

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 11-7051

Exam Date: 6/15/2012

1. Current Owner: CHARLES LEE NELSON
1950 BENCH RD
MONTPELIER ID 83254
(208)847-1537
2. Accompanied by: Charles Lee Nelson
Phone No: (208)847-1537
Address: 1950 Bench RD; Montpelier ID 83254
Relationship to Permit Holder: Owner

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 11-7025
2. Other water rights with the same point of diversion: 11-7025

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

GROUND WATER

SW1/4NW1/4

Sec. 14, Twp 13S, Rge 44E, B.M.

BEAR LAKE County

Method of Determination: GPS

2.

PLACE OF USE:

<u>PLACE OF USE:</u>			IRRIGATION																	
Twp	Rge	Sec	NE				NW				SW				SE				<u>Totals</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>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>		
13S	44E	14					40.0			39.0	40.0			38.0	35.0					192.0
13S	44E	15					13.0											1.0		14.0

Total Acres: 206

DOMESTIC SAME AS IRRIGATION.

Method of Determination: Aerial photography

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. 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 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ 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

A0018247

Newman Motor

75

V1116203

Johnston

GE14092

*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**

Flow Meter

FSC

Fuji

S10A1-00Y

A0L5537T

5/30/2012

2. Measurements: 1 flow measurement using flow meter

Pipe Diameter = 8.65 in.

Thickness = 0.247 in.

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method: Used a Fuji Ultrasonic Flow meter. 10 minute reading.

Right 11-7025 = 2.0 cfs.

Right 11-7051 = 1.26 cfs

Measured flow = 2.61 cfs

2.61 cfs - 2.0 cfs = **0.61 cfs**

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (59.0 \text{ Acres Irrigated}) \times (3.5 \text{ Irrigation Requirement}) = 206.5 \text{ acre-feet}$$

$$V_{D.R.} = [\text{Diversion Rate } 0.61 \text{ (cfs)}] \times (200 \text{ Days in Irrigation season}) \times 1.9835 = 242.0 \text{ acre-feet}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 206.5 \text{ acre-feet}$$

2. Volume Calculations for Other Uses:

Domestic use is for 2 homes and for 70 head of range cattle.

0.6 acre-feet for in-house use + 0.6 for 1/2 acre irrigation of lawn and garden.

12.0 gallons per day per head of range cattle.

$$1.2 \text{ af} \times 2 \text{ homes} = 2.4 \text{ af}$$

$$70 \text{ head} \times 365 \text{ days} \times 12.0 \text{ gal.} = 0.90 \text{ af}$$

$$325850 \text{ gal./af}$$

$$2.4 \text{ af} + 0.90 \text{ af} = 3.30 \text{ af}$$

G. NARRATIVE/REMARKS/COMMENTS

Two pumps from the same well are used to divert water for irrigation and domestic purposes. A 75 hp pump diverts water to eight wheel lines. At the time of measurement only six wheel lines were in operation.

The domestic use under this right is for two mobile homes and 70 head of range cattle. A smaller pump is used to divert water to the two mobile homes and to five stock water troughs. The smaller pump was not present at the time of the field exam. No cows were on site during exam. Five stock water troughs are used to water cattle. At the time of the exam no mobile homes were on site. However, water delivery infrastructure for mobile homes still exists.

This right will authorize the irrigation of 59.0 acres within a 206.0 acre combined place of use. Of the 206.0 acres, water right 11-7025 irrigates 147.0 acres. Water right 11-7025 authorizes the irrigation of 153.0 acres which 6.0 acres are located on the west side of highway 30 (see map) in the SENE of 13S, 44E, Section 15. This right and right 11-7025 when combined authorize the irrigation of 212.0 acres. The water right holder has installed a fully operational flow meter.

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	0.080 CFS	3.30 AF
IRRIGATION	04/15 to 10/31	0.610 CFS	206.50 AF
<u>Totals:</u>		0.690 CFS	209.80 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 ☐ Other

I. AUTHENTICATION

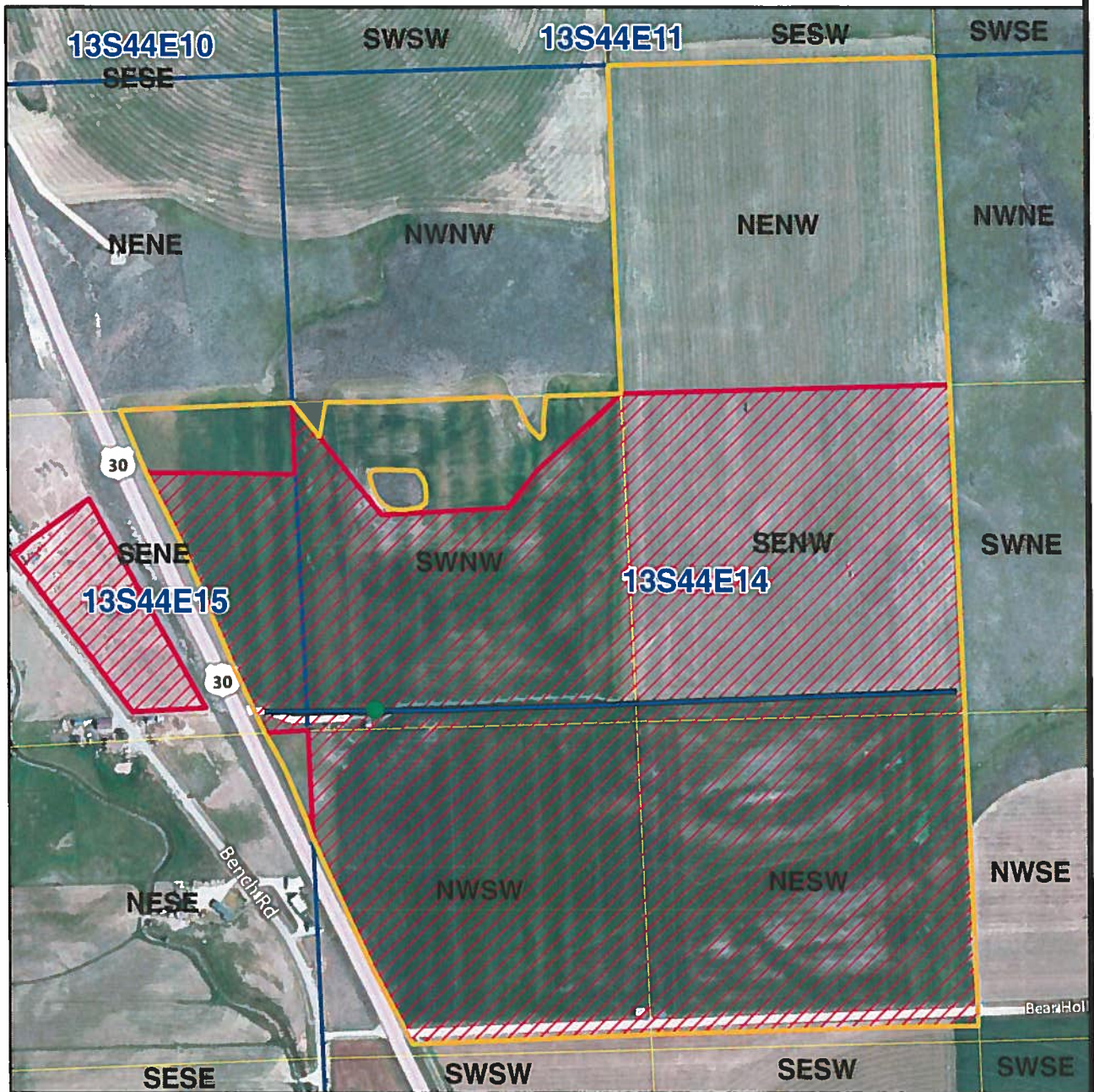
Field Examiner's Name Blk [Signature]

Date 6/15/2012

Reviewer James Cefalo

Date 9/24/2012

Beneficial Use Field Exam 11-7051



Legend

- POD
- Pipeline
- 11-7151 Recommended Place of Use
- ▨ 11-7025 Place of Use
- Township/Range
- Sections
- QQ

0 0.05 0.1 0.2 Miles

1 inch = 0.12 miles



Rights 11-7025(153 acres) and 11-7151(59 acres)
when combined is limited to 212.0 acres

2010 Aerial Photography

4 'VELOCITY 'FLOW RATE

	ft/s	gal/min	cfs	gpm/cfs
6/15/2012 10:18	7.171	1167.7893	2.60	448.83
6/15/2012 10:19	7.177	1168.7179	2.60	
6/15/2012 10:20	7.142	1163.0991	2.59	
6/15/2012 10:21	7.169	1167.5436	2.60	
6/15/2012 10:22	7.124	1160.2338	2.59	
6/15/2012 10:23	7.126	1160.4982	2.59	
6/15/2012 10:24	7.139	1162.5458	2.59	
6/15/2012 10:25	7.19	1170.9676	2.61	
6/15/2012 10:26	7.199	1172.3744	2.61	MAX
6/15/2012 10:27	7.125	1160.3912	2.59	
6/15/2012 10:28	7.191	1171.0843	2.61	









Missing piece
for Donkey
purpose