

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17237
Exam Date: 03/22/2022

1. Current Owner:
LAKESHORE ESTATES LLC 8428 E COEUR D ALENE LAKE DR COEUR D ALENE ID 83814-7742
2. Accompanied by: Tom Mort
Phone No: 208-929-1830
Address: 8444 Coeur D'Alene Lake Driver, Coeur D'Alene ID 83815
Relationship to permit Holder: Representative

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
95-12304	COEUR D ALENE LAKE	IRRIGATION, DOMESTIC	DECREED

Comments: Decreed Right 95-12304 is for irrigation and domestic use 2 homes from Coeur D'Alene lake. The irrigation component water system is used by the applicant to irrigate around the homes associated with 95-17237 and there is no concern for overlap between 95-12304 & 95-17237.

The domestic use for 2 homes covered under 95-12304 was assigned to parcel No. 04620000014A which did not have a home located on it. I assume the original larger parcel had home(s) and was subdivided to the current parcel configuration found at time of exam. Based on this, condition X35 was added to mitigate overlap concerns & describes right(s) 95-12304 and 95-17237 when combined shall not exceed domestic use for 7 homes.

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

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER L1 (NE¼ NW¼), Sec. 33, Twp 50N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS; POD located at -116°42.851, 47°38.466 well D-Tag D0072304

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
50N	03W	33					X L1												

Method of Determination: Field examination and Arcmap aerial imagery.

- 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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0072304	FRANKLIN	3			

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Unable to perform a flow measurement due to inadequate pipe requirements. A Theoretic Pump Equation derived a flow rate of 38.8 gpm or **0.09 cfs** considering department rounding standards

E. FLOW CALCULATIONS

x Additional Computation Sheets Attached

Measured Method: Theoretic Pump Equation = 3 hp pump installed at depth of 245 with operating pressure of 60 PSI & 70 PSI respectively, with both equations equate to 38.8 gpm or 0.09 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

- Volume Calculations for irrigation: N/A – in-home domestic use only authorized for right.
- Volume Calculations for Other Uses: Domestic annual volume & Maximum diversion volume =
 - (5 homes + 1 shop/apartment + 1 stub-in) x 0.6 af (in-home domestic volume) = **4.2 af**

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 3/22/2022 with the applicant's representative, Tom Mort, showed a groundwater well providing water for domestic (in-home only) uses. At the POD, well D0072304 with 3 hp Franklin pump motor has a main service line that routes direct to a 15,000-gal storage tank. A theoretic pumping equation was developed to derive the diversion rate, which equals 38.8 gpm or 0.09 cfs considering department rounding standards. The permit approved diversion rate for domestic use equals 0.12 cfs which fulfills IDWR's standard diversion rate for 7 home connections validated during exam, but I can only recommend the pumping capacity found at time of field exam with components installed in the water system. This limits the applicant to a maximum diversion rate of **0.09 cfs** for licensing purposes.

From the storage tank, water is distributed to their respective service connection or stub-in locations within 7 separate parcels. The Domestic POU consists of 2 parcels with homes constructed located up grade from the storage tank location, and 3 homes + 1 shop/apartment + stub-in located down grade from the tank. Mr. Mort asserts the pump motor is operated at an elevated PSI ranging from 60 – 70 PSI to provide adequate direct flow to the two homes located up-grade from the well & tank location. The homes located on the lake front below the well & tank have installed reduces to off-set the higher PSI operating pressure.

During the exam, the domestic POU was observed with Mr. Mort; the permit approved development for up to 9 homes, but due to the small parcel size the applicant opted not to fully develop all homes. One parcel was stubbed in, but not built on at time of exam. The two remaining eligible home sites were not built out nor stubbed-in to the applicant's system. The total eligible to develop was reduced by 2 homes during licensing review, and I am recommending 7 homes without irrigation volume for licensing purposes. The domestic annual volume equals 7 (homes, shop/apartment, stub-in) x 0.6 af per connection = **4.2 af**, which shall be assigned as the maximum diversion volume for licensing purposes. The applicant uses lake water for irrigation around the home(s) which is covered by Right 95-12304.

Conditions 26A & 046 were removed from the permit during licensing review. Condition WB5 was revised to reflect a reduction in # of homes equaling 7 for domestic use. Condition X35 was added to describe domestic combined use limitations between rights 95-12304 & 95-17237 as listed below. Condition 004 is carried from permit-to-license.

Overlap concerns: Decreed Right 95-12304 uses Coeur D'Alene Lake water for irrigation & domestic use for 2 homes. The irrigation component of the water system is used by the applicant to irrigate around the homes associated with 95-17237 and doesn't cause concern for overlap between 95-12304 & 95-17237. The domestic use for 2 homes covered under 95-12304 was assigned to parcel No. 04620000014A which did not have a home located on it at time of exam. I assume the original larger parcel had home(s) and was subdivided to the current parcel configuration found at time of exam. The two homes were either torn down and replaced by the applicant's new residence(s) or are part of an extensive renovation. Regardless, out of the parcels observed during the exam, there are not more than the 7 service connections identified as part of the water system. Despite the two rights having separate sources, condition X35 was added to mitigate overlap concerns & describes right(s) 95-12304 and 95-17237 when combined shall not exceed domestic use for 7 homes. There are no additional overlap concerns for this water right.

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>
DOMESTIC	01/01 to 12/31	0.09 CFS	4.2 AF

Totals: 0.09 CFS 4.2 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

I. AUTHENTICATION Luke Bates -

Field Examiner's Name JLB Date 3/22/2022

Reviewer Ad Finkel Date 5/1/2022

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17237

DOMESTIC system diagram.
Consists of 5 homes, 1 shop/apartment, & 1 stub-in parcel.



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.0425 0.085 0.17 Miles



THEORETICAL PUMPING EQUATION(S) FOR WR# 95-17237

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 245 ft, and running at 60 psi.

PUMP EQUATIONS

WATER RIGHT No. 95-17237

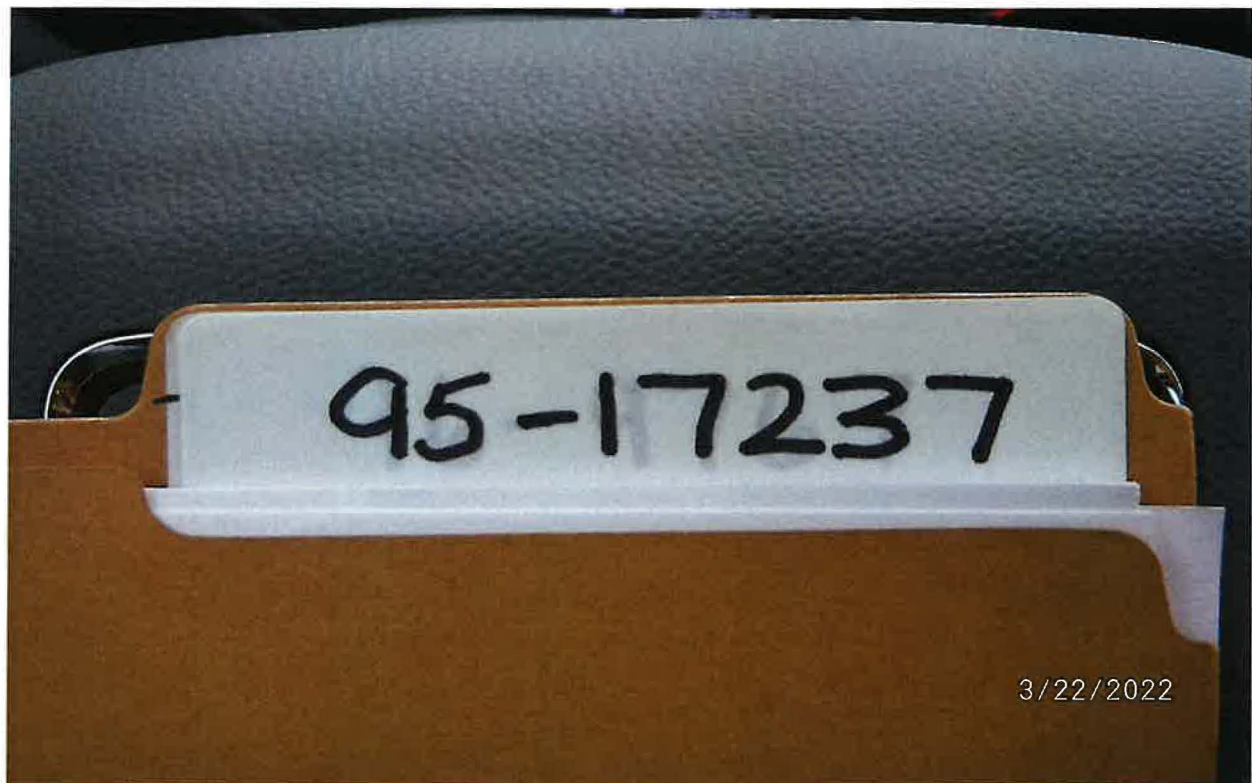
D0072304	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = HP*8.8*Eff/H	3	245	0.8	285	60
Q = 0.086 cfs 38.8 gpm					

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 245 ft, and running at 70 psi.

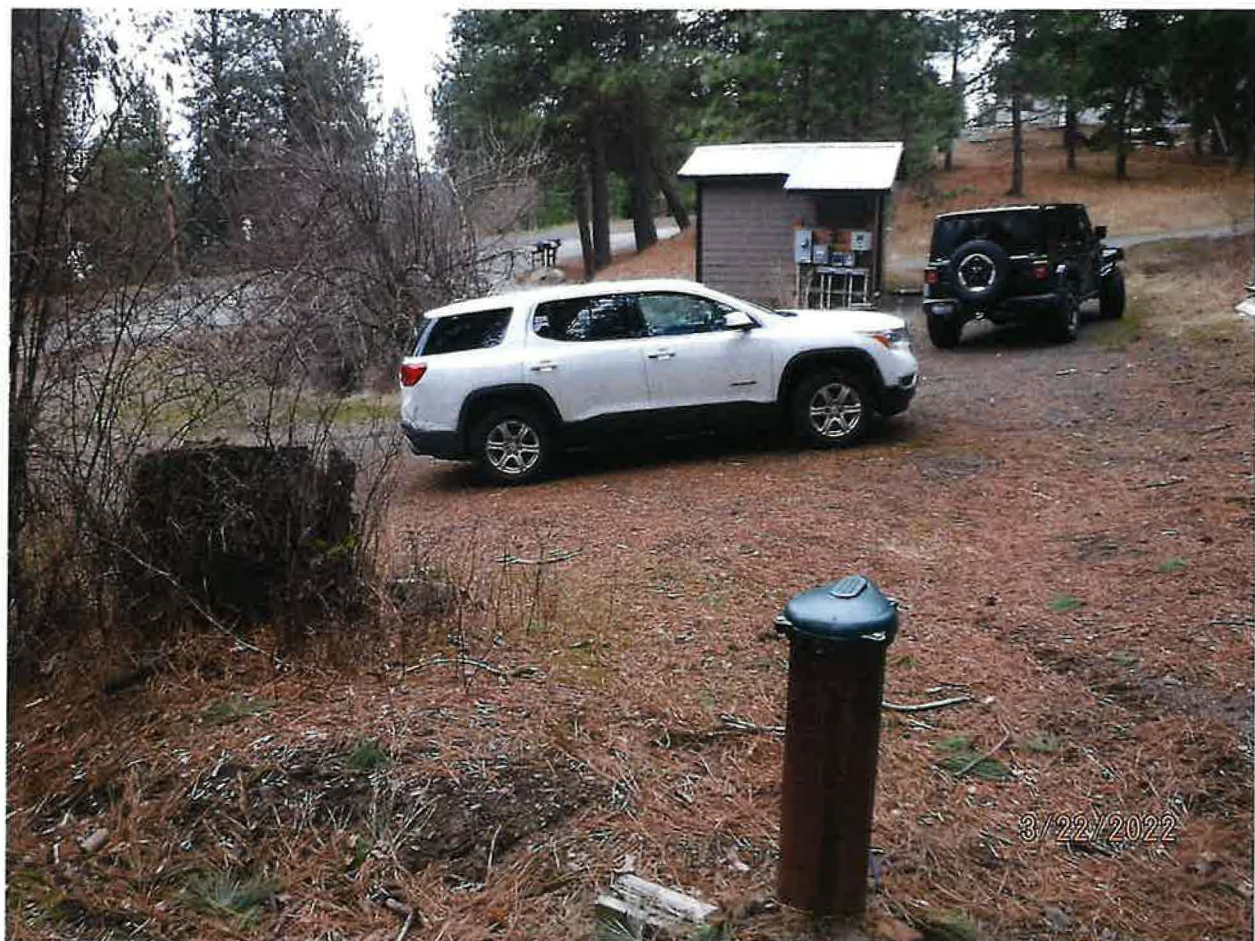
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FIELD EXAM DATE 3/22/2022



POD – GROUNDWATER WELL, LOCATED IN PARCEL No. RP04620000043B



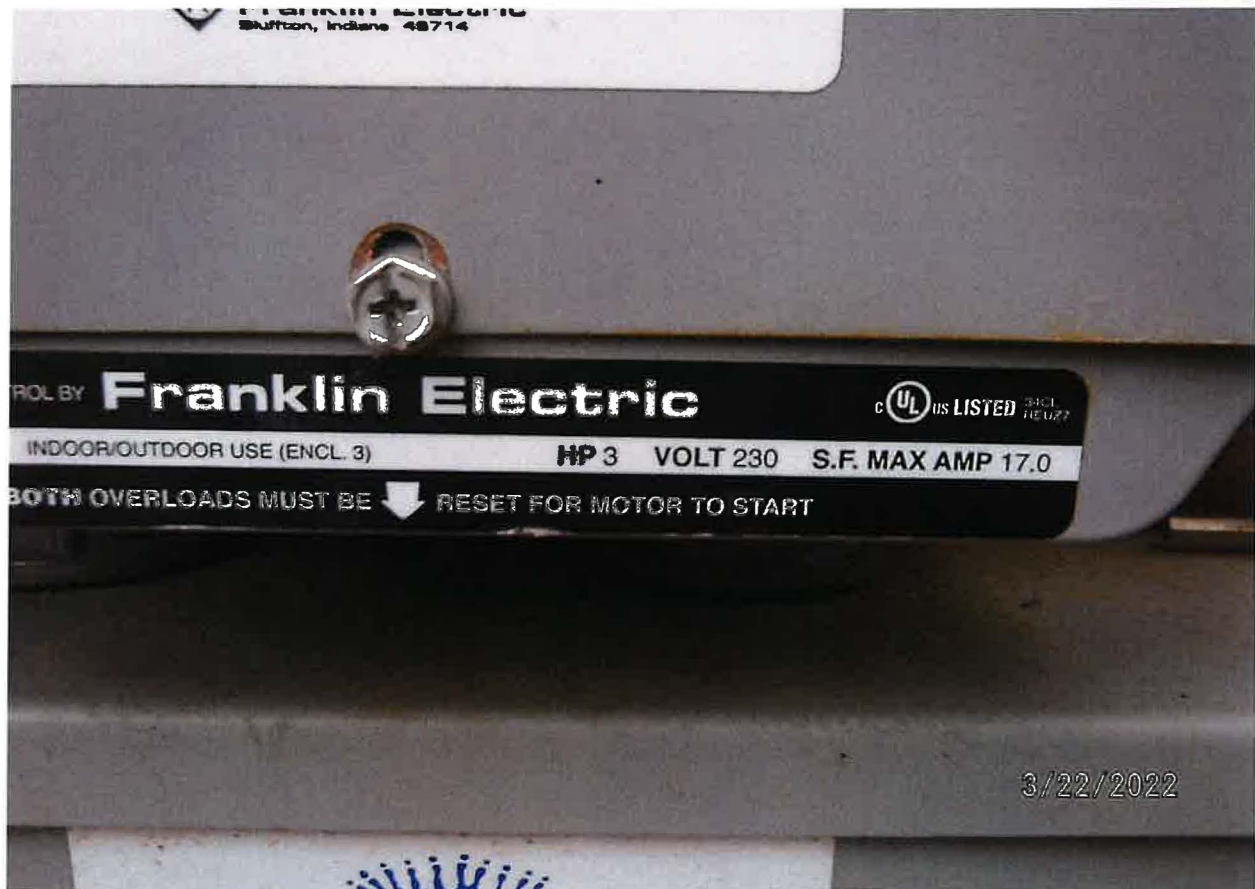
WELL D-TAG D0072304



15,000 GAL STORAGE RESERVOIR



FRANKLIN 3 HP PUMP MOTOR INSTALLED IN WELL





DIVERTING WORKS PUMP HOUSE, LOCATED WITH PARCEL No. RP046900010160



DOMESTIC POU – STUB-IN, PARCEL No. RP04620000018A



DOMESTIC POU – 8444 E COEUR D ALENE LAKE DR, PARCEL No. RP04620000017B



DOMESTIC POU – 8428 E COEUR D ALENE LAKE DR, PARCEL No. RP04620000016B



DOMESTIC POU – 8418 E COEUR D ALENE LAKE DR, PARCEL No. RP04620000014B



DOMESTIC POU – SHARED SHOP WITH APARTMENT, PARCEL No. RP04620000039B



DOMESTIC POU – 3245 S LOCHURST LN, PARCEL No. RP04960002001A



DOMESTIC POU – 3219 S LOCHURST LN, PARCE No. RP04960002004A