

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22707

Exam Date: 10/3/2011

1. Current Owner: CAROL LYNN MAC GREGOR
1109 WARM SPRINGS AVE
BOISE ID 83712
(208) 386-9494

2. Accompanied by: NONE

3. **SOURCE**

SPRING (aka Shalerock Spring)

TRIBUTARY

SINKS (verified with quad map)

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 SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

SPRING SW1/4NE1/4SW1/4 Sec. 25, Twp 07N, Rge 01W, B.M. GEM County

Method of Determination: GPS waypoint (2306741m and 1415160m)

2.

PLACE OF USE: STOCKWATER

TRSec	NE				NW				SW				SE				
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
07N01W25									X								

Method of Determination: Field visit, found the 500 gallon trough were evidence of cattle surrounded the area, even though no cattle were seen. It appears that the spring is dry for the season.

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable. *See page 5*

☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater. *See page 4*

☒ Photo of Diversion and System Attached *See pages 5 & 4*

4.

Well or Diversion

ID No.* Motor Make Hp Motor Serial No. Pump Make Size
 A0018770 (affixed to wood post @ the pipe)
 NA-the system is gravity flow.

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

D. FLOW MEASUREMENTS

1.

Measurement
Equipment Type Make

NA-no water flowing at the time of the field exam.

2. Measurements: The system consists of 125' of buried PVC to an 8 x 2' round stockwater tank. There is a 2" inlet and a 2" outlet that discharges any overflow.

E. FLOW CALCULATIONS

Measured Method: The system was physically measured with a tape. Since no water was running during the field exam here are some theoretical estimates:

Pipe conversion: $Q = 5 \times 3.1416 \times 0.0833^2 = 0.11$ cfs

$r = 2 \text{ inches} = 0.167 \text{ feet} / 2 = 0.0833$

Manning's Eqn Calc = 0.04 cfs (see below)

Channel Slope

Slope Options
☐ Manual Entry ☒ Slope Calculator

Slope Calculator

Rise = feet
 Run = feet
 Slope, S = 0.0080 ft/ft

Pipe Material, (n):

Pipe Diameter (inches) inches

Manning's Equation Calculator for Flow Rate in a Circular Conduit Flowing Full

S = 0.0080 ft/ft
 n = 0.009 manning's coefficient
 d = 2.0 pipe diameter (inches)
 D = 0.17 pipe diameter (feet)
 r = 0.08 pipe radius (feet)
 A = 0.02 area (ft²)
 WP = 0.52 wetted perimeter (ft)
 R = 0.04 hydraulic radius (ft)

Q = 0.04 flow rate (CFS)

Stockwater Requirements:

150cattle

30 horses

180 stock—Exhibit 15, Water for Livestock-Out of Stream Diversion, estimates 0.04 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: NA
2. Volume Calculations for Other Uses: 180 stock x 12 gpd x 365 days = 2.4 af

G. NARRATIVE/REMARKS/COMMENTS

The stockwater tank was dry at the time of the field exam but there was evidence that stock had been in the area; hoof prints and manure were present around the tank. While the system may be able to accommodate up to 0.04 cfs possibly, the license is limited by the permitted diversion rate of 0.02 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>
STOCKWATER	01/01 to 12/31	0.020 CFS	2.4 AF
<u>Totals:</u>		0.020 CFS	2.4 AF

2. Recommended Amendments

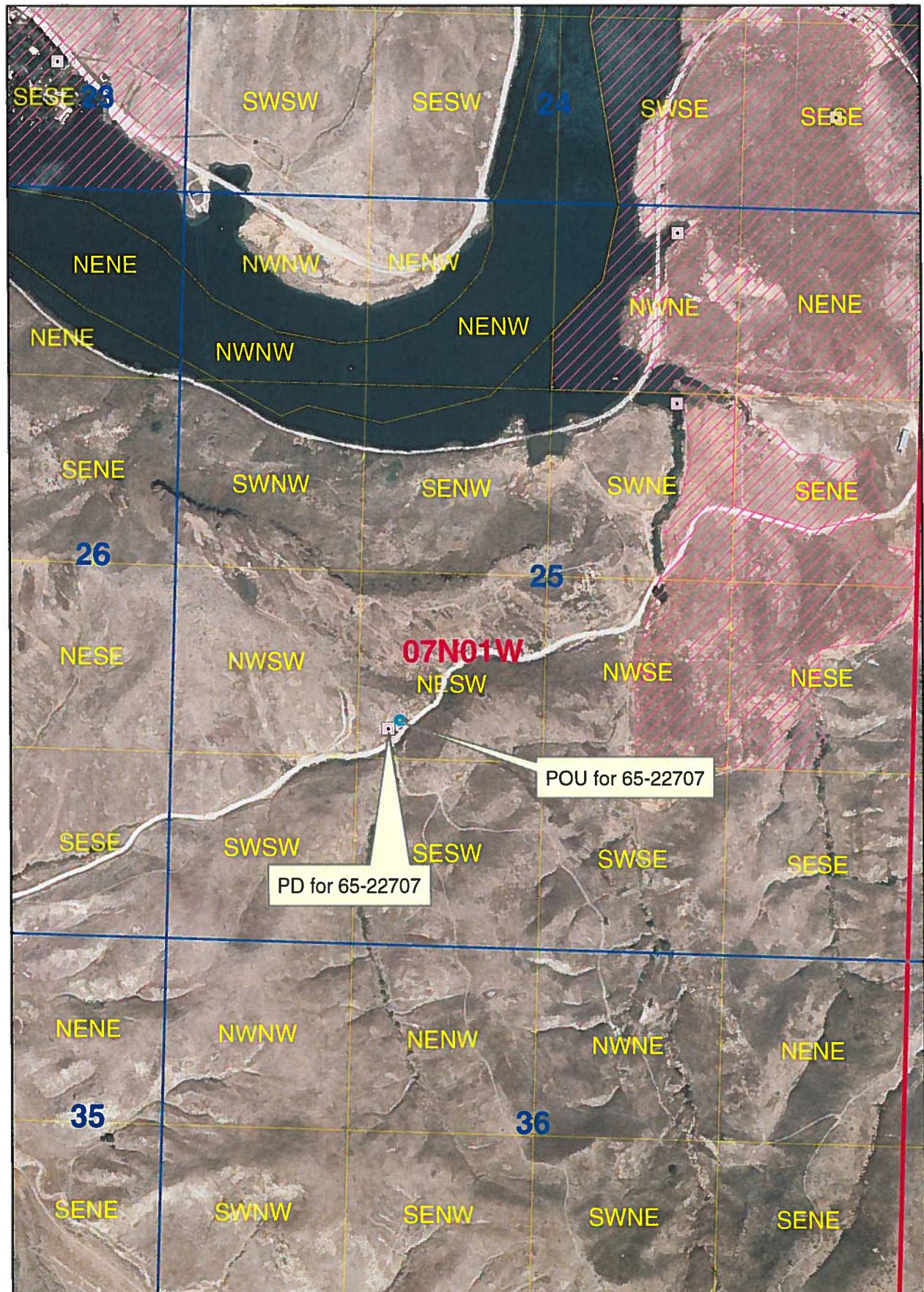
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

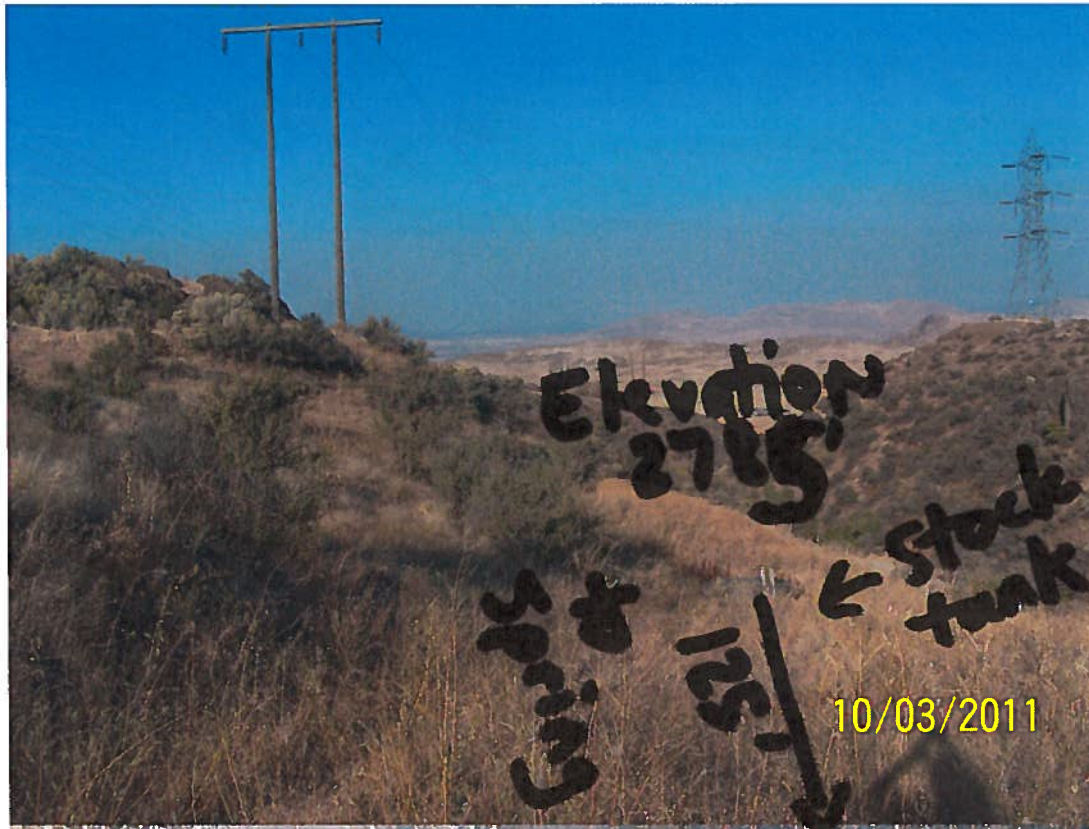
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name: Cherie Palmer

Field Examination Map





125' of buried
2" PVC pipe
to Spring



Stockwater
tank is 500 gallons

Elevation determined using Google Earth



Spring

Elevation @ spring - 2788'