

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14256

Exam Date: 8/20/2012

1. Current Owner: E CATHERINE WILSON
11380 W. MISSION POINTE DRIVE
NAMPA, ID 83651
(208) 546-0065
2. Accompanied by: Nancy Wilson
Phone No: (208) 249-9682
Address:
Relationship to Permit Holder: Daughter

- | | |
|-------------------------|-------------------------|
| 3. <u>SOURCE</u> | <u>TRIBUTARY</u> |
| SPRING | SINKS |

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 NW1/4SW1/4SW1/4 Sec. 20, Twp 16N, Rge 02W, B.M.
ADAMS County

Method of Determination: Arc Map (Aerial Photo); GPS Latitude N.44°42.326', Longitude W.116°36.843'; Datum – NAD83.

2.

PLACE OF USE: STOCKWATER STORAGE

Twp Rge Sec	NE				NW				SW				SE				
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
16N 02W 20											X						

Method of Determination: Arc Map (Aerial Photo)

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>
N/A	N/A			N/A	(1 ¼")

*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>
5-gallon bucket						

2. Measurements: 5-gallon bucket – 25 gpm ~ 0.06 cfs.

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method: (Continuity Equation – Pipe Flow)

$$V = 1.49/n(R)^{2/3}(S)^{1/2} = 1.49/0.013(0.026)^{2/3}(0.17)^{1/2}$$

$$V = (114.62)(0.087)(0.412) = 4.11 \text{ ft/sec}$$

$$Q = VA = 4.11 \text{ ft/sec} \times 0.009 \text{ ft}^2 = 0.04 \text{ cfs}$$

Measured flow (5-gallon bucket) = 25 gpm ~ 0.06 cfs

$$n = 0.013$$

$$L = 480' \text{ (Estimated Pipe Length)}$$

$$R = D/4 = 0.104/4 = 0.026$$

$$S = \Delta E/L = 80/480 = 0.17 \text{ (Estimated)}$$

$$A = 0.009 \text{ ft}^2$$

$$\Delta E = 80' \text{ (Estimated elevation differential)}$$

$Q = 0.04 \text{ cfs} < 0.06 \text{ cfs}$ (measured flow) – Difference in flow rate may be due to incorrect pipe size determination. By changing the discharge pipe size to 1 ½", the calculated and measured flow rate of 0.06 cfs would be the same.

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: (Stock Water Storage)

$$A(\text{Pond Surface}) = 0.30 \text{ acre}$$

$$V = A \times D = 0.30 \text{ acre} \times 7 \text{ feet} = 2.1 \text{ AFA}$$

$$D(\text{Maximum Pond Depth}) = 7'$$

$$V = 2.1 \text{ AFA} > 2.0 \text{ AFA (Permit)}$$

Appears the permit storage volume requested of 2.0 AFA is accurate.

$$V = 2.0 \text{ AFA}$$

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A spring box, constructed of a section of 4" diameter CMP pipe, and a steel lid, collects and discharges spring water to a stock water storage pond. The spring box outlet pipe is a screened 1 1/4" PVC pipe. Spring water is conveyed through approximately 480 lineal feet of the 1 1/4" PVC discharge pipe to an excavated channel on the east side of an access road. The excavated channel, which is approximately 150' in length, discharges to a stock water storage pond. The water surface level in the pond is controlled by a spillway/overflow swale located at the north end of the pond.

PLACE OF USE:

The 0.30 acre stock water storage pond provides water for 40 head of cattle. Due to the destruction of a large section of the access road to the property by a Goodrich Creek flood event in 2009, the right holder has been unable to transport the cattle to the property. Road repairs are scheduled to be completed this year.

STOCK WATER:

Stock water place of use has been removed from the permit since the cattle drink from the stock water storage pond, not a stream or watering troughs.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.02	&/or	2.0
Beneficial Use Limit	0.02	&/or	N/A
System Measurement	0.06	&/or	N/A
Proof Fee Amount	0.20	&/or	20.0
Recommended Amount	N/A	&/or	2.0

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER STORAGE	01/01 to 12/31		2.00 AF
	<u>Totals</u>	N/A	2.00 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

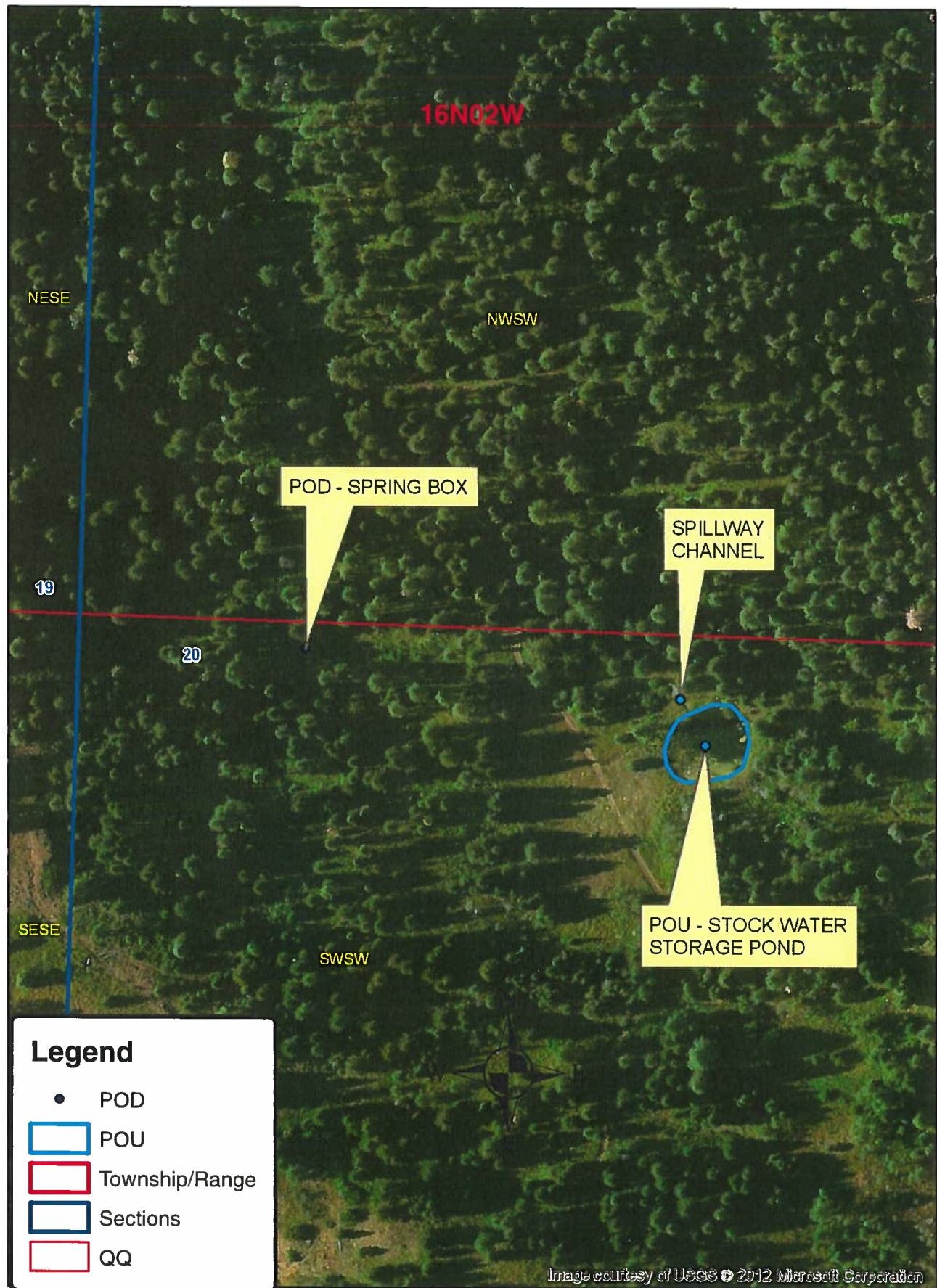
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/30/12

Reviewer _____ Date _____

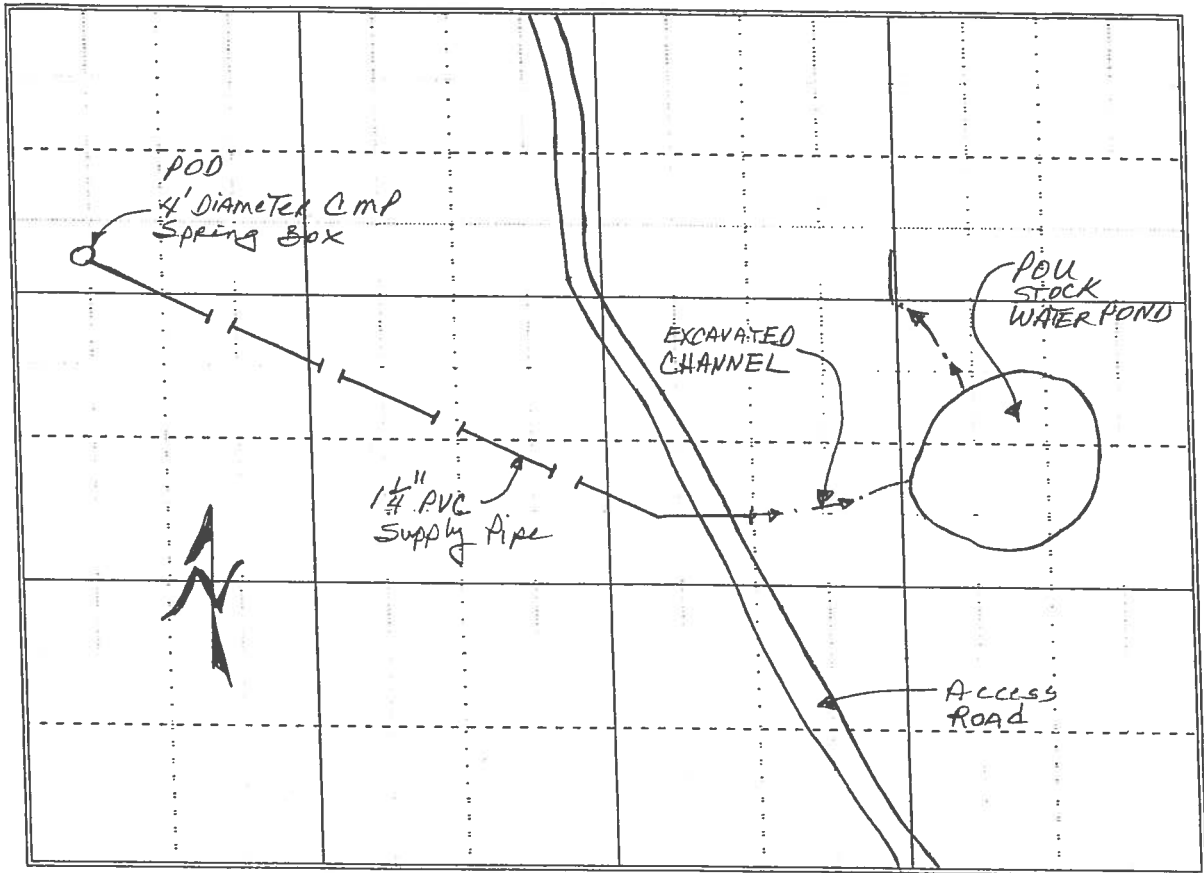
67-14256

BING AERIAL PHOTO - 2011



0 65 130 260 390 520
Feet

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

FIELD EXAM PHOTOS

Water Right Permit: 67-14256

Field Exam Date: 8-20-12

PLS: SW1/4, SW1/4 Section 20, T.16N, R.02W.

Field Examiner: RC



Point of Diversion: View southwesterly of 4' diameter CMP spring box. Approximately 480 lineal feet of 1" PVC pipe conveys water to an excavated channel to a stock water storage pond.



View northeasterly from point of discharge for the 1" PVC pipe into an excavated channel discharging to a stock water storage pond.



Place of Use: View southeasterly of stock water storage pond.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

August 9, 2012

Clayton A. & E. Catherine Wilson
P.O. Box 117
Jordan Valley, OR 97910

RE: Scheduling Field Exam for Water Right Permit No. 67-14256

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of August 20, 2012**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.02 cfs of spring water for stock water for 40 head of cattle, and 2.00 AF of stock water storage.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by August 17, 2012, to conduct the exam during the week of August 20, 2012.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in cursive script, reading "Rick Collingwood".

Rick Collingwood, P.E.
Water Resource Agent, Sr.