

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

**Permit No:** 63-33857  
**Exam Date:** 04/02/20

1. Current Owner:  
ROBERT TRUAX 1888 E RODEO LN KUNA ID 83634-1341
2. In-office qualification (IDAPA 035.01.r): Irrigation ≤ 5 acres

3. **SOURCE:**  
GROUND WATER

**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
Boise Kuna Irrigation District	Boise River	Irrigation	Decree
Board of Control	Boise River	Irrigation	Decree

Comments: Existing Irrigation District surface water rights, these rights to provide supplemental groundwater use.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

Comments: N/A

**C. DIVERSION AND DELIVERY SYSTEM**

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NW¼ SW¼, Sec. 18, Twp 02N, Rge 01E, B.M. ADA County

Method of Determination: Application, well drillers report, and clarification from permit/land owner.

**PLACE OF USE:** IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
02N	01E	18										0.4	2.9	L3						3.3

Total Acres: 3.3

**PLACE OF USE:** DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
02N	01E	18											X							

Method of Determination: ArcMap Tools and Aerial Imagery

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

N/A Indicate weir size/pipe as applicable.

x Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

x Aerial Photo Attached (required for irrigation of 10+ acres).

N/A 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
N/A	N/A	2	N/A	N/A	N/A

**D. FLOW MEASUREMENTS**

- 1. N/A (Qualifies for In-Office Exam)

**E. FLOW CALCULATIONS**

Theoretical Flow Calculation:

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Pump Horsepower	2
Pumping Level	190
Discharge Pressure	40
Rate of Flow (cfs)	0.04

Irrigation Permit:	0.15 cfs
Theoretical Rate	0.04 cfs
B.U. Standard Allowance:	0.03 cfs x 3.3 ac= 0.10 cfs
Domestic Permit	0.04 cfs
B.U. Proof Fee:	\$50 → 0.00 cfs to 0.20 cfs

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**License Recommendation      0.04 cfs**

**F. VOLUME CALCULATIONS**

- 1. Volume Calculations for irrigation:

$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (3.3 \text{ ac}) \times (4.5 \text{ afa}) = 14.9 \text{ af}$   
 $V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (0.04 \text{ cfs}) \times (260) \times 1.9835 = 20.6 \text{ af}$   
 $V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 14.9 \text{ af}$

- 2. Volume Calculations for Other Uses:

Domestic = 0.6 afa as per Apps Memo No. 22 "Definition of Domestic."

**G. NARRATIVE/REMARKS/COMMENTS**

The field exam was conducted in-office January 17, 2020 by Kate Huelse.

Original owner of the permit was Sandstone Farms, LLC. The permit was assigned to Robert Traux December 30, 2019. The proof of beneficial use was submitted at the same time on December 30, 2019 by Sandstone Farms, LLC. Current Ada county taxlot data represents Mr. Traux owns the land pertinent to the place of use and point of diversion.

Ground water comes from a well drilled in 1995. As per the application, the system diverts water using a 2 hp pump to sprinklers for lawn and a drip irrigation lines for growing grapes. The rate at which the system diverts water is unknown. System information was clarified with permit/land owner over phone on March 23, 2020.

The original permit allowed for the irrigation of 5 acres and domestic use for 2 homes. However, at the time of exam only 3.3 acres were verified as developed. Because only 3.3 acres of irrigated land were measured, I am recommending a rate of 0.04 cfs for irrigation use. This seems reasonable as a majority of the land will be irrigated using drip irrigation lines. Additionally, domestic use for only 1 home was clarified with Mr. Traux. As a result, I am recommending 0.04 cfs and 0.6 af for domestic purposes. Overlap review found additional water rights for the POU. The property does receive surface water irrigation shares from Boise Kuna Irrigation District/Boise Project Board of Control. Thus, this right should be considered supplemental and is conditioned as such. POD overlap found no other existing rights associated.

Additionally, review of irrigated lands showed that 0.4 acres in the NE ¼ SW ¼ were developed. Because the permit only specified acreage in the NW ¼ SW ¼, I am recommending a permit amendment for licensing purposes. Condition 26A was removed and condition 121 was updated to 103 as per department licensing standards. Condition X01 was removed and replaced by WB5 to reflect the domestic use being for only 1 home and that irrigation is a separate component of the right. Added condition WB7 and 943 to reflect the supplemental irrigation limits of this right. Condition R61 replaced R69 because the rate per acre was specified in WB7.

Have conditions of permit approval been met?  Yes  No

**H. RECOMMENDATIONS**

**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	06/01 to 10/01	0.04 CFS	14.9 AF
DOMESTIC	01/01 to 12/31	0.04 CFS	0.6 AF
<b>Totals:</b>		0.04 CFS	15.5 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  None

**I. AUTHENTICATION** Kate Huelse - Water Resource Agent

Field Examiner's Name Kate Huelse Date 4/10/20  
 Reviewer Patricia Kelly Date 4-14-2020

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33857  
 Reviewer: Kate Huelse  
 Date of Review: 3/18/2020

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER	2	2	2
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	190	190	190
DISCHARGE PRESSURE	40	50	60
RATE OF FLOW (cfs)	0.04	0.04	0.04 0.04

The above calculates the formula = 
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.  
 No Friction







**Examiners Notes:**

A range of small hp pumps were assumed given this is for domestic use and the requested diversion rate is relatively small. Lift was measured using the DRG map. Topography from the pump to the irrigation system measure close to 190 feet. A range of discharge pressures were used under what we would expect to see from in home domestic tanks (40-60 psi). Theoretical average flow rate is 0.04 cfs.

State of Idaho  
Department of Water Resources  
**Beneficial Use In Office Field Report**  
63-33857

Irrigation System Diagram



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

0 0.035 0.07 0.14 Miles









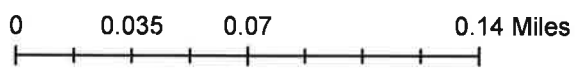
State of Idaho  
Department of Water Resources  
**Beneficial Use In Office Field Exam**  
63-33857

Domestic System Diagram



The USDA-FSA Aerial Photography Field office asks to be credited in derived products.

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



IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

Use Typewriter  
or  
Ball Point Pen

63120

1. DRILLING PERMIT NO. 63-95-W-0592-000  
Other IDWR No. \_\_\_\_\_

2. OWNER:  
Name Larry Hansen  
Address P.O. Box 324  
City Boise State Id Zip 83701

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N		
	X	
S		

Twp. 2 North  or South   
Rge. 1 East  or West   
Sec. 18 NW 1/4 SW 1/4 SE 1/4 1/4  
Gov't Lot \_\_\_\_\_ County \_\_\_\_\_  
Address of Well Site E. Road  
City Kuna  
(Give at least name of road + distance to road or landmark)

LI. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

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	
Bentonite	0	115'	65	Poured in.

Was drive shoe used?  Y  N Shoe Depth(s) 191'  
Was drive shoe seal tested? Y  N  How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	1 1/2'	191'	.250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6"	182'	193'	.250	Steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6"	203'	205'	.250	Steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe 10' Length of Tailpipe 2'

9. PERFORATIONS/SCREENS

- Perforations Method \_\_\_\_\_  
 Screens Screen Type Houston Stainless Steel

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<del>203'</del>						<input type="checkbox"/>	<input type="checkbox"/>
193'	203'	25		6"	S. Steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

43 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

11. WELL TESTS:

- Pump  Bailor  Air  Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
200 GPM	(Air)	190'	2 hrs.

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

Water Quality test or comments: \_\_\_\_\_

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	
				Y	N
12	0	1	Top Soil		<input checked="" type="checkbox"/>
	1	3	Sandy Soil		<input checked="" type="checkbox"/>
	3	15	Hard Pan		<input checked="" type="checkbox"/>
	15	18	Broken Lava Rock		<input checked="" type="checkbox"/>
	18	39	Lava Rock		<input checked="" type="checkbox"/>
	39	45	Black Lava Cinders		<input checked="" type="checkbox"/>
	45	70	Lava Rock		<input checked="" type="checkbox"/>
	70	95	Black Lava Cinders		<input checked="" type="checkbox"/>
	95	100	Lava Rock		<input checked="" type="checkbox"/>
12	100	110	Brown Soap Stone		<input checked="" type="checkbox"/>
8	110	132	Sand & Gravel		<input checked="" type="checkbox"/>
	132	152	Muddy Sand some Gravel		<input checked="" type="checkbox"/>
	152	162	Sandy Brown Clay		<input checked="" type="checkbox"/>
	162	178	Brown Sand		<input checked="" type="checkbox"/>
	178	184	Sand some coarse		<input checked="" type="checkbox"/>
8	184	205	Coarse Sand & Pea Gravel		<input checked="" type="checkbox"/>

RECEIVED

OCT 04 1995

WATER RESOURCES  
WESTERN REGION

Completed Depth 205' (Measurable)  
Date: Started 9/8/95 Completed 9/28/95

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 Boise Valley Pump & Drilling Firm No. 207

Firm Official Ron A. Murphy Date 9/29/95

and  
Supervisor or Operator Harry R. Fulton Date 9/29/95

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES