

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-11336

Exam Date: 12/1/2011

1. Current Owner: MARTELL FARMS INC
C/O CAROLYN MARTELL
16479 MALT RD
CALDWELL ID 83605
(208)459-7017
2. Accompanied by: Carolyn Martell
Phone No:
Address:
Relationship to Permit Holder: Owner

3. SOURCETRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Canal water
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER	NW1/4SE1/4	Sec. 12,	Twp 03N,	Rge 04W, B.M.
CANYON County				
GROUND WATER	NW1/4SE1/4	Sec. 12,	Twp 03N,	Rge 04W, B.M.
CANYON County				

Method of Determination: Field examination and Arcmap. One POD GPSed.

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N 04W 12													34.0	37.0			71.0

Total Acres: 71

Method of Determination: Field examination and ArcMap

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</u> <u>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</u> <u>Size</u>
South Well	Tractor not identified			60 HP rating at 1760 RPM	
	In original exam			Johnson Gear Co	Ser 169360 8 in discharge
North Well	no Motor			No pump installed (a backup well)	

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
--	-------------	-------------	------------------	-------------------	-------------	--------------------

Theoretical calculation by Scott King

2. Measurements:

Calculation by Scott King based upon pump curve and rpm analysis. See Lori Graves' memo to file dated 7-22-2004.

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

Rate calculated to be 1.56 cfs.

Permit rate = 3.20 cfs

Proof of Beneficial use fee (\$125.00) 2.00 cfs max

Found 71 ac @ 0.02 cfs = **1.42 cfs Recommended rate****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 71 \text{ ac} \times 4.5 \text{ af} = 319.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.42 \text{ cfs} \times 246 \times 1.98 = 590.4 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 319.5 \text{ afa}$$

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

The system is two wells for the supplemental irrigation of 71 acres in the N $\frac{1}{2}$ SE $\frac{1}{4}$ of Sec 12, 3N, 4W. Irrigation was developed with the south well supplying the necessary water for irrigation and the north well developed for backup purposes. The north well was found to be just within Sec 12 NWSE rather than the permitted location of Sec 12 SWSWNE. The south well is designed to be powered by a diesel engine connected to the well with open discharge into the farm ditch system. The field is furrow irrigated. Scott King (IDWR employee at the time) analyzed the delivery system and found that the system capacity was 1.56 cfs. The second well did not have an installed pump but is recognized as a backup location in case of failure of the primary well.

The permit was filed for 80 acres in Sec 12 N $\frac{1}{2}$ SE $\frac{1}{4}$ (recognized for 71 acres) and 80 acres in Sec 12 W $\frac{1}{2}$ NE $\frac{1}{4}$ which is now owned by another party and now is not a part of the permit POU.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	1.420 CFS	319.50 AF
<u>Totals:</u>		1.420 CFS	319.50 AF

2. Recommended Amendments

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

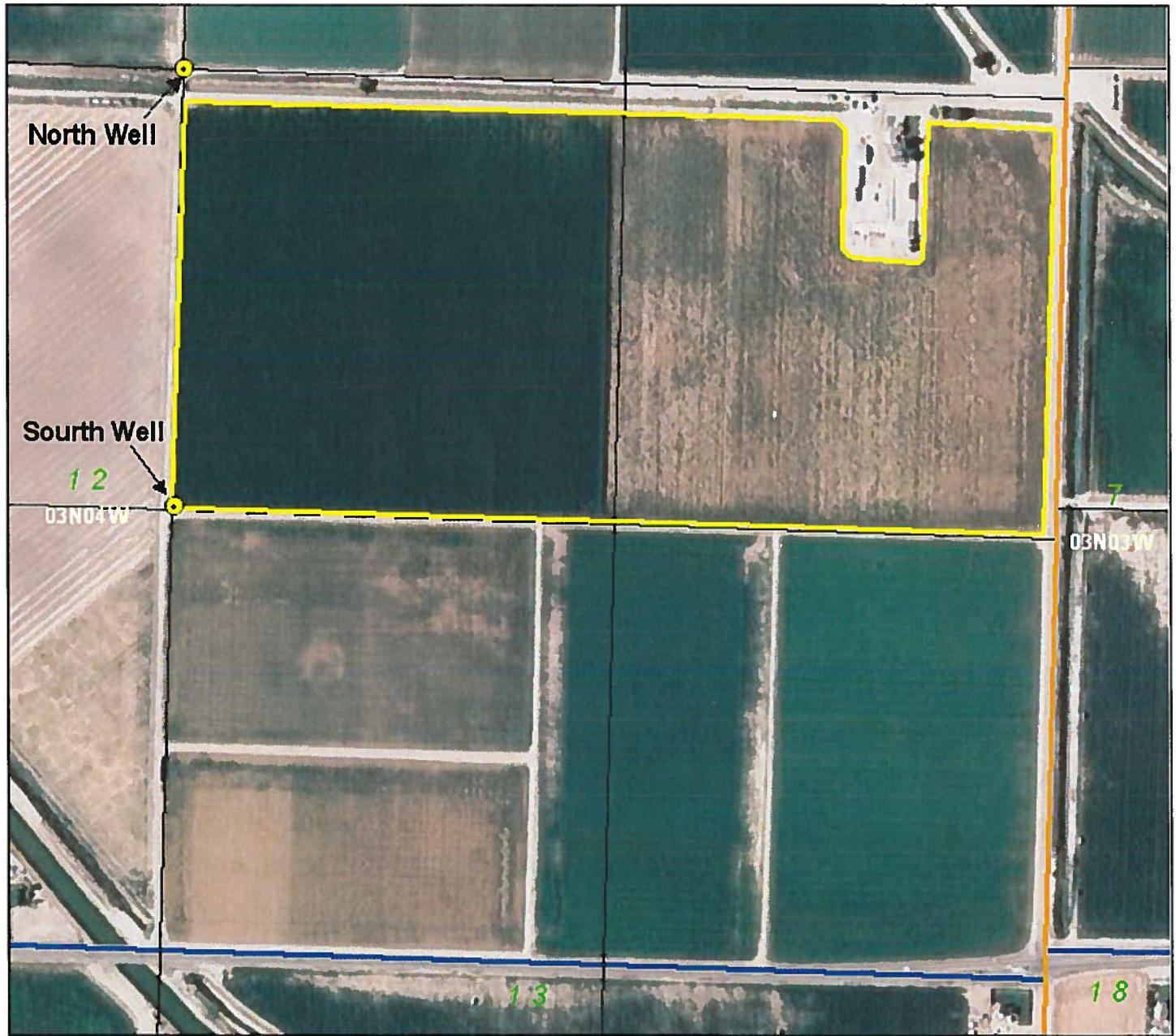
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Kelly K. Christensen Date 12-7-2011

Reviewer _____ Date _____

63-11336 FIELD EXAMINATION



0 330 660 1,320 1,980 Feet

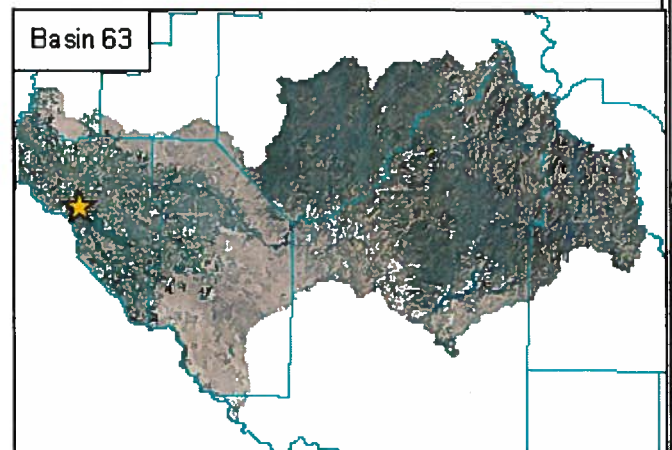
★ LOCATION IN BASIN

PLACE OF USE
TWP 03N, RNG 04W Sec 12
Data Entry on December 7, 2011



- Found point of diversion
- Found place of use
- Township lines
- Section lines
- Quarter/quarter lines

GIS PLACE OF USE PRESENTATION
2011 AERIAL PHOTOGRAPHY
BY KELLY K CHRISTENSEN



Permit # 63-11336 Martell Farms Photo set 1

Exam date 12-1-2011

Agent KKC

Twp Rng Sec QQ
3N 04W 12 SWNWSE

You are looking north on the left to northeast on the right. This photo shows the well located in the southwest corner of the POU. Canal water is delivered through the cement structure shown in the center foreground and the canal water is delivered into the farm ditch shown to the right of that structure. The well pump discharges into the farm ditch through an 8" pipe approximately 5 ft long. The only measurement method would be to do a timed volume measurement by blocking off a reach of the cement ditch and timing the fill for that reach.

Second Well

Canal water distribution

Well

Farm ditch running west to east



Photo 3

You are looking southeast in this photo at the Second well as identified in photo set 1. This well is considered a backup well for the other well and no pump is installed. If there would be a problem with the first well then this well could be brought into service. The well casing is inside the barrel shown. The ragged metal top is just the barrel not the casing. The casing is ≈ 18" above ground level and is in good Shape.

Well location

3N 04W 12 NWNWSE

Photo 4

This photo location is just east of Photo 3 and includes the well although the well is not visible because of the weeds. Electrical power is available from the power pole shown on the left. The dirt road in the foreground is the same road shown in set 1. The Weed strip of ground is within the 40-acre tract but is not irrigated. There is a large canal just to the right of the weeds isolating this strip from the main farm ground. You are looking east south east in this photo.

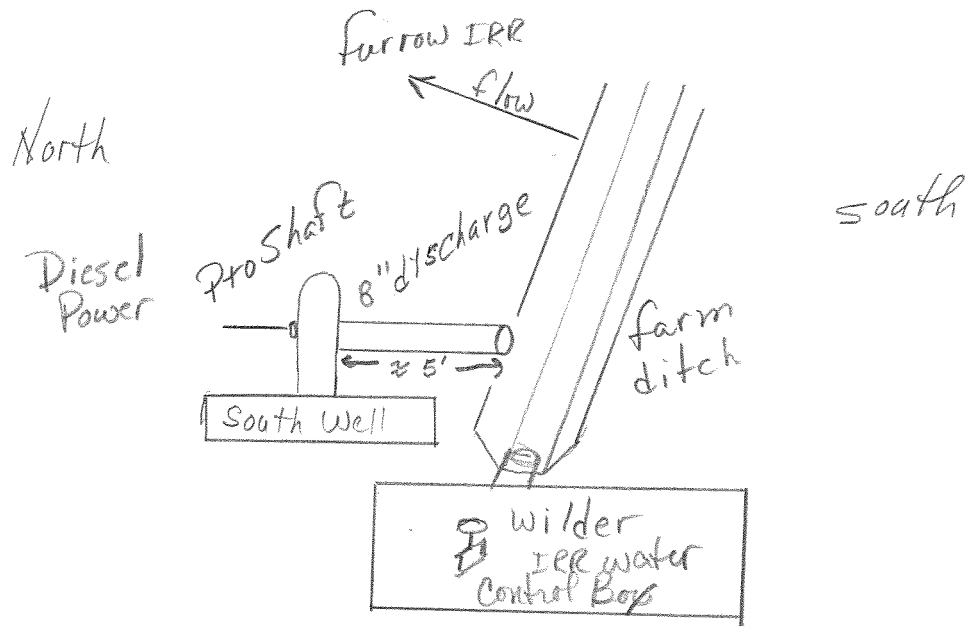
Northwest corner of property

Approximate

Survey marker well location



12-1-2011



North well located in the
North West Corner of P/U.
No delivery system installed but
available for backup purposes.

Kelly K. Christensen

Permit # 63-11336

Exam date 12-1-2011

Agent KKC

Field acreage $\approx$ 71 acres

Google Maps 2011??

Twp Rng Sec QQ

3N 04W 12 N $\frac{1}{2}$ SE $\frac{1}{4}$

North
POD.
Pis



Farm Rd.

Malt Rd

South POD

POD

$\frac{1}{4}$ mile North of Karcher Rd.

take exit 33A to Karcher Rd $7\frac{1}{2}$ miles to Malt Rd.

Johnson Gear Co. 2277056 1B, 2 $\frac{1}{2}$

Ser 169360 1302141

HP 60

2277071

RPM 1760

1382537

want domestic right
for farmstead

$\frac{1}{4}$ mi
to Karcher
Rd





Greg L. Skinner, PLS
Michael Byrns, PLS
Rodney Kahle-Clark, PE

**Boundary Description
of the N 1/2 SE 1/4 S. 12, T. 3 N., R. 4 W., B.M.
for Martell Farms
Job No. SE2905**

The north half of the southeast quarter of Section 12, Township 3 North, Range 4 West, Boise Meridian, Canyon County, Idaho, being more particularly described as follows:

Commencing at the east quarter-section corner of Section 12, Township 3 North, Range 4 West, Boise Meridian, the POINT OF BEGINNING:

Thence S00°07'23"E, 1327.55 feet along the east line of the north half of the southeast quarter to the southeast corner of the north half of the southeast quarter;

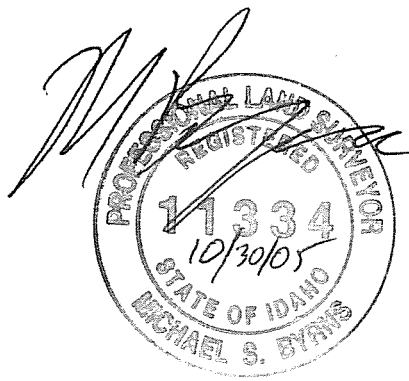
Thence S89°47'43"W, 2661.91 feet along the south line of the north half of the southeast quarter to the southwest corner of the north half of the southeast quarter;

Thence N00°00'40"E, 1329.08 feet along the west line of the north half of the southeast quarter to the northwest corner of the north half of the southeast quarter;

Thence N89°49'41"E, 2658.80 feet along the north line of the north half of the southeast quarter to the POINT OF BEGINNING.

The above-described parcel contains 81.12 acres, more or less.

Subject to any easements or rights-of-way of record or apparent.



FIELD EXAM CONVERSATION MEMO

PERMIT # 63-11336 STAFF KKC DATE _____

OWNER OR REP PHONE #?

Martell Farms

Po Box 210

Houston dld 836302

} tap lot info

(Proof)

Carolyn Martell

16479 Matt Rd

Caldwell dld 83605

208-459-7017

last communication

Dec 9, 2004 letter fm

Carolyn Martell to Lori Graves

208-459-7017

APPOINTMENT DATE/TIME/PLACE

Nov Dec 1, 2011 10:am. Give Carolyn a call before going out.

SYSTEM INFO

Surface Water Ditch System.

Measurement device type _____

Application method _____

Delivery system specifications _____

Surface Water Pump System.

Approx HP _____

Pump Curve available _____

Delivery system specifications _____

Ground Water System

Static/Dynamic pumping level _____

Approx HP _____

Approx Operating PSI _____

Measurement device type _____

Pump Curve available yes shows 700 GPM

Per analysis by Scott King 1.56 cfs

Application method _____

approx type/number sprinklers used _____

Delivery system specifications _____

$$\frac{(\text{ }) \text{ Hp} * 8.8 * 0.7}{(\text{ }) \text{ PSI} * 2.31} + \text{ft} = 1.56 \text{ cfs}$$

Permit Rate 3.20 cfs

Proof Pd (\$ 125⁰⁰) max 2.00 cfs

Found POU acres 71 * 0.02 cfs/ac = 1.42 cfs

71 Ac * 4.5 = 319.5 AFD * Recom

1.42 * 246 * 1.98 = 590.4 AFD