

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-15807
Exam Date: 06/11/2024

- Current Owner:
LEADORE23 LLC 3495 S OLD 3C HWY GALENA OH 43021-9436
- Accompanied by: Jerry Foster (via phone only, could not make appointment in person).
Phone No: (208) 303-7462 (Cell phone)
Address: 139 Hawley ST, Leadore, ID, 83464
Relationship to permit Holder: System Maintenance for permit holder.

3. SOURCE:
GROUND WATER

Method of Determination: Garmin Trek 20 GPS, and GIS.

B. OVERLAP REVIEW

- Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
74-1012	Groundwater	Commercial	Decreed (2007)
74-1013	Groundwater	Commercial	Decreed (2007)

Comments: The place of use (POU) for Commercial use right 74-1012 has a POU that is only described as the SESE of section 28, which indicates a partial overlap of the permitted POU. However, the adjudication backfile contains documents describing the non-irrigation use as a store and the owner at the time was Stage Stop LLC, which is the store located in the SESE of section 28. Additionally, the right 74-1012 point of diversion (POD) is in the parcel appurtenant to the store. The place of use for commercial use right 74-1013 is a partial overlap of the permitted POU. The overlapping right is for commercial use in 10 of the 20 trailer spaces within the commercial facility appurtenant to permit 74-15807. At the time of the field examination, Jerry Foster stated that the only well providing water to the trailer park is in the pump house near the middle of the row of trailers.

- Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
74-1013	Groundwater	Commercial	Decreed (2007)

Comments: The permit POD is shared with right 74-1013, which provides groundwater for 10 of the trailer units in the park. The permit extends the commercial usage provided under right 74-1013 to an additional 10 trailer units for commercial use.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW¼ SE¼ SE¼, Sec. 28, Twp 16N, Rge 26E, B.M. LEMHI County

GPS Coordinates: N 44.68235, W 113.35915

Method of Determination: Garmin Trek 20 GPS and GIS imagery.

PLACE OF USE: COMMERCIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
16N	26E	28															X	X	

Method of Determination: GIS, Google Earth, and Lemhi tax parcel data.

- 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 1:24,000 or greater.
X

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

Photo of Diversion and System Attached
X

Well or Diversion ID #	Motor Make	Hp	Motor Serial No.	Pump Make	Discharge Size
Well behind pumphouse	Unknown	1 1/2	Unknown	Unknown	Unknown, 2" outlet

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Bucket Test	Time trial	NA	NA	NA	5-Gal	NA

2. Measurements:

Trial	Time (sec)
1	31.75
2	27.04
3	25.84
4	24.63
5	26.77

Average: 27.2 Seconds 5-Gal / 27.2sec = 0.184 Gal/sec x 60sec/1min = 11.03 GPM = **0.02cfs** $Q = (1 \frac{1}{2} \text{ Hp})(8.8)(0.80 \text{ eff})/(15 \text{ ft lift}) + (2.31)*(50 \text{ psi}) = 0.08\text{cfs}$

Measured rate at RV hookup = 0.02cfs

Peake rate measurement = 12.2 GPM = 0.03cfs

Peak Rate approximated by representative = 30GPM = 0.07cfs

Permitted rate = 0.20cfs

Theoretical calc = 0.08cfs

Recommended Rate = 0.08cfs

*Observed pressure gauge reading at tanks.

E. FLOW CALCULATIONS

Measured Method:

Additional Computation Sheets Attached

It was not possible to take a measurement at the 2" poly line from the well head to the manifold and pressure tanks in the pump house, some residents were not home during the exam, so it was not possible to run all 20 service hookups simultaneously to determine the cumulative output of the system. Instead, 5 bucket-full time trials were ran from a frost free RV hookup at the site for Unit #19. A 5-gallon plastic bucket and a cell phone timer were used for time trials (time in seconds was rounded to the hundredths place) At the time of testing 6 manufactured mobile homes and 6 RV's were connected to the shared system and water use within several of the units was probable during testing. However, the pressure tank system would allow the system to run at a peak rate of 0.02cfs at sites simultaneously for a limited time. A theoretical calculation was made using the pump horsepower provided by Jerry Foster, the operating pressure observed at the manifold gauge, and the water level and draw down after 5 hrs stated in the drillers report (11ft drawdown depth. Perforations in the casing beginning at 15ft) submitted with the Statement of Completion.

Comments:

Jerry Foster (permit holder's representative) stated that the system was observed to be capable of keeping up with the demand when the RV park is full. Jerry estimated that at those times the system output is approximately 30 GPM. The theoretical calculation indicates the system is capable of delivering a instantaneous rate of 0.08cfs (approximately 35 GPM) for all 20 units, 10 of which are allocated under right 74-1013. I recommend the license be issued for a maximum rate of 0.08cfs.

F. VOLUME CALCULATIONS

- Volume Calculations for irrigation: NA
- Volume Calculations for Other Uses: Commercial Use for 10 trailer units.

Table 1-6 Forest Service Handbook 7409.11 - Section 44.11 - Exhibit 03 (recreation information only): Average Daily Design Flow			
Consumer Use	Consumption in gallons per day		Unit
Camping Facility			
without flush toilets	5		per site
with flush toilets	20-30		per site
with flush toilets and showers	25-50		per site
Trailer with ...			
Water connection	25		per site
Water and sewer connection	50		per site
Day use			
without flush toilets	5		Person
with flush toilets	5		Person
with toilets and showers	20		Person
Travel Trailer Dump Station	20-30		Trailer
Miscellaneous			
Competition camp	25-75		Person
*Note: - Includes All time trial			
The average daily demand should be computed as a summation of the products of individual system users and their respective per capita daily consumption			

Figure 1- Table 1-6 Forest Service Handbook-Guidelines for Water System Designers.

Comments: The USFS Handbook 7409.11, Water Use in Forest service Recreation Areas; Guidelines for Water System Designers Table 1- suggests 50 gallons of water per trailer with water and sewer connections, similar to RV hookups found at the commercial POU.

1 Trailer w/ water and sewer = 50-Gals water/1 day x 10 trailer units (max capacity) x 365 days = 182,500 Gal/annually

182,500Gal / 325,850Gal per 1 AF = 0.56 AF annually

RURAL AND DOMESTIC WATER USES	
Residence – Rural:	
Each person per day, for all purposes.....	60 gal.
Each horse, dry cow or beef animal per day.....	12 gal.
Each milking cow per day.....	35 gal.
Each hog per day.....	4 gal.
Each sheep per day	2 gal.
Each 100 chickens per day.....	6 gal.

Figure 2- Rural and Domestic Water Uses Table. Table from Field Examiners Handbook references (peer reviewed).

Comments: Based on an estimated 60 gallons per day/ per person, while assuming an average of 2 occupants per unit and the permitted 10 units an annual volume was calculated to determine a reasonable maximum annual volume. As the occupancy noted at the permit POU is a combination of manufactured homes, mobile homes and RV's, The rural residence table seems like a better representation of the water usage possible at the POU. I am recommending the license be issued with a maximum annual volume of 1.3 AF.

60-gal / person x 2 people / unit x 10 units (max occupancy) x 365 days = **438,000 Gallons/annually**

438,000 / 325,850 Gal/AF = **1.3 AF**

Recommendation= **1.3 AF annually**

G. NARRATIVE/REMARKS/COMMENTS

The Department received the Proof of Beneficial Use for permit 74-15807, on October 25, 2011. The permit holder stated in section 5 of the statement of completion that use was developed for a 20-unit trailer park with a total maximum rate of 0.20cfs (section 6). Right 74-1013 shares the permit POD and system to provide commercial use in 10 trailer units. Permit 74-15807 provides commercial use to an additional 10 trailer units. The field examination was scheduled with Jerry Foster (Well Driller/RV Park System Maintenance) for June 13th, 2024. However, Jerry was unable to escort the examination due to schedule conflicts, so instead access to the pumphouse and a system description was provided by Jerry, and the field examination was conducted on June 11, 2024.

The system was described as a submersible 1 ½Hp pump with a 2" poly line to a manifold feeding into two pressure tanks (44-gallon and 60-gallon) and two 2" poly lines, one running northwest and one running southeast from the pump house (photo 2) to T couplings at each of the 20 trailer sites (Figure 3). The RV hookup service is through 3/4" pipe to frost-free hydrants, and each site has a sewer hookup (photos 5 & 6). At the time of the field exam 1 home (manufactured), 5 mobile homes, and approximately 6 RVs were connected to the park service. There is not a suitable place between the pump head and manifold to connect measuring equipment and it is unreasonable to require access to all residences to run the entire system simultaneously, so a bucket-fill test was performed at the frost-free hydrant for the trailer unit #19 hookup (photo 5). The water/sewer service hookups are similar throughout the trailer park and the pressure tank system enables the system to deliver the measured instantaneous rate of 0.02cfs at all the sites simultaneously.

Based on the measured rate of one hook up at 0.02cfs, a theoretical calculation based on the system details provided by the permit holder, and the operational observations stated by Jerry Foster a reasonable rate was determined for the entire system. I recommend the license be issued for the maximum diversion rate of 0.08cfs.

The Forest Service- "Water Use In Forest Service Recreation Areas: Guidelines for Water System Designers" table 1, from the USFS Handbook, and the Rural and Domestic Water Uses table from the Field Examiners Handbook peer reviewed references were reviewed to determine a reasonable maximum annual volume for the commercial use. As

the Forest Service guidelines seem specific to seasonal recreational use the Rural and Domestic Water Uses table was deemed a better representation of the use developed at the trailer park. At the full capacity permitted (10 units and an estimated average of 2 persons per unit the maximum annual volume of 1.3AF is reasonable for the commercial use developed. I recommend a total annual volume of 1.3 AF for commercial use for 10 trailer park units.

I recommend the license be issued with conditions X01, 195, 197, and 198. Condition 068 was removed at licensing as per current guidance,

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
COMMERCIAL	01/01 to 12/31	0.08CFS	1.3 AF
<u>Totals:</u>		0.08 CFS	1.3 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 ☒ None

I. AUTHENTICATION

Bob Howe - Water Resource Agent

Field Examiner's Name Bob Howe Date 10/24/2024

Reviewer Scott King Date July 9/2026



Figure 3_System Diagram. Approximate locations of water/sewer hookups, wellhead, pumphouse, and 2" poly lines.



Photo 1- (above) Pumphouse located near the center of the row of trailer units.



Photo 2- (above) The poly line from the wellhead is the right of the 3 lines between the manifold and the pumphouse floor. The two black lines with hand valves are 2' poly lines delivering water to the hook ups for the trailer park units. Two pressure tanks, one 44-gallon (blue tank) and one 60-gallon (red tank), help maintain pressure when the system is under an increased demand.

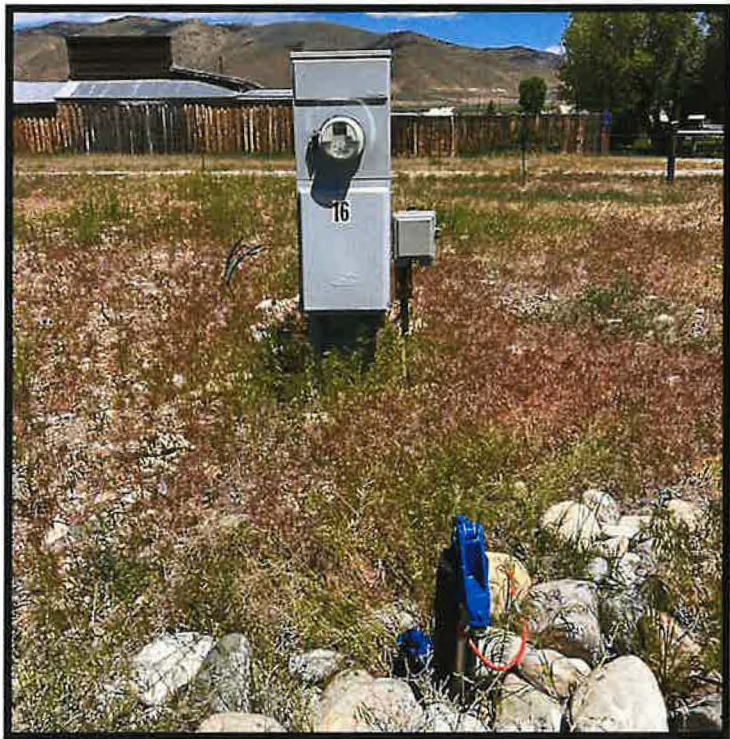


Photo 3-(above) Standing on the southeast side of the pumphouse facing north. The wellhead is visible north of the pumphouse, circled in red. Photo 4-(below) Wellhead. GPS Coordinates N44.68235, W113.35915





Photo 5-(above) Trailer service near the end of the southeast extent of the POU. The orange frost-free hydrant pictured was used to perform bucket-fill trials. Photo 6- (below) Typical service connections found throughout the trailer park. The blue frost-free hydrant can be seen in the image on the right side of the 4" sewer hookup with blue plug.



Howe, Bob

From: Chip <chipanawalt@gmail.com>
Sent: Tuesday, June 4, 2024 12:02 PM
To: Howe, Bob
Subject: Leadore

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

The well guy I talked to info . Jerry Foster 208-303-7462
Sent from my iPhone

**USE TYPEWRITER OR
BALLPOINT PEN**

1. WELL OWNER

7. WATER LEVEL

2. NATURE OF WORK

B. WELL TEST DATA

3. PROPOSED USE

9. LITHOLOGIC LOG

4. METHOD DRILLED

5. WELL CONSTRUCTION

6. LOCATION OF WELL

Lot No. _____ Block No. _____

10.

Work started 8-20-67 finished 8-28-67

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Dable Well Drilling Firm No. 21
Box 681

Address Salmon, Ida. Date 6-18-83

Signed by (Firm Official) Richard D. Allen