

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-11369
Exam Date: 06/01/2021

1. Current Owner:
POULOS LOTS WATER ASSN 19898 E HAYDEN LAKE RD HAYDEN LAKE ID 83835-5098
2. Accompanied by: Ryan VanDewerker
Phone No: 208-659-7734
Address: Same as above
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
95-143; 95-154; 95-196; 95-344; 95-339; 95-640; 95-643	Hayden Lake	Domestic	Decreed

Comments: Numerous decreed water rights associated with the Hayden Lake Decree overlap this rights POU shape but are designated by lot(s) located in Lakewood on Hayden Subdivision which do not include the 5 parcels covered under this permit's water use(s). There is no concern for overlap between these rights and this permit.

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 L2 (NE¼ NW¼), Sec. 11, Twp 51N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS; POD located at -116°40.3387, 47°21'90 well D-Tag D0003877

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	
51N	03W	11					X L2												

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
D0003877		5			

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 40.4 gpm or **0.09 cfs** considering department rounding standards.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measured Method: Theoretic Pump Equation = 5 hp pump installed at depth of 288 with operating pressure of 45 PSI equates to 40.4 gpm or 0.09 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A
2. Volume Calculations for Other Uses: Domestic annual volume = 5 homes x 1.2 af = **6.0 af**

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 6/1/2021 with the applicant's representative, Ryan VanDewerker, showed a groundwater well providing water for domestic uses. At the POD, well D0003877 with 5 hp pump has a main service line that routes up hill to a central location with 2ea 6,000-gal storage tanks. A theoretic pumping equation was developed to derive the diversion rate, which equals 40.4 gpm or 0.09 cfs considering department rounding standards. The permit approved diversion rate for domestic use equals 0.11 cfs, 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 two storage tanks, transfer pumps distribute water via 5ea service line splitters to their respective service connection or stub-in locations within 5 separate parcels. Photographs were taken to illustrate the main components of the water system, which include individual water line boxes for each of the Domestic POU's 5 parcels co-located with the storage tanks and electrical system panel.

During the exam, the domestic POU was walked with Mr. VanDewerker. The POU consists of a constructed home on Lot 3, Blk 1 Poulos Lots Subdivision with up to ½ an acre of irrigation, and 4ea dedicated stub-in lines for the remaining 4 parcels in the POU. The stub-in located in Lot 14 Lakewood on Hayden Subdivision has been developed into a frost-free hydrant for water use on the beach front lot until time that a home is constructed. Due to the presence of home/stub-ins, I am recommending domestic beneficial use for 5 homes. Arcmap aerial imagery was used during licensing review to trace out the domestic POU for licensing purposes.

During the exam Mr. VanDewerker was notified of the permit approved irrigation beneficial use component for 4 acres within the same POU as the domestic use. Due to only one of five homes being constructed, irrigation was only occurring at the parcel with the home located on it. Photographs coupled with Arcmap aerial imagery validate that Lot 3, Blk 1 Poulos Lots Subdivision is not irrigating more than ½ acre. It was recommended to Mr. VanDewerker that the applicant could request to have the irrigation beneficial use removed from the permit and shift to the ½ acre per parcel for domestic use at time of licensing. Permit approved acreage = 4.0 acres in the NENW2 and 5 parcels with ½ acre per parcel = 2.5 acres; the combined domestic use ½ acre value is less than the permit approved 4.0 ac, and there is no concern for enlargement of the water right by assigning ½ an acre per parcel vice the irrigation beneficial use component.

Department staff received letter correspondence from the applicant's representative & current owner of Poulos Lots Water Assn requesting the irrigation beneficial use be removed and to license using domestic use with 1/2 per home/stub-in lot. The changes were made during licensing review, and I am recommending this water right for domestic use for 5 homes. The annual volume & maximum diversion volume recommended for licensing equals 5 homes x 1.2 af per home/parcel = **6.0 af**.

Conditions 26A, 046, & R66 were removed from the permit during licensing review. Condition X01 was replaced by X04 to describing 5 homes. Condition 070 was added to describe the irrigation occurring under domestic use shall not exceed ½ acre within each parcel in the POU. Conditions X59 & X60 were added describing the POD/POU being in a named subdivision. Condition 004 shall be carried to licensing. Overlap concerns: decreed water right(s) 95-143, 95-154, 95-196, 95-344, 95-339, 95-640, & 95-643 are associated with a Hayden Lake Decree and overlap this rights POU shape but are designated by lot(s) located in Lakewood on Hayden Subdivision which do not include the 5 parcels covered under this permit's water use(s). There is no concern for overlap between these rights and this permit. 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	6.0 AF

Totals: 0.09 CFS 6.0 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 -

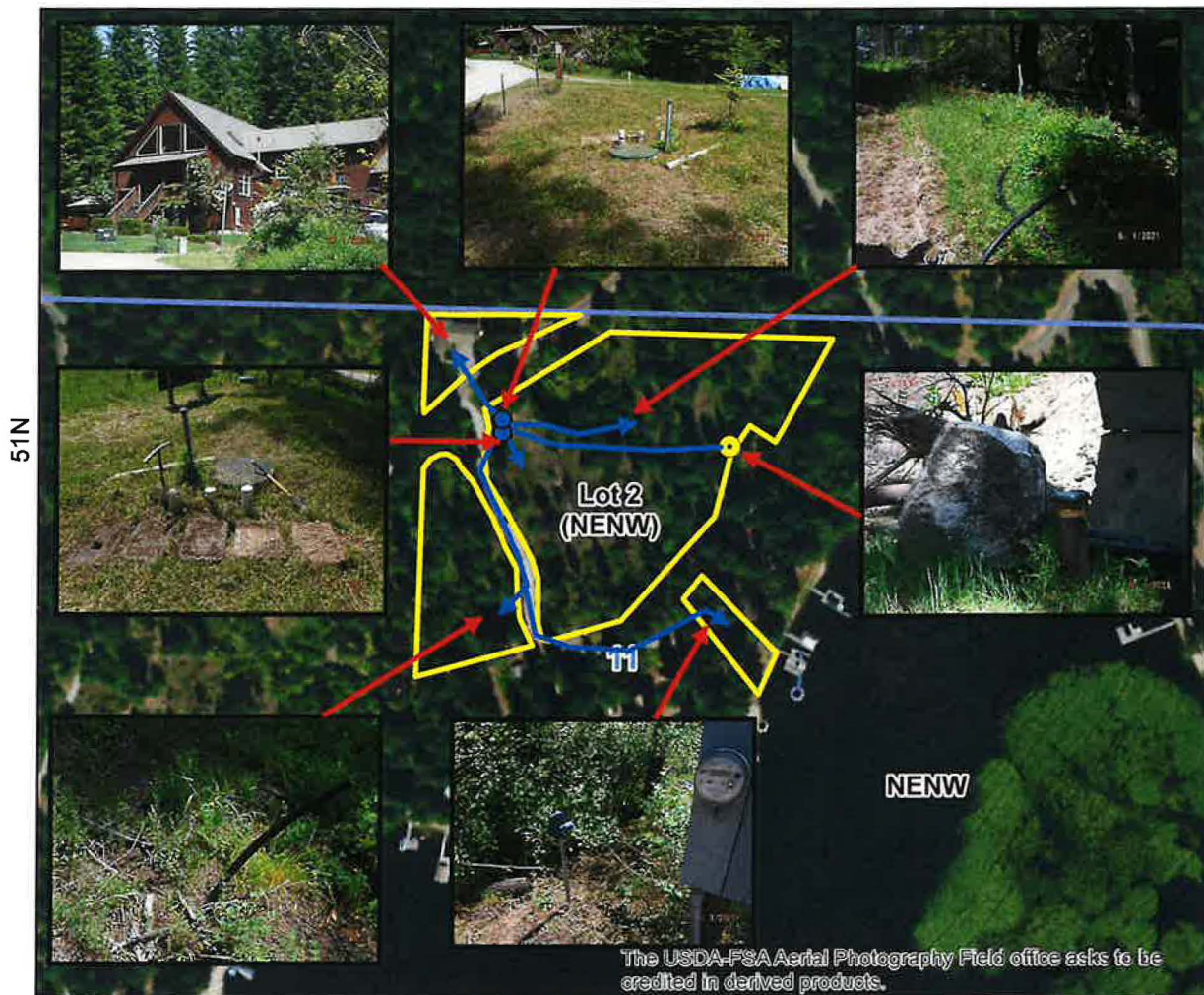
Field Examiner's Name Date 1/14/2022

Reviewer Cidre F. Smith Date 1/31/2022

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-11369

DOMESTIC system diagram.

03W



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

0 0.035 0.07 0.14 Miles



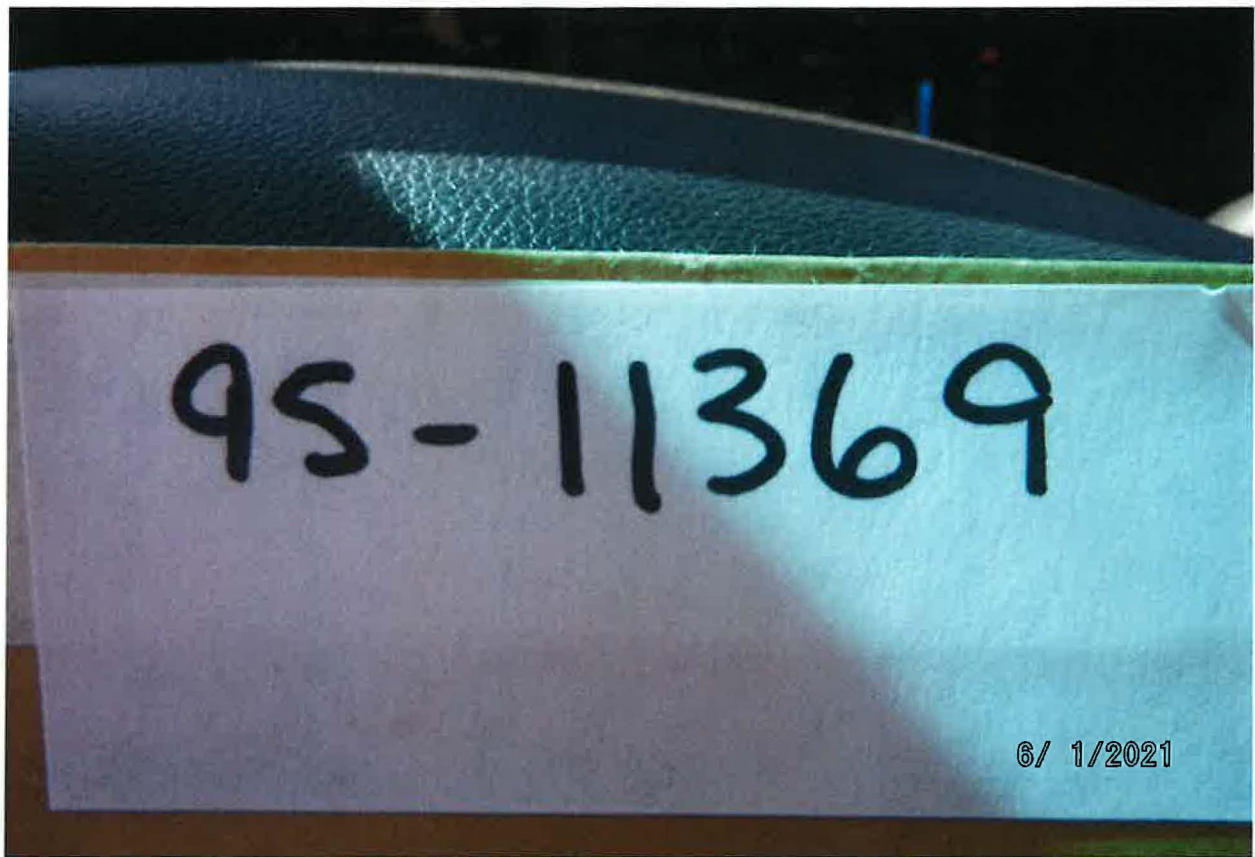
THEORETICAL PUMPING EQUATION(S) FOR WR# 95-11369

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 288 ft, and running at 45 psi.

PUMP EQUATIONS

WATER RIGHT No. 95-11369

D0003877	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = $HP * 8.8 * Eff / H$	5	392.0816	0.8	288	45
Q = 0.090 cfs 40.4 gpm					



FIELD EXAM DATE 6/1/2021



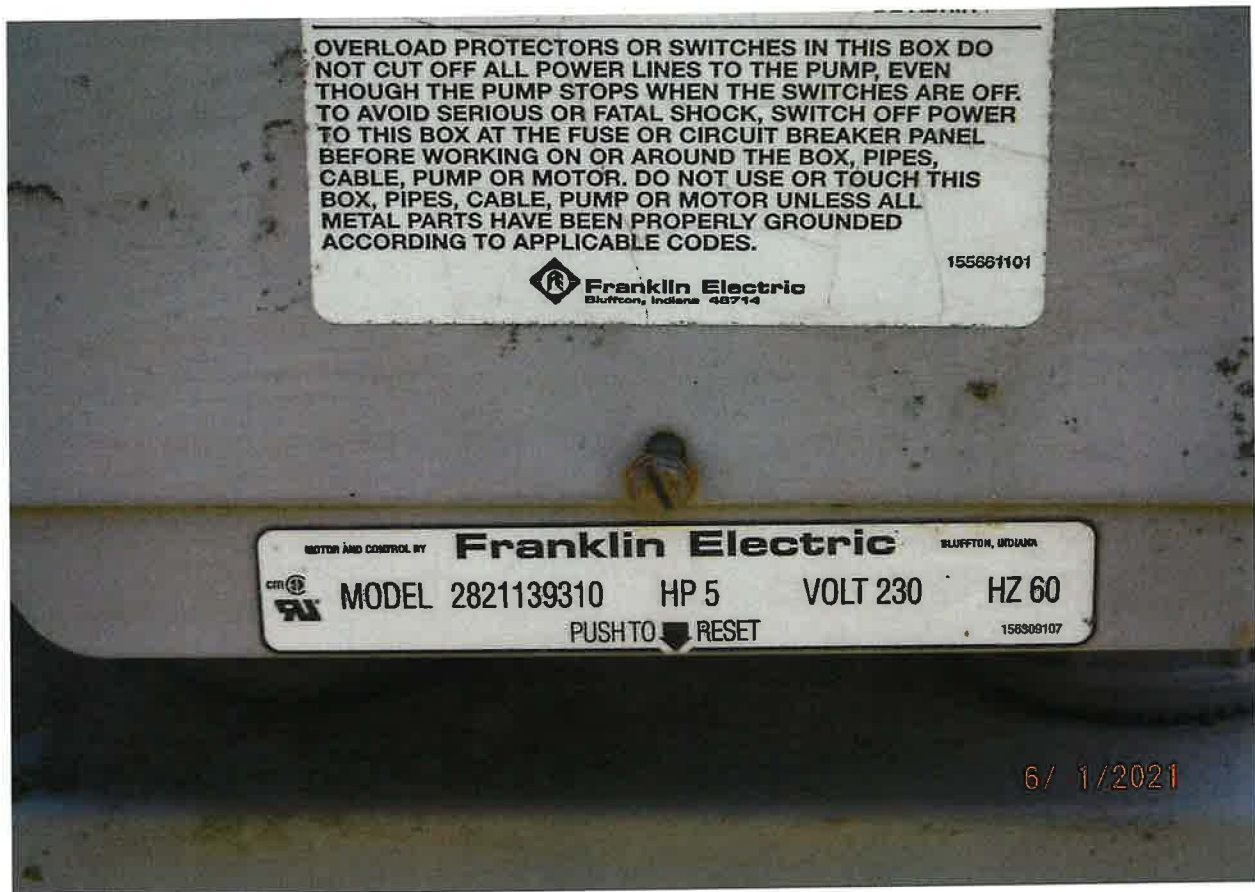
POD – GROUNDWATER WELL D0003877



WELL D-TAG D0003877



WELL PUMP CONTROL PANEL AND TRANSFER PUMP CONTROL PANEL



5 HP WELL PUMP INSTALLED



1 OF 2 6,000 GALLON STORAGE RESERVOIRS



2 OF 2 6,000 GALLON STORAGE RESERVOIRS



SEA SERVICE LINES ROUTE FROM STORAGE RESERVOIRS TO RESPECTIVE PARCEL STUB-INS



DOMESTIC POU – 19898 E HAYDEN LAKE RD – LOT 3, BLK 1; POULOS LOTS SUBDIVISION – PARCEL No.
064500010030



UP TO ½ ACRE IRRIGATION OCCURING UNDER DOMESTIC USE



DOMESTIC POU – STUB IN FOR LOT 4, BLK 1; POULOS LOTS SUBDIVISION – PARCEL No. 064500010040



DOMESTIC POU – STUB IN FOR LOT 2, BLK 1; POULOS LOTS SUBDIVISION – PARCEL No. 064500010020



DOMESTIC POU – STUB IN FOR LOT 1, BLK 1; POULOS LOTS SUBDIVISION – PARCEL No. 064500010010



DOMESTIC POU – FROST FREE HYDRANT AND POWER BOX, STUB IN FOR LOT 14; LAKEWOOD ON HAYDEN SUBDIVISION – PARCEL No. 048200000140