

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 72-16698

Exam Date: 9/12/2011

1. Current Owner: PERCY F APGAR
2477 LIME CREEK
HWY 93 S
CHALLIS ID 83226
(208)310-0931
2. Accompanied by: Percy Apgar (permit holder) and Benny Walker (IDWR)
Phone No:
Address:
Relationship to Permit Holder:

3. SOURCE TRIBUTARY
LIME CREEK WARM SPRING CREEK

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:**

LIME CREEK L4 NW1/4NW1/4NW1/4 Sec. 1, Twp 12N, Rge 20E, B.M.
CUSTER County

Method of Determination: Aerial Photography (just downstream of permit holder's bridge crossing Lime Creek)

2.

PLACE OF USE: 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	
12N	20E	1						X											
								L 4											

Method of Determination: Aerial Photography

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 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>
_____	Honda	_____	GC01-4624-669	Honda	Model GX120 pump # WH15X

*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>
_____	_____	_____	_____	_____	_____	_____

2. Measurements:

Two measurements were taken with a 5 gallon bucket and stopwatch. The average flow rate was 10 gpm or 0.02 cfs.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

Measurement # 1

5 gallon bucket filled in 30.63 seconds

Measurement # 2

5 gallon bucket filled in 29.19 seconds

Average time to fill bucket = $(30.63 + 29.19) \div 2 = 29.91$ seconds $(5 \text{ gallons} / 29.91 \text{ seconds}) \times (60 \text{ seconds/minute}) = 10 \text{ gallons per minute}$ $10 \text{ gallons per minute} \times (1 \text{ cfs} / 448.83 \text{ gpm}) = 0.022 \text{ cfs}$ **F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation: N/A

 $V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$ $V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$ $V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$

2. Volume Calculations for Other Uses:

One house with irrigation (trees and garden area) = 1.2 afa per IDWR domestic volume standard for house with yard

G. NARRATIVE/REMARKS/COMMENTS

Permit 72-16698 was issued on June 15, 2006 for the diversion of up to 0.04 cfs from Lime Creek for domestic use associated with one home. Proof of Beneficial Use was filed on May 10, 2007. On September 12, 2011, Benny Walker and I conducted the licensing exam for 72-16698 accompanied by Percy Apgar, the permit holder.

The diversion system consisted of a Honda motor and pump placed in Lime Creek. The motor and pump diverted water from Lime Creek up a small grade on the east side of Lime Creek via a 1.5 inch diameter plastic pipe from the pump. Several valves were located along this line that could be opened to provide water to 1/2 inch diameter plastic drip lines that watered various trees, shrubs, and grass on the property. Mr. Apgar indicated that he had approximately 125 trees planted on his property that were watered from the system along with several current bushes. The 1.5 inch diameter pipeline also provided water to a barrel approximately 50 gallons in size that provided culinary water to the house constructed on the property. Water was filtered from this barrel before entering the house so that it could be used for cooking, cleaning, and drinking purposes. Mr. Apgar mentioned that during the wintertime, he packs water from the creek to the barrel via a bucket. The 1.5 inch diameter pipeline also provided water to a garden area (approximately 100 ft x 80 ft) located east, and slightly north, of the house. The garden area was watered via a sprinkler system and various drip lines.

During the exam, Mr. Apgar started up his pump, and a valve was opened along the 1.5 inch diameter pipeline so that the flow could be measured via a five gallon bucket and stopwatch. Two measurements were taken and averaged, resulting in a measured diversion rate of 0.02 cfs. It is recommended that right 72-16698 be licensed for a diversion rate of 0.02 cfs and an annual volume of 1.2 afa (IDWR standard domestic allowance for a house with irrigation).

The permit included a condition that the right was within water district 170 and a condition regarding future installation of a lockable device to provide water master control. However, when water district 170 was created, deminimus 42-111 type uses were excluded from the water district. Because this water use falls within the 42-111 domestic definition, it is recommended that conditions mentioning the water district or watermaster not be implemented as part of the license.

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	0.020 CFS	1.2 AF
<u>Totals:</u>		0.020 CFS	1.2 AF

2. Recommended Amendments

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

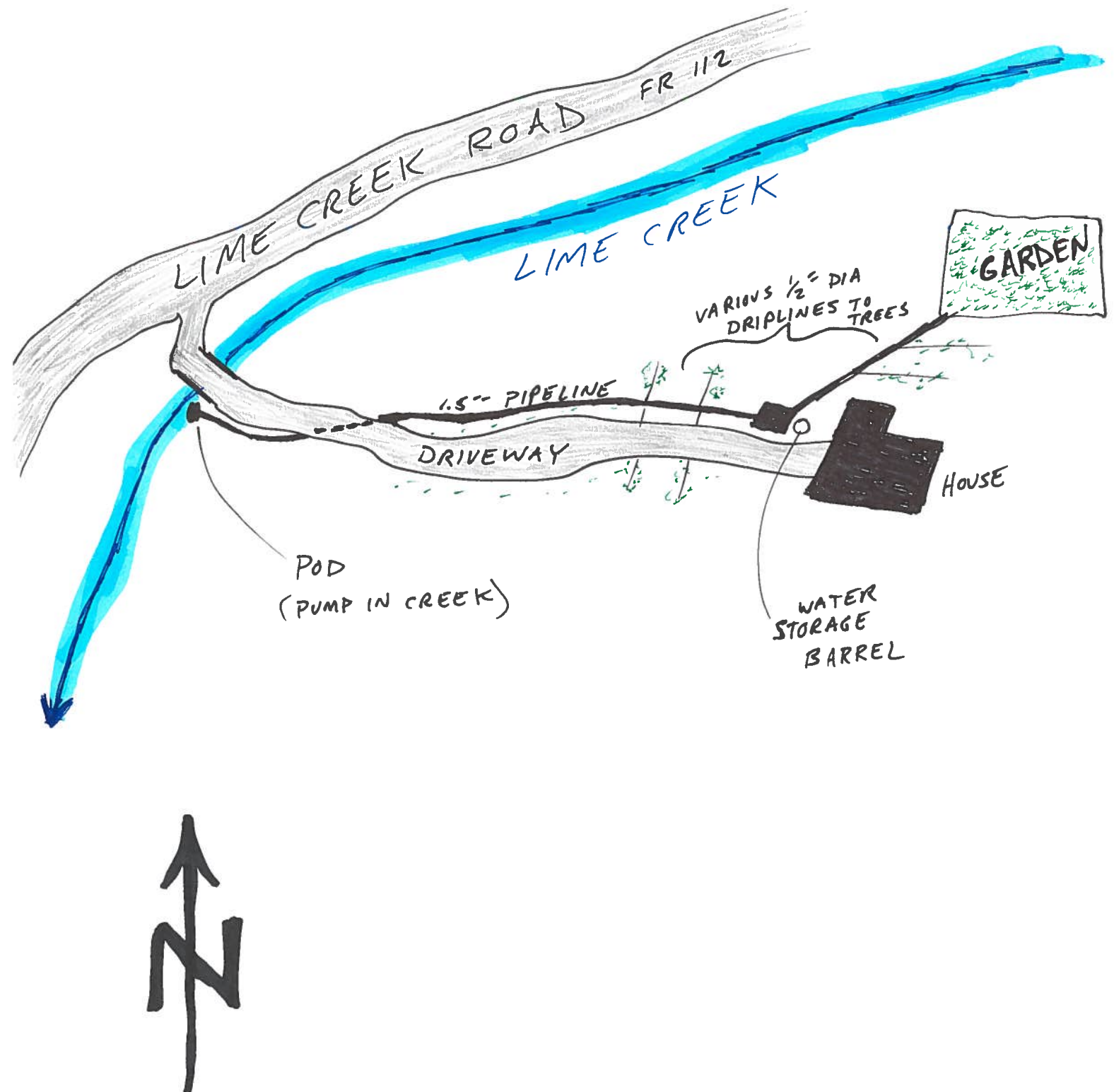
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

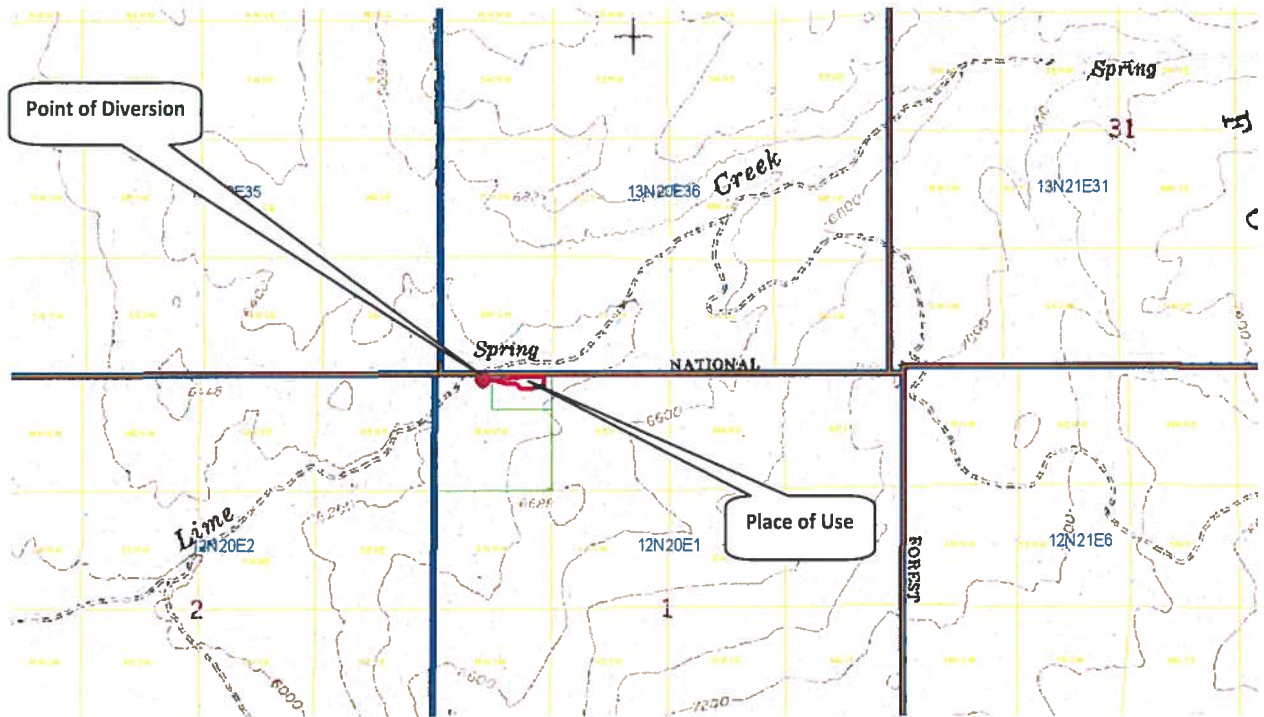
Field Examiner's Name Percy Apgar Date 2/1/2012

Reviewer Benny Walker Date 2/15/2012

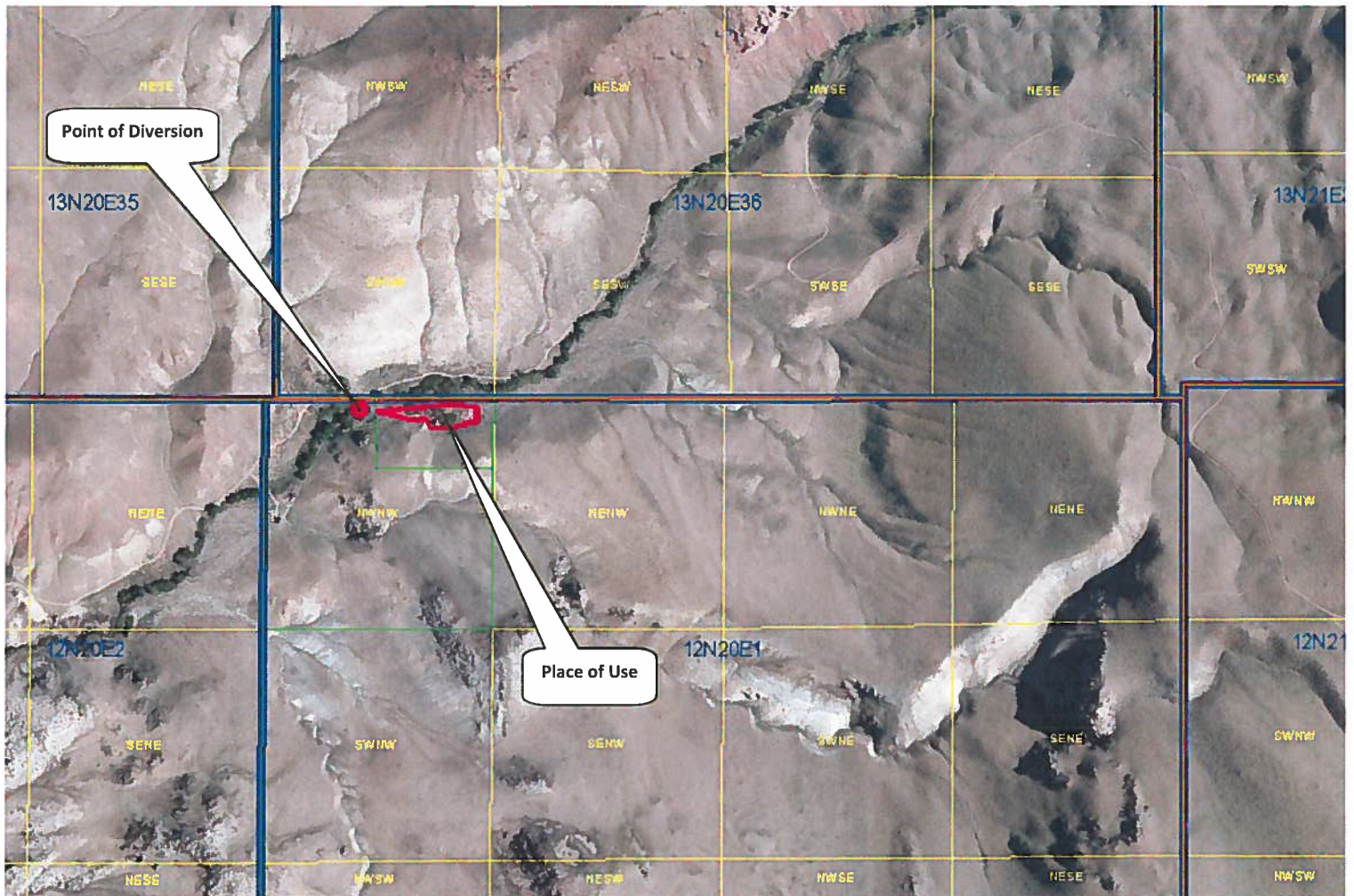
72-16698 System Diagram (NOT TO SCALE)



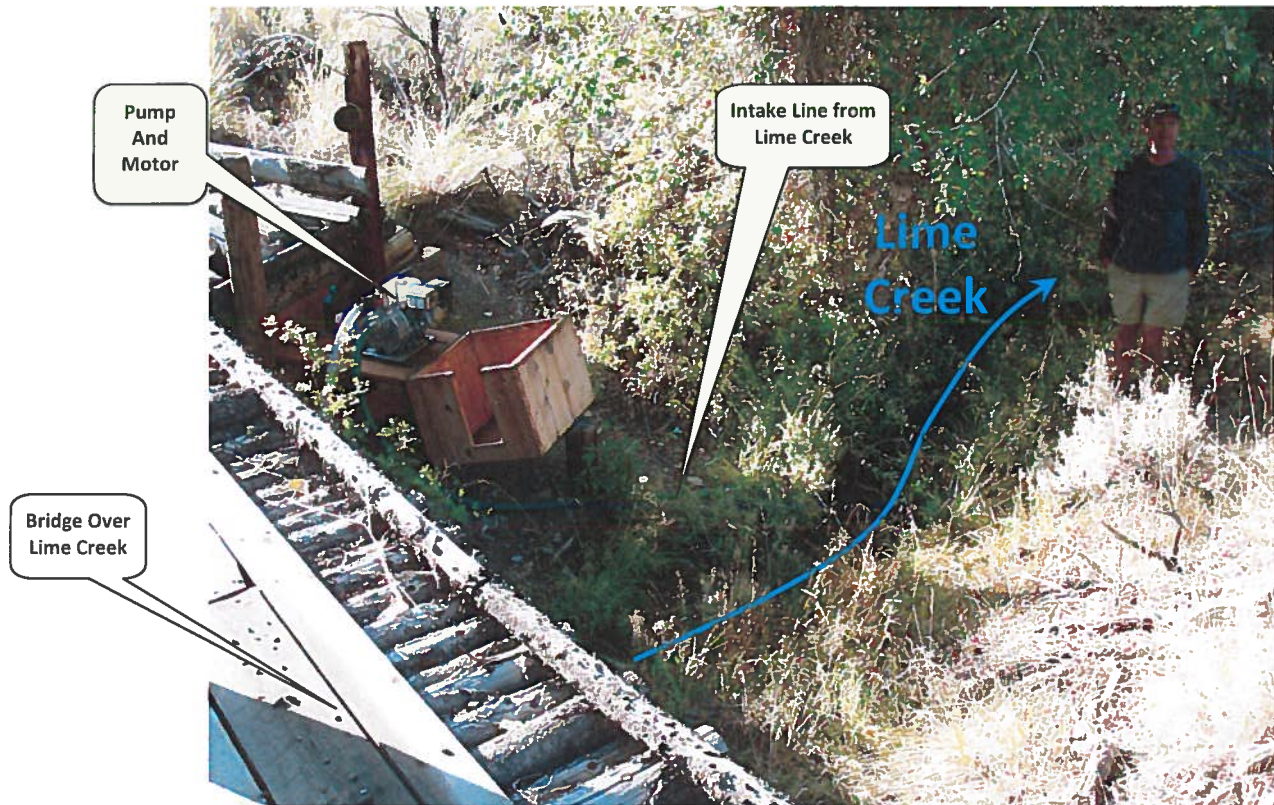
72-16698 Field Exam Map



72-16698 Field Exam Map

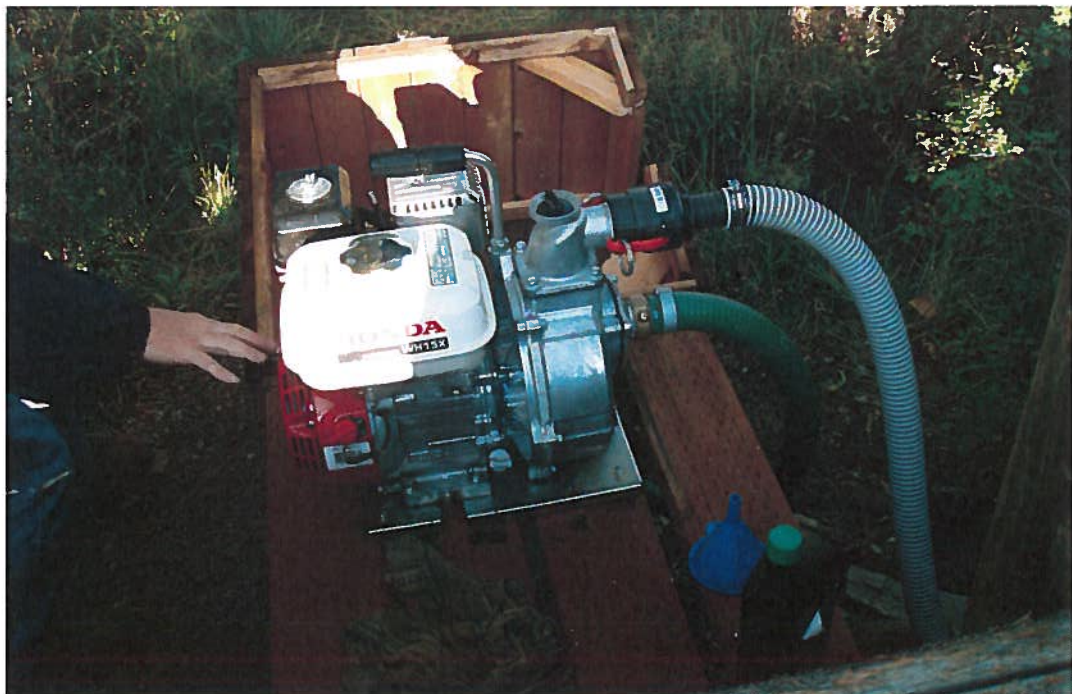


72-16698 Field Exam Photos



ABOVE: View of point of diversion location (just below bridge over Lime Creek that provides access to permit holder's home).

BELOW: View of pump and motor that pumps water from Lime Creek.

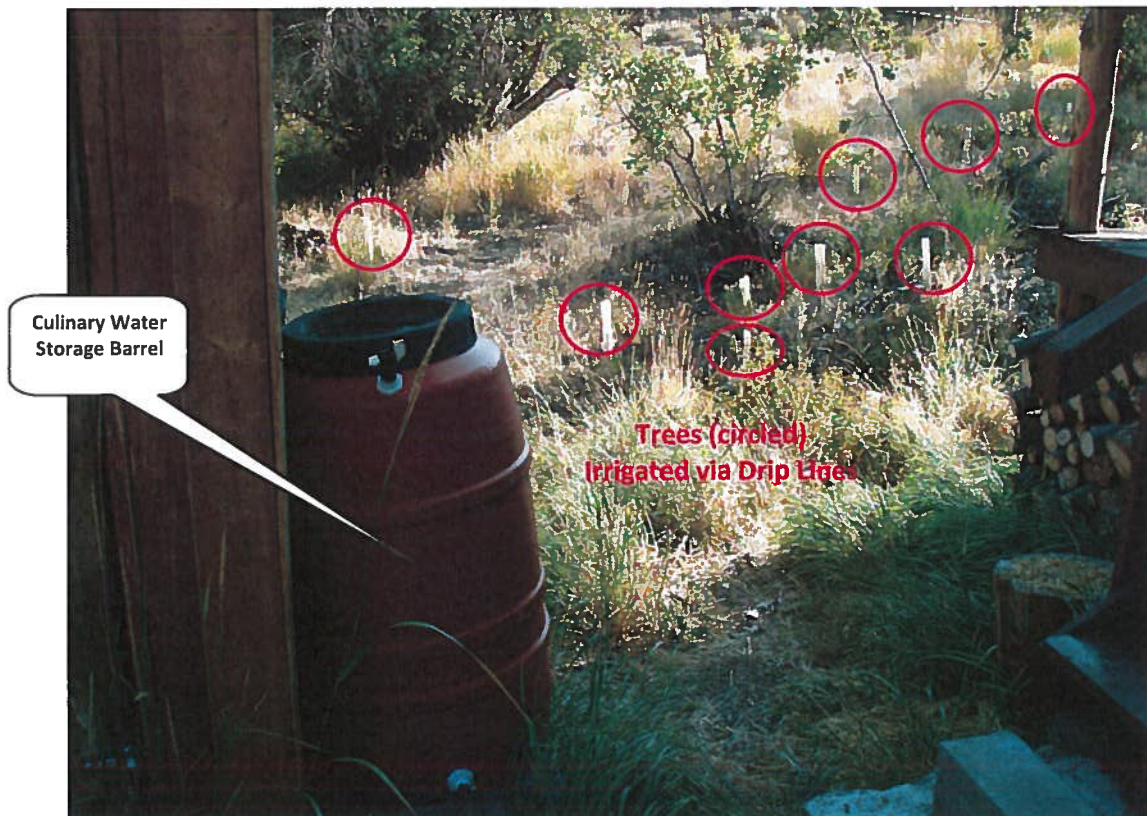


72-16698 Field Exam Photos



ABOVE: View of home located on property. Note various small trees (circled) that are irrigated via drip lines.

BELOW: View of storage water barrel used for culinary water for house. Note various small trees (circled) that are irrigated via drip lines.



72-16698 Field Exam Photos



ABOVE: View of garden area located east, and slightly north, of the house.

BELOW: View of flow measurement being taken by opening valve along 1.5 inch diameter pipeline and measuring flow with a five gallon bucket and stopwatch.



72-16698

9/12/2011 Field Notes

in winter
bucket
from
creek

Sometimes
same
family

will return
in
a year
full
time

gallon
sprinkler
and
8.9 gpm

~125 trees
+ native vegetation - current
grass around trees

~50 gallon barrel
for storage
into
house

filters
cooking, cleaning
drinking

↑ creek
pump
Max
discharge
capacity
105.7 gpm
Honda made 6X120
pump WH15X
Motor #
GC01-4624-669

1.5" plastic
pipe
from
pump
1/2 inch
drip lines

30.63 seconds
5 gallons
29.49 seconds
5 gallons

average 5 gallons $\Rightarrow$ 10 gpm
29.91 seconds
.02 cfs