STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 92-11043
Exam Date: 10/02/2020

1. Current Owner:
CARMEN LORENZ PO BOX 256 SANTA ID 83866 AND/OR
STEVEN E LORENZ PO BOX 256 SANTA ID 83866-0256

2. Accompanied by: Steven Lorenz
Phone No: 208-582-3311
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:** SPRING

Tributary RENFRO CREEK

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
SPRING NE¼ SE¼ SE¼, Sec. 15, Twp 44N, Rge 01W, B.M. BENEWAH County

Method of Determination: GPS. POD is a buried concrete cistern located at -116°26.308, 47°09.284.

PLACE OF USE: STOCKWATER

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
44N	01W	15																X	

Method of Determination: Field exam and Arcmap aerial imagery.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.
__X__ 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
__X__ 1:24,000 or greater.

__X__ Aerial Photo Attached (required for irrigation of 10+ acres).

__X__ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
NONE					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: Unable to perform flow measurement; diversion of spring water collected from cracks in the bottom 2 feet and floor of a buried concrete cistern. No measurement is required.

E. FLOW CALCULATIONS

Flow measurement not required as per IDAPA RULE 37.03.02.035.01.r.iii.

F. DIVERSION RATES

The diversion rate for this stockwater right is limited to 0.02 CFS or 9.0 GPM.

G. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

V_{IR} = (Acres Irrigated) x (Irrigation Requirement) =
V_{DR} = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 =
V = Smaller of V_{IR} and V_{DR} =

2. Volume Calculations for Other Uses:

STOCKWATER volume = 10 head mixed stock x 12 gpd x 365 days = 43,800 gallons / 325,850 gal per af = **0.1 af**

H. NARRATIVE/REMARKS/COMMENTS

This permit qualifies for an in-office field exam, but a physical field exam was conducted on 10/2/2020 with the applicant, Steven Lorenz, in order to accurately determine the spring POD. GPS was used to determine the POD, stockwater use was verified at time of exam, and photographs were taken to show the POD and stockwater usage.

The permit was authorized for 0.02 cfs. At time of exam, I was unable to complete a flow measurement as diversion of spring water collected from cracks in the bottom 2 feet and floor of a buried concrete cistern. It was determined that the flow

measurement is not required as per IDAPA RULE 37.03.02.035.01.r.iii, and the license is recommended for **0.02 cfs** or 9.0 gpm.

A department memorandum dated 9/16/2020 identified concerns that the source of water and location of POD on permit may not be accurate, and the cistern may be influenced by an unnamed stream versus spring water applied for. During the field exam, GPS data was collected to accurately license the POD location. Mr. Lorenz identified multiple spring veins that run across the side hill on his parcel up-grade from the cistern POD. Referencing Arcmap DRG data, the unnamed stream in question routes along the eastern border of the applicant's property, and crosses a county road to the south prior to the POD location. The unnamed stream was walked and was dry, and Mr. Lorenz stated it dries up approximately mid-July each year. During the field exam conducted on 10/2/2020, there was still a small volume of water filling the cistern, indicating it was still intercepting spring water, although at a reduced rate. Based on this information, the POD location and water source will be issued with spring as the source.

Mr. Lorenz used diverted water from an 8ft x 8ft x 8ft concrete cistern to fill his stock tank for 8 cows and 2 horses throughout the season until the spring flow dropped off in late fall. The cistern was buried to a depth of approximately 5 feet, and Mr. Lorenz stated the numerous cracks in the floor and first few feet of the cistern allowed spring water to collect. Once the cistern had filled enough, a portable pump was used to draw water uphill to a stock tank. Mr. Lorenz stated that up to mid-summer the cistern would recharge with spring water regularly to a depth of approximately 4 feet allowing him to draw water to his stock tank. Photographs were taken of the interior of the cistern, and water marks confirm the historic high water marks on the cistern walls. The annual volume for stockwater equals 10 head mixed stock x 12 gpd x 365 days = 43,800 gallons / 325,850 gal per af = **0.1 af**, which will be applied to license.

Condition X02 was removed from the permit during licensing review. Condition 004 will remain on license. There are no overlap concerns for this water right.

Have conditions of permit approval been met? __X__ Yes ____ No

I. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
STOCKWATER	01/01 to 12/31	0.02 CFS	0.1 AF
	Totals:	0.02 CFS	0.1 AF

2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above __X__ None

____ Change P.U. as reflected above ____ Add P.U. as reflected above __X__ None

J. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name LAB Date 10/9/2020

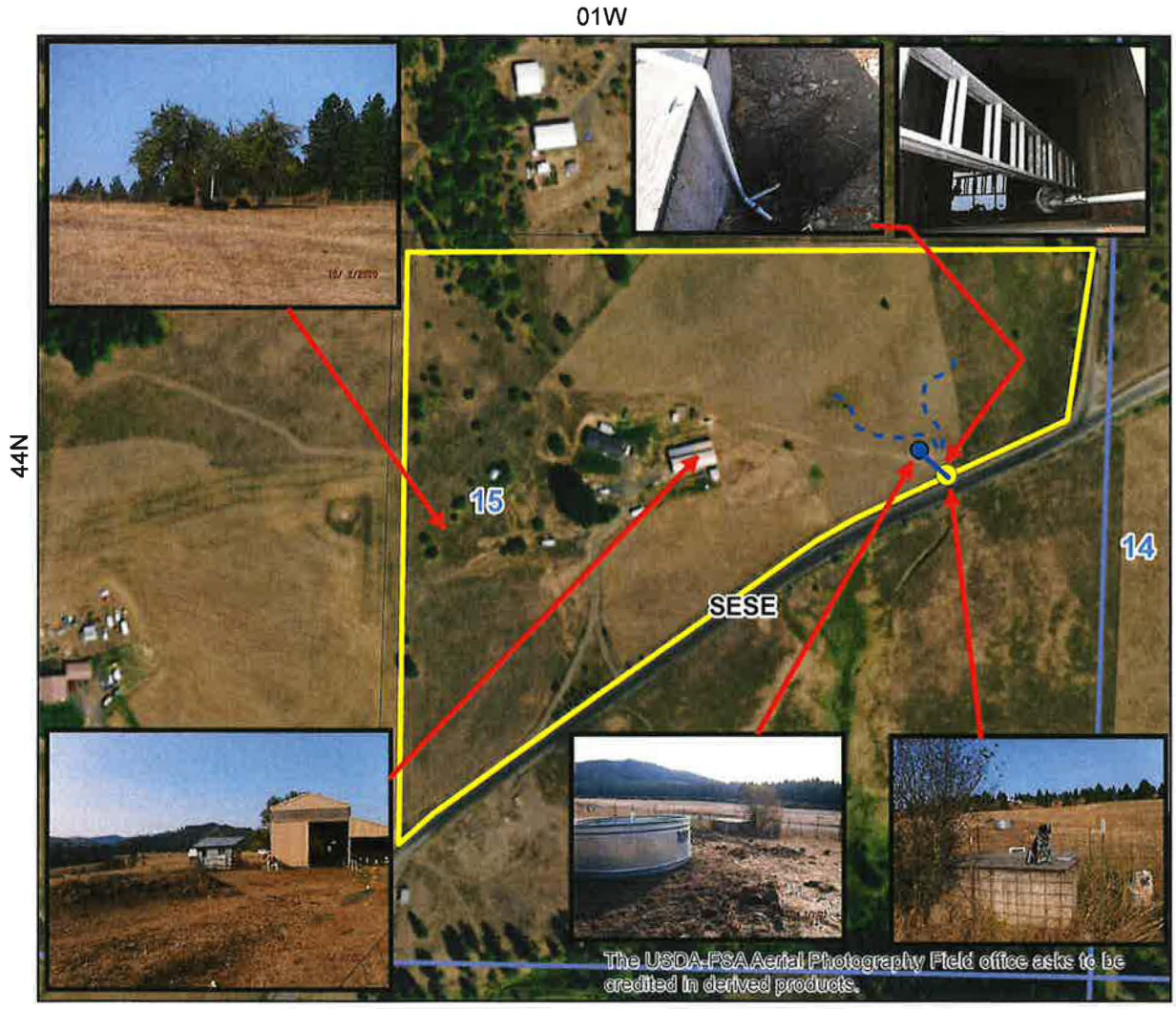
Reviewer [signature] Date 10/30/2020

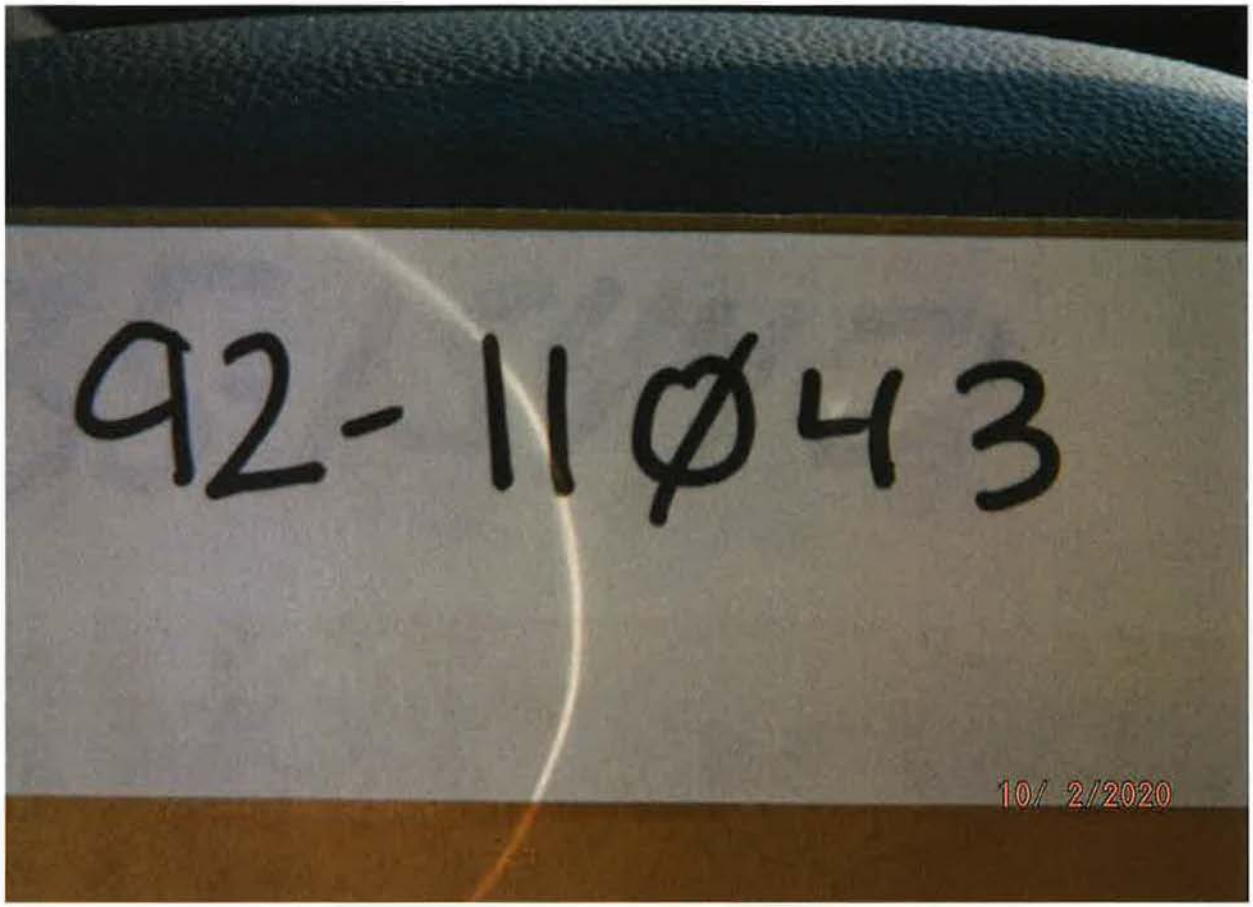
State of Idaho
Department of Water Resources

Attachment to Field Exam

92-11043

STOCKWATER system diagram.



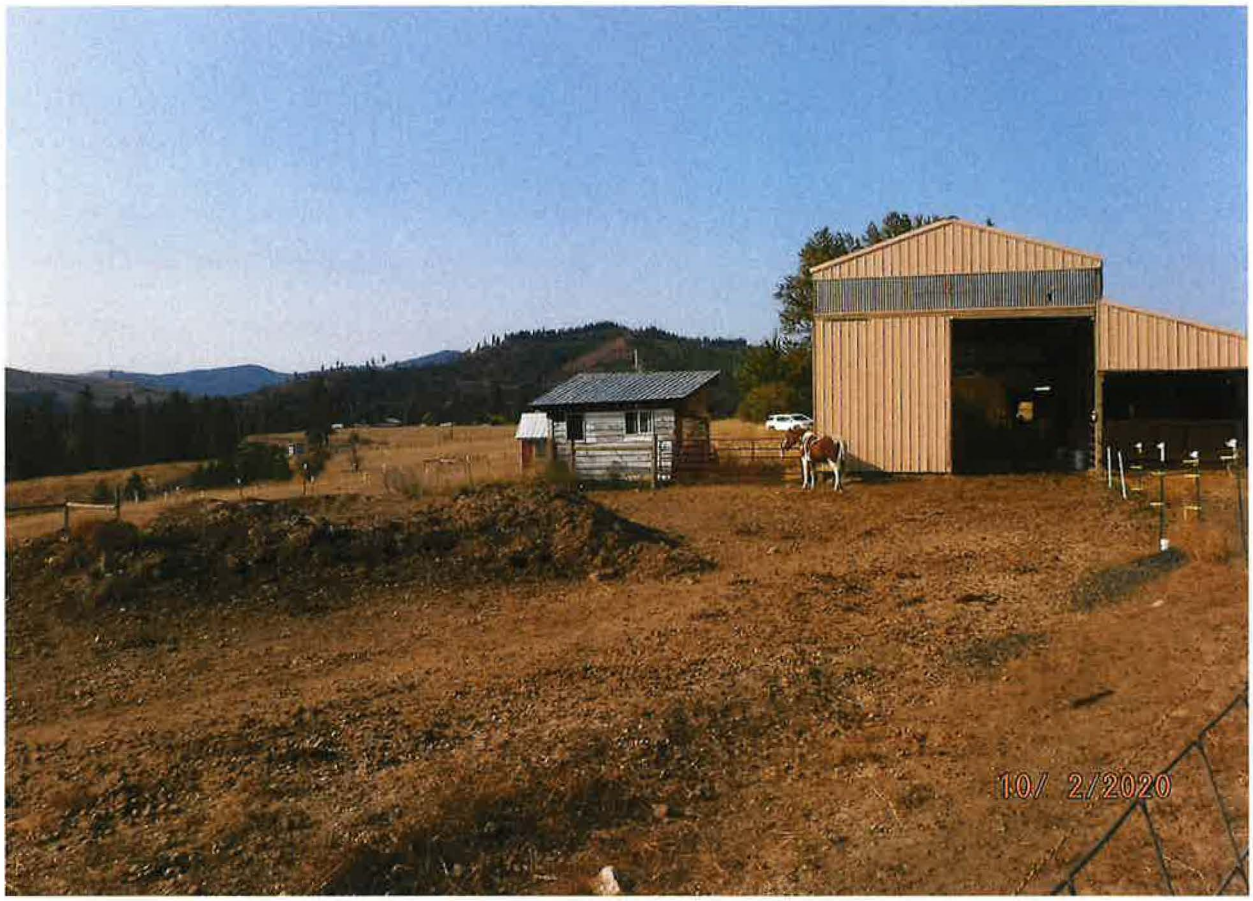


POD – SPRING WATER ENTERING BOTTOM OF CONCRETE CISTERN

POD – CONCRETE CISTERN 8 FT X 8 FT X 8 FT – FILLS THROUGH CRACKS IN FLOOR

POD – WATER PUMPED FROM CISTERN WHEN IT RECHARGES TO STOCKTANK

POU – STOCKWATER



POU – STOCKWATER