

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-31133

Exam Date: 9/20/2007

1. Current Owner: ARENA VALLEY VINEYARDS LLC
9304 BURNETT DR
BOISE ID 83709
(208)362-8811

2. Accompanied by: Scott Deseelhorst
Relationship to Permit Holder: Owner

3. SOURCE
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Permit holder owns 67.45 Arena Canal shares. There are no overlapping private water rights. He intends on using this as a supplemental water right to the canal shares with the exception of 6.5 acres where he will be primarily using the well water. Groundwater will be primary in a portion of the NENE of Section 1 and a portion of the SESE of Section 36.

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 SE1/4SE1/4 Sec. 36, Twp 05N, Rge 06W, B.M. CANYON County

GROUND WATER SE1/4SE1/4 Sec. 36, Twp 05N, Rge 06W, B.M. CANYON County

Method of Determination: Site Visit/Imagery

2.

PLACE OF USE: IRRIGATION AND COMMERCIAL

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
04N 06W 1	11.0 L 1	16.0 L 2			10.0 L 3		11.0	3.7	22.0								73.7
04N 06W 2													.2				.2
05N 06W 36															1.0		1.0

Total Acres: 74.9

Method of Determination: Site visit/Imagery

3. ☒ 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 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 Size</u>
18920 (well #2)				Berkeley 6T200	

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Polysonic	Tyme-Flyte			150232		4/2007
Bucket/stop watch						

2. Measurements: First well located near the house (well #1), which has been used historically as a domestic well but has been used for the winery since the current owner took over ~7 years ago was measured with a 5 gallon bucket/stop watch method.

Results in Seconds: 18, 25, 20, 21, 24 for an average of 21.6 seconds

For the well located to the NE of the commercial building (well #2) the polysonic was used. An average of 247.7 gpm measurement was obtained.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached
(Polysonic read-out)

Measured Method:

Well #1-Bucket/stop watch: 21.6 seconds to fill a 5 gallon bucket average = $\frac{5 \text{ gallons}}{21.6 \text{ sec}} \times 60 \text{ sec} = 13.8 \text{ gpm}/448.8 = 0.03 \text{ cfs}$

Well #2-Polysonic measured an average of 247.7gpm/448.8gpm=0.55 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 74.9 \times 4.5 = 337 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.55 \text{ cfs} \times 260 \times 1.9835 = 283.64 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 283.6 \text{ af}$$

2. Volume Calculations for Other Uses: For commercial use volume is based on the year round use for cleaning of equipment and other uses associated with a winery. The commercial component includes a manufactured home used as an office and the distillery facility. The beneficial use of water includes cleaning/rinsing of wine making equipment, any culinary use in the office and to supplement well #2 for irrigation of the vineyards. Volume calculation:

Instantaneous demand=full capacity of well ~14 gpm

14 gpm x 40 hrs/week x 60 = 33,600 gallons per week

33,600 gallons/week x 52 weeks=1,747,200 gallons per year/325,982= 5.0 afa

G. NARRATIVE/REMARKS/COMMENTS

POD

The applicant submitted an amendment changing the ~~place of use~~ on the permit from Lot 3 Section 1, 4N, 6W (NENW) to Section 36 5N 6W SESE (this will make two different wells in the same QQ). At the field exam I verified the extent of use on the well to be added and the applicant indicated it was historically just a domestic well but since he took over the management of the winery several years ago he has used it for commercial use, so even though the amendment was received after proof of beneficial use was filed, it is acceptable to make the change since it occurred during the development period. The vineyard is irrigated using ¾ inch drip lines. The total capacity from both wells total 0.58 cfs.

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>
COMMERCIAL	01/01 to 12/31	0.03 CFS	5 af (288.6)
IRRIGATION	03/01 to 11/15	0.55 CFS	283.6 af (288.6)
<u>Totals:</u>		0.58 CFS	288.6 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 Cherie Padilla Date _____

Reviewer Cherie Padilla Date _____

Measurement acquired at well #2

10:40+ 2.526E 2GPM 00R
+ 7.395E 0FPS 00R
+00000 *10 G 00R
-00000 *10 G 00R

10:41+ 2.494E 2GPM 00R
+ 7.303E 0FPS 00R
+00024 *10 G 00R
-00000 *10 G 00R

10:42+ 2.442E 2GPM 00R
+ 7.148E 0FPS 00R
+00049 *10 G 00R
-00000 *10 G 00R

10:43+ 2.496E 2GPM 00R
+ 7.309E 0FPS 00R
+00073 *10 G 00H
-00000 *10 G 00H

10:44+ 2.511E 2GPM 00R
+ 7.352E 0FPS 00R
+00098 *10 G 00R
-00000 *10 G 00R

10:45+ 2.478E 2GPM 00R
+ 7.257E 0FPS 00H
+00123 *10 G 00H
-00000 *10 G 00H

10:46+ 2.446E 2GPM 00R
+ 7.162E 0FPS 00R
+00147 *10 G 00R
-00000 *10 G 00R

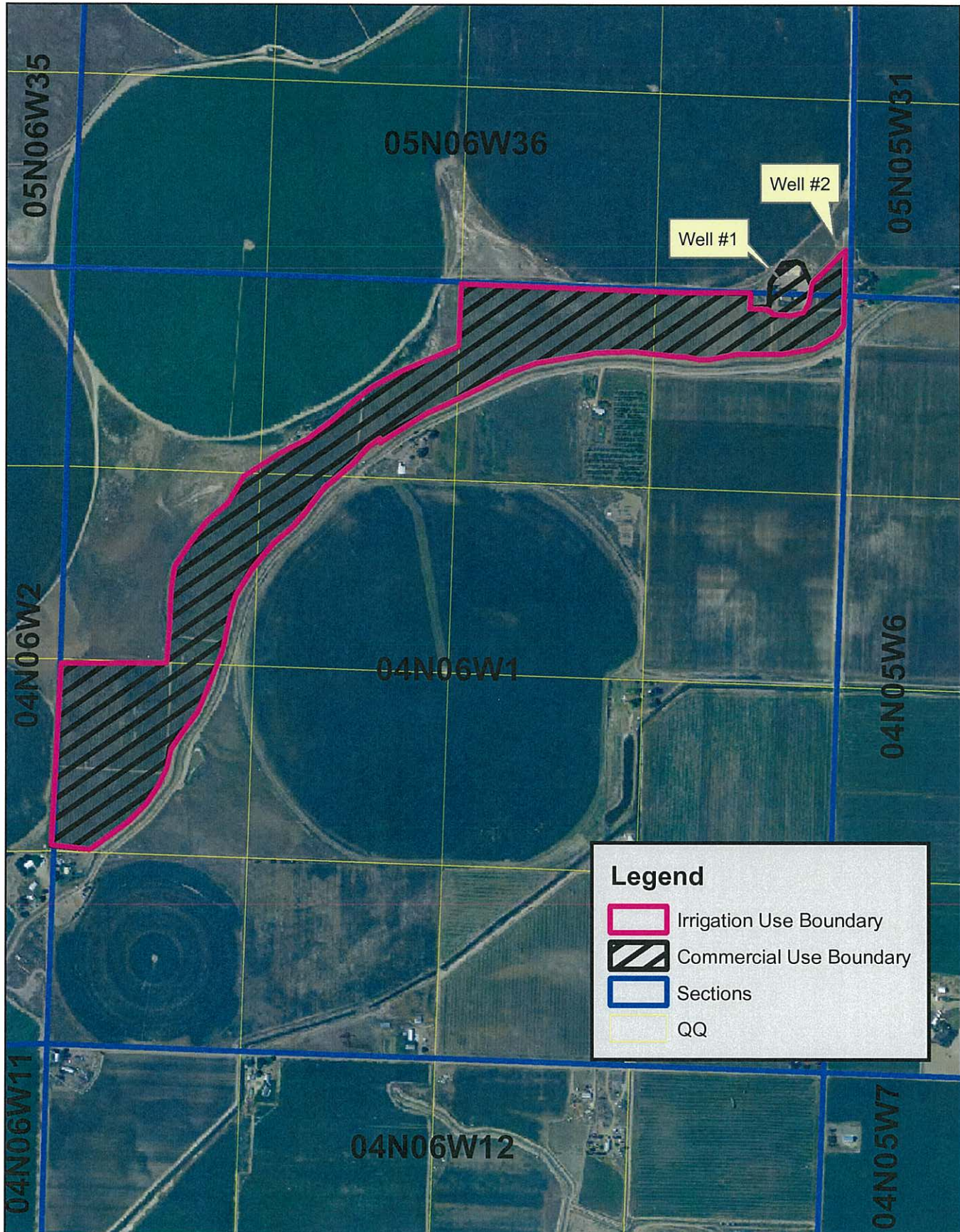
10:47+ 2.502E 2GPM 00R
+ 7.326E 0FPS 00R
+00172 *10 G 00R
-00000 *10 G 00R

10:48+ 2.490E 2GPM 00R
+ 7.290E 0FPS 00R
+00196 *10 G 00R
-00000 *10 G 00R

10:49+ 2.397E 2GPM 00R
+ 7.017E 0FPS 00R
+00221 *10 G 00R
-00000 *10 G 00R

10:50+ 2.465E 2GPM 00R
+ 7.217E 0FPS 00R
+00245 *10 G 00R
-00000 *10 G 00R

63-31133 - Place of Use and Point of Diversion Location

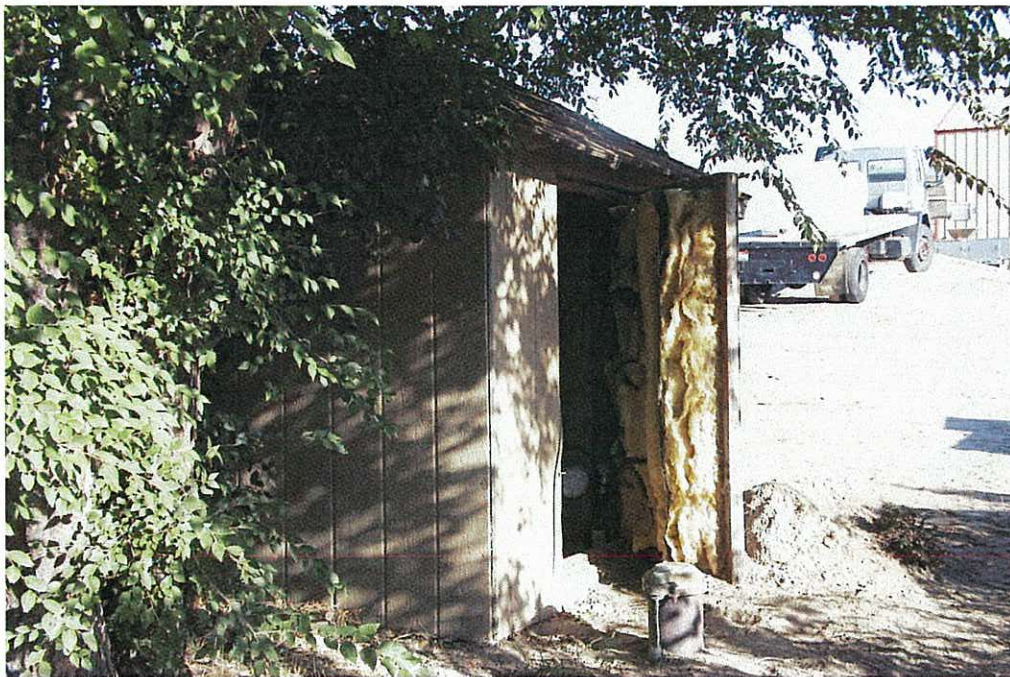


0 0.15 0.3 0.6 Miles

N



300 gallon holding tank for well #1

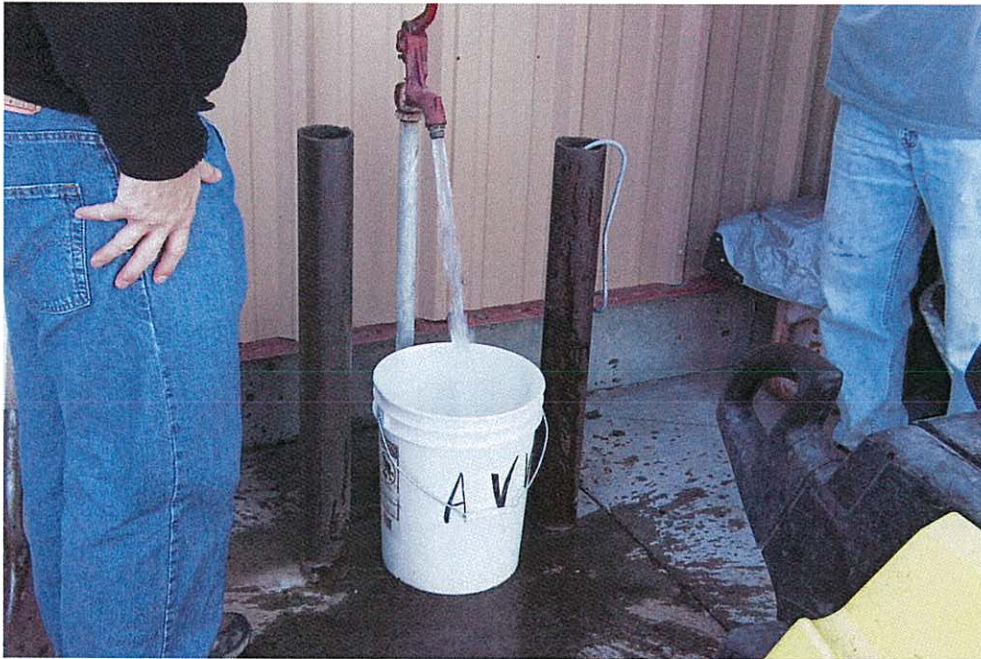


Submerged well and shed that houses diversion works



Part of diversion works





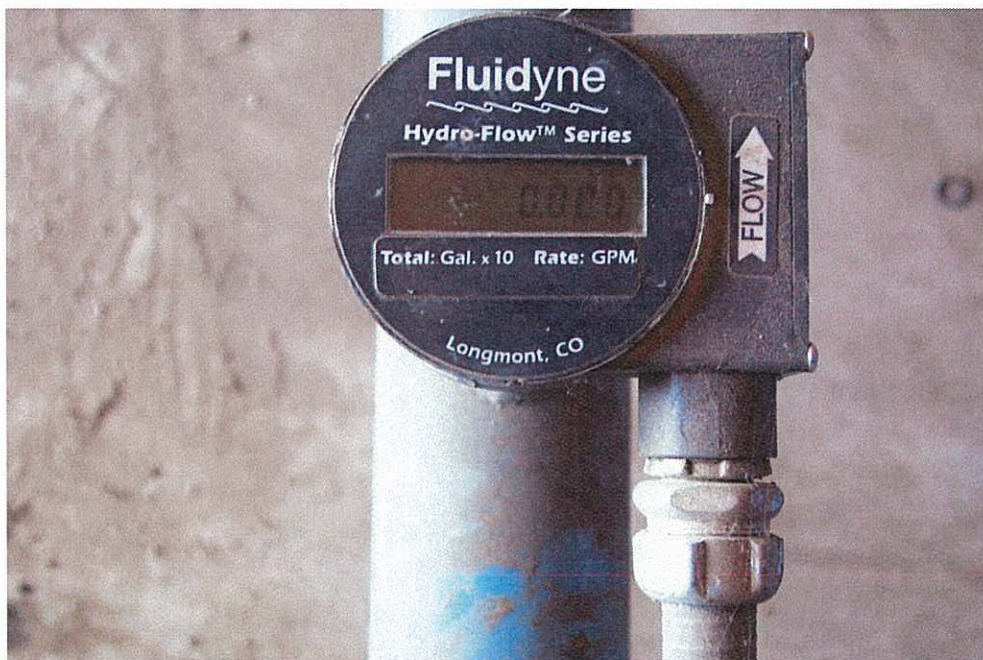
Measurement for well #1 taken by bucket/stopwatch method



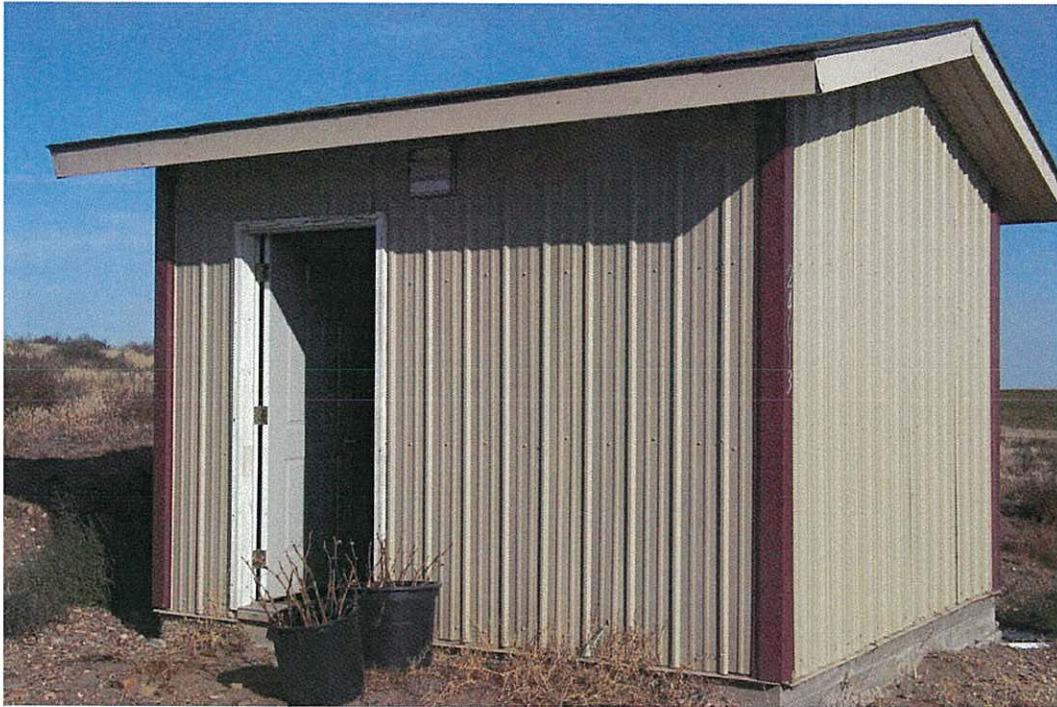
Control panel for well #2 located near the base of driveway



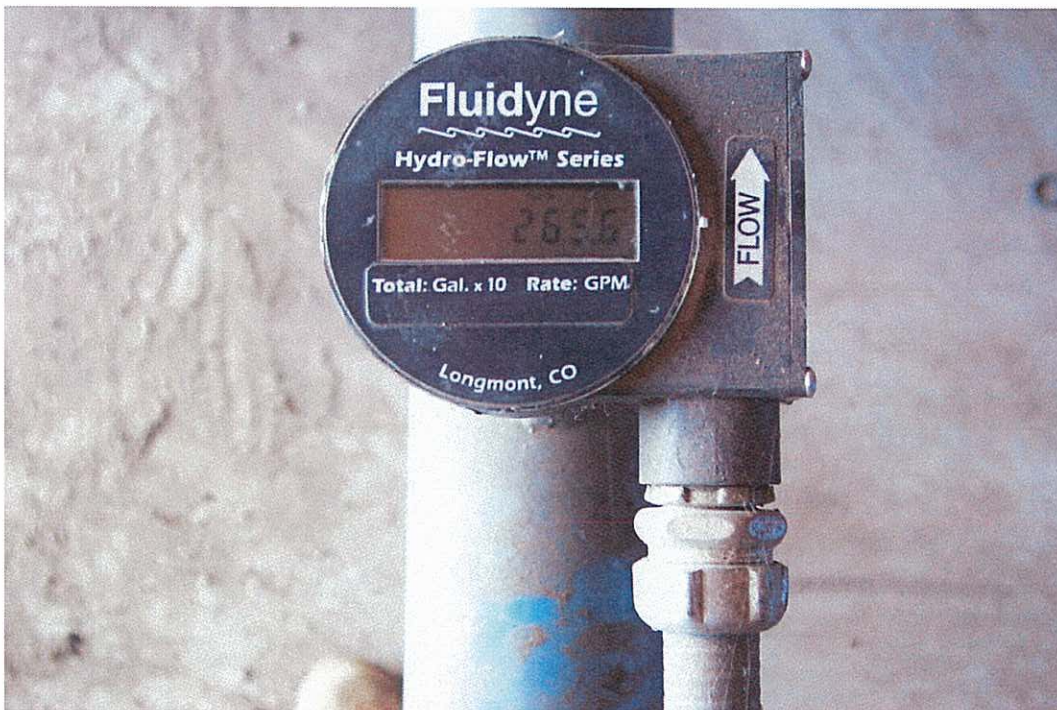
2x250 gallon holding tanks as part of well #2 diversion works



Readout on diversion works for well #2 before pump was turned on



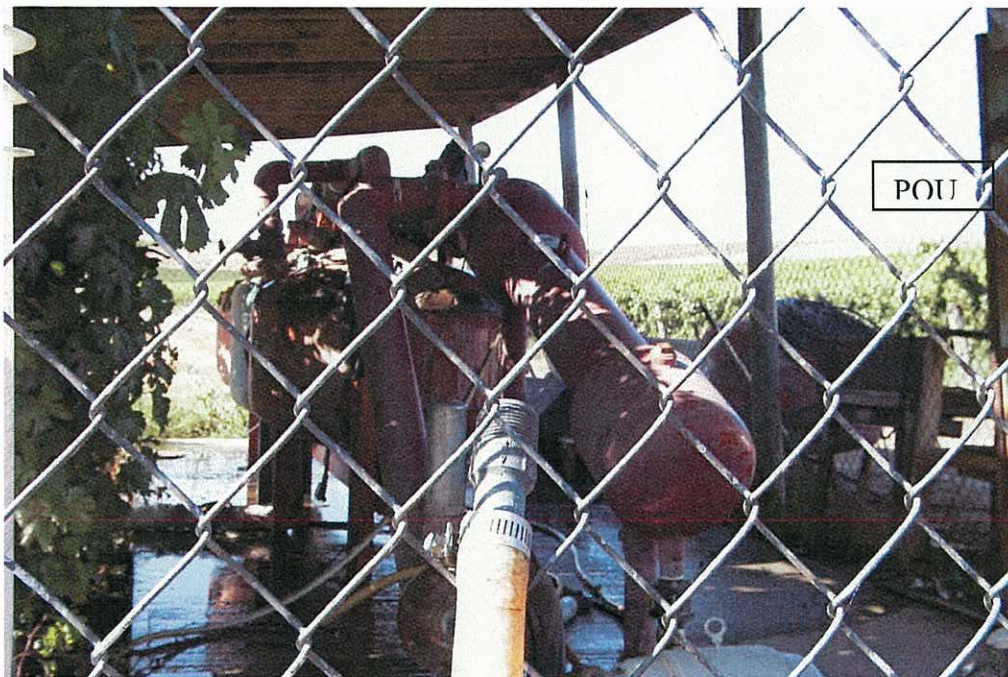
Shed that houses diversion works for well #2



Readout for well #2 once pumped was turned on



Drip line sprinkle system in vineyard



Diversion works for canal company shares. POU in background for permit 63-31133.