

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

**A. GENERAL INFORMATION**

Permit No: 63-33886

Exam Date: 10/01/2019

1. Current Owner:  
JERRY CRAFT 6792 STAGE COACH RD NAMPA ID 83686 AND  
PATRICIA CRAFT 6792 STAGE COACH NAMPA ID 83686
2. Accompanied by:  
Phone No:  
Address:  
Relationship to permit Holder:

3. **SOURCE:**  
GROUND WATER

**Method of Determination:** Visual inspection and well driller's reports.

**B. OVERLAP REVIEW**

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

Water Right No.	Source	Purpose of Use	Basis
63-33881	Ground Water	Domestic, Stockwater	Decreed

Comments: This property is within the borders of water rights held by Boise Board of Control, Bureau of Reclamation, Boise Kuna Irrigation District, and New York Irrigation District, but permit holder states that they have no shares in any of these organizations.

A total of 2.9 acres were identified as being irrigated on this property. The property owner also owns water right 63-33881 for domestic and stockwater use. This decreed water right allows for up to 0.5 acres of irrigation under its domestic use, and is used to irrigate landscaping around the home structure, as well as garden beds in the southwest corner of the property.

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-33881	Ground Water	Domestic, Stockwater	Decreed

Comments: Water for decreed water right number 63-33881 is diverted from the same well. Water right 63-33881 supplies up to 0.04 cfs of water for stockwater use, in-house use, and up to ½ acre of irrigation. This right is located on the same parcel of land. Water right 63-33881 belongs to the same owners, Jerry and Patricia Craft, per the property deed acquired with purchase of the land; however the water right is still listed with IDWR under previous land owners, Nathaniel and Deanna Davis. A Water Right Change of Ownership form was given to the land owners on the date of examination.

**C. DIVERSION AND DELIVERY SYSTEM**

1. **LOCATION OF POINT(S) OF DIVERSION:**  
GROUND WATER SW¼ SW¼, Sec. 1, Twp 01N, Rge 02W, B.M. CANYON County

Method of Determination: Visual inspection, GPS

**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	
01N	02W	1											2.4						2.4

Total Acres: 2.4

Method of Determination: Acres irrigated were determined by visual inspection upon examination, through GPS mapping, and use of county parcel data. Approximately 0.5 acres were found to be irrigated for landscaping and flower beds on the property; currently covered under decreed water right 63-33881. Another 2.3 acres were being irrigated for a pasture area, and approximately 0.1 were being irrigated for a small vineyard area.

### 3. GPS/ArcMap calculation

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

X 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

X 1:24,000 or greater.

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

X 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
A0019118	Franklin Electric	3.0 Hp	5870204150	same as motor	same as motor

Well tag placed on well at time of examination.

## D. FLOW MEASUREMENTS

### 1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Pressure gage						UNK

Pressurized sprinkler test. Flow measurements were done by using a Department issued pressure gage, measuring the pressure at each of the 9/64 nozzles at a pressure of exactly 42 psi for all nozzles.

### 2. Measurements:

## E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method:

Sprinkler Method= 0.068 CFS (rounded to 0.07CFS)

Acre Limit= 2.4 Acres X 0.03 CFS = 0.072 CFS (rounded to 0.07cfs)

Permit authorizes=0.07CFS

I am recommending that this permit be licensed for 0.07CFS

**F. VOLUME CALCULATIONS**

## 1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.4 \times 4.5 = 10.8 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.07 \text{ cfs} \times 260 \times 1.9835 = 36.1 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 10.8$$

## 2. Volume Calculations for Other Uses:

N/A

**G. NARRATIVE/REMARKS/COMMENTS**

This permit was assigned to the Jerry and Patricia Craft in 2017 by the original owners of the permit. A field exam was completed for this permit on October 1, 2019 by myself, Kala Golden, and accompanied by Water Right Analyst 3, Dan Nelson. Present for the exam were both listed owners, Jerry & Patricia Craft.

The water for this permit is diverted from ground water through a well located on the property. The well was not tagged as of the date of this exam; we placed a new tag on the well, tag no. A0019118. The submersible pump in the well diverts water to the home and the irrigation system. Pressure tanks in the home regulate the pressure of this system. The irrigation provided by this well consists of a buried mainline to the center of the 2.3 acre pasture, where a K-line system irrigates the pasture. There are 2 distribution points with valve connections located in the field which connect to a larger distribution hose. 4- Way splitters are then connected to the distribution hose, and divert through smaller hose line to each sprinkler. The pasture area is split into 3 sections; applicant rotates livestock and sprinklers throughout each section. The 0.5 acre yard and the 0.1 acre vineyard space are irrigated through a buried sprinkler system. The 0.5 acres of irrigation of the yard and flower beds in southwest corner of the property are covered under water right 63-33881.

Have conditions of permit approval been met?  X  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	0.07 CFS	10.8 AF
<u>Totals:</u>		0.07 CFS	10.8 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**      Kala Golden - Project Manager 1

Field Examiner's Name \_\_\_\_\_ Date \_\_\_\_\_  
Reviewer David A. Meln Date 8-13-20

Field exam map and system diagram.

The submersible pump in the well diverts water to the home and the irrigation system. Pressure tanks in the home regulate the pressure of this system. The irrigation provided by this well consists of a buried mainline to the center of the 2.3 acre pasture, where a K-line system irrigates the pasture. There are 2 distribution points with valve connections located in the field which connect to a larger distribution hose. 4- Way splitters are then connected to the distribution hose, and divert through smaller hose line to each sprinkler. The pasture area is split into 3 sections; applicant rotates livestock and sprinklers throughout each section. The 0.5 acre yard and the 0.1 acre vineyard space are irrigated through a buried sprinkler system. The 0.5 acres of irrigation of the yard and flower beds in southwest corner of the property are covered under water right 63-33881.



# Sprinkler Nozzle Flow Rate Calculator

[READ ME](#)

## Step 1 - Specify 1st Nozzle Type Configuration

Select Sprinkler Coefficient, C

☐ User Defined ☒ Theoretical Maximum

Input Nozzle Pressure:

42

psi

Input Nozzle Diameter:

0.1406

in

Input Number of Type 1 Sprinkler Nozzles:

8

## Step 2 - Specify 2nd Nozzle Type Configuration

Select Sprinkler Coefficient, C

☐ User Defined ☒ Theoretical Maximum

Input Nozzle Pressure:

psi

Input Nozzle Diameter:

in

Input Number of Type 2 Sprinkler Nozzles:

## Step 3 - Specify 3rd Nozzle Type Configuration

Select Sprinkler Coefficient, C

☐ User Defined ☒ Theoretical Maximum

Input Nozzle Pressure:

psi

Input Nozzle Diameter:

in

Input Number of Type 3 Sprinkler Nozzles:

## Flow Rate Summary

Type 1 Nozzle(s): 0.068

Type 2 Nozzle(s): 0.000

Type 3 Nozzle(s): 0.000

**Combined: 0.068**

cfs

PHOTOGRAPHER AND DATE OF PHOTOS: KALA GOLDEN 09/30/2019

FILE NUMBER 63-33886



The above photos show the Point of Diversion; Well No. A0019118 and the motor pressure control information tag located inside the pump's control box.



The above photos show the pump's pressure gauge, located adjacent to the home's precharge (red) tank.



PHOTOGRAPHER AND DATE OF PHOTOS: KALA GOLDEN 09/30/2019

FILE NUMBER 63-33886



The above photos show the spigot at the first distribution point located closest to the well, and the irrigation hose which connects to the 4-way splitters.



The photos about show the individual sprinklers irrigating 2.3 acre pasture area. Each sprinkler head was measured to be exactly 42psi.



The above photo shows the 4-way splitter connected to the irrigation hose at the first diversion point. Each smaller red hoseline connects to an individual sprinkler.