

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 85-15526

Exam Date: 9/5/2012

1. Current Owner: GRANGEVILLE GUN CLUB INC
PO BOX 14
GRANGEVILLE ID 83530
(208)983-2281

2. Accompanied by: No one, Monty used to be on the board at the gun club and had some information regarding the system.

3. SOURCE

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NONE
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 NE1/4NE1/4 Sec. 17, Twp 30N, Rge 03E, B.M. IDAHO County

Method of Determination: GPS

2.

PLACE OF USE: IRRIGATION AND DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30N	03E	17	1.8																1.8

Total Acres: 1.8

Method of Determination: Field visit

3. ☐ NA 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 Size</u>
A0017571		1.5	—No information available		

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>
Measured the pressure at a hydrant at the well using a pressure gage.						

2. Measurements: The well is pumping against 38 psi per my measurement at the hydrant.

E. FLOW CALCULATIONS

Measured Method: No physical measurement is required for a domestic use with 1.8 acres of irrigation. Given the horsepower equation, the permitted rate of 0.03 cfs has been confirmed.

Horsepower: 1.5

psi: 38

total lift: 310' according to the well driller's report

$8.8 \times 1.5 \times 0.7 / 310 + (2.31 \times 38) = 9.24 / 397.8$ or 0.023 cfs (can be rounded to 0.03 cfs since the theoretical measurement is so close to the permitted rate)

Secondary theoretical system capacity: pipe flows when properly designed at 5fps

pipe = 1.25"

$r = (1.25/12)/2 = 0.052$

$Q = 5 (3.1416) r^2 = 5 (3.1416) \times 0.052^2 = \underline{0.04}$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.8 \text{ acres} \times 3 = 5.4 \text{ afa}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.9835 \times 0.03 \times 214 = 12.7 \text{ afa}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 5.4 \text{ afa}$

2. Volume Calculations for Other Uses: Domestic use is limited to 2500 gpd.

G. NARRATIVE/REMARKS/COMMENTS

The gun club is an incorporated, non-profit organization that is owned by its members. The agents of the gun club can be changed each year as they are elected members. The gun club irrigates nearly 2 acres using an underground irrigation system. There are four control boxes that are located in the lawn. A mainline of 1-1/4" extends to each in-ground control box where various 1" lines extend to the lawn. There are 4 pop-up rainbirds per zone according to Monty Ewing but I was not able to confirm the number of sprinklers per zone.

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>
DOMESTIC	01/01 to 12/31	0.030 CFS	NA
IRRIGATION	04/01 to 10/31	0.030 CFS	5.4
<u>Totals:</u>		0.030 CFS	NA

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 Palmer

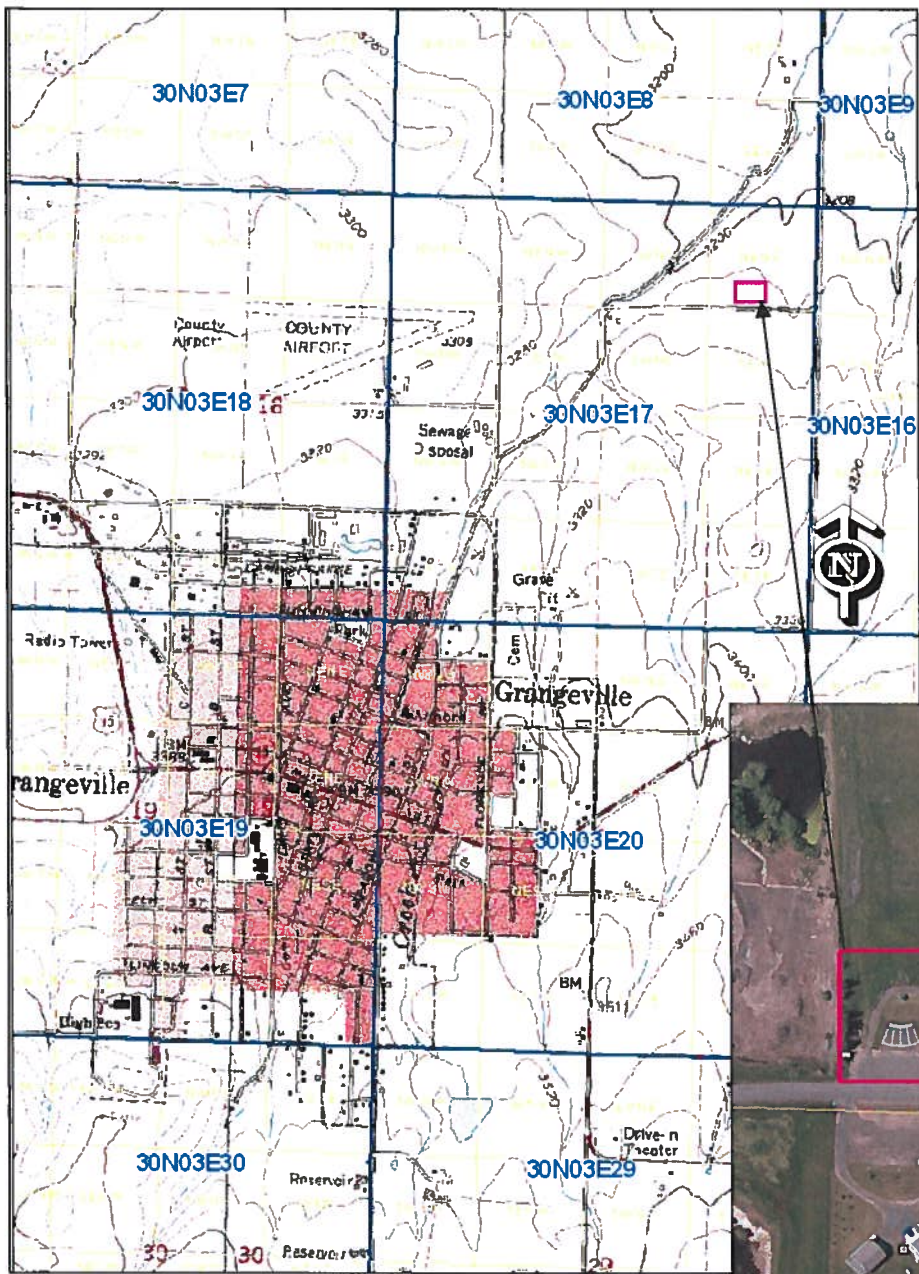
Date

9/25/2012

Reviewer

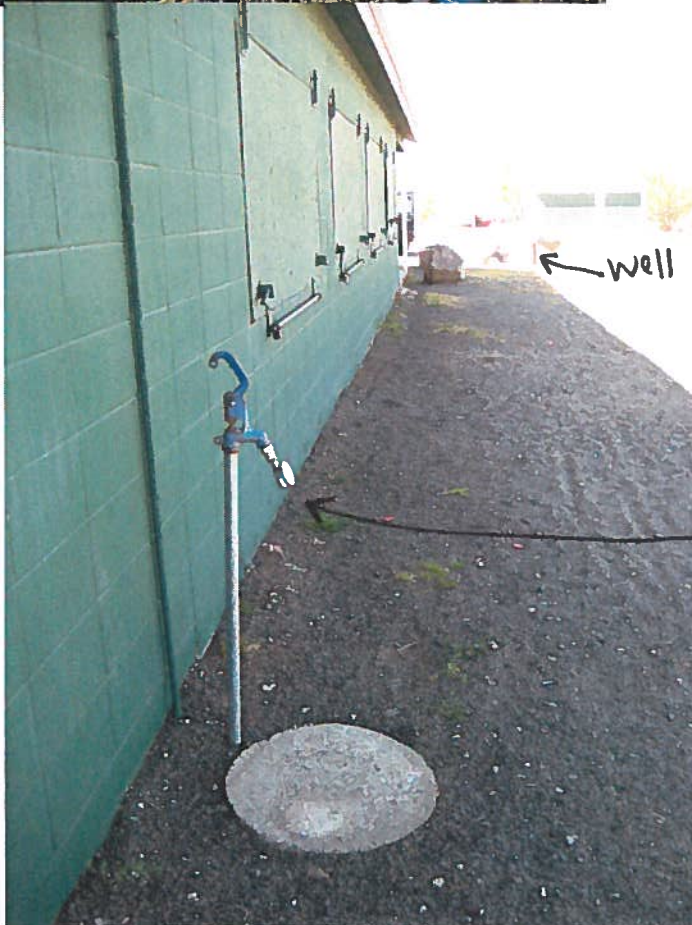
Date

Attachment #1 - Well Driller's Report





Well A0017571





38 psi



Standing at the well facing the eastern direction.



Looking at POV
facing NE direction



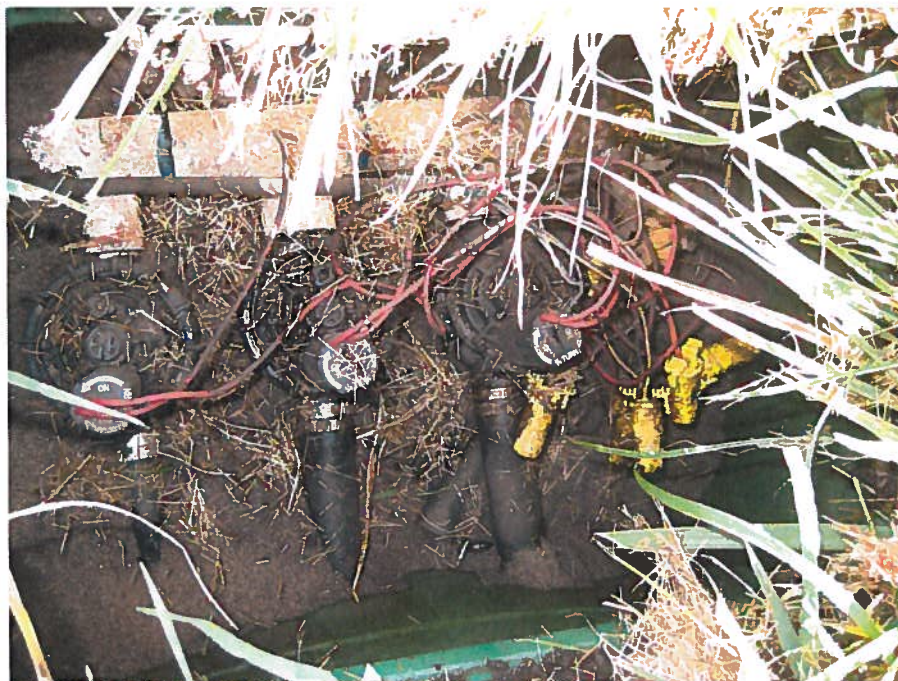
Looking at POV
facing North



facing NW direction



one set of
Sprinkler boxes
in lawn



Look inside two
of the Sprinkler
boxes

