

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14956

Exam Date: 7/3/2017

1. Current Owner:
JAMES D PIPPIN 2195 KILBORN LN MESA ID 83643 2087419001
2. Accompanied by: Current Owner.
Phone No:
Address:
Relationship to Permit Holder:

3. **SOURCE:**
GROUND WATER

TRIBUTARY:**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: None.
2. Other water rights with the same point-of-diversion: None.

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

GROUND WATER NW¼SE¼ Sec. 21, Twp 15N, Rge 01W, B.M. ADAMS County

Method of Determination: Garmin GPS device used to collect position during exam (44d 37.239, -116d 27.534).

2. PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
15N	01W	21														X			

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
15N	01W	21													11.0	18.0			29.0

Total Acres: 29

Method of Determination: 2015 aerial imagery used to determine beneficial use made by time proof of beneficial use form was submitted. ArcMap tools used to measure irrigated areas in acres. Stockwater use verified in barn by horse troughs. Digital PLSS boundary map used to compare accurate legal descriptions.

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
D0053294					

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: System not built with any access to measure a flow.

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method:

Irrigation:

System uses 21 Nelson sprinkler pods. The "Gold 18" plates were observed in the field. Data collected from the manufacturer suggests that these nozzles produce 4.65 gpm under a pressure of 65 psi.

$$21 \text{ nozzles} \times 4.65 \text{ gpm} = 97.65 \text{ gpm} = 0.22 \text{ cfs}$$

Permit	1.00 cfs
B.U. Standard Allowance	0.58 cfs
B. U. Proof Fee	\$100 → 0.20 to 1.00 cfs
Calculated Rate	0.22 cfs
License Recommendation	0.22 cfs

Admin Memo #3 recommends a diversion rate of 0.02 cfs for 0 – 50 head.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 29 \times 4 = 116 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.22 \times 231 \times 1.9835 = 100.8 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 100.8 \text{ af}$$

2. Volume Calculations for Other Uses: 3 horses * 12 gpd/horse = 36 gpd = 0.04 af (0.1 af).

G. NARRATIVE/REMARKS/COMMENTS

The field exam was conducted 7/3/2017 and was accompanied by Mr. Pippin on his property. Mr. Pippin is the current owner to both the land and the permit.

A 6" well was found with tag D0053294 at 44d 37.239, -116d 27.534. The well was drilled in the NWSE QQ of Sec 21. This will require a licensing amendment to correct the POD legal description (NESE).

There are no exposed pipes to run a measurement from the system. The well runs water through a nearby valve system that delivers to the house for domestic purposes, sprinkler irrigation and stockwater troughs for horses in a barn.

At the time of the exam, the system was running and I was able to observe the Nelson sprinkler system irrigate Mr. Pippins ground. He has a PVC main line that has a series of risers on it. He can run up to 21 Nelson sprinkler pod's at one time. Manufacture specs were obtained for the "Gold 18" pod's found in the field. The system pressure gauges indicated a system pressure of 65 psi. At this pressure, the Nelson pod's are rated for 4.65 gpm. 21 pod's at one time at this rate are capable to divert 97.65 gpm or 0.22 cfs.

Proof of beneficial use was submitted April 15, 2014. 2013 imagery confirms irrigation of 29 acres was developed by the time proof was submitted. 2015 imagery shows that further development such as clearing of the ground had taken place. 2014 LandSat data was not useful in my search for evidence regarding the beneficial use of water. Based on these findings, the applicant should file another application for permit to cover water uses outside of what is being recommended for license.

Stockwater use on the permit allowed for up to 50 range cattle. However at the time proof was submitted and during the exam, only 3 horses have been on the property. Mr. Pippin expressed an interest to further develop the water use on the west end of the property. Again, a second permit should be filed to complete the desired uses.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 10/31	0.22 CFS	100.8 AF
STOCKWATER	01/01 to 12/31	0.02 CFS	0.1 AF
	<u>Totals:</u>	0.24 CFS	100.9 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

Field Examiner's Name Patrick Kelly Date 7-10-2017
 Reviewer _____ Date _____



67-14956 System Diagram



Well D0053294



PVC Irrigation Main Line



Stockwater POU



Irrigation POU



COMBINED R33 / R33LP PERFORMANCE (U.S. UNITS)

Plate/Nozzle Options and Flow Performance in Gallons Per Minute

Plate Options	Recommended Nozzles	Model & Radius	PSI									
			25	30	35	40	45	50	55	60	65	
 GOLD 18 #10974-018	 Gold #18 #11078-018 (9/64")	R33LP Rad. 37-42	2.88	3.15	3.40	3.64	3.86	4.07	—	—	—	
		R33 Rad. 43-44	—	—	—	3.64	3.86	4.07	4.27	4.46	4.65	
 BROWN 20 #10974-020	 Brown #20 #11078-020 (5/32")	R33LP Rad. 38-44	3.52	3.85	4.16	4.45	4.72	5.00	—	—	—	
		R33 Rad. 45-47	—	—	—	4.45	4.72	5.00	5.22	5.45	5.68	
 GRAY 22 #10974-022	 Gray #22 #11078-022 (11/64")	R33LP Rad. 39-44	4.24	4.64	5.02	5.37	5.70	6.01	—	—	—	
		R33 Rad. 46-48	—	—	—	5.37	5.7	6.01	6.3	6.57	6.83	
 GREEN 24 #10974-024	 Green #24 #11078-024 (3/16")	R33LP Rad. 41-46	5.00	5.50	5.96	6.38	6.78	7.16	—	—	—	
		R33 Rad. 49-50	—	—	—	6.38	6.78	7.16	7.52	7.85	8.18	
 MAROON 26 #10974-026	 Maroon #26 #11078-026 (13/64")	R33LP Rad. 43-47	5.90	6.50	7.05	7.55	8.00	8.45	—	—	—	
		R33 (Prelim.) Rad. 46-51	—	—	—	7.55	8.00	8.45	8.85	9.25	9.60	

Radius in feet. Measured indoors in no wind with plates mounted 18 inches above collection cups. The absence of data for a particular model/plate/nozzle combination indicates the pressure is outside the recommended range.

COMBINED R33 / R33LP PERFORMANCE (METRIC UNITS)

Plate/Nozzle Options and Flow Performance in Liters Per Hour

Plate Options	Recommended Nozzles	Model & Radius (m)	BAR							
			1.75	2.0	2.5	2.75	3.0	3.5	4.0	4.5
 GOLD 18 #10974-018	 Gold #18 #11078-018 (9/64")	R33LP R. 11.3-12.8	659	703	786	825	862	931	—	—
		R33 R. 13.1-13.4	—	—	—	825	862	931	996	1058
 BROWN 20 #10974-020	 Brown #20 #11078-020 (5/32")	R33LP R. 11.6-13.4	805	859	961	1009	1054	1143	—	—
		R33 R. 13.7-14.3	—	—	—	1009	1054	1143	1217	1293
 GRAY 22 #10974-022	 Gray #22 #11078-022 (11/64")	R33LP R. 11.9-13.4	970	1036	1160	1218	1272	1375	—	—
		R33 R. 14.0-14.6	—	—	—	1218	1272	1375	1468	1554
 GREEN 24 #10974-024	 Green #24 #11078-024 (3/16")	R33LP R. 12.5-14.0	1144	1227	1378	1447	1513	1639	—	—
		R33 R. 14.9-15.2	—	—	—	1447	1513	1639	1753	1862
 MAROON 26 #10974-026	 Maroon #26 #11078-026 (13/64")	R33LP R. 13.1-14.3	1350	1449	1630	1712	1786	1933	—	—
		R33 (Prelim.) R. 14.9-15.5	—	—	—	1712	1786	1933	2065	2184

Radius in meters. Measured indoors in no wind with plates mounted .46 meters above collection cups. The absence of data for a particular model/plate/nozzle combination indicates the pressure is outside the recommended range.

R33LP/R33



Nelson Irrigation Corporation recommends that the R33 & R33LP be stocked and purchased as a full assembly. Please order all other parts for the purpose of repairs only.



Diffuser (Green #11342, Gray #10973)



Plate (Page 15)

Bearing #11077

Body #11076

Nozzle (Page 13)

Adapter w/ O-ring #11344

O-ring #11343

PLATE & NOZZLE	ASSEMBLED R33 CAP, BODY & ADAPTER	ASSEMBLED R33 CAP, BODY (NO ADAPTER)
18	11466-1018	11336-018
20	11466-1020	11336-020
22	11466-1022	11336-022
24	11466-1024	11336-024
26	11466-1026	11336-026

PLATE & NOZZLE	ASSEMBLED R33LP CAP, BODY & ADAPTER	ASSEMBLED R33LP CAP, BODY (NO ADAPTER)
18	11466-1118	11336-118
20	11466-1120	11336-120
22	11466-1122	11336-122
24	11466-1124	11336-124
26	11466-1126	11336-126



Nelson Irrigation Corporation

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E: info@nelsonirrigation.com.au

www.NelsonIrrigation.com

WARRANTY AND DISCLAIMER:

Nelson R33 Rotators are warranted for one year from the date of the original sale to be free of defective material and workmanship when used within the working specifications for which the products were designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair of defective parts and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of this warranty nor to make any representations or warranty not contained herein.

This product may be covered by one or more of the following U.S. Patent Numbers 4796811, RE33823, DES312845, S372307, 5971297, 7584904 and other U.S. Patents pending or corresponding issued or pending foreign patents.

James D. or Gloria A. Pippin
2195 Kilborn Ln
Mesa, Id 83643

5-5-14

RECEIVED

MAY 07 2014

DEPARTMENT OF
WATER RESOURCES

Dept of Water Resources,
P.O. Box 83720

Boise, Id. 83720-0098

Re: Permit No. 67-14956

Enclosed is check #5863 for \$125⁰⁰
upgrade fee for drilling permit
no. 853599.

Jim Pippin

Idaho Department of Water Resources Receipt

Receipt ID: C098797

Payment Amount \$125.00 Date Received 5/7/2014 11:28 AM Region STATE

Payment Type Check Check Number 5863

Payer PIPPIN, JAMES D AND GLORIA A

Comments UPGRADE FEE FOR DRILLING PERMIT 853599 / WR# 67-14956

Fee Details

Amount	Description	PCA	Fund	Fund Detail	Subsidiary	Object
\$125.00	DRILLING PERMITS	54116	0229	21		1205



Signature Line (Department Representative)

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

853599

1. WELL TAG NO. D 0053294

Drilling Permit No. _____

Water right or injection well # 67-14956 (Application #)

2. OWNER:

Name Jim PippinAddress 2259 Kilborn Ln.City Mesa State ID Zip 83643

3. WELL LOCATION:

Twp. 1S North ☒ or South ☐ Rge. 1E East ☐ or West ☒Sec. 21 1/4 NW 1/4 SE 1/4Gov't Lot _____ County AdamsLat. 44 ° 37.242 (Deg. and Decimal minutes)Long. 116 ° 25.536 (Deg. and Decimal minutes)Address of Well Site 0.5m W of Old 95 on 6th8.325m S of Hwy City Mesa

(Give at least name of road - Distance to Road (or Landmark))

Lot _____ Blk. _____ Sub. Name _____

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection☒ Other Irrigation. Pesticides applied for

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 cu ft)	Placement method/procedure
<u>BENTONITE</u>	<u>0.5</u>	<u>3850</u>	<u>POUR</u>	
<u>CUTTINGS</u>	<u>400</u>		<u>SIFT & SLURRY</u>	

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	Welded
<u>6</u>	<u>+1</u>	<u>441</u>	<u>250</u>	<u>STEEL</u>	☒	☐	☒
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 441

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____Manufactured screen ☐ Y ☒ N Type _____

Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule

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

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) 219 Static water level (ft) 200Water temp. (°F) 65 Bottom hole temp. (°F) 65

Describe access port _____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
<u>240</u>	<u>100</u>	<u>120</u>

Test method:

Pump ☐ Bailor ☐ Au ☒ Flowing artesian ☐

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
11	0	2	Soil	
11	2	4	Clay	
11	4	8	Sandy Clay	
10	8	10	Sandy Clay	
10	10	16	Clay & Rocks	
10	16	60	Semi-con. Gravel	
10	60	90	Hard Dry Clay Grn	
10	90	95	" " " Brn	
10	95	97	cem. Gravel	
10	97	153	Gray Clay & Gravel Layers	X
9	153	160	Sand	X
9	160	338	Clay & Sand	S C
9	338	349	Hard Dry Clay	X
9	349	367	Boulders	X
9	367	371	Clay	X
9	371	375	Sand	X
9	375	378	Basalt	X
8	378	401	Basalt w/ Fractures	X
7.5	401	441	Basalt w/ Fractures	X
6	441	476	Basalt w/ Fractures	X
6	476	480	Broken Basalt	X
6	480	486	Fractured Basalt	X

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NOV 17 2008

WATER RESOURCES
WESTERN REGIONCompleted Depth (Measurable): 480Date Started: 9-29-08 Date Completed: 10-28-08

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 Robert Dawson, INC. Co. No. 589*Principal Driller R. Dawson Date 10-29-08

*Driller _____ Date _____

*Operator II _____ Date _____

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.



67-14956 POD

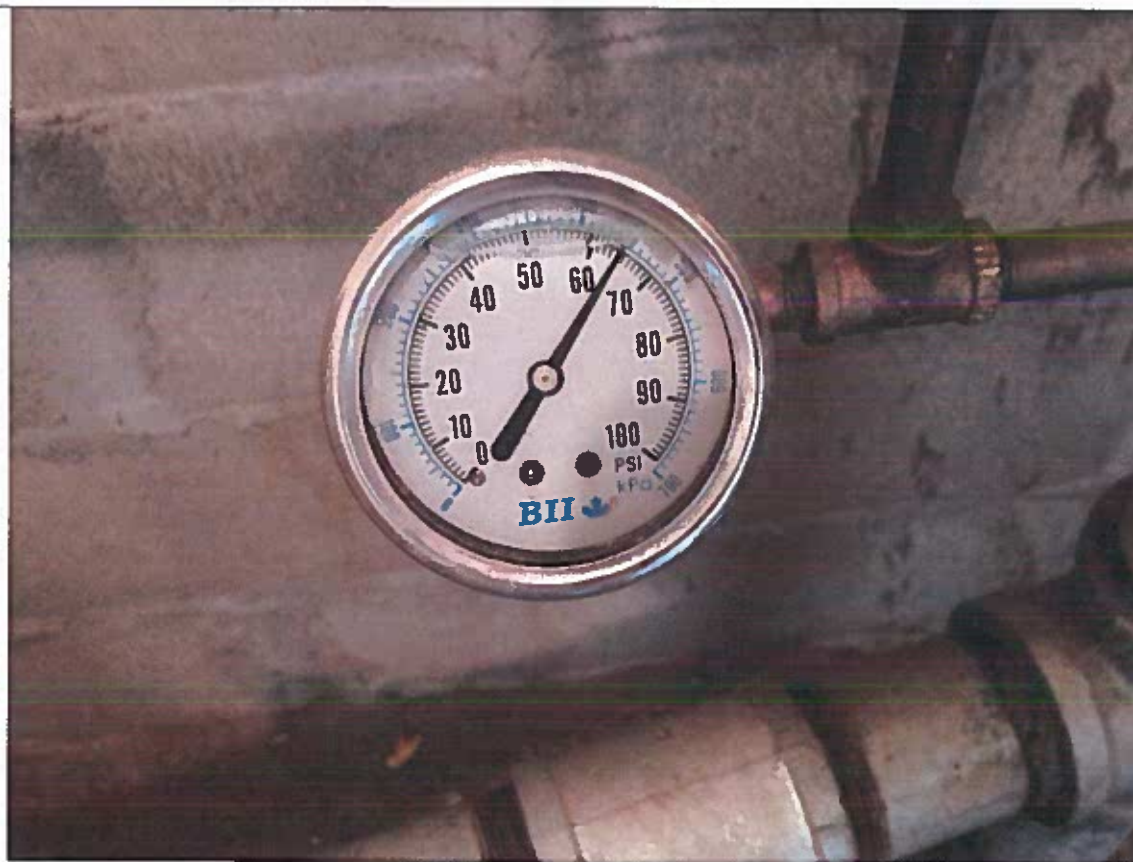
44d 37.239
-116d 27.534



Well Tag #
D0053294



Well house nearby contains valve system which diverts to house, barn, and irrigation use.



System set to run at 65 psi.



Riser on NWSE field



Nelson sprinkler line
running in NESE field.



Nelson GOLD 18
sprinkler pod.

Sprinkler rated at 4.65
gpm when running at
65 psi.

21 pods found on one
line.



"Bar-Bar-A" non-
electric trough. Horses
or stock press flat lever
and a water valve
opens and fills the
bucket.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

April 19, 2017

JAMES PIPPIN
2195 KILBORN LN
MESA ID 83643

COPY

RE: Scheduling Field Exam for Water Right Permit No. 67-14956

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **1.00 cfs of GROUND WATER for IRRIGATION and STOCKWATER use**. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days at (208) 334-2190 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Sincerely,

Patrick Kelly
Water Resource Agent, Sr.

Enclosures: Relinquishment of Permit form
Assignment of Permit form
Water Permit Report and Map