

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-8014

Exam Date: 5/14/2013

1. Current Owner: ROYCE A SCHWENKFELDER
3315 SCHWENKFELDER RD
CAMBRIDGE ID 83610
(208) 550-2200

Or

JOHN R SCHWENKFELDER
5500 W OLD SCHOOL LN
MERIDIAN ID 83642
(208)322-4177

2. Accompanied by: Royce Schwenkfelder
Phone No: Same
Address: Same
Relationship to Permit Holder: Owner

3. SOURCETRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 67-8036, 67-7561, 67-7489, 67-14784
2. Other water rights with the same point of diversion: None

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

GROUND WATER	NW1/4NW1/4	Sec. 14,	Twp 14N,	Rge 02W, B.M.
WASHINGTON County				
GROUND WATER	NW1/4NW1/4	Sec. 14,	Twp 14N,	Rge 02W, B.M.
WASHINGTON County				

Method of Determination: Arc Map (Aerial Photo); GPS (Northerly Well Drilled –D0019234)– Latitude N.44°33.412',
Latitude W.116°33.232'; Datum – NVD 83.

2.

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	
14N 02W 11									12.0		28.0	30.0			15.0		85.0
14N 02W 14		6.0	28.0		35.0	20.0	32.0	32.0						34.0			187.0

Total Acres: 272

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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>
<u>D0019234</u>	<u>U.S. Motor</u>	<u>40.0</u>	<u>Unknown</u>	<u>Unknown</u>	<u>958477; 10"</u>
<u>Unknown</u>	<u>Unknown</u>	<u>30.0</u>	<u>Unknown</u>	<u>Unknown</u>	<u>Unknown; 10"</u>

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
<u>Thyme Flyte</u>	<u>Polysonic</u>	<u>Thyme</u>	<u>TF-P</u>	<u>N8J4626</u>	<u>N/A</u>	<u>3/26/09</u>
<u>Flowmeter</u>		<u>Flyte</u>				

2. Measurements: Polysonic Flowmeter flow measurement of 567 gpm for D0019234, the ground water well north of the irrigation storage pond and adjacent to Schwenkfelder Road. No measurement for the second well. Did not know of existence of second well with a 30-hp pump.

E. FLOW CALCULATIONS

 Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 30/200 + (2.31 \times 40) = 184.8/257.4 = 0.72 \text{ cfs}$$

$$Q(\text{polysonic}) = 567 \text{ gpm} \sim 1.26 \text{ cfs}$$

$$Q(\text{total}) = 0.72 \text{ cfs} + 1.26 \text{ cfs} = 1.98 \text{ cfs (Use 2.00 cfs)}$$

$$Q(\text{total}) = 2.00 \text{ cfs} < 5.00 \text{ cfs } Q(\text{permit})$$

$$HP = 30$$

$$P = 40 \text{ psi (Estimated)}$$

$$Z = 165' \text{ (Estimated)}$$

Appears that the current pumping systems from the two wells cannot attain the permit diversion rate of 5.00 cfs.

Recommend the combined pumping capacities for each well of 2.00 cfs.

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 272.0 \times 4.0 = 1088.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.98 \times 214 \times 1.9835 = 840.4 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 840.4 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A**G. NARRATIVE/REMARKS/COMMENTS****WATER SUPPLY SYSTEM:**

Two (2) ground water wells divert water to irrigate approximately 272 acres of crop land. Well No.1, which is located southeast of an irrigation storage pond, was drilled in 1979 by the previous property owner. A 30-hp vertical turbine pump diverts water to operate three (3) pivot irrigation systems. Well No.2, which is located north of the pond and adjacent to Schwenkfelder Road, diverts water with a 40-hp vertical turbine pump to operate three (3) pivot irrigation systems. The wells are also used to maintain the water surface elevation in an irrigation storage pond when surface water is limited or not available.

IRRIGATION SYSTEMS:

The primary function of the two (2) ground water wells is to divert water to operate three (3) Zimmatic pivot irrigation systems (2) Zimmatic 9000 and (1) Zimmatic 7000. Each pivot irrigation system operates with 15-psi regulators and 'Big Gun' sprinklers with 3-hp booster pumps.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 67-8014.

Place of Use: Water Right Permit No. 67-8014, Water Right Permit No. 67-8036, and Water Rights 67-14784, 67-7489, and 67-7561 have overlapping places of use within the right holder's property.

Have conditions of permit approval been met? ☒ Yes ☐ No

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	5.00	&/or	N/A
Beneficial Use Limit	5.44	&/or	N/A
System Measurement	2.00(measured & theoretical)	&/or	N/A
Proof Fee Amount	5.00	&/or	N/A
Recommended Amount	2.00	&/or	N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	4/01 to 10/31	2.00 CFS	840.4 AFA
<u>Totals:</u>		2.00 CFS	840.4 AFA

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

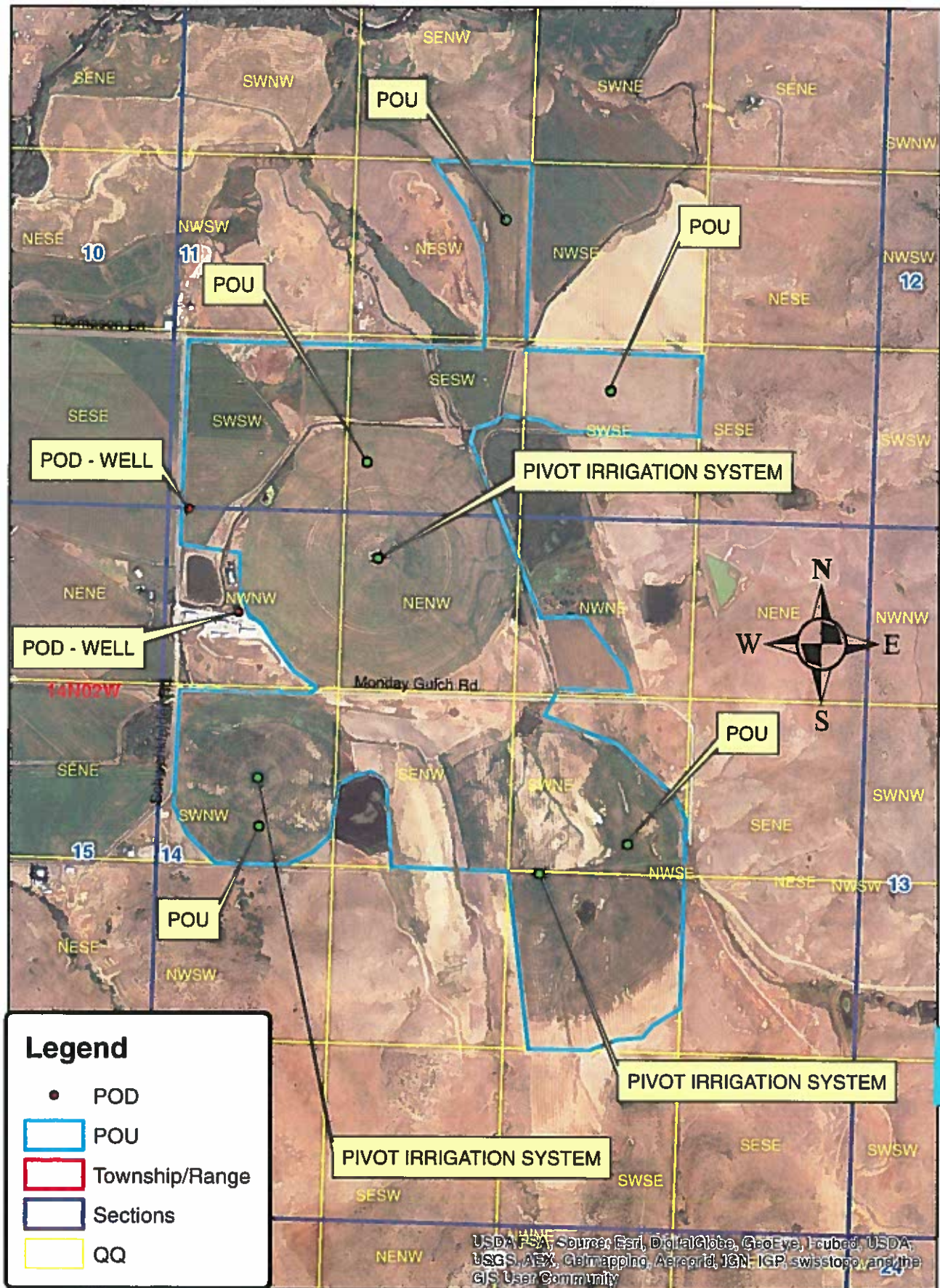
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 12/8/14

Reviewer _____ Date _____

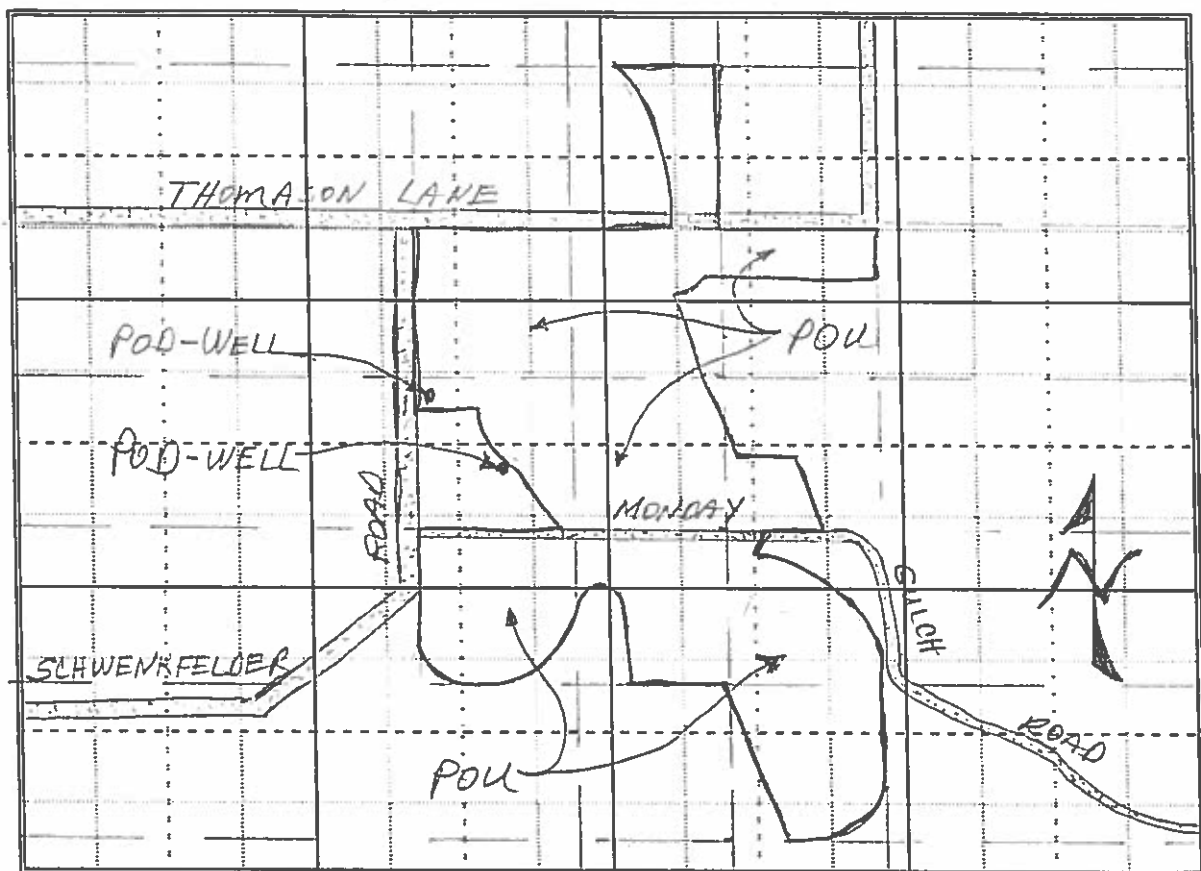
67-8014

ESRI AERIAL PHOTO - 2011



Form 219 07/11

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
- ☒ Aerial photo attached (required for irrigation of 10+ acres)
- ☒ Photo of diversion and system attached

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

[illegible]

FIELD EXAM PHOTOS

Water Right Permit: 67-8014

Field Exam Date: 5-14-13

PLS: SW1/4, SE1/4 Section 11, T.14N, R.02W.

NE1/4, NW1/4, SE1/4 Section 14, T.14N, R.02W.

Field Examiner: RC



Point of Diversion: View easterly of the ground water well, 40-hp vertical turbine pump, and the 10" steel pipe discharge line. The ground water well is one of two ground water wells which provide water to three (3) pivot irrigation systems, and is also designed to discharge to an irrigation storage pond to provide supplemental irrigation water when surface water is not available or inadequate to meet the current irrigation demands.



Place of Use: View northwesterly of the pivot irrigation system used to irrigate a field northerly and easterly of the two ground water wells.

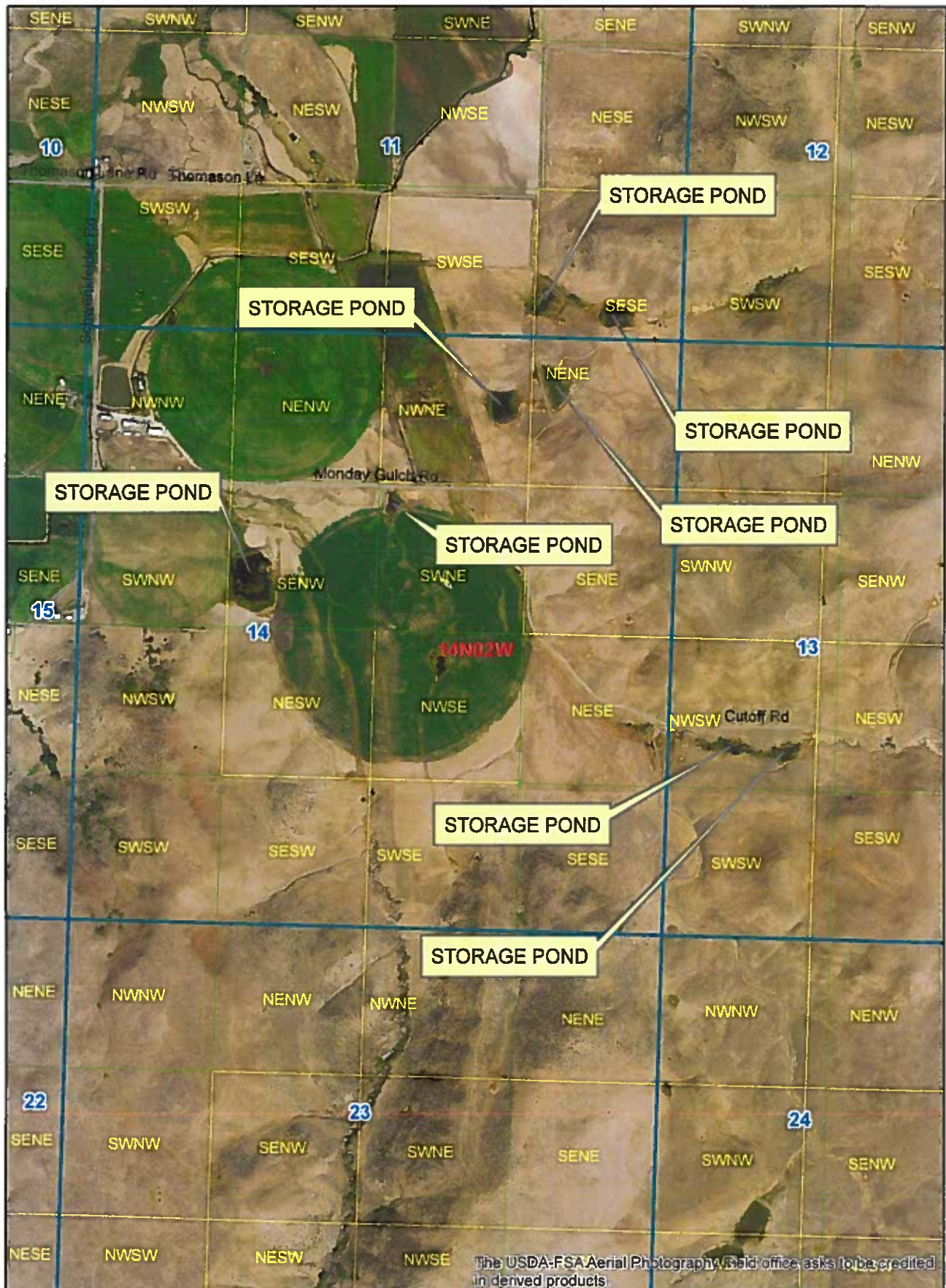


Place of Use: View southerly of a pivot irrigation system used to irrigate fields southerly of the ground water wells and Monday Gulch Road.



Place of Use: View southeasterly of a pivot irrigation system used to irrigate fields southeasterly of the ground water wells and Monday Gulch Road.

UNLICENSED STORAGE PONDS



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State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

April 10, 2013

John R. Schwenkfelder
5500 W. Old School Lane
Meridian, ID 83642

RE: Scheduling Field Exam for Water Right Permit No. 67-8014

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of May 6, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 5.0 cfs of ground water for irrigation of 452.0 acres.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by May 3, 2013, to conduct the exam during the week of May 6, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Rick Collingwood". The signature is written in a cursive, flowing style.

Rick Collingwood, P.E.
Water Resource Agent, Sr.