

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12130

Exam Date: 7/26/2012

1. Current Owner: KENNETH C HARSHMAN
12645 W ABLE DR
STAR ID 83669
(208)286-9103
2. Accompanied by: Kenneth Harshman
Phone No: Same
Address: Same
Relationship to Permit Holder:

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

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

L4 SW1/4SW1/4

Sec. 31, Twp 05N, Rge 01W, B.M.

ADA County

Method of Determination: Arc Map (Aerial Photo); GPS Latitude N.43°43.388', Longitude W.116°30.626'; Datum NAD83.

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
05N 01W 31	<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>	2.7
											2.7						2.7
											L 4						

Total Acres: 2.7

DOMESTIC same as IRRIGATION

Method of Determination: Arc Map (Aerial Photo)

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>
Unknown	Unknown	3		Unknown	Unknown

*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>
Pitot Tube						

2. Measurements: Pitot Tube pressure measurement of 30 psi for 8 pop-up sprinklers. Average 8 sprinkler per station. Assuming sprinkler head discharge of 2.56 gpm/ head (IDWR Sprinkler Discharge with Nozzle Size & Pressure), $Q = 8 \times 2.56 \text{ gpm} = 20.5 \text{ gpm}$ (0.05 cfs).

E. FLOW CALCULATIONS

Measured Method: (Theoretical)

Additional Computation Sheets Attached

$$HP = 3$$

$$Z = 180 \text{ (IDWR Theoretical Dynamic Pumping Level Diagram for Wells)}$$

$$Q = 8.8 \times 0.7 \times 3/180 + (2.31 \times 30) = 18.48/249.30 = 0.07 \text{ cfs } P = 30 \text{ psi}$$

$$Q(\text{sprinklers}) = 8 \times 2.56 \text{ gpm} = 20.5 \text{ gpm} = 0.05 \text{ cfs}$$

$$Q(\text{irrigation}) = 2.7 \times 0.03 \text{ cfs} = 0.08 \text{ cfs}$$

$$\text{Sprinkler Flow} = 2.56 \text{ gpm (IDWR Sprinkler Discharge per Nozzle Size \& Pressure)}$$

Maximum appropriation per permit is 0.03 cfs/acre. At a maximum appropriation rate of 0.03 cfs/acre, the right holder is allowed to divert 0.08 cfs for irrigation. Appears existing pumping system can attain the diversion rate to irrigate the 2.7 acres of lawn, gardens, and landscaping.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.7 \times 4.5 \text{ AFA} = 12.2 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.08 \times 260 \times 1.9835 = 41.3 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 12.2 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER DELIVERY SYSTEM:**

A 3 hp submersible pump in a 320 foot deep ground water well, diverts ground water for internal domestic use for one home, and for irrigation of approximately 2.7 acres of lawn, gardens, and landscaping.

IRRIGATION SYSTEM:

The lawn, gardens, and landscaping areas are irrigated by an underground pressurized irrigation system. There are a total of 26 stations, with 6 – 8 pop-up sprinkler heads per station to irrigate the 2.7 acres of lawn, gardens, and landscaping. Approximately 2.9 acres of Lot 2 are not irrigated. Since the total of irrigable land is less than 5 acres, the right holder is allowed to appropriate a maximum diversion rate of 0.03 cfs per acre.

WATER BEARING ZONE:

Well depth is 320 feet, which complies with the water bearing zone of 300 – 350 feet.

WATER APPROPRIATION RECOMMENDATION:

The right holder is allowed to divert 0.08 cfs for irrigation of 2.7 acres of lawn, gardens, and landscaping. Since the pumping system has the theoretical capacity to attain a diversion rate of 0.07 cfs, recommend a total diversion rate of 0.08 cfs for irrigation and domestic use.

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

CONDITION NO.3 – Water bearing zone to be appropriated is 300 – 350 feet. Well log confirms compliance to the water bearing zone requirement with a well depth of 320 feet.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.11	&/or	N/A
Beneficial Use Limit	0.11	&/or	N/A
System Measurement	0.07(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	~~20.0~~ N/A
Recommended Amount	0.08	&/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	03/01 to 11/15	0.080 CFS	12.2 AFA
DOMESTIC	01/01 to 12/31	0.040 CFS	.6
	<u>Totals:</u>	0.080 CFS	~~12.2~~ AFA 12.8

*

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X None

___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

I. AUTHENTICATION

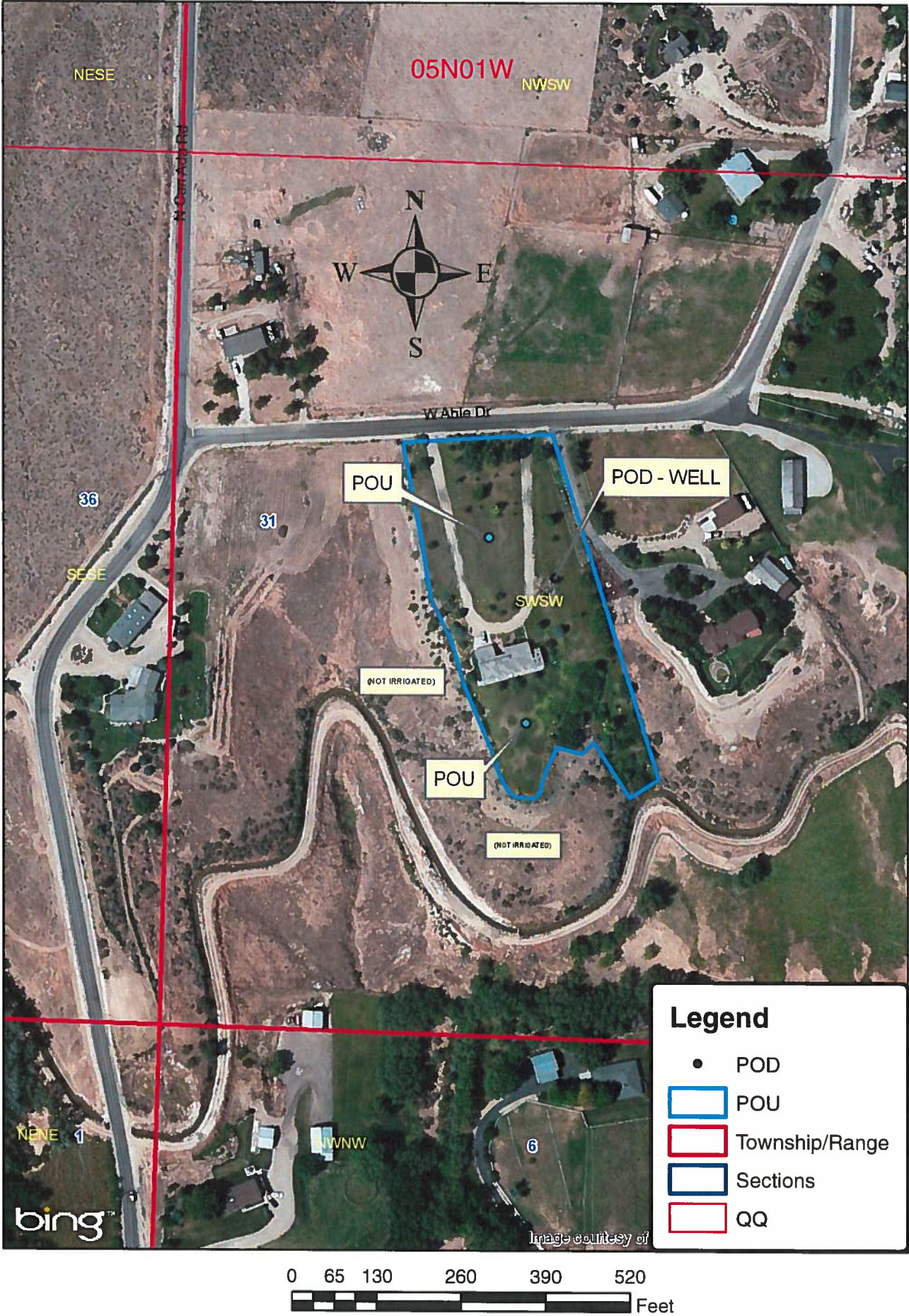
Field Examiner's Name Rick Collingwood Date 12/4/12

Reviewer _____ Date _____

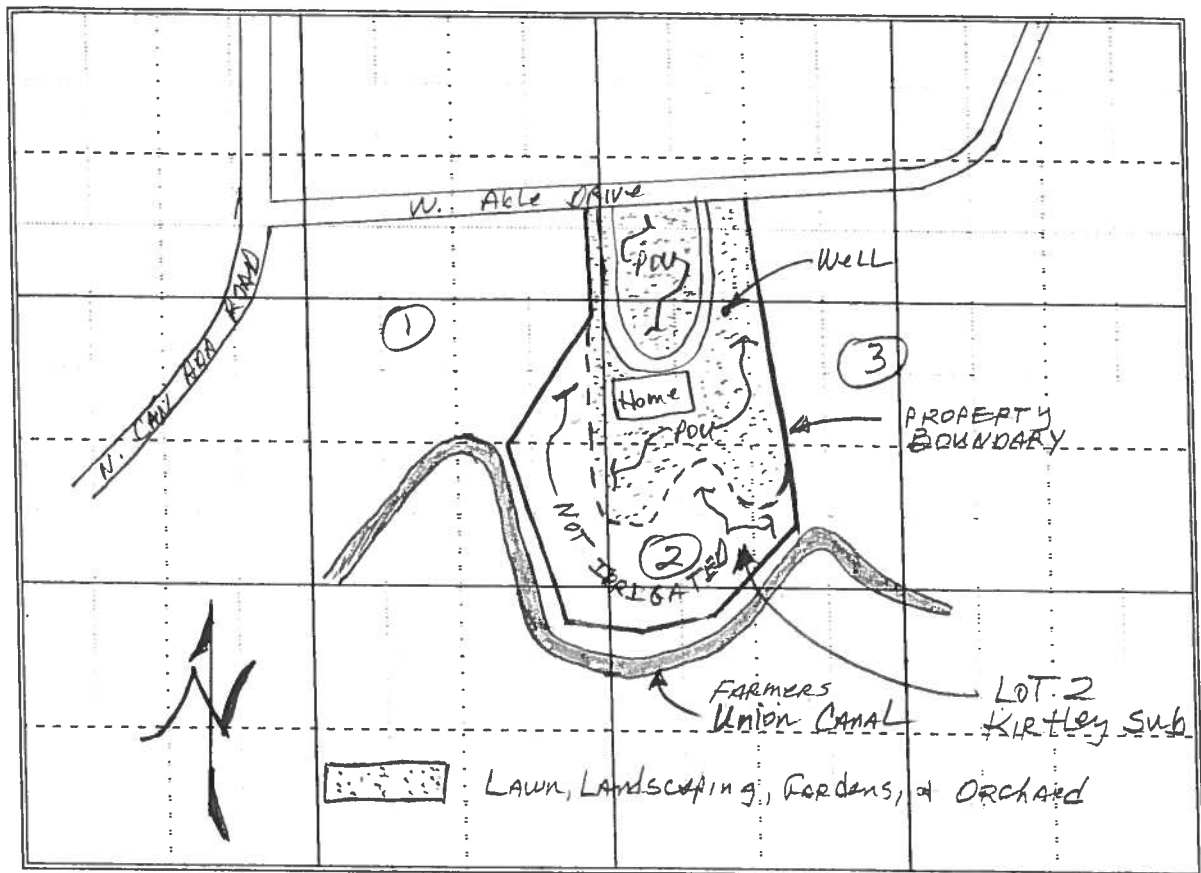
* Although 42-111 use volume not required,
good to include for reducing confusion
of license
- g2 12/5/12

63-12130
GOV'T. LOT 4

BING AERIAL PHOTO - 2011



- 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.



- ☐ 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

093050

Other IDWR No. _____

2. OWNER:

Name Ken Hershman

Address 12645 W Able Dr.

City STAL State IL Zip 83669

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.


 T. 5 North ☒ or South ☐
 E. 1 East ☐ or West ☒
 Sec. 31 $\frac{SW}{10 \text{ acres}}$ $\frac{1}{4}$ $\frac{SW}{10 \text{ acres}}$ $\frac{1}{4}$ $\frac{1}{4}$
 Gov't Lot _____ County Adair

Address of Well Site Same.

(Give at least Direction + Distance to Road or Landmark)

Lot No.	Block No.	Subd. Name
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4. PROPOSED USE:

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

5. TYPE OF WORK

☐ New Well ☐ Modify or Repair ☒ Replacement ☐ Abandonment

6. DRILL METHOD

☐ Mud Rotary ☒ Air Rotary ☒ Cable ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
~~Benitz~~ Benitz	0	20	300	Ben.

Was drive shoe seal tested? Y ☐ N ☒ How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Casting	Liner	Steel	Plastic	Welded	Threaded
6	71	309	.250			☒	☐	☐	☐
5	302	310	.258			☒	☐	☐	☐
						☐	☐	☐	☐
						☐	☐	☐	☐

Final location of shoes _____

Top Packer or Headpipe _____ Bottom Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method Houston
☒ Screens Type 304 Material Stainless

From	To	Slot Size	Number	Diameter	Telg/Pipe Size	Casting	Linear
310	320	.025		6		☒	☐
						☐	☐
						☐	☐
						☐	☐

10. WELL TESTS:

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Depth	Time
25		252	12

Temperature of water _____ Was a water analysis done? Yes ☐ No ☒

By whom? _____

Water Quality (odor, etc.) _____

Bottom Hole Temperature _____

11. STATIC WATER LEVEL:

170 ft. below surface Depth artesian flow found _____

Artesian pressure _____ lb. Describe access port Well Seal

Describe Controlling Devices: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

[illegible]

13. DRILLER'S CERTIFICATION

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

Firm Name Dennis Phillips Firm No. 332

Firm Official D. R. Ghose Date 5-1-54

Supervisor or Operator Mark Rhoads Date 5-1-94

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

FIELD EXAM PHOTOS

Water Right Permit: 63-12130

Field Exam Date: 7-26-12

PLS: SW1/4, SW1/4 Section 31, T.05N, R.01W.

Field Examiner: RC



Point of Diversion: View northerly of ground water well and irrigation control valves.



Place of Use: View northerly of irrigated lawn, gardens, and landscaping, and home for domestic use.



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

July 6, 2012

Kenneth C. Harshman
12645 W. Able Drive
Star, ID 83669

RE: Scheduling Field Exam for Water Right Permit No. 63-12130

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of July 16, 2012**. 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 ground water of 0.11 cfs. for irrigation of 5.6 acres and domestic use.

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 July 13, 2012, to conduct the exam during the week of July 16, 2012.** 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.