

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-34113
Exam Date: 08/24/2020

1. Current Owner:
DANIELLE PINGREE 7015 W GOODALE TRAIL LN EAGLE ID 83616-4411 AND
MICKY PINGREE 7015 W GOODALE TRAIL LN EAGLE ID 83616-4411
2. Accompanied by: Micky Pingree
Phone No: (208)841-3208
Address: 7015 Goodale Trail Ln, Eagle, ID 83616
Relationship to permit Holder: same

3. **SOURCE:**
GROUND WATER

Method of Determination: Site visit, well log

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: No overlap present

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

Water Right No.	Source	Purpose of Use	Basis

Comments: No overlap present

C. DIVERSION AND DELIVERY SYSTEM

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

GROUND WATER NW¼ NE¼, Sec. 34, Twp 05N, Rge 01W, B.M. ADA County

Method of Determination: GPS, digital PLSS system, aerial imagery

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	
05N	01W	34		4.3															4.3

Total Acres: 4.3

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	
05N	01W	34		X															

Method of Determination: Digital PLSS system, aerial imagery

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
453983	Goulds	7.5	750C313	CentriPro	n/a

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
n/a	n/a	n/a	n/a	n/a	n/a	n/a

2. Measurements: No measurements were taken during this exam

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method: Theoretical

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}} = \frac{8.8 * 0.7 * 7.5}{230 * 2.31 * 50} = 0.13 \text{ cfs}$$

Measured Method: Sprinkler Ratings

Sprinkler @ 1 time = 4 heads @ 50 psi;

Range = 9.9 to 32 gpm

Sprinkler Diversion Rate = 39.6 to 120 gpm = 0.09 to 0.29 cfs

@ mid nozzle range = **0.18 cfs**

Permit	0.16 cfs
B.U. Standard Rate	0.16 cfs
B.U. Fee Paid	\$50 → 0 to 0.20 cfs
Theoretical	0.13 cfs

License Recommendation 0.16 cfs

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

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.3 \text{ acres} \times 4.5 \text{ af/acre} = 19.35 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.12 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 61.88 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 19.4 \text{ af}$$

2. Volume Calculations for Other Uses:

According to AP memo 22, annual volume for one domestic household is 0.6 afa when irrigation is separated, which is the case with this permit. 0.6 afa is recommended for licensing.

G. NARRATIVE/REMARKS/COMMENTS

This permit authorizes 0.12 cfs for 6 acres of irrigation and 0.04 cfs for domestic use within Lot 2, Block 1 of M-3 Hanson Subdivision in Ada County. The application for permit was filed by M3 Eagle, LLC, and the permit was assigned to Micky and Danielle Pingree on May 22, 2018. The field exam was conducted by WRA Tyler Smith and accompanied by the permit holder Micky Pingree.

The point of diversion is a 6" well (ID #453983) located 43°44'0"N, 116°26'28"W which contains a 7.5-hp submersible pump. The well supplies water for both the domestic and irrigation uses, and there is no overlap present at the point of diversion. There is a 2" mainline from the well that supplies water to 1" Aqua Burst brass impact sprinklers around the pasture, and a line of sprinklers through the middle of the pasture. According to the Aqua Burst performance chart, the sprinkler operates between 35 and 70 psi. A range of 40 to 60 psi was used for a theoretical rate because this is the range of pressures common for small scale sprinkler systems. The pasture is separated from the domestic yard by a wooden fence. The domestic yard has a few hookups for sprinklers and/or hoses for irrigation. The permit authorized 6 acres of irrigation, however due to the size of the driveway and house as well as the non-development of acreage of the property south of the Farmers Union Canal, only 4.3 acres of irrigation development were found. Since irrigation is for less than 5 acres, the Department allows for a diversion rate of 0.03 cfs/acre, which for the 4.3 acres is 0.12 cfs, and this rate is recommended for licensing.

Water from the well is piped into the house, through a filter, into a small Flex2Pro H2P tank to pressurize the system for domestic purposes and reduce peak demand on the well pump. The standard domestic rate for one household of 0.04 cfs is recommended for licensing. The irrigation and domestic uses have a combined rate of 0.16 cfs, which is within reason of the theoretical rate determined for the delivery system. Based on the rating of the sprinklers, the theoretical rate determined, and observance during the site visit, it appears the permit holder is diverting close to, if not greater than, 0.02 cfs per acre. Therefore, the total rate recommended for licensing is 0.16 cfs. The place of use's are located within Lot 2, Block 1, M-3 Hanson Subdivision and there is no overlap present at either place of use.

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	03/01 to 11/15	0.12 CFS	19.4 AFA
DOMESTIC	01/01 to 12/31	0.04 CFS	0.6 AFA

Totals:

0.16 CFS

20.0 AFA

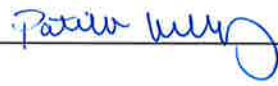
2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

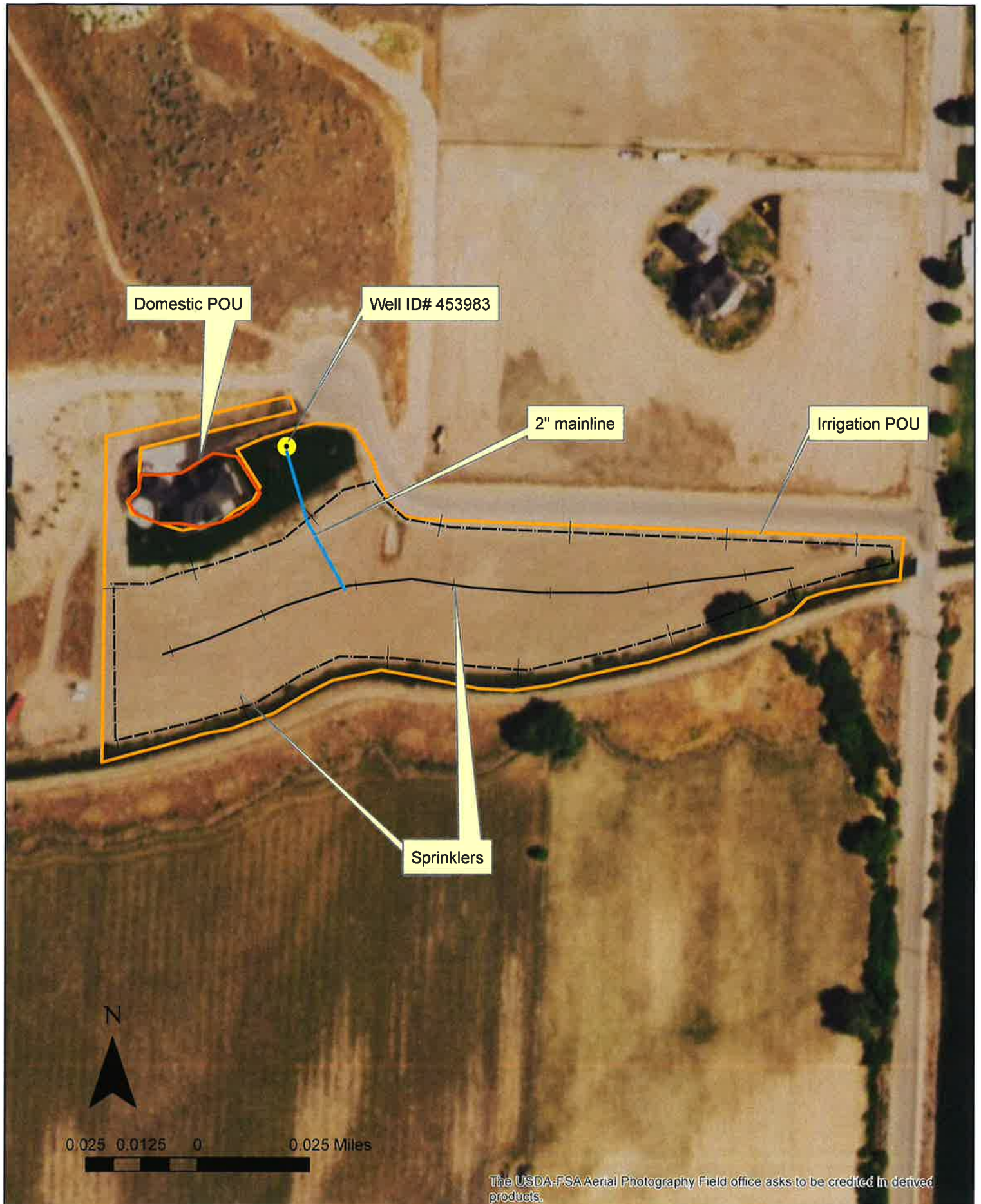
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Tyler Smith - Water Resource Agent

Field Examiner's Name  Date 9/14/2020

Reviewer  Date 9-14-2020

Delivery System Diagram for 63-34113



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-34113
 Reviewer: Tyler Smith
 Date of Review: 9/10/2020

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	7.5	7.5	7.5
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	230	230	230
DISCHARGE PRESSURE	40	50	60
RATE OF FLOW (cfs)	0.14	0.13	0.13 0.13

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:

Field exam reports a 7.5 hp pump for domestic and irrigation uses. Lift is recorded at 230 ft. A range of discharge pressures were used base on expected system pressures for Aquaburst 1" adjustable brass impact sprinklers (40-60 psi). Theoretical average flow rate is 0.13 cfs.



1" BRASS IMPACT SPRINKLERS

X SERIES BRASS - MADE TO LAST™

1" Adjustable Brass Impact Sprinkler



**TWO-YEAR
WARRANTY**

X65ED-S

Features

- ◆ Full or part-circle impact – 24° trajectory
- ◆ 1" male NPT base
- ◆ Single nozzle
- ◆ Fits 1" size nozzle - (NOZ1 series)

Advantages

- ◆ Features replaceable stainless steel spoon
- ◆ Chrome bearing standard
- ◆ Adjustable arc from 20° to 340° or full-circle coverage
- ◆ Solid brass construction
- ◆ Stainless-steel fulcrum pin, arm spring, and bearing spring for long-wearing reliability
- ◆ Easy-to-use diffuser pin for precise application
- ◆ Ideal for pasture, turf, wastewater treatment, auxiliary pivot end gun, and other large-scale applications where adjustable coverage is necessary
- ◆ Made with domestic and foreign parts
- ◆ **Preassembled with XC-33 thread sealant**

Sprinkler Head Does Not Include Nozzle

sold individually

X65ED-S (Adjustable)
X65F-S

AQUA BURST® Performance Chart

Normal Stream Height At 9' Above Nozzle at Normal Pressure

Single Nozzle
 Radius - GPM

PSI	7/32" nozzle	1/4" nozzle	9/32" nozzle	5/16" nozzle	11/32" nozzle	3/8" nozzle	13/32" nozzle
35	52 - 8.1	54 - 10.8	58 - 13.5	59 - 16.5	62 - 19.5	64 - 22.7	67 - 26.2
40	54 - 8.7	56 - 11.5	61 - 14.5	62 - 17.8	65 - 21.3	68 - 24.5	70 - 28.2
45	56 - 9.2	58 - 12.2	63 - 15.2	64 - 18.8	67 - 22.2	71 - 25.9	73 - 30.1
50	59 - 9.9	61 - 12.9	64 - 16.0	67 - 19.9	69 - 23.4	72 - 27.2	75 - 32.0
55	61 - 10.2	63 - 13.4	66 - 16.9	69 - 20.8	72 - 24.5	74 - 28.4	77 - 34.1
60	62 - 10.7	65 - 14.2	67 - 17.6	71 - 21.9	73 - 25.6	76 - 29.5	79 - 36.0
65	64 - 11.2	66 - 14.8	69 - 18.4	73 - 22.8	75 - 26.5	79 - 30.8	82 - 38.2
70	65 - 11.8	67 - 15.4	70 - 19.2	74 - 23.7	77 - 27.7	81 - 32.1	85 - 40.3

Operate ONLY between 35 psi (min) and 70 psi (max)

Aqua Burst® impact sprinklers are only guaranteed to function optimally with nozzle sizes and pressure from each individual model's performance chart.

Dan's Pump and Filter, LLC.
114 S Highland Dr
Middleton, ID 83644 US
(208) 585-6345
frontdesk@danspumpanfilter.com
www.danspumpanfilter.com



BILL TO
Inks, Dan
Dinks25@gmail.com

INVOICE 4852

DATE 03/24/2020 **TERMS** Net 30

DUE DATE 04/23/2020

JOB NAME
7015 goodale trail wy

ACTIVITY	QTY	RATE	AMOUNT
7 1/2 HP 230 VAC 3 Phase 4" Motor			
7 1/2 HP Pump 60 GPM @ 400' TDH			
Splice			
ABB ACS 550 Series VFD			
(2) 2 1/2" Check Valves			
Transducer			
Misc. Plumbing			
All Other Parts And Labor To Complete			
Material	1	8,774.04	8,774.04T
As Per Bid			

SUBTOTAL 8,774.04
TAX (0%) 0.00
TOTAL 8,774.04

TOTAL DUE \$8,774.04

Thank You, From All Of Us At
Dan's Pump and Filter LLC.

Beneficial Use Field Exam

BasinSequence	Owner	Source	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE
63-10542	BELL, KRIS E; BELL	GROUND WATER															X	
63-10841	HENDERSON, ART	GROUND WATER																X
63-11666	FORNSTROM, RYA	GROUND WATER																X
63-15192	VAN HOOVER, ZEL	GROUND WATER																X
63-15783	FLACK, JUNE C; FL	GROUND WATER																
63-15829	BAILEY, MARY A	GROUND WATER																X
63-17523	TAYLOR, JERRY S;	GROUND WATER																X
63-18305	HOUSSEY, GEORGE	GROUND WATER														X		
63-18313	MC PHERSON, VIC	GROUND WATER																
63-18316	MC PHERSON, VIC	GROUND WATER																
63-20717	COMBE, DEAN F; C	GROUND WATER																X
63-2858A	VAN HOOVER, C L	GROUND WATER																X
63-2858B	TAYLOR, JERRY S;	GROUND WATER																X
63-2942	BAILEY, MARY A;	GROUND WATER																X
63-32189	SWEENEY, GLADYS	GROUND WATER																X
63-32190	FORNSTROM, RYA	GROUND WATER																X
63-3296	HOWE, THOMAS S	GROUND WATER																X
63-33859	FLACK, JUNE C; FL	GROUND WATER														X		
63-33860	FLACK INVESTMENT	GROUND WATER														X		
63-34112	HYDRO LOGIC INC	GROUND WATER																
63-34113	PINGREE, DANIEL	GROUND WATER																
63-4965	CARLOCK, ELMER	GROUND WATER																

= this right

= overlap

Beneficial Use Field Exam		Beneficial Use Field Exam																Total Acres	
Basin/Seq	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	Total Acres
63-10542	BELL, KRIS E; BELL, SUSAN M	GROUND WATER	DOMESTIC														X		
63-10841	HENDERSON, ARTHUR F	GROUND WATER	IRRIGATION																7
63-11413	CITY OF EAGLE; FLOATING FEATHER HILLS	GROUND WATER	MUNICIPAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-11666	FORNSTROM, RYAN; LILLQUIST, MARILYN	GROUND WATER	DOMESTIC																
63-11728	FLACK, WILLIAM M; TERRA VIEW LLC	GROUND WATER	IRRIGATION																
63-1206	ANDERSON, SCOTT W; DAVIS, THOMAS; F4	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	77
63-123C	FARMERS UNION DITCH CO LTD; JACOBS C	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-12448	CITY OF EAGLE; SEMANKO, NORMAN M	GROUND WATER	MUNICIPAL					X											
63-124Q	CHASE, RUSH; FARMERS UNION DITCH CO	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-125J	CHASE, RUSH; FARMERS UNION DITCH CO	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-126F	BOWERMAN, ALBERT C; FARMERS UNION	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-147B	BOISE VALLEY IRRIGATION DITCH CO; CARL	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-147D	BOISE VALLEY IRRIGATION DITCH CO; CARL	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-15192	VAN HOOVER, ZELLA V	GROUND WATER	DOMESTIC																
63-15783	FLACK, JUNE C; FLACK, WILLIAM M	GROUND WATER	DOMESTIC																
63-15783	FLACK, JUNE C; FLACK, WILLIAM M	GROUND WATER	STOCKWATER																
63-15829	BAILEY, MARY A	GROUND WATER	DOMESTIC																
63-15829	BAILEY, MARY A	GROUND WATER	STOCKWATER																
63-165M	BOISE CITY CANAL CO; FARMERS UNION D	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-17523	TAYLOR, JERRY S; TAYLOR, MARY L	GROUND WATER	DOMESTIC																
63-17617	TAYLOR, JERRY S; TAYLOR, MARY L	GROUND WATER	IRRIGATION																
63-18305	HOUSSE, GEORGE B	GROUND WATER	IRRIGATION	20															77
63-18313	MC PHERSON, VIOLET E; MC PHERSON, W	GROUND WATER	DOMESTIC																
63-18316	MC PHERSON, VIOLET E; MC PHERSON, W	GROUND WATER	DOMESTIC																
63-18316	MC PHERSON, VIOLET E; MC PHERSON, W	GROUND WATER	STOCKWATER																
63-198AG	FARMERS UNION DITCH CO LTD; KISER, JEFF	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-20717	COMBE, DEAN F; COMBE, JANET I	GROUND WATER	DOMESTIC																
63-20717	COMBE, DEAN F; COMBE, JANET I	GROUND WATER	STOCKWATER																
63-21729	FARMERS UNION DITCH CO LTD; KISER, JEFF	WASTE WATER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-2360	BOISE VALLEY IRRIGATION DITCH CO; CARL	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-248	FARMERS UNION DITCH CO LTD; KISER, JEFF	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-2858A	VAN HOOVER, C L; VAN HOOVER, ZELLA V	GROUND WATER	IRRIGATION																2
63-2858B	TAYLOR, JERRY S; TAYLOR, MARY L; VAN H	GROUND WATER	IRRIGATION																8
63-2942	BAILEY, MARY A; OXFORD, GEORGE C	GROUND WATER	DOMESTIC																
63-2942	BAILEY, MARY A; OXFORD, GEORGE C	GROUND WATER	IRRIGATION																
63-297	FARMERS UNION DITCH CO LTD; KISER, JEFF	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
63-3019	DIXON, HAZEL; DIXON, HENRY; GUDEROH	GROUND WATER	DOMESTIC																
63-31198	BOISE VALLEY IRRIGATION DITCH CO; CARL	BOISE RIVER	IRRIGATION																
63-31832	BOISE VALLEY IRRIGATION DITCH CO; RING	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-31833	BOISE VALLEY IRRIGATION DITCH CO; CARL	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63-32189	SWEENEY, GLADYS F; SWEENEY, HAROLD	GROUND WATER	IRRIGATION																8
63-32190	FORNSTROM, RYAN; LILLQUIST, MARILYN	GROUND WATER	IRRIGATION																4.5
63-3296	HOWE, THOMAS S; TAYLOR, JERRY S; TAYL	GROUND WATER	IRRIGATION																9
63-33859	FLACK, JUNE C; FLACK, WILLIAM M; MC PH	GROUND WATER	IRRIGATION																10
63-33860	FLACK INVESTMENTS LLC; FLACK, JUNE C;	GROUND WATER	IRRIGATION																11
63-34112	HYDRO LOGIC INC; M3 EAGLE LLC	GROUND WATER	DOMESTIC																
63-34112	HYDRO LOGIC INC; M3 EAGLE LLC	GROUND WATER	IRRIGATION																5.2
63-34113	PINGREE, DANIELLE; PINGREE, MICKY	GROUND WATER	DOMESTIC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4.3
63-34113	PINGREE, DANIELLE; PINGREE, MICKY	GROUND WATER	IRRIGATION																
63-4965	CARLOCK, ELMER O; CARLOCK, LUCRETIA E	GROUND WATER	STOCKWATER																

= this right
= overlap



Fig. 1 – 6" Well ID# 453983 at:

43°44'0"N

116°26'28"W

Pump:

HP – 7.5

60 gpm @ 400' TDH



Fig. 2 – Sprinkler hookups are scattered throughout yard for attaching sprinklers/hoses.



Fig. 3 – XCAD 1" Aquaburst brass impact sprinklers are along edge and down middle of pasture. Fed via 2" mainlines.



Fig. 4 – Motor control box info for system pump:

Model: M75432

Serial: 750C313

HP: 7.5

Volts: 230



Fig. 5 – Domestic water system. Water flows through filter into pressure tank to maintain water pressure for domestic uses.



Fig. 6 – Zurn sprinkler hookup specs for domestic yard irrigation:

Model: 375XLRP

PSIG: 175

MPa: 1.2



Fig. 7 – Looking NW,
domestic house in
background,
irrigation in
foreground.

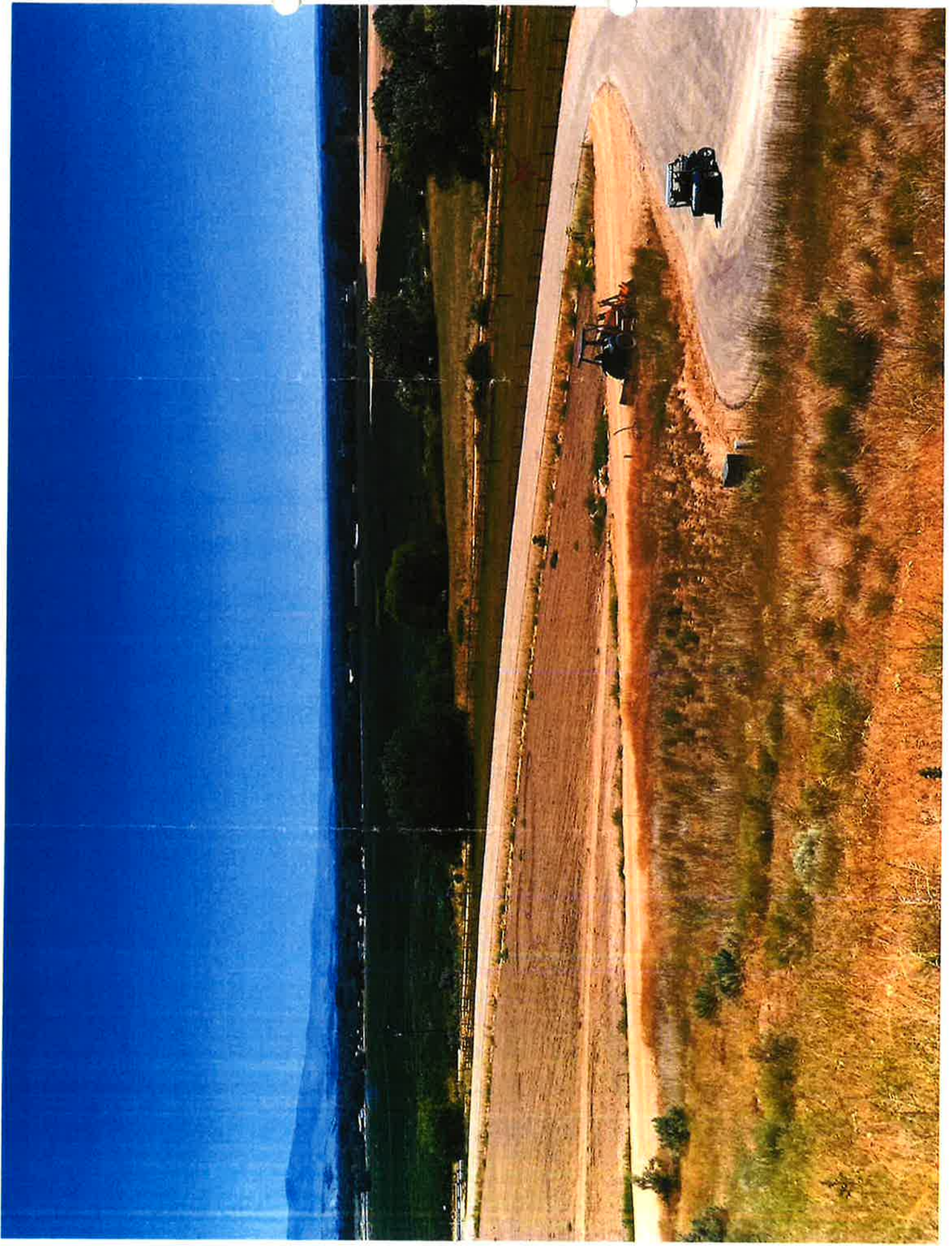


Fig. 8 – View from
SE corner of
property looking
NW. Irrigation
extends to SE
corner but doesn't
cross Farmers
Union Canal.



Fig. 9 – View looking west. Irrigation was not developed south of Farmers Union Canal.



















State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 W Airport Way • Boise ID 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348

Website: idwr.idaho.gov • Email: westerninfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

August 5, 2020

COPY

DANIELLE AND MICKY PINGREE
7015 W GOODALE TRAIL LN
EAGLE, ID 83616

RE: Scheduling Field Exam for Water Right Permit No. 63-34113

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **0.16 CFS of GROUND WATER for IRRIGATION AND DOMESTIC use**. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days at (208) 334-2190 or tyler.smith@idwr.idaho.gov to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Sincerely,

Tyler Smith
Water Resource Agent

Enclosures: Relinquishment of Permit form
Assignment of Permit form
Proof Report and Map