0.02 cfs for stockwater use with a total combined use of 0.04 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\hspace{2cm}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$$

2. Volume Calculations for Other Uses:

There is no information to show what the actual water volume being used. Therefore, I am following the standards set forth in Processing Administrative Memorandum #22, which states that the permit should be limited to 0.6 af for in-house use and 0.6 af for up to 1/2 acre of yard irrigation. The permit holder confirmed in a telephone conversation on August 4, 2017 that the well has not been used for irrigation purposes, so I am only recommending the 0.6 af for in-house use. Processing Administrative Memorandum #3 allows up to 0.4 af for 11 to 25 head of cattle. The permit holder claims 15 head of livestock, so I recommend the full 0.4 af for the stockwater portion.

Domestic use = 0.6 af
Stockwater use = 0.4 af

Total Volume = 1.0 af

G. PURPOSE OF USEIrrigation Y N # Stock 15 Domestic # of Homes 1

Other: < >

Change in Purpose of Use? Y NMethod of Determination: Tax data, GIS, and Well Driller's Report.If Yes: From Use To Use Amount CFS AFA

H. NARRATIVE/REMARKS/COMMENTS

This permit is qualifies for an in-house exam. This area doesn't have very many water rights, so there are no relevant overlapping water rights. The tax parcel information shows a pole barn was developed on the property. The permit holder confirmed that a 5th wheel trailer is housed in the pole barn, and that the pole barn has a bathroom. The permit holder also stated that they generally use the 5th wheel trailer for showers and bathroom. I couldn't see any irrigation in any of the aerial photos, and the permit holder confirmed that he has not irrigated from the well. Therefore, I did not include irrigation with the domestic use.

The well drillers report provided coordinates that places the well across the 40 acre tract line in the SWSW of Section 5, which is in a completely different tax parcel and is across a fence/ditch from the property. The well driller's coordinates appear to be off a bit when placed on the aerial photos. The map in application for permit puts the well near the 40 acre tract line, but the permit map puts the well closer to the structure. There was nothing in the folder to explain the move of the point of diversion location between the application for permit and the permit. I reviewed aerial photos in both ArcMap and Google Earth, and I found what appears to be a well drilling rig or boon truck in the 2013 aerial photo from Google Earth. The aerial photo from Google Earth also shows some disturbed ground that looks like a well drilling site. The disturbed area is relatively close to the well drillers coordinates, so I believe the well is in the disturbed area found in the 2013 Google Earth photos. I spoke with the permit holder, and he confirmed that the well is south of the ditch/fence line, and is on his property.

Conditions 1 (004), 2 (26A), 3 (046), 4 (187) and 6 (X02) will be removed at licensing. The well and place of use are both in the same parcel, so condition 004 is not needed. Conditions 26A, 046, and X02 will be removed according to Department Standards. Condition 5 (X01) will be changed to condition WB5, since there is no irrigation associated with this permit. No additional condition is really needed.

Have conditions of permit approval been met? X Yes No

I. 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	.6 AF
Stockwater	01/01 to 12/31	0.02 CFS	.4 AF
<u>Totals:</u>		0.04 CFS	1.0 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

Other: < >

J. AUTHENTICATION – DANIEL A. NELSON – Analyst 3

Field Examiner's Name



Date



Reviewer

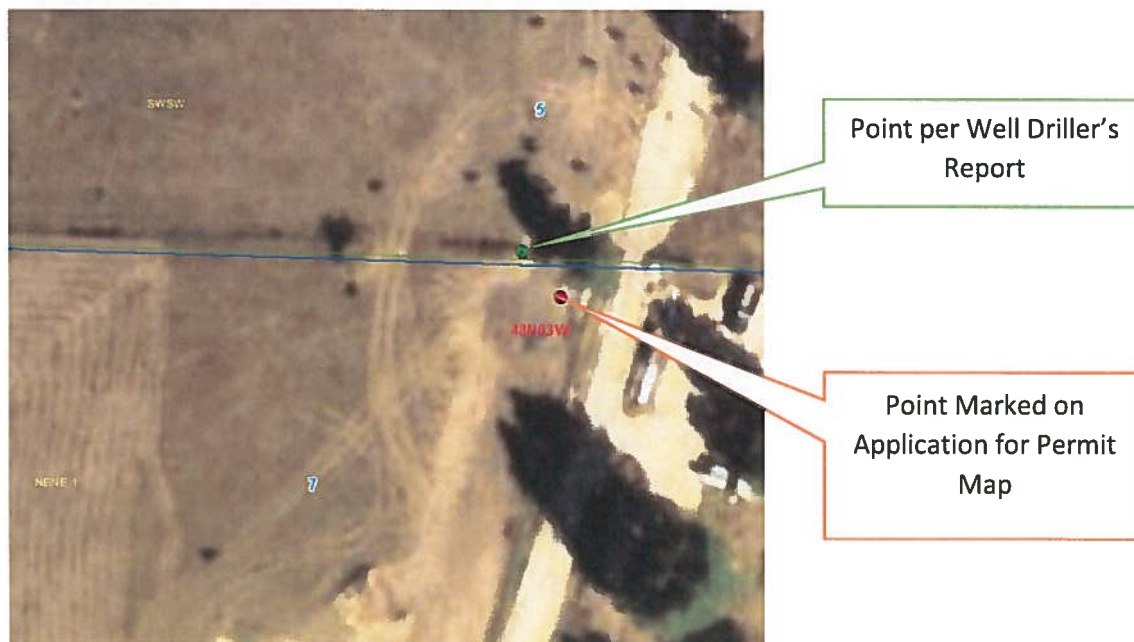
Date

Permit 95-17197

The 7/14/2013 Google aerial photo below shows what appears to be a well drilling rig at the well site. This is the place on the map that the permit holder marked on the application for permit map. The GPS coordinates puts the well on the other side of the ditch on the property to the north.



The 2013 ArcMap aerial imagery below shows the location of the well per the well driller's report and the point where the point of diversion was marked on the application for permit. I believe the point (marked in red) marked on the application for permit map is the correct location.



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 95-17197
 Reviewer: Dan Nelson
 Date of Review: 8/4/2017

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Scenario 1
1
0
112
10
0.05
20

Scenario 2
1
0
112
50
0.03
12

Scenario 2
1
0
112
60
0.02
11

Average
 0.04
 16.31

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: 70 efficiency.
 No Friction

Examiners Notes:

The pumping level was estimated using 10 feet below static water level of 102 feet per the well driller's report. It was difficult to estimate the pressure, because the application for permit states that the water was pumped into a storage tank for fire protection, and water toughs, which appears to be more of an open discharge type situation. Therefore, I used the best case scenario to determine what the pump capacity would be under ideal conditions.

MEMORANDUM

TO: Water Right Permit File 95-17197

FROM: Daniel A. Nelson

DATE: August 4, 2017

SUBJECT: Telephone Conversation with Permit Holder

On this date, I spoke with Paul Finney concerning water right 95-17197. Mr. Finney confirmed that no irrigation has transpired on the property associated with permit 95-17197. Mr. Finney also confirmed that the pump described in the application for permit is the same pump being used today. Mr. Finney also stated that there is a pole barn built on the property with a 5th wheel trailer connected into the water system. The pole barn also has a bathroom, but they generally use the bathroom and shower in the trailer. Mr. Finney also confirmed that the well is located south of the ditch/fence line shown in the aerial photo to the north.