

A. GENERAL INFORMATION

Exam Date: 5/9/2013

- | 3. <u>SOURCE</u> | <u>TRIBUTARY</u> |
|------------------|------------------|
| GROUND WATER | |

1. Other water rights with the same place of use: 67-7878, 67-2385, 67-7866
2. Other water rights with the same point of diversion: 67-8012

1. LOCATION OF POINT(S) OF DIVERSION:

Method of Determination: Arc Map (Aerial Photo); GPS Latitude N.44°34.290', Longitude W.116°27.213';
GPS Latitude N.44°34.524', Longitude W.116°26.460'. 

- [illegible]

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>
0030784	U.S. Motors	100	Unknown	Unknown	10"
Unknown	Rockford	100	688696	Amarillo	266925; 10"
N/A	Unknown	25	Unknown	Carnell	10"
N/A	Unknown	25	Unknown	Carnell	10"
N/A	Unknown	25	Unknown	Carnell	10"
N/A	Unknown	25	Unknown	Carnell	10"

*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>
N/A						

2. Measurements: No field measurement. Irrigation system not operating during the field exam. Surface water available from the Little Weiser Irrigation District. Right holder is not allowed, as stated in Condition No. 7, to divert ground water when surface water is available.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 300/210 + (2.31 \times 40) = 1848.0/302.4 = 6.1 \text{ cfs}$$

$$Q(\text{theoretical}) = 6.1 \text{ cfs} > 3.08 \text{ cfs } Q(\text{permit})$$

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

$$HP = 300 (2 \times 100, 4 \times 25)$$

$$Z = 210' \text{ (Well log test depth)}$$

Appears that the two (2) current well pumping systems and the four (4) booster pumps can attain the permit diversion rate of 3.08 cfs. However, it was determined that 143 acres is currently being irrigated, not 154 acres as indicated on the permit. Therefore, recommend a diversion rate of 2.86 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 143 \times 4.0 = 572.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 2.86 \times 214 \times 1.9835 = 1,214.0 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 572.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEMS:**

Two ground water wells, each with 100-HP pumps, divert water to two collection/pumping basins. The two collection/pumping basins each contain two (2) 25-HP centrifugal booster pumps. Water is pumped from the two collection/pumping basins to operate two (2) pivot irrigation systems, referenced as the 'Blue Pivot' and the 'Yellow Pivot'. The two pivot irrigation systems irrigate approximately 143.0 acres of crop land.

The two ground water wells provide supplemental irrigation water for irrigating the 143.0 acres of crop land. Surface water delivered by the Little Weiser Irrigation District is the primary sources of irrigation water. The two ground water wells provide water for irrigation when surface water is not available, or when surface water appropriations are inadequate to irrigate the crop land.

OVERLAP ANALYSIS:

Point of Diversion: Water Right Permit No. 67-8011 and Water Right Permit No. 67-8012, use the same two wells to provide supplemental irrigation water.

Place of Use: The irrigable acres designated for Water Right Permit No. 67-8011, right holder's water right 67-7866, and water rights 67-7878 and 67-2385 licensed under Little Weiser Irrigation District, have overlapping places of use.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	3.08	&/or	N/A
Beneficial Use Limit	2.86	&/or	N/A
System Measurement	6.1 (theoretical)	&/or	N/A
Proof Fee Amount	4.0	&/or	N/A
Recommended Amount	2.86	&/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	2.86 CFS	572.0 AFA
<u>Totals:</u>		2.86 CFS	572.0 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

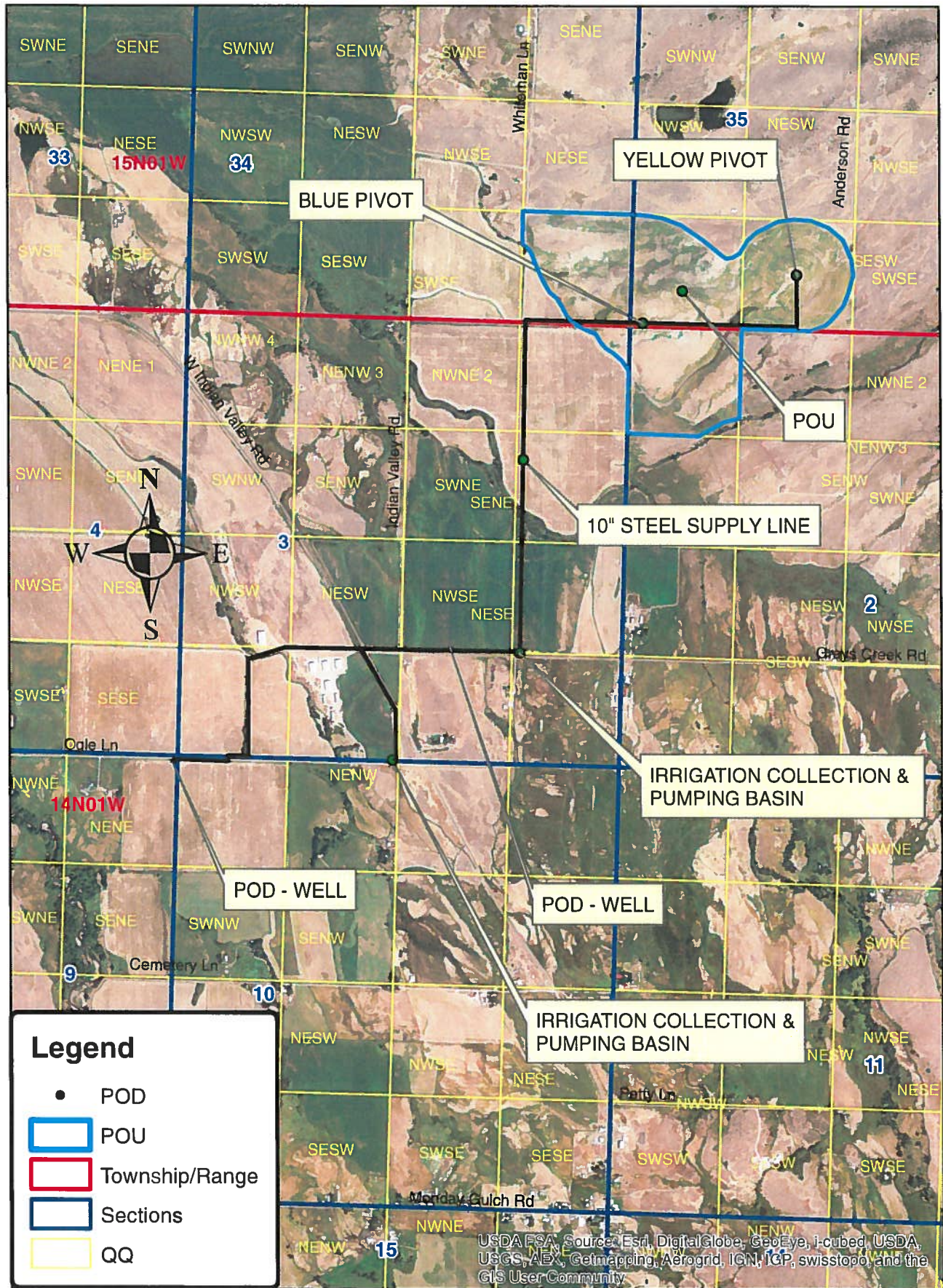
I. AUTHENTICATION

Field Examiner's Name Lick Collingwood Date 9/6/13

Reviewer _____ Date _____

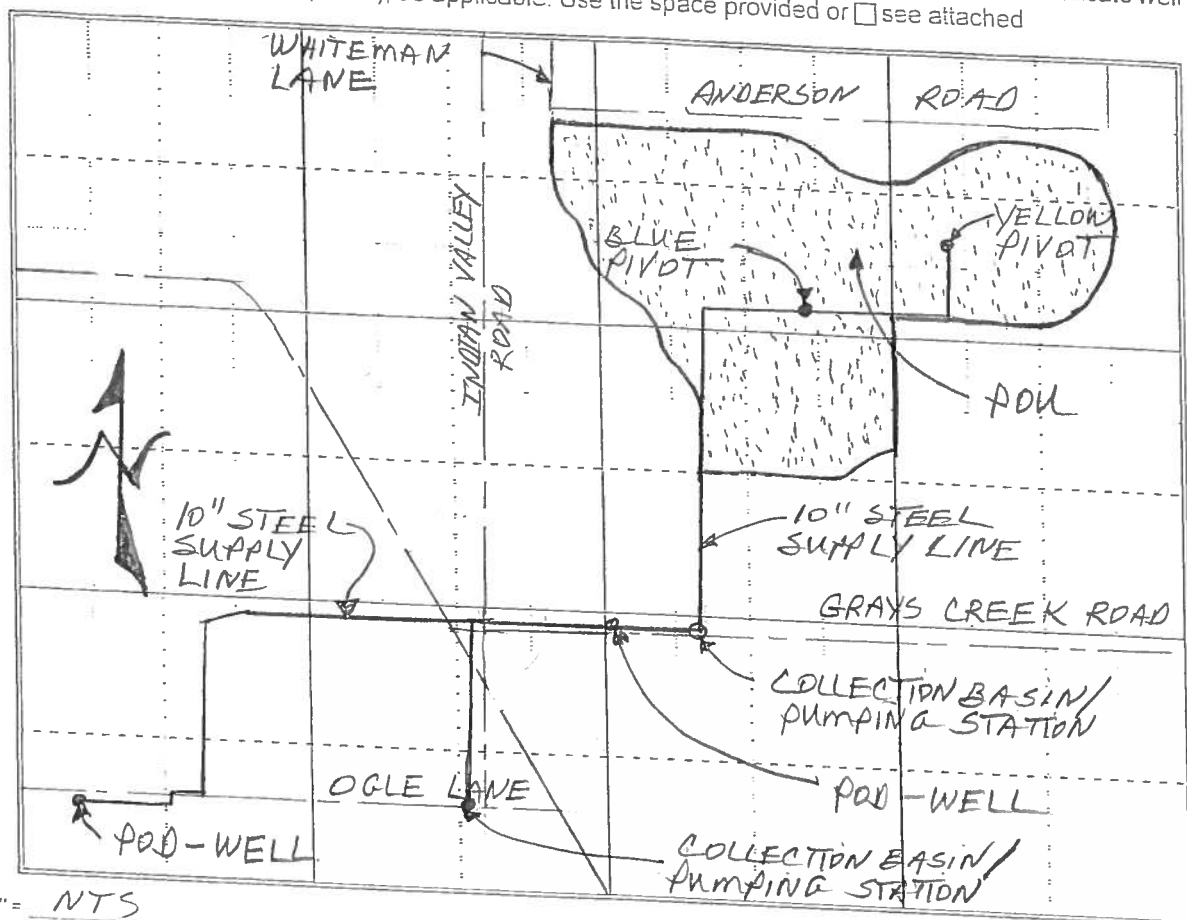
67-8011
GOV'T. LOTS 1 & 4

ESRI AERIAL PHOTO - 2011



0 550 1,100 2,200 3,300 4,400
Feet

- 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

WELL DRILLER'S REPORT

1. WELL TAG NO. D 0030784
 DRILLING PERMIT NO. 881424-811536
 Water Right or Injection Well No. 67-08011

2. OWNER:

Name Tom & Norma Grossen
 Address P.O. Box 72
 City Indian Valley State Id Zip 83632

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 14 North ☒ or South ☐
 Rge. 1 East ☐ or West ☒
 Sec. 3 NW 1/4 SE 1/4
 Gov't Lot Adams 10 acres 1/4 160 acres

Lat. : : Long. : :
 Address of Well Site East of Indian Valley Rd on 6785
Rd 18-14 mile City Indian Valley
 (Give at least name of road - Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

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

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Benomite	6	70	45 SKS	pour & pull
Benomite & clay	70	214	6 SKS	pour & slough

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 214
 Was drive shoe seal tested? ☒ Y ☐ N How? H₂O

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12.75	1.5	214	250	steel	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____
 Packer ☐ Y ☐ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____
 Screen Type & Method of Installation _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

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

12. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
1000	N-A	210	1 hr

Water Temp. 65± Bottom hole temp. 65±

Water Quality test or comments: _____

Depth first Water Encounter 26

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
20	0	1	Clay Soil		X
20	1	9	Cemented Gravel		X
20	9	12	Brown Sandy Clay - Pump	X	
20	12	22	Tan Clay		X
20	22	26	Sandy Clay & Sand	X	
20	26	33	Sand & loose Rocks	X	
20	33	34	Clay		X
20	34	50	Sand & sandy clay & clay	X	
20	50	58	Blue-purple clay		X
16	58	100	Blue clay		X
16	100	140	Brown clay		X
16	140	190	Blue green clay		X
16	190	210	Blue clay		X
16	210	213	gray clay		X
16	213	214	weathered Basalt	X	
10	214	265	Hard Black Basalt	100±	
7.25	265	374	Hard Black Basalt	722	X
	374	386	Red Brown lava	400	
7.25	386	401	med Hard - Hard	?	X
	401	407	med. Hard	?	
	407	461	Ext. Hard		X
7.25	461	463	Fractured	100±	
	463	466	Hard Basalt		X
	466	474	Fractured	400±	
7.25	474	515	Ext. Hard		X
7.25	515	516	Brown Basalt		X
	516	530	Ext. Hard		X
7.25	530	531	Fractured	XX	
	531	545	Ext. Hard		X

SCANNED

MAY 25 2005

MAR 25 2005

Completed Depth 545 WATER RESOURCES
 Date: Started 1-5-05 Completed 2-22-05 WESTERN REGION (variable)

14. DRILLER'S CERTIFICATION

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

Company Name Rob Dawson, Inc Firm No. 589

Principal Driller Rob Dawson Date 3-18-05

Driller or Operator II _____ Date _____

Operator I _____ Date _____

Principal Driller and Rig Operator Required.
 Operator I must have signature of Driller/Operator II.

FIELD EXAM PHOTOS

Water Right Permit: 67-8011

Field Exam Date: 5-9-13

PLS: NW1/4, SE1/4 Section 3, T.14N, R.01W.

Field Examiner: RC



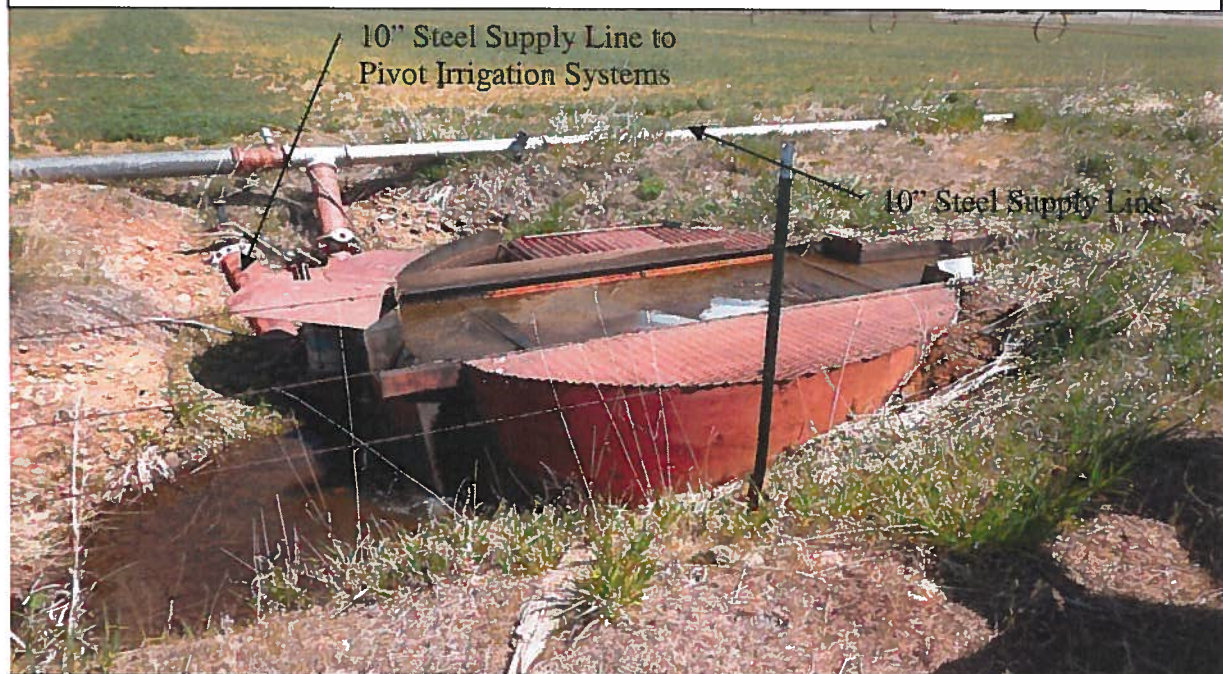
Point of Diversion: View southeasterly of the ground water well, 100-hp vertical turbine pump, and diesel motor located adjacent to Ogle Lane. Water is diverted and conveyed through 10" steel supply line to irrigate approximately 143.0 acres of crop land.



View southwesterly of a section of the 10" steel supply line and a 10" 'tee' assembly which directs water to the east to a place of use.



Point of Diversion: View southwesterly of a well and vertical turbine pump located near Grays Creek Road. The well discharges ground water to the 10" steel supply line which parallels Grays Creek Road. Water is diverted to a collection and pumping basin for discharging to the place of use to operate the 'Blue' and 'Yellow' pivot irrigation systems.



View northerly of a collection and pumping basin for surface water from the Little Weiser Irrigation District and the right holder's surface water rights. Water is pumped through a 10" steel supply line to the north to operate the 'Blue' and 'Yellow' pivot systems. Well water is discharged to the collection and pumping basin when surface water is not available.



Place of Use: View easterly of the field irrigated by the 'Blue Pivot' irrigation system.



Place of Use: View northeasterly of the field irrigated by the 'Yellow Pivot' irrigation system.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

April 10, 2013

Northwest Farm Credit Services, FLCA
308 SE 10th Street
Ontario, OR 97914

RE: Scheduling Field Exam for Water Right Permit No. 67-8011

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 3.08 cfs of ground water for irrigation of 154.0 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,

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



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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

April 10, 2013

Tom L. & Norma R. Grossen
P.O. Box 72
Indian Valley, ID 83632-0072

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September 9, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

TOMMY L GROSSEN and NORMA R GROSSEN
PO BOX 72
INDIAN VALLEY ID 83632-0072

RE: Water Right Permit Nos. 67-08011 & 67-08012

Dear Permit Holders:

The Department of Water Resources is reviewing the above referenced permits prior to issuing water right licenses. By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit. The examiner who verified your water use reported that certain elements of the permit have been developed differently than described on your permits. Changes that do not increase the authorized use of water under the permits can be requested and approved in accordance with Section 42-211, Idaho Code. Before licenses can be issued, your permits must be amended to depict your water use as it was actually developed.

Based on the examiner's report, the following elements were developed differently than described on your permits:

✓ **Points of Diversion**

The enclosed Application for Amendment forms depicts the elements of the water rights as they will appear on the licenses when issued. Please review the amendment forms carefully. If you concur with the information presented, please sign the forms and return them with \$100.00 filing fee for each amendment, within 14 days.

If you have any questions, please call me at (208)334-2190.

Sincerely,

KAY WALKER
Sr. Water Resource Agent

Enclosures: Amendment Applications & Layouts

State of Idaho
Department of Water Resources
APPLICATION FOR AMENDMENT

(For Licensing Purposes)

WATER RIGHT NO. 67-08011

Date of Priority: December 09, 1997

Maximum Diversion Rate: 2.86 CFS

Comes now TOMMY L GROSSEN And NORMA R GROSSEN
PO BOX 72

INDIAN VALLEY ID 83632-0072 and represents to the Director of the Idaho
Department of Water Resources that he is the owner and holder of Permit to Appropriate the Public
Waters of the State of Idaho No. 67-08011, and requests that the permit be changed as follows:

Source: GROUND WATER

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
IRRIGATION	03/15 to 10/31	2.86 CFS

LOCATION OF POINTS OF DIVERSION:

GROUND WATER NW1/4SE1/4 Sec. 3, Twp 14N, Rge 01W, B.M., ADAMS County

GROUND WATER NE1/4NE1/4 Sec. 9, Twp 14N, Rge 01W, B.M., ADAMS County

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 01W 2						37.0											37.0
14N 01W 3	3.0					L 4											3.0
15N 01W 34	L 1														34.0		34.0
15N 01W 35									34.0	35.0							69.0

Total Acres: 143

Permit holder asserts that no one will be injured by such change and that such change will be made at permit holder's own risk. Signed this _____ day of _____, 2013.

(Signature)

(Signature)

State of Idaho
Department of Water Resources
APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 67-08011

FOR DEPARTMENT USE ONLY

Preliminary check by _____ Fee = _____ Received by _____ # _____ Date _____

ACTION OF THE DEPARTMENT OF WATER RESOURCES

I, JOHN WESTRA, of the Department of Water Resources hereby approve the
above Application for Amendment for Permit No. 67-08011 with the following:

CONDITIONS OF APPROVAL

1. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor exceed a combined annual maximum diversion volume of 572.0 af at the field headgate for the place of use.
2. The right holder shall use the full allotment of appurtenant surface water rights in conjunction with groundwater diverted under this right and shall only divert groundwater under this right when water from the appurtenant surface water rights cannot be delivered to the right holder.
3. If the surface water right(s) appurtenant to the place of use is abandoned, forfeited, sold, transferred, leased or used on any other place of use, this right to divert ground water shall not be used without an approved transfer pursuant to Section 42-222, Idaho Code, or approval of the Department if a transfer is not required.
4. This right when combined with all other rights shall provide no more than 4.0 afa per acre at the field headgate for irrigation of the place of use.
5. The following rights are diverted through points of diversion described above: 67-8011 & 67-8012.
6. After specific notification by the department, the right holder shall install a suitable measuring device or shall enter into an agreement with the department to determine the amount of water diverted from power records and shall annually report the information to the department.
7. When ordered by the Director, the right holder shall provide mitigation acceptable to the Director to offset depletion of lower Snake River flows needed for migrating anadromous fish. The amount of water required for mitigation, which is to be released into the Snake River or a tributary for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this right. Any order of the Director issued in accordance with this paragraph shall be in conformance with applicable rules allowing the right holder due process as the need for mitigation and the amount of mitigation are determined.

Witness my hand this _____ day of _____, 2013.

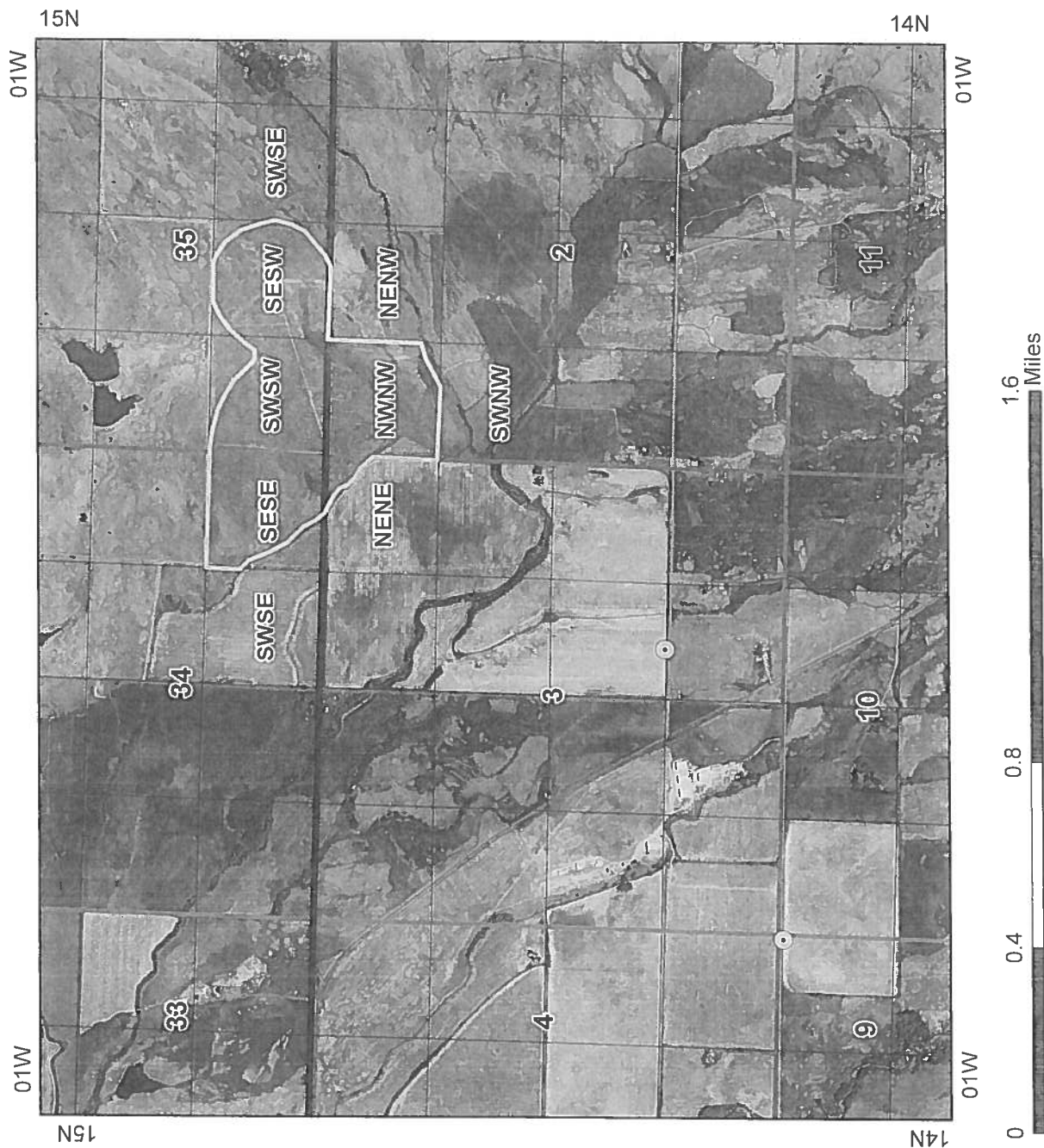
JOHN WESTRA
Western Regional Manager



Idaho Department of Water Resources

Water Right
67-8011
(IRRIGATION)

- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



*For your information-
Do not return.*

Adams County
IDWR Basin 67

Prepared by Walker, Kay

2009 Aerial Photography