

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-11739

Exam Date: 5/16/2012

1. Current Owner: WILLIAM R BLATTNER FAMILY LTD PARTNERSHIP
5453 BENNETT RD
KUNA ID 83634
(208)442-0305
2. Accompanied by: Bill Blattner
Phone No: (208)861-5854 (cell)
Address: Same as above
Relationship to Permit Holder: CEO of William R. Blattner Family Ltd Partnership

3. SOURCE TRIBUTARY
GROUND WATER N/A

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Boise Kuna Irrigation Dist. - surface water
2. Other water rights with the same point of diversion: None

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

GROUND WATER SE1/4NE1/4 Sec. 31, Twp 02N, Rge 01W, B.M.
CANYON County
Method of Determination: GPS Location N43.467461° W116.496907° Garmin model GPSmap 76 Datum NAD 83

2. PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
02N	01W	31	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	147
			36	39	38	34													

Total Acres: 147

Method of Determination: Bing (2011) Aerial Photography w/ field verification.

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. Well or Diversion

ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Irrigation Well-	Franklin				
No Metal Tag	Submersible	60	Unknown	Unknown	6" Discharge Pipe

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

D. FLOW MEASUREMENTS1. **Measurement Equipment**

<u>Equipment</u>	<u>Type</u>	<u>Make/Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
No physical measurement @ exam	N/A	N/A	N/A	N/A	N/A

Supplemental well. System not operating @ exam. See Flow Calculations Section below for Theoretical HP Equation, Well Capacity/Well Log Pump Test, and Theoretical Weir Measurement flow estimations.

2. Measurements: None taken @ exam. Well discharge piping not suitable (insufficient pipe length) for polysonic measurement.

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Measured Method: Theoretical HP Equation:

$$HP = 60$$

$$PSI = 10 \text{ (open discharge est.)}$$

$$Z = 210 \text{ ft (Well Log indicates pumping level of 210 ft)}$$

$$Q = (8.8 \times 0.7 \times HP) / [Z + (2.31 \times PSI)] = (8.8 \times 0.7 \times 60) / [210 + (2.31 \times 10)] = \mathbf{1.59 \text{ cfs}}$$
 est. capacity of pumping system

Measured Method: Well Capacity/Well Log Pump Test:

$$\text{Well Log Pump Test : Discharge} = 1000 \text{ gpm} = \mathbf{2.23 \text{ cfs}}$$
 w/ 210 ft pumping level for 1 hour test.

Measured Method: Theoretical Weir Measurement:

Cipolletti Weir in ditch w/ 2 ft blade. Rust line indicates $H = 3.8 \text{ in} = 0.32 \text{ ft}$ -> $Q = \mathbf{1.21 \text{ cfs}}$ est. flow through ditch for E1/2 POU irrigation

Theoretical HP Equation est. capacity of pumping system = **1.59 cfs**

Well Capacity/Well Log Pump Test = **2.23 cfs**

Permitted Rate = **3.20 cfs**

Beneficial Use Limit = $147 \text{ ac} \times 0.02 \text{ cfs/ac} = \mathbf{2.94 \text{ cfs}}$

Proof of Beneficial Use fee paid = \$175.00 = up to **4.00 cfs**

Recommend Theoretical HP Equation Est. Limit = 1.59 cfs

Theoretical HP Equation est. $1.59 \text{ cfs} < 75\% (54\%)$ of beneficial use limit and $< 75\% (71\%)$ of well capacity/well log pump test rate. Without system measurement, cannot justify recommending rate greater than Theoretical HP Equation est.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 147 \text{ ac} \times 4.5 \text{ afa/ac} = 661.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.59 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 820.0 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 661.5 \text{ afa} < 820.0 \text{ afa} = \mathbf{\text{Recommend } 661.5 \text{ afa}}$$

2. Volume Calculations for Other Uses: N/A. No other uses permitted.

G. NARRATIVE/REMARKS/COMMENTS**SYSTEM DESCRIPTION:**

System consists of a 12" dia 245 ft deep well (ID Power meter # 36-493-535 – irrigation well only use of power on this meter) with an 6" discharge split to one 6" line discharging to an open ditch for irrigation of the E1/2 POU and the another 6" line going to 12" culvert under canal road into the Barth Canal. Blattner participates in a canal exchange when using the supplemental well for irrigation of the W1/2 POU.

Cipolletti Weir in ditch diverting water from the well to the E1/2 POU. Weir has 2 ft blade. Rust marks on weir blade indicate depth of water through weir maximum height of 3.8 inches in the past. Indicates flow of at least 1.21 cfs in ditch for irrigation of only the E1/2 POU (70 acres). Blattner stated when well turned on and water diverted entirely down ditch through weir (none to canal), the weir is overrun. He estimated well/system capable of producing over 100 inches (2.00 cfs).

IRRIGATION PRACTICES:

This well is used to supplement surface water irrigation within the POU. Same distribution system for both ground and surface water. Blattner irrigates the E1/2 POU via gravity irrigation from a series of ditches. The W1/2 POU is mostly irrigated with gravity irrigation from ditches, except for a few fields that are sprinkler irrigated. Crops grown include hay, wheat, beans, and feed corn. Supplemental well used when canal water not available (low water years). Blattner estimated last time used well 1997 or 1998.

OVERLAP:

Surface water from Boise Kuna Irrigation District serves as primary source of water for irrigation of POU. There are no other overlapping rights associated with the POU or POD.

COMPLIANCE WITH PERMIT CONDITIONS:

Permit conditioned owner shall install a measuring device and report diversions of water annually. Weir in place capable of measuring diversion to ditch for E1/2 of system, but no measurement device in place for pipe discharging to canal for W1/2 of system. Due to the change in administration of water rights in Bs 63, measuring devices and reporting are not currently necessary for supplemental irrigation wells in this area. Blattner requested these conditions be waived/modified during licensing. Recommend modifying these conditions to condition 01M stating a device shall be installed and reporting done if/when the Department requests it in the future. Use of ground water under this right is supplemental to surface water in accordance with conditions of the right. No new land irrigated, no new well drilled, nor an existing well enlarged or deepened after this permit issued. Permitted water bearing zone 149 to 245 ft in accordance with water bearing zone per well log. However, this well is outside the Bs 63 GW Restricted Area, recommend removing water bearing zone condition during licensing. To the best of my knowledge, owner has complied with all other permit conditions.

Have conditions of permit approval been met? Yes X No – Modifications of measurement device and reporting as discussed above approvable per Supervisor. All other conditions met.

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	1.59 CFS	661.5 AF
<u>Totals:</u>		1.59 CFS	661.5 AF

2. Recommended Amendments

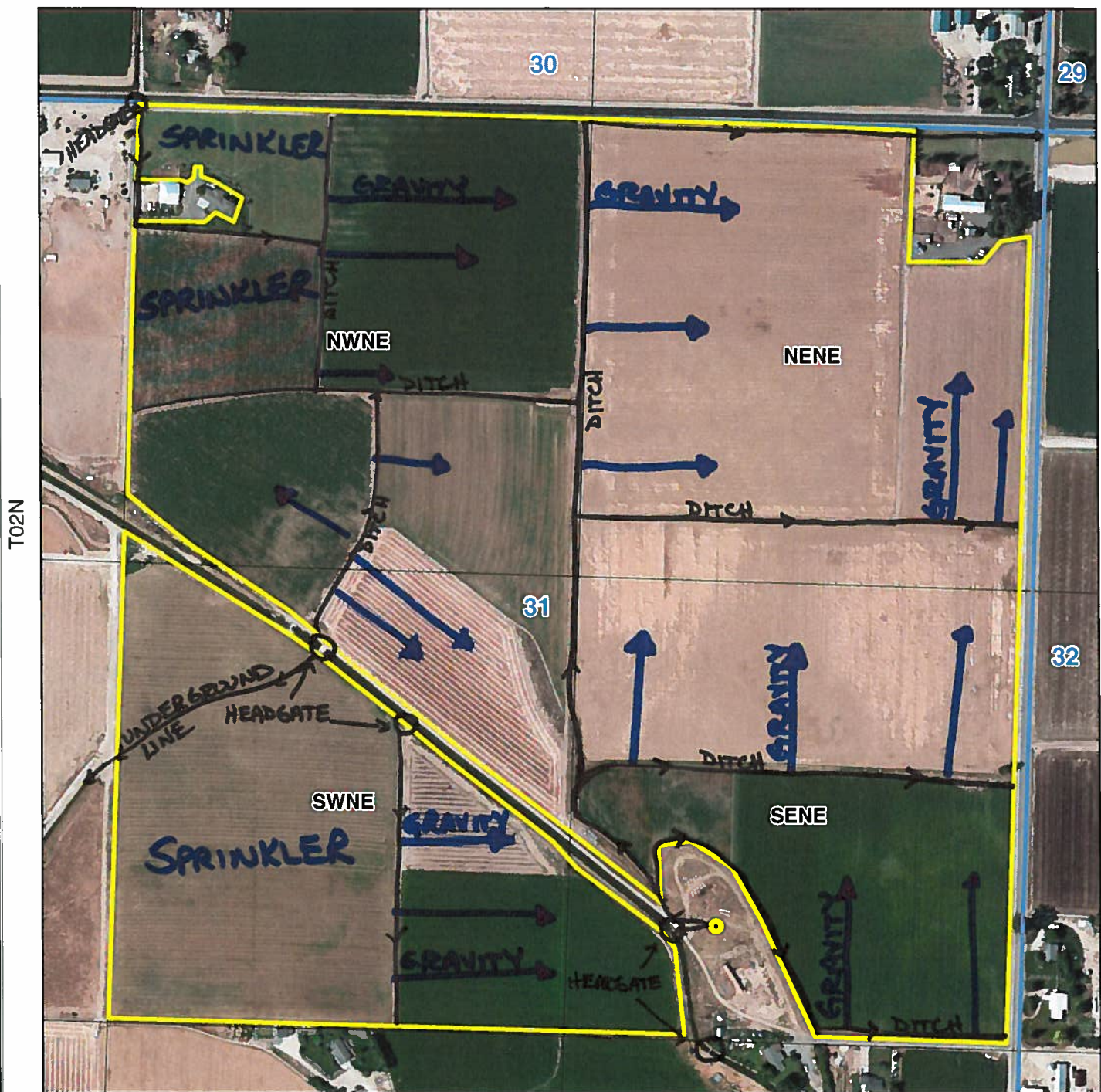
Change P.D. as reflected above Add P.D. as reflected above X None
Change P.U. as reflected above Add P.U. as reflected above Other

I. AUTHENTICATION

Field Examiner's Name Angela M. Quinn Date 6/28/2012
 Reviewer _____ Date _____

63-11739 Beneficial Use Field Exam Map

R01W



T02N

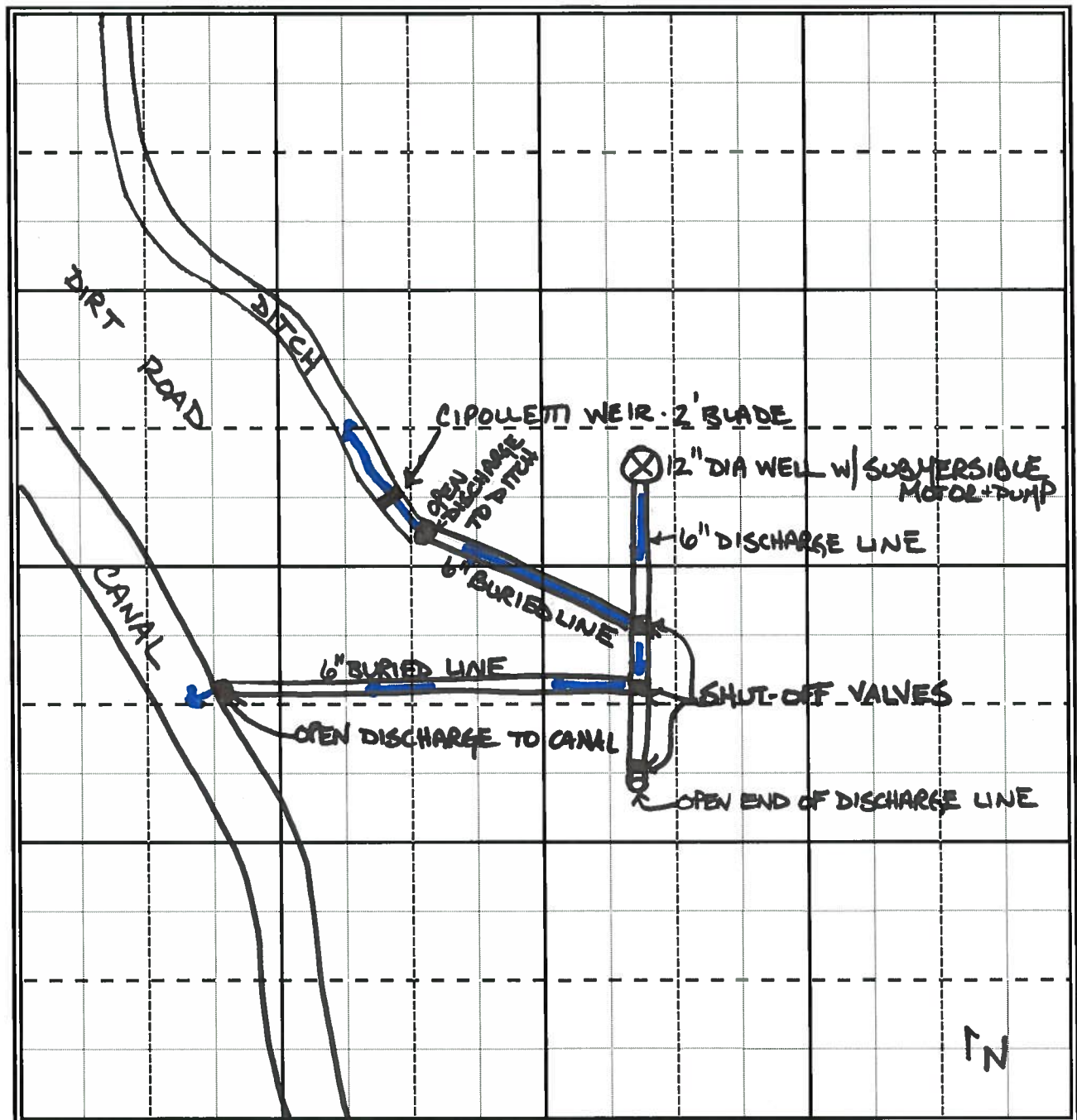
0 0.05 0.1 0.2 Miles

Bing (2011) Aerial Photo

- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters



63-11739 Beneficial Use Field Report Diversion System Diagram



Not to Scale

63-11739 Beneficial Use Field Report Photos



63-11739 Exam 5/16/2012: POD facing west. Canal, ditch, and dirt road between canal and ditch in photo middle-ground. Portion of POU on other side of canal in photo background.



63-11739 Exam 5/16/2012: Cipolletti Weir in ditch facing southeast. Power line, power box, and well in background.

**IDAHO DEPARTMENT OF WATER RESOURCES
FIELD EXAMINERS
WELL INSPECTION FORM**

1. IDENTIFICATION # WC WELL ID # 303451 - NO METAL TAG (Tag #, etc.)

OTHER APPLICABLE # WR # 163-11739 (Water right #, etc.)

2. OWNER WILLIAM R. BLATNER FAMILY LTD PARTNERSHIP Phone (208) 442-0305

Address 5453 BENNETT RD City KUNA

State ID Zip 83634 Email _____

3. WELL LOCATION (GPS required in Degrees Decimal Minutes – use PLS if GPS not available)

Lat. N 43.467461° Long. W 116.496907°

Twp 2 N Rge 1 W Sec 31 $\frac{1}{4}$ SE $\frac{1}{4}$ NE

4. WELL CONSTRUCTION ☒ Well log attached ☐ Well log not found

Any obvious construction problems that may be a source for contamination or waste? ☐ Yes ☒ No

If yes, describe below &/or see attached (list any that apply): ☐ Photos ☐ Diagram ☐ Other

5. HYDROLOGIC INFORMATION

Static water if measured _____ ft. Water temperature if measured _____ °F

Flowing artesian ☐ Yes ☐ No Pressure if measured _____ psi

NOTES NO MEASUREMENTS TAKEN @ EXAM.

INSPECTED BY

Angel M. Quinn

DATE 5/16/2012

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]

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT