

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 29-7637

Exam Date: 7/8/2013

1. Current Owner: R LLOYD BROS
PO BOX 576
GRACE ID 83241-0576

2. Accompanied by: Mont Laytley

Phone No:

Address:

Relationship to Permit Holder: Farm Manager (Don Rigby-prior owner)

3. SOURCE**TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

- Other water rights with the same place of use: 29-7636, 29-7001 & 29-10171
- Other water rights with the same point of diversion: 29-7636, 29-7001 & 29-10171

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

GROUND WATER NE1/4SE1/4 Sec. 21, Twp 08S, Rge 40E, B.M.	CARIBOU County
GROUND WATER NE1/4SE1/4 Sec. 21, Twp 08S, Rge 40E, B.M.	CARIBOU County
GROUND WATER SE1/4NE1/4 Sec. 29, Twp 08S, Rge 40E, B.M.	CARIBOU County
GROUND WATER NW1/4SE1/4 Sec. 16, Twp 08S, Rge 40E, B.M.	CARIBOU County

Method of Determination: GPS, Site Visit

2.

<u>PLACE OF USE:</u>			IRRIGATION																Totals
Twp	Rge	Sec	NE				NW				SW				SE				
			<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>	
08S	40E	16			1.0	22.1									39.6	11.7	3.7	33.6	111.7
08S	40E	21	34.0	28.2	33.7	33.2	25.1		19.1	35.4	37.5	17.6	19.2	35.0	35.6	38.2	30.3	33.0	455.1
08S	40E	27						30.0			31.3	28.0	25.7	28.1					143.1
08S	40E	28	34.2	36.5	34.2	30.0	34.5	19.6	29.5	37.5	35.1	26.5			34.2	36.1		28.7	416.6
08S	40E	29			36.0	37.5								8.5	35.2	33.1	38.5	30.7	219.5
08S	40E	32	37.0	40.0	12.5	6.9	15.4			.3									112.1
08S	40E	33	36.0			34.0									30.2				100.2
08S	40E	34	32.2			32.0					29.5								93.7

Total Acres: 1652

Method of Determination: GPS, Site Visit

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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
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WMIS 420033 Tag A0014115 Well#1 250 HP 7258/X11Z255R118R-6

WMIS 420032 GE Well#2 200 HP 5K6278XH1A Layne & Rover Vertiline LEJ1119138

WMIS 420031 Well#3 100 HP 9983A/Vo7V13510071-6

WMIS 420035 Well#4

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

D. FLOW MEASUREMENTS

1.

Measurement

<u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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Fuji Portaflow Ultrasonic Fuji 91012 00FY099T 04/2013

2. Measurements:

Well #1 July 8, 2013 highest reading	2823 gal/min	Well #2 July 8, 2013 highest reading	1934 gal/min
Sept 25, 1996 WMIS	2211 gal/min	Sept 25, 1996 WMIS	2211 gal/min
	2823/448.83 = <u>6.29 cfs</u>		2211/448.83 = <u>4.93 cfs</u>

Well #3 July 8, 2013 highest reading	263.4 gal/min	Well #4 No Reading	
Sept 25, 1996 WMIS	483.0 gal/min	Sept 25, 1996 WMIS	116 gal/min
	483/448.83 = <u>1.08 cfs</u>		116/448.83 = <u>0.26 cfs</u>

***** 6.29 cfs + 4.93 cfs + 1.08 cfs + 0.26 cfs = 12.56 cfs – 5.97 cfs (decreed) = 6.59 cfs*****

Since priorities are identical, rate should be split proportionately between 29-7636 and 29-7637 based on acres. (total = 932 [852+80])

29-7636 = 80/932 x 7.49 = 0.57 cfs

29-7637 = 852/932 x 7.49 = 6.02 cfs

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 852 \times 3.5 = 2982 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 6.02 \times 214 \times 1.9835 = 2555.30 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 2555.3 \text{ AF}$$

2. Volume Calculations for Other Uses: NONE

G. NARRATIVE/REMARKS/COMMENTS

This farm is currently operating 3 wells and co-mingling surface water to facilitate the irrigation of 1652 with pivots and wheel lines, the wells and irrigation system are all interconnected. While on site, Mont Layton stated that no surface water was used to irrigate this property, and well #4 was no longer in operation (WMIS #420035). While researching the back-file on these water rights it was found that there was a possibility of surface water inter-connection. Correspondence was exchanged with Bruce Larson (Attorney for Rigby) and Susan Rigby (Dtr of Don) verifying that surface water is co-mingled with ground water and there is no operational well located in T08S, 40E, Sec 16 NWSE quarter. However, during the 1996 measurements well #4 was operational and in an effort to give the applicant the best possible diversion rate this well was included in the flow information. An assignment of Permit was submitted to the Department on November 20, 2013 updating the ownership of this right. A transfer application will be submitted by the new owner to correct the place of use and points of diversion of two decreed water rights 29-7001 & 29-10171 to accurately show how these water rights were developed.

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>
IRRIGATION	04/01 to 10/31	6.020 CFS	2,555.3 AF
<u>Totals:</u>		6.020 CFS	2,555.3 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 Kevin T. Patton Date 7-8-2013

Reviewer _____ Date _____

Total 2013 measurements

#1 2823 gal/min

#2 1934 gal/min

#3 263.4 gal/min

$$5020.4 \text{ gal/min} = 11.185 = 11.2 \text{ cfs}$$

Total 1996 measurements

#1 2610.0 gal/min

#2 2211.0 gal/min

#3 483.0 gal/min

#4 116.0 gal/min

$$5420 \text{ gal/min} = 12.075 = 12.1$$

Best of Both

#1 2823 gal/min

#2 2211.0 gal/min

#3 483.0 gal/min

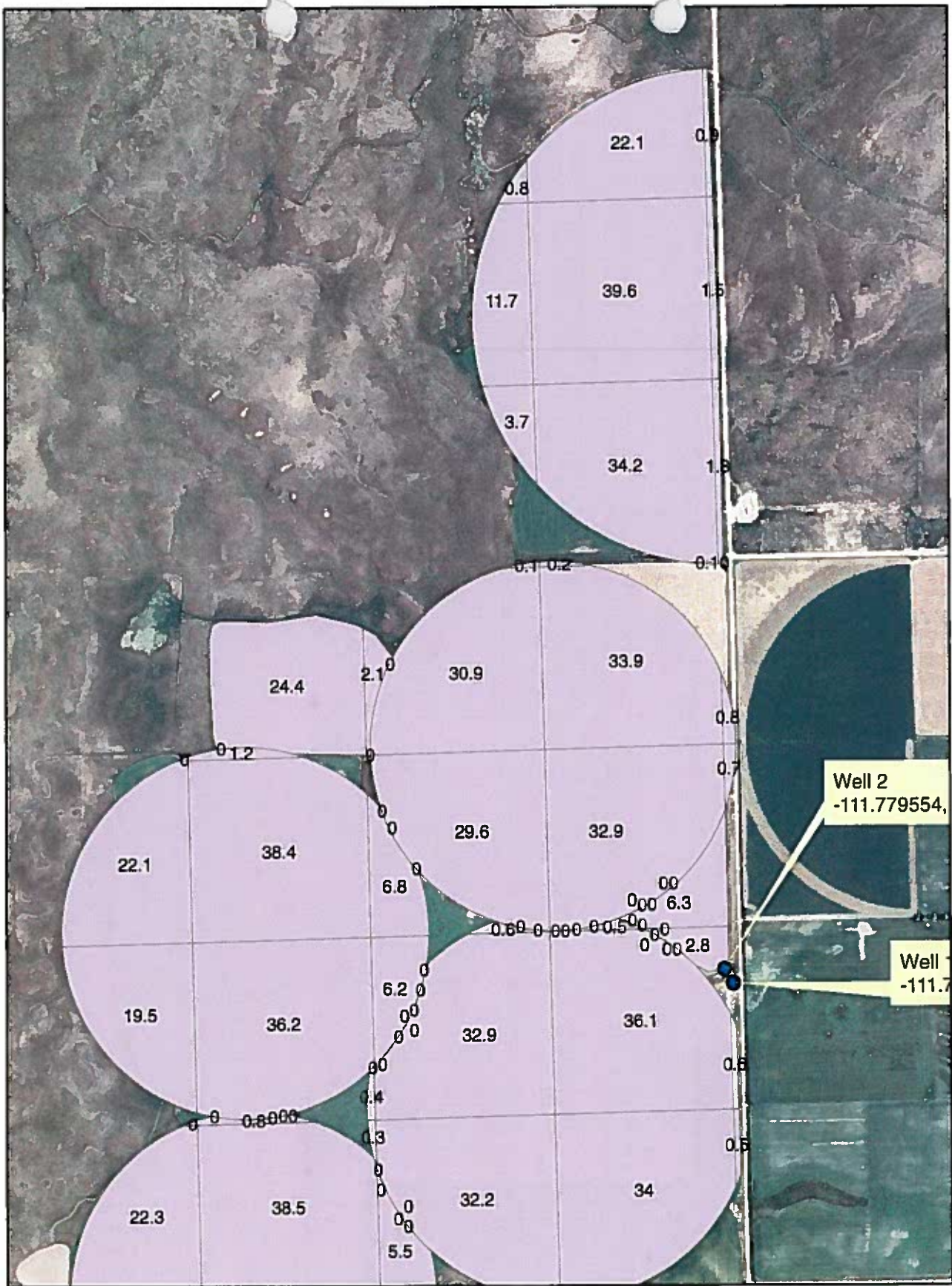
#4 116.0 gal/min

$$5633 \text{ gal/min} = 12.55 = 12.6 \text{ cfs}$$

Well #2

Well #1

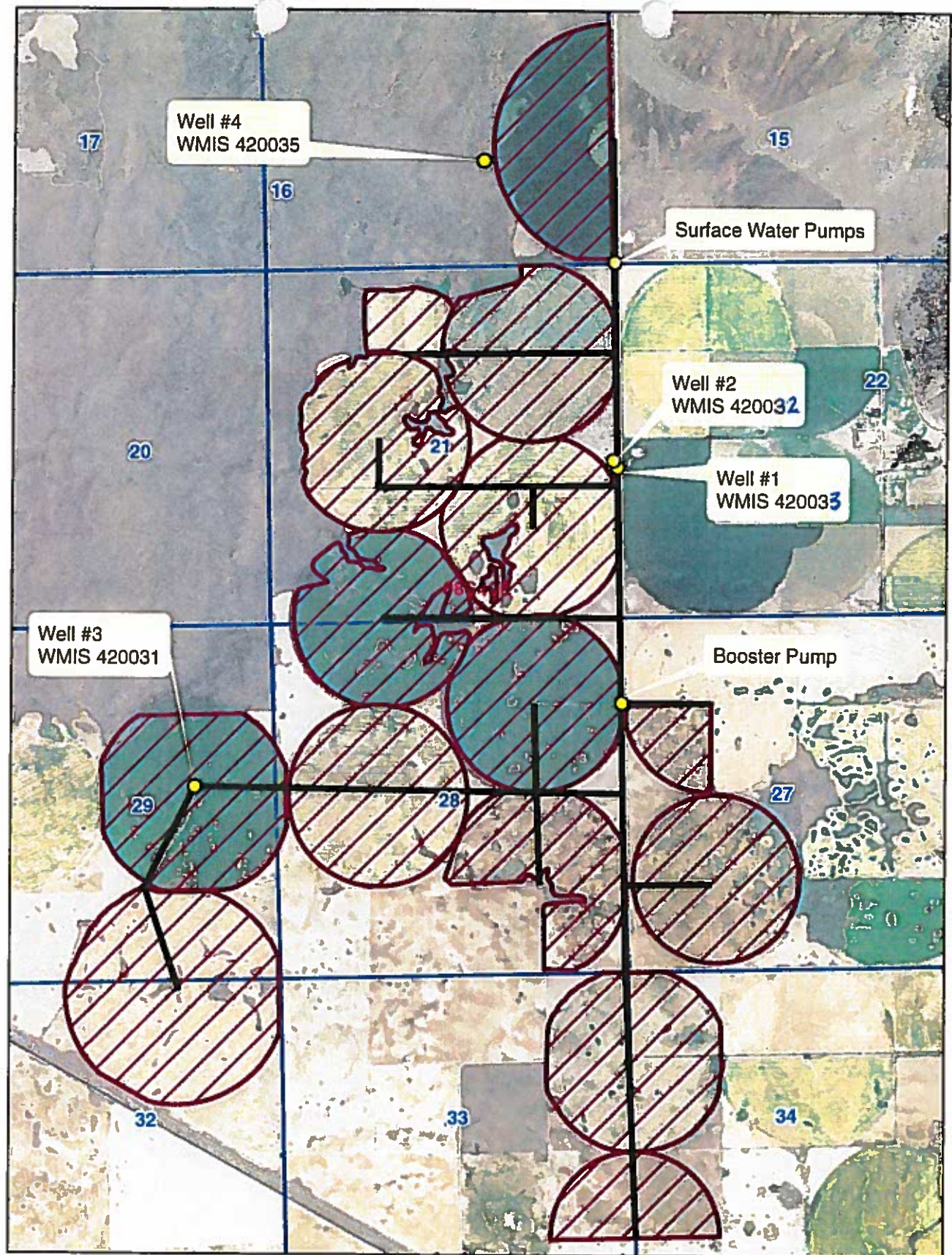
Well #3



29-7636 & 29-7637 Field Exam July 8, 2013

 Intersect

0 0.1 0.2 0.4 Miles



R Lloyd Bros



2013 Aerial Imagery

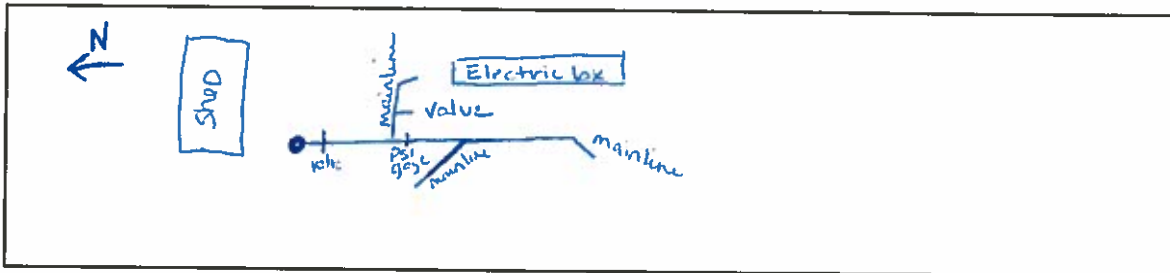
-  Distribution System
-  Place of use
-  Township/Range
-  Sections

0 0.2 0.4 0.8 Miles

Well & Pump Information with diagram:

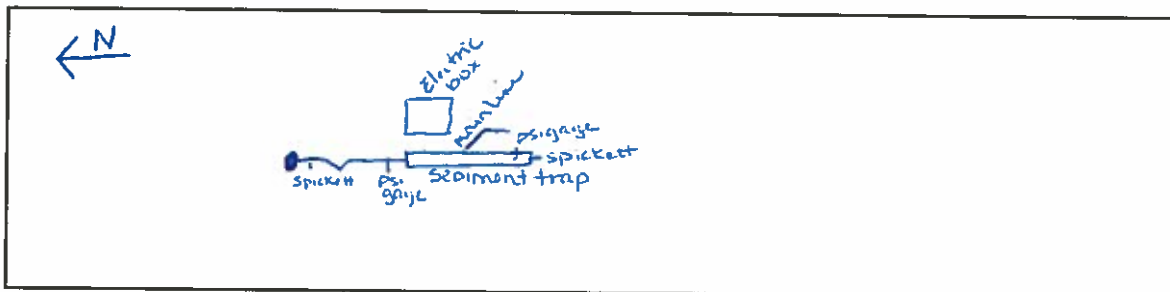
Well #1 – WMIS # 420033 – Metal Tag # A0014115 (-111.779326, 42.713252)

Serial # 7258/X11X255R118R-6 / 250 HP Make unknown / PSI +160



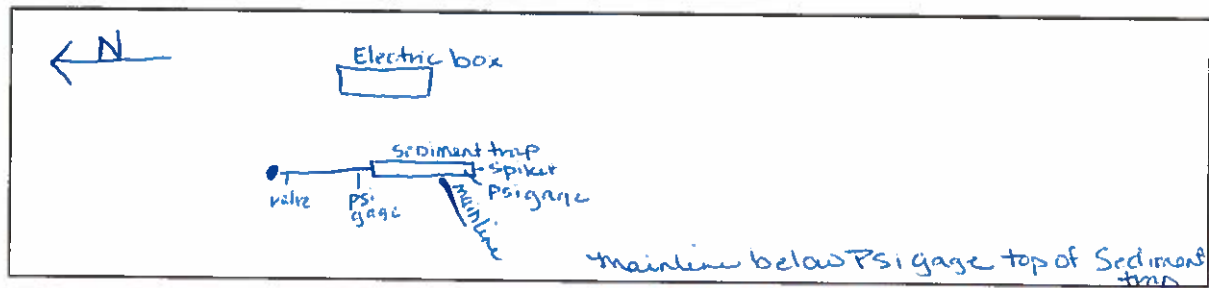
Well #2 – WMIS #420032 – NO Metal Tag found – 460 volts (-111.779554, 42.713533)

Layne & Rover Vertiline – GE Model 5K6278XH1A – 200 HP – Serial #LEJ1119138 – two gages at 65 psi

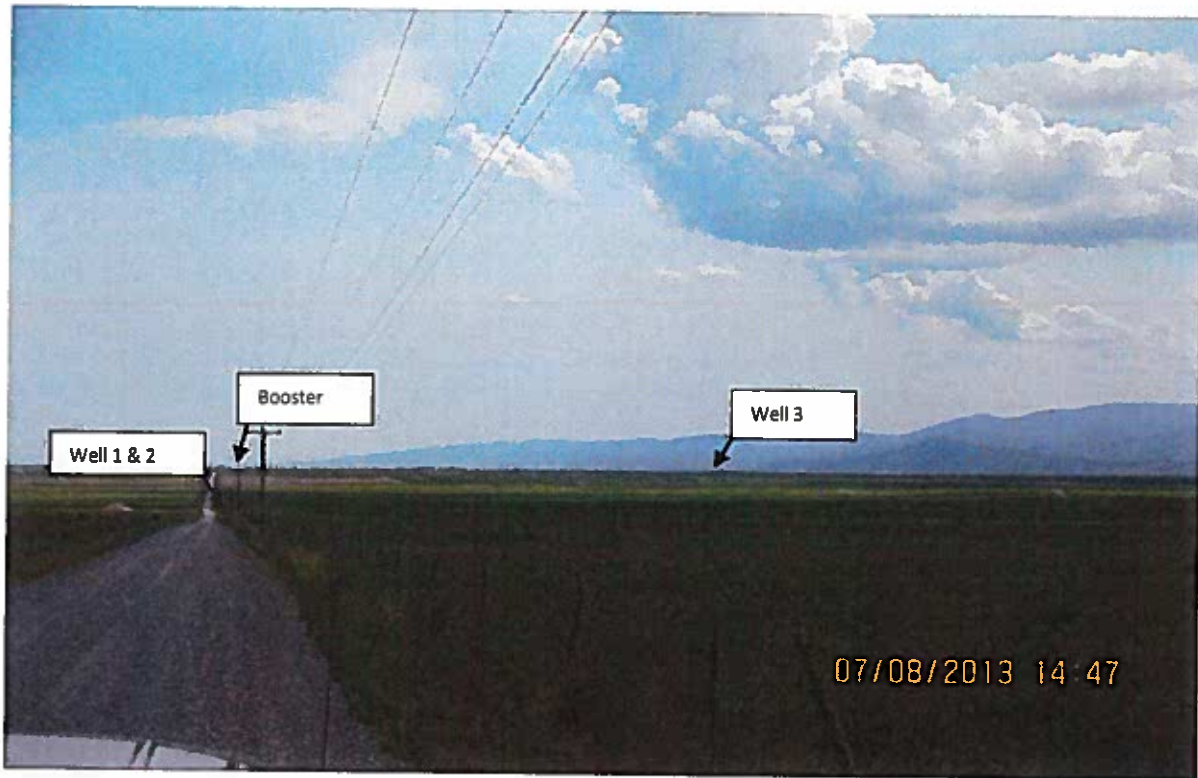


Well #3 – WMIS #420031 – NO Metal Tag found – 60 volts (-111.803331, 42.700564)

HP 100 – 9983A/V07V13510071-6 *****A LOT OF AIR IN LINE DURING READING, well sounded like it was breathing, pressure fluctuating between 40-60 psi.



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Site View



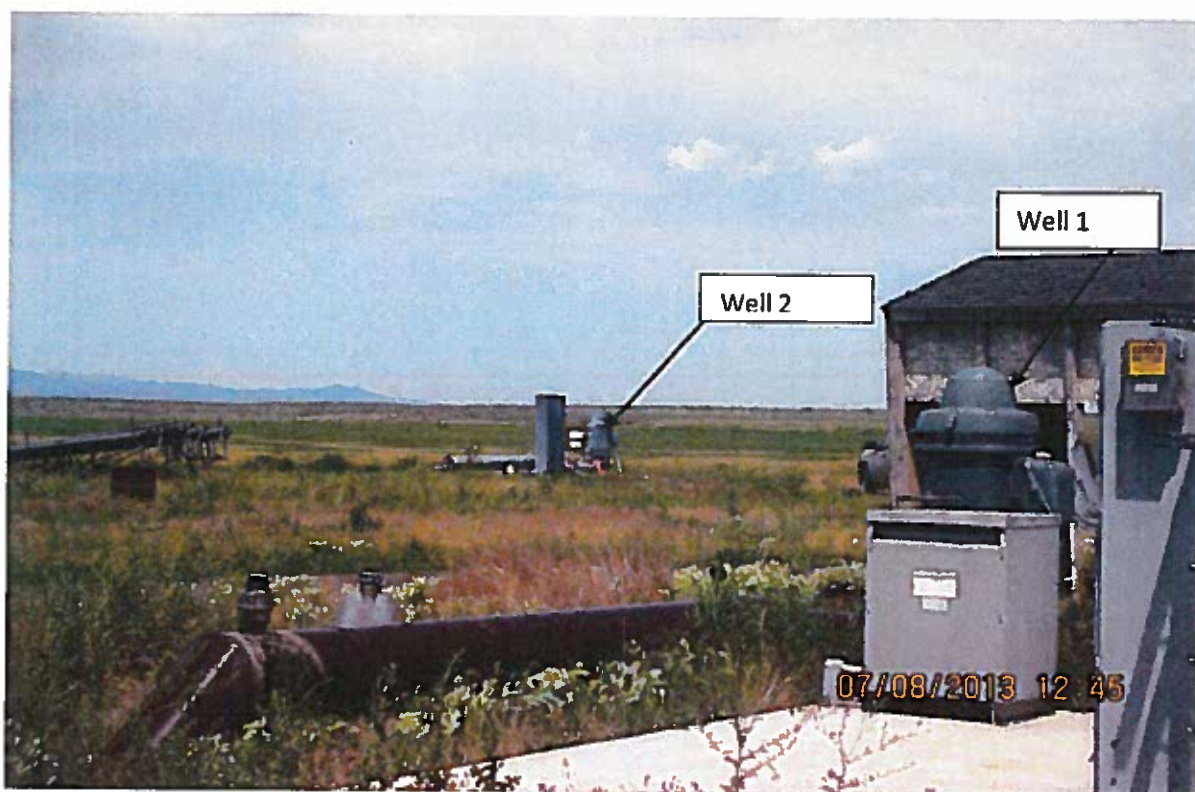
Well 1, looking East



Well 1, looking North



Well 1, Looking West



Well 1 & 2, 120 feet apart, facing Northwest



Well 2, looking South



Well 2, looking West



Well 2, looking North



Booster Pump, looking Northeast



Booster Pump, looking West



Well 3, looking Northwest



Well 3, looking North



Well 3, looking West



Well 3, looking South