

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-12639
Exam Date: 09/18/2020

1. Current Owner:
DAVID SWANSON 3334 N RAMPART RD COEUR D ALENE ID 83814-7851
NANCY SWANSON 3334 N RAMPART RD COEUR D ALENE ID 83814-7851
2. Accompanied by: David Swanson
Phone No: 208-765-5976
Address: Same as above
Relationship to permit Holder: Permit Holder

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
95-8740	GROUNDWATER	DOMESTIC/STOCKWATER	DECREEED

Comments: Right 95-8740 is a decreed right that uses groundwater from the same well associated with the house (D0069358) as this right. The irrigation occurring under the domestic beneficial use in 95-8740 of ½ acre overlaps this right. Condition X35 has been added at time of licensing to mitigate overlap concerns.

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

Water Right No.	Source	Purpose of Use	Basis
95-8740	GROUNDWATER	DOMESTIC/STOCKWATER	DECREEED

Comments: Right 95-8740 and this right 95-12639 use the same well (permit No. 95-92-N-4, D0069358), and condition F06 has been added at time of license to describe the shared well POD.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE¼ SE¼, Sec. 5, Twp 50N, Rge 03W, B.M. KOOTENAI County
GROUND WATER SE¼ SE¼, Sec. 5, Twp 50N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS; PODs are two wells: well D0069358 (permit No. 95-92-N-4) located at -116°43.411, 47°42.146 and well D0069360 located at -116°43.497, 47°42.082.

PLACE OF USE: IRRIGATION

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	5																7.7	7.7

Total Acres: 7.7

Method of Determination: Field exam and Arcmap.

- 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
D0069358	PENTAIR	5			
D0069360	FRANKLIN	1.5			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5 GAL BUCKET MEASUREMENTS						

2. Measurements: Three 5 gallon bucket tests were completed from each wells frost free hydrant piped direct from well, with the combined flow measurement for two wells equaling 24.4 gpm (D0069358) + 19.6 gpm (D0069360) = 44.0 gpm = **0.1 cfs**, considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: well D0069358 - 5 GAL Bucket Test = (5 gal / 12.78 sec) x 60 sec/min = 23.5 gpm
 = (5 gal / 12.12 sec) x 60 sec/min = 24.8 gpm
 = (5 gal / 12.03 sec) x 60 sec/min = 24.9 gpm
 Average of 3ea 5 GAL Bucket Tests = (23.5 gpm + 24.8 gpm + 24.9 gpm) / 3 = 24.4 gpm

well D0069360 - 5 GAL Bucket Test = (5 gal / 15.62 sec) x 60 sec/min = 19.2 gpm
 = (5 gal / 15.06 sec) x 60 sec/min = 19.9 gpm
 = (5 gal / 15.15 sec) x 60 sec/min = 19.8 gpm
 Average of 3ea 5 GAL Bucket Tests = (19.2 gpm + 19.9 gpm + 19.8 gpm) / 3 = 19.6 gpm

Total flow measurement = 24.4 gpm (D0069358) + 19.6 gpm (D0069360) = 44.0 gpm = **0.1 cfs**, considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 7.7 \text{ acres} \times 3.0 \text{ afa} = 23.1 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.1 \text{ cfs} \times 246 \text{ days} \times 1.9835 = 48.8 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{23.1 \text{ af}}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 9/18/2020 with applicant, David Swanson, showed two wells: D0069358 with a 5 hp pump, and D0069360 with a 1.5 hp pump, diverting water for irrigation use. Water from the wells were piped to separate pressure tanks in the applicant's home and shop. There was a frost free hydrant co-located at each well that was used to complete flow measurements. Three 5 gallon bucket tests were completed from each wells frost free hydrant piped direct from well, with the combined flow measurement for two wells equaling 24.4 gpm (D0069358) + 19.6 gpm (D0069360) = 44.0 gpm = **0.1 cfs** considering department rounding standards, which will be applied to the license as the maximum diversion rate. Right 95-8740 and this right 95-12639 use the same well (permit No. 95-92-N-4, D0069358). The water from two wells are interconnected, as applicant pipes water together for irrigation runs using 3-way splitters throughout the irrigation season.

Mr. Swanson was permit approved for the irrigation of 10 acres; at time of field exam, the applicant's irrigation system and irrigated area was sketched out on a field map. Irrigation was by frost free hydrants and numerous hose runs to reach outlying pasture land. The applicant irrigated a small garden, numerous trees and shrubs, a small orchard, and multiple pasture areas in an effort to develop grass in place of the natural landscape. Mr. Swanson stated that in the last 5 years, he has observed a noticeable change as grass root has taken over. Irrigation of the POU is used to establish stock feed as well. During licensing review, Arcmap was used to trace out the irrigated POU resulting in 7.7 acres. The irrigation annual volume equals 7.7 acres x 3.0 afa = **23.1 af**, which will be applied to license as the maximum diversion volume. The applicant states that the well located near his shop is a lower performing well that provides decent flow, but recharges slowly; due to this Mr. Swanson uses well D0069358 to provide supplemental irrigation to the far reaches of his property when the second well is not performing consistently.

Conditions 046 and 26A were removed from permit during licensing review. Right 95-8740 and this right 95-12639 use the same well (permit No. 95-92-N-4, D0069358), and condition F06 has been added at time of license to describe the shared well POD. Right 95-8740 is a decreed right that uses groundwater from the same well associated with the house (D0069358) as this right. The irrigation occurring under the domestic beneficial use in 95-8740 of ½ acre irrigation overlaps this right. Condition X35 has been added at time of licensing to mitigate overlap concerns. There are no other overlap concerns for this 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>
IRRIGATION	03/15 to 11/15	0.10 CFS	23.1 AF

Totals: 0.10 CFS 23.1 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

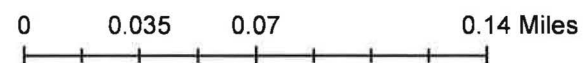
I. AUTHENTICATION Luke Bates - Water Resource Agent






Field Examiner's Name  Date 9/24/2020

Reviewer  Date 9/30/2020

IRRIGATION system diagram.

50N



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



IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 0069360

Drilling Permit No. 8753164
Water right or injection well # _____

2. OWNER:

Name David Swanson
Address 3334 N. Rampart Rd
City Coeur d'Alene State ID Zip 83814

3. WELL LOCATION:

Twp. 50 North ☒ or South ☐ Rge. 3 East ☐ or West ☒
Sec. 5 1/4 SE 1/4 SE 1/4

Gov't Lot _____ County Kootenai
Lat. 47 42.088 (Deg. and Decimal minutes)
Long 116 43.508 (Deg. and Decimal minutes)
Address of Well Site 3334 N. Rampart Rd

City Coeur d'Alene
Lot _____ Blk. _____ Sub. Name _____

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
Bentonite Chips	0	38	1150 lbs.	Temp. Casing

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
6	+2	99	.250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	20	260	40	PVC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 99

9. PERFORATIONS/SCREENS:

Perforations ☒ Y ☐ N Method Saw Cut
Manufactured screen ☐ Y ☒ N Type _____
Method of installation _____

From (ft)	To (ft)	Slot size	Number/m	Diameter (nominal)	Material	Gauge or Schedule
160	260	1/8x6	100	4	PVC	40

Length of Headpipe _____ Length of Tailpipe _____
Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
NA				

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____
Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 42 Static water level (ft) 42
Water temp. (°F) _____ Bottom hole temp. (°F) _____
Describe access port Steel Cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
260	15 gpm	240

Test method:

Pump	Bailer	Air	Flowing artesian
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
10	0	38	Clay		X
8	38	42	Clay		X
8	42	90	Broken Shale	X	
8	90	98	Shale		X
6	98	130	Shale		X
6	130	133	Fractured Shale	X	
6	133	170	Shale		X
6	170	175	Fractured Shale	X	
6	175	227	Shale		X
6	227	231	Fractures Shale	X	
6	231	260	Shale		X

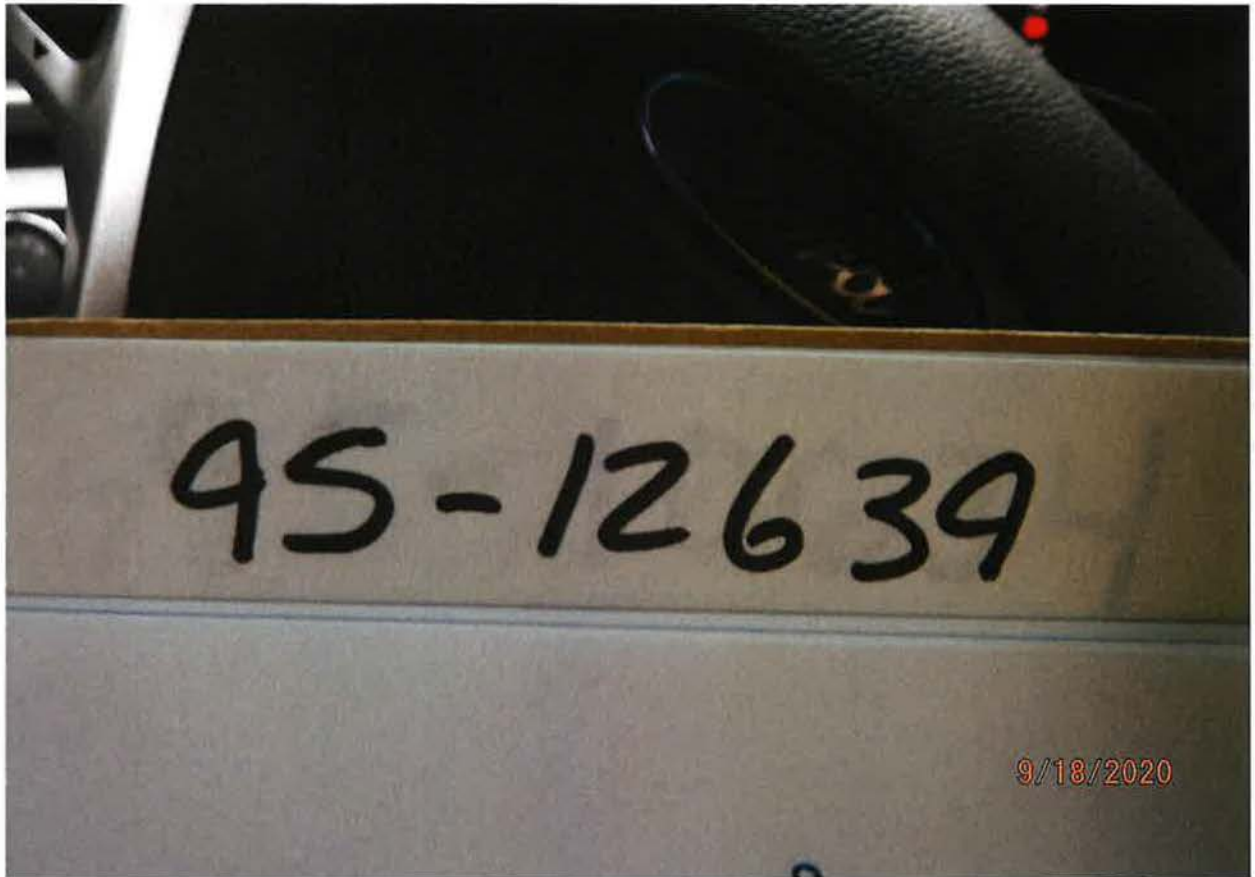
Completed Depth (Measurable) 260'
Date Started: May 18, 2015 Date Completed: May 19, 2015

14. DRILLER'S CERTIFICATION:

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

Company Name Horsley Drilling, Inc Co. No. 632
*Principal Driller C. Mark Horsley Date May 23, 2015
*Driller Steve C. Horsley Date May 23, 2015
*Operator II _____ Date _____
Operator I Robert R. Miller Date May 23, 2015

* Signature of Principal Driller and rig operator are required.



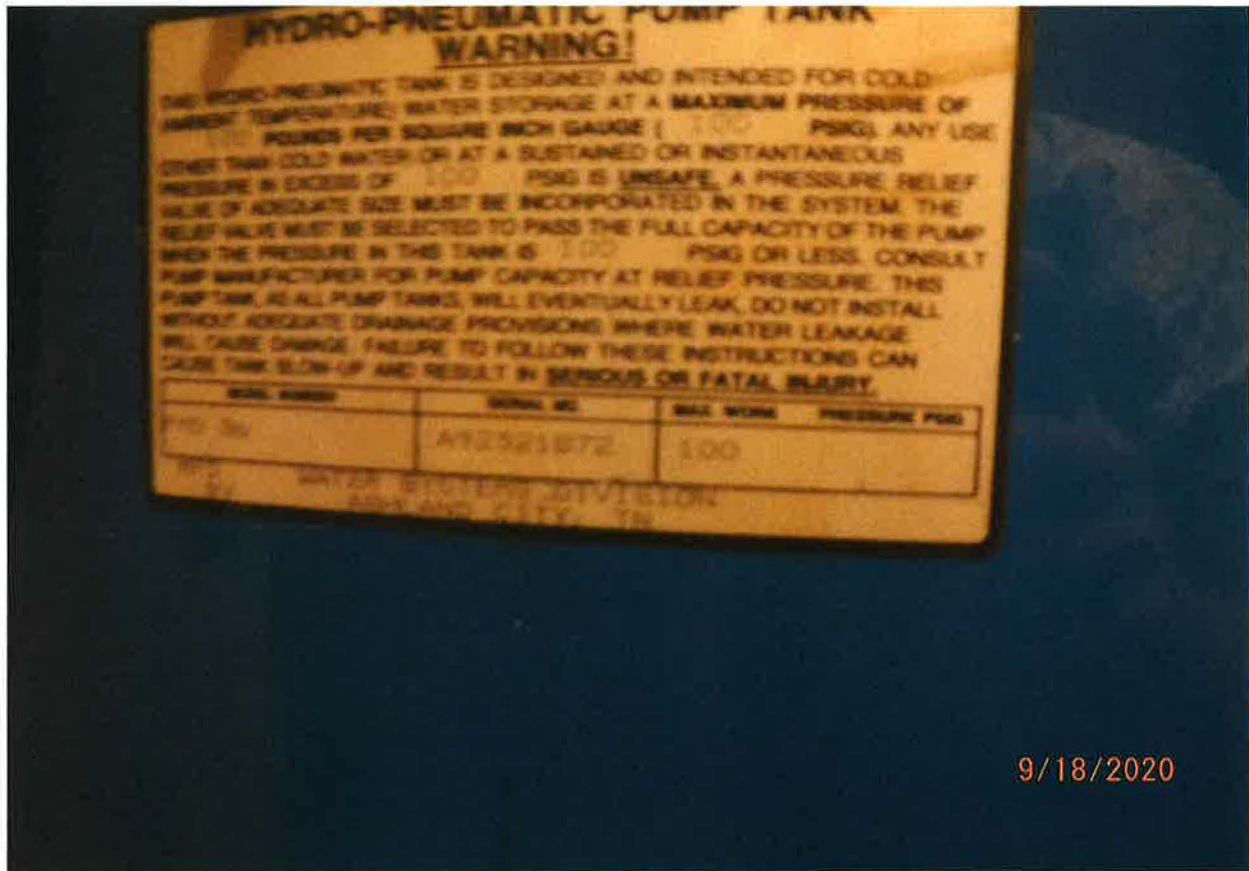
POD – WELL FOR RIGHTS 95-8740 & 95-12639



POD – WELL D0069358



5 HP PENTAIR WELL PUMP



WATER SYSTEM 100 GALLON PRESSURE TANK



60 PSI SYSTEM OPERATING PRESSURE



POD – WELL D0069360



POD – WELL D0069360



5 GALLON BUCKET FLOW MEASUREMENT



1.5 HP WELL PUMP



40-45 PSI SYSTEM OPERATING PRESSURE



IRRIGATION POU



IRRIGATION POU





IRRIGATION POU



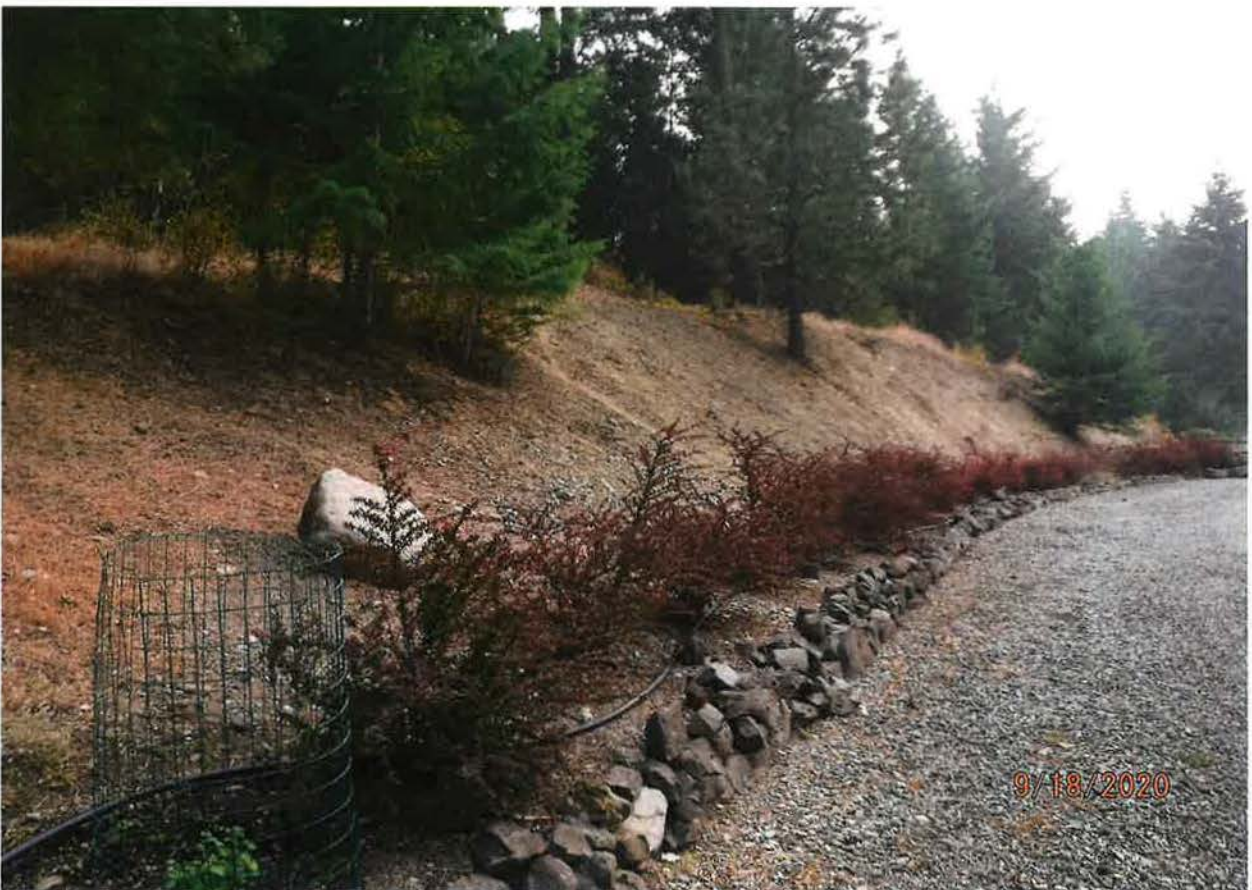


IRRIGATION POU





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