

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 15-7135

Exam Date: 10/4/2012

1. Current Owner: GRANT HARRIS
10190 S OLD HWY 191
MALAD ID 83252
800 710-5929
2. Accompanied by: None
Phone No:
Address:
Relationship to Permit Holder:

3. SOURCETRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

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

GROUND WATER SW1/4NE1/4 Sec. 14, Twp 16S, Rge 36E, B.M.

ONEIDA County

Method of Determination: Site Visit, GPS

2.

PLACE OF USE:

IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
16S	36E	14	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	58.0
					3.7				.2	22.4	2.3	14.5	4.7			10.2			

Total Acres: 58.0

PLACE OF USE:

RECREATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
16S	36E	14	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
					X											X			

Method of Determination:

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</u> <u>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</u> <u>Size</u>
A0010813	Unknown – in Well				

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Ultrasonic Flow Meter Portaflow Fuji			91012	00F4099T		

2. Measurements: See Attached Printout

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method: Using the flow meter 1 recording was made, there are three ponds with the same size pipe to each of the three ponds and a splitter box near the well to select which pond the water travels to

The water was switched to flow only to the pond that was being measured. The maximum rate of diversion to this pond was 0.30 cfs. The measured amount was multiplied by the three ponds for a total diversion to the ponds of 0.90 cfs. A theoretical calculation was completed based on the well information, producing a diversion rate of 0.95 cfs. The theoretical rate was used as the licensed rate.

The irrigation system is fully enclosed and there is no way to measure the flow. Irrigation is accomplished by pumps from the recreational ponds.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 58 \text{ acres} \times 3.5 \text{ AF} = 203.0 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.95 \text{ cfs} \times 214 \times 1.9835 = 403.25 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 203.0 \text{ AF}$$

2. Volume Calculations for Other Uses: Pond calculation spreadsheet attached.. Total volume of ponds is equal to 3.8 AF and volume plus evaporation is equal to 5.9 AF

G. NARRATIVE/REMARKS/COMMENTS

The water right owner passed away some time before the field exam was completed. The water right owner's daughter and her family currently reside on the property. The daughter was contacted prior to the field exam for authorization, which was given.

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	0.95 CFS	203.0 AF
RECREATION	01/01 to 12/31	0.95 CFS	5.9 AF
<u>Totals:</u>		0.95 CFS	208.9 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 Matthews Date 10.4.12
 Reviewer James Cefalo Date 12/18/14

GROUNDWATER THEORETICAL ANALYSIS

FILE: 15-7135

DATE: 11/19/14

BY: Kerrie Mathews

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8 \times \text{HP}) \times (\text{EFF.})}{\text{TDH}}$

Q = CFS

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = Depth to water in FEET from land surface to pumping water level

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

(8.8) X (40.0) X (0.70) 246.400

[(260.0) + (0.0 X 2.31)] 260.000

Q = 0.948

LIFT FROM:

PSI FROM:

NOTES ON PUMP:

Measurement ☐

Owner ☐

Area estimate ☐

Well Logs ☒

Measurement ☒

Owner ☐

Estimate ☐

Owner Gage ☐

Motor Make, Serial or ID

Pump Make, Serial or ID, rating

Booster Y ☐ N ☒

REMARKS:

WELL DRILLER'S REPORT

56820

Office Use Only
Inspected by _____
Twp. _____ Rge. _____ Sec. _____
_____ 1/4 _____ 1/4 _____ 1/4
Lat: _____ : _____ Long: _____ : _____

1. DRILLING PERMIT NO. 15-94-F-0017-00
Other IDWR No. WR# 15-07135

Name Grant Harris
Address 2795 PENN. AVE.
City OGDEN State UT Zip 84401

Sketch map location must agree with written location.

N

 W E
 S
 Twp. 14 North ☐ or South ☒
 Rge. 34 East ☒ or West ☐
 Sec. 14 1/4 SW 1/4 NE 1/4
 Gov't Lot _____ County ONEIDA 10 acres 40 acres 160 acres
 Lat. _____ : _____ : _____ Long. _____ : _____ : _____
 Address of Well Site 1019 CHERRY
CRK Rd. City S. OF ALBION
 (Give at least name of road + distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other

☒ New Well ☐ Modify ☐ Abandonment ☐ Other_____

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
BENTONITE chips	0	19	600 lbs	overboard

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threads
10"	+1	19	12.50	STEEL	☒	☐	☐	☐
8"	+1	260	"	"	☒	☐	☒	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

☐ Perforations Method _____

☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
220	260	1/2X12	80			☒	☐
						☐	☐
						☐	☐

94 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

☐ Pump ☐ Bailer

Yield gal./min.	Drawdown	Pumping Level	Time
500 +		260'	5 hrs.

Water Temp. 52° Bottom hole temp. 52°

Water Quality test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
14"	0	2	Overburden		X
N	2	20	Brown Clay		
9 7/8"	20	40	Gray clay		
	41	84	Broken ls. + clay		
	84	88	Boulders		
	88	125	Broken ls.		
	125	131	Gray clay		
	131	166	Gravel	X	
	166	184	Boulders	X	
	184	190	Clay		X
	190	211	Boulders	X	
	211	225	Gravel	X	
	225	231	Clay		X
	231	260	Gravel	X	
7 7/8"	260	284	"	X	
	284	295	Clay + Gravel		X
	295	300	Boulders	X	
RECEIVED SEP 10 1963 Department of Water Resources Eastern Region					
RECEIVED SEP 18 1963 MICROFILMED Department of Water Resources NOV 27 1968					
Completed Depth			300'	(Measurable)	
Date: Started			8-27-66	Completed 8-31-66	

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Nelson Drilling INC Firm No. 215

Firm Official Ray Nelson Date 9-8-76

and
Supervisor or Operator, Lloyd Cook Date 9-8-94

(Sign once if Firm Official & Operator)

PRECIPITATION DEFICIT CALCULATIONS FOR PONDS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL EVAP IN AF
mm/Day *	0.0	0.1	1.0	1.9	2.0	2.8	3.5	3.2	1.7	0.8	0.0	0.0	
mm/Month	0.0	2.2	31.3	56.1	62.9	83.1	108.5	99.2	50.7	24.2	0.0	0.0	
ft/Month	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.3	0.2	0.1	0.0	0.0	
Surface Area in Acres	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
acre-feet	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.4	0.2	0.1	0.0	0.0	2.0
* Based on percipitation deficites provided by University of Idaho, http://data.kimberly.uidaho.edu/ETIdaho/													

POND SIZE:	WIDTH X LENGTH	SQ FT	ACRES
			1.2

JAN	FEB	MAR	APR
31.0	28.0	31.0	30.0
MAY	JUN	JUL	AUG
31.0	30.0	31.0	31.0
SEPT	OCT	NOV	DEC
30.0	31.0	31.0	31.0

mm to ft 0.0032808

Crop type =	Grass Pasture
CIR in AF/ACRE	2.5

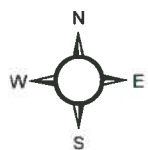
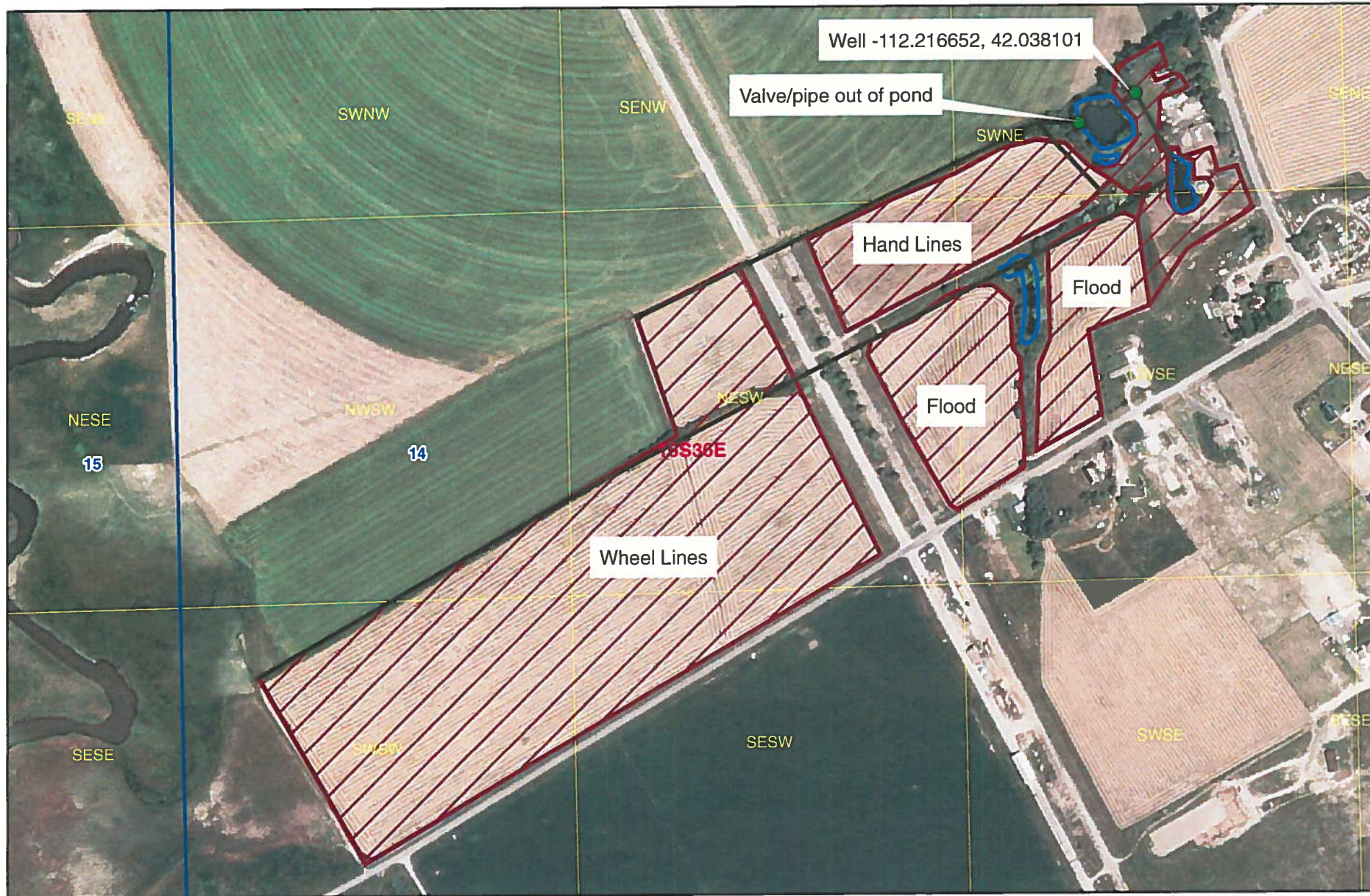
If applicable, acres need to dry up for evaporation
2.4

Pond size in acres	1.2
Average depth in ft	3.2
AF needed to Fill	3.8

8*.4 = 3.2
Average depth=max depth x .40

TOTAL AF FOR POND	5.9
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Data entry in green



- Distribution System
- ▭ Ponds
- ▨ Irrigation POU
- ▭ Township/Range
- ▭ Sections
- QQ

Field Exam Oct. 4, 2012 - 15-7135



00000000 gal +TOTAL
NORMAL

12-10-04 10:50:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 10:57:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 10:59:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 10:59:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 11:00:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 11:01:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 11:02:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 11:03:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 11:04:28
+0.0000 ft/s
+0.0000 gal/min
00000000 gal +TOTAL
NORMAL

12-10-04 11:05:28
+0.0000 ft/s

2

15-7135

12-10-04 11:05 00000000

FLOW RATE	UNIT: gal/min
1.341 x 10 ²	
FLOW RATE	UNIT: ft ³ /s
2.988 x 10 ⁻¹	
+TOTAL	UNIT: gal
0001439 RUN	
RESET	
-TOTAL	UNIT: gal
00000000 RUN	

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Well



Well tag



Power Box and Well



Valve to Pond 1



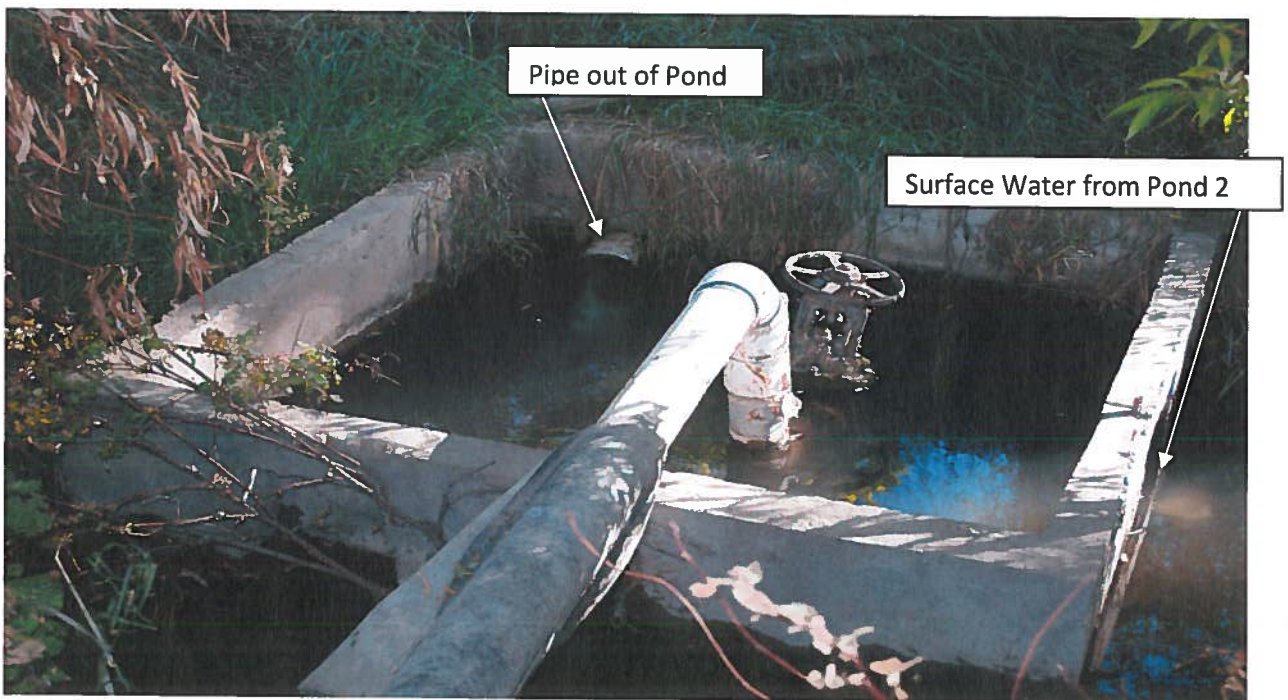
Outlet to Pond 1



Pond 1 at Dam



Pond 2 at Dam of Pond 1 looking S



Valve box at Pond 1 (Pipe from Pond 1 and open ditch from pond 2)



Pipe from Valve Box (pond 1 & 2) Running West



Valve into Pond 3



Pipe into Pond 3



Pond 3



Pond 4 at inlet



Pond 4 Looking S



Pipe out of bottom of Pond 4

