

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATIONPermit No. 63-32220

1. Owner Wendy Adams And/Or Jimmy Young Phone No. 208-850-4832
Current address 6846 W Dickman Rd, Melba, Idaho 83641
2. Examiner's name Cody Parker EXAM DATE 08/10/17
3. Accompanied by Jimmy Young Email _____
Address Same as above
- Relationship to permit holder _____ Phone No. _____
4. Source Groundwater tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use None
2. Other water rights with the same source and point of diversion None

C. DIVERSION AND DELIVERY SYSTEM

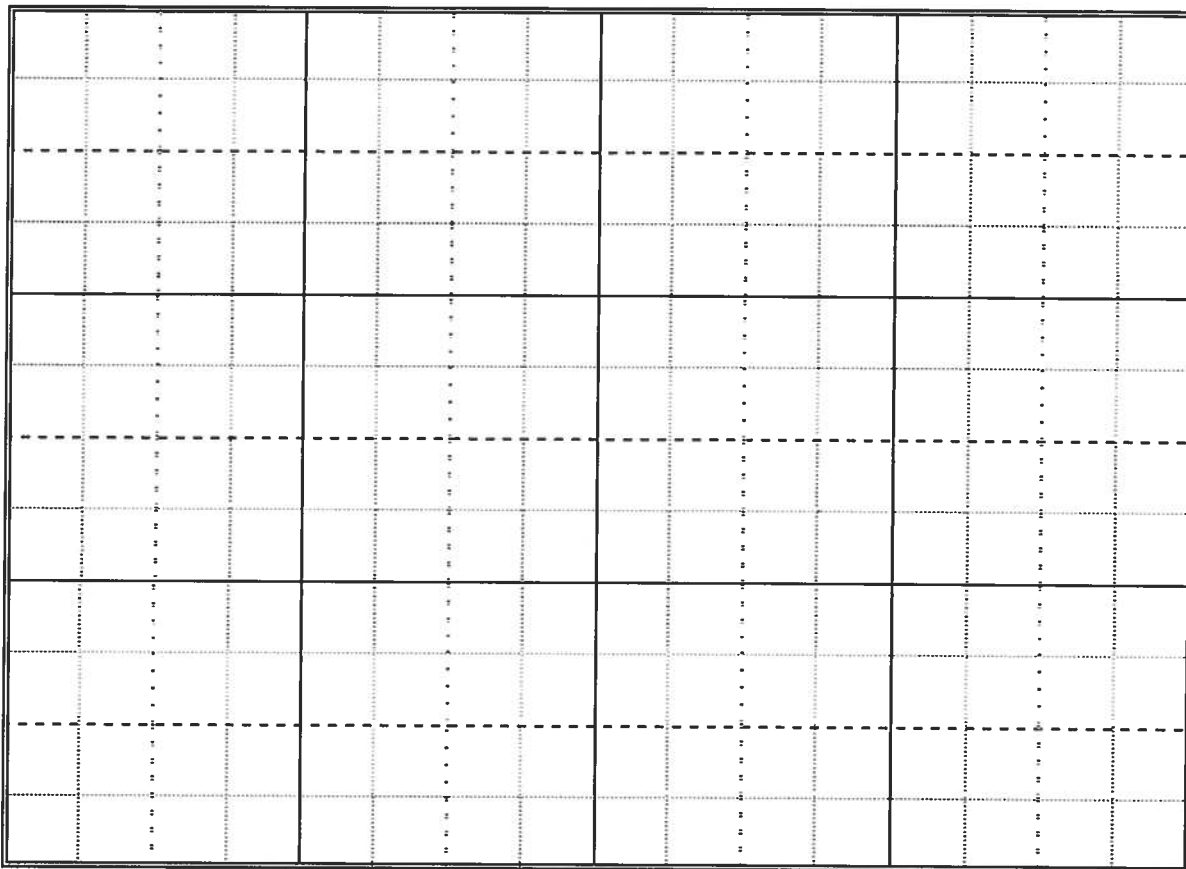
1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
			SW	NE	19	01N	01W	Ada	GPS

2. Place(s) of Use: Method of determination Aerial Imagery, Site Visit

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01N	01E	19		3	26														29

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.



Scale: 1" = _____

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (**required**)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0057973		40			

*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:** _____

23 sprinklers distributed within 5 separate pods. ~4.5 gpm/sprinkler (per manufacturer specs @ 60 psi)

Pivot with 3 towers and end gun

1 mobile gun with 0.6" nozzle @ ~60 psi

E. NARRATIVE/REMARKS/COMMENTS

SEE ATTACHED

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:

23 sprinklers x 4.5 gpm/sprinkler (@ 60 psi) = 103.5 gpm; 23 sprinklers x 3.7 gpm/sprinkler (@40 psi) = 85.1 gpm

pivot = 157 GPM = 0.35 CFS (per design specifications)

(Upper Bound) 157 + 103.5 = 260.5 gpm = 0.58 cfs

(Lower Bound) 157 + 85.1 = 242.1 gpm = 0.54 cfs

PERMIT = 0.63 cfs BU = 29 acres x 0.02 cfs/acre = 0.58 cfs

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 29 \text{ acres} \times 4.5 \text{ afa/acre} = 130.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 0.58 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 299.1 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 130.5 \text{ afa}$$

2. Volume Calculations for Other Uses:

No other uses

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	03/01	11/15	0.58 cfs	130.5 afa
Totals:			0.58 cfs	130.5 afa

2. Recommended Amendments

☐ Change P.D. as reflected on page 1☐ Add P.D. as reflected on page 1☐ None☐ Change P.U. as reflected on page 1☒ Add P.U. as reflected on page 1☐ Other**I. AUTHENTICATION**

Field Examiner's Signature

Date 08/10/2017

SEAL

Reviewer

Date

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
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NARRATIVE

Permit 63-32220 was approved on December 23, 2008, authorizing the diversion of 0.63 cfs from groundwater to irrigate 32 acres. Proof of beneficial use was submitted on October 16, 2012. On August 10, 2017 I (WRA Cody Parker) visited the site to complete a field examination. I was accompanied by Jimmy Young, the owner of the system and permit holder.

The point of diversion is a 10-inch diameter well drilled to a depth of 294 feet. The metal tag welded to the casing has the number D0057973. The coordinates taken at the well are N43°24'32.9" by W116°29'57.8". These coordinates put the POD in the SWNE of Section 19, Township 01 North, Range 01 West, B.M. Water is diverted from the well at 65 psi using what the owner estimates is a 40-hp pump set at an unknown depth. The static water level for the well is 193 feet below the top of casing, which is about 3 feet above the ground surface. Water is pumped through a 6" diameter line to a pivot, and to 5 risers leading into 1½" polyline that feed sprinkler pod zones with a total of 23 sprinkler heads. The sprinkler heads at each of the pods are Nelson brand with gold plates and nozzles. According to the manufacturer's specifications, the heads put out between 3.7 gpm at 40 psi and 4.5 gpm at 65 psi. The pivot is 3 spans in length with an end gun. The flow of the sprinkler heads on the pivot is estimated at 195 gpm for 26 psi pressure according to the pivot specifications from the dealer. He also irrigates using a large gun mounted on a mobile chassis. This mobile gun has a nozzle size of 0.6".

Mr. Young explained he can run all 23 sprinkler heads and irrigate using the pivot without the end gun, all at the same time. At 65 psi the 23 sprinkler heads running simultaneously divert a total of 103.5 gpm or 0.23 cfs. We measured the rate of use for the pivot without the end gun using a Panametric Flow Meter attached to the pivot center. The average rate of 11 measurements was 0.35 cfs. Adding to the sprinkler head rate gives a maximum diversion rate of 0.58 cfs.

In total, I measured 29 acres of irrigated land from aerial imagery. These were located in the SWNE and the NWNE of Section 19, Township 01 North, Range 01 West, B.M. Acres in the NWNE are not described on the permit, so this right will require a licensing amendment. The BU standard diversion rate for 29 acres of irrigation is 0.58 cfs at 0.02 cfs/acre. The BU standard is less than the permitted rate and the same as the measured rate and is recommended for the license. The annual volume recommended for the license is 130.5 afa which is the product of the number of irrigated acres developed and the headgate requirement of 4.5 afa/acre.

There are no other overlapping rights providing water for irrigation of the place of use. Neither are there any other uses for the irrigation well described above. The permit does not have any requirement that measuring or locking devices be installed prior to diversion.

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Figure 1 The 294-foot deep, 10-inch diameter irrigation well.



Figure 2 Metal tag welded to the well casing.
Tag No. D0057973

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Figure 3 Pressure gauge at the well reading approximately 65 psi.



Figure 4 Risers from mainline leading into 1 ½" poly line which feeds sprinkler pods.

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Figure 5 There are 23 sprinkler heads distributed amongst 5 sprinkler pods. Each sprinkler is rated for 4.7 gpm at 65 psi pressure.

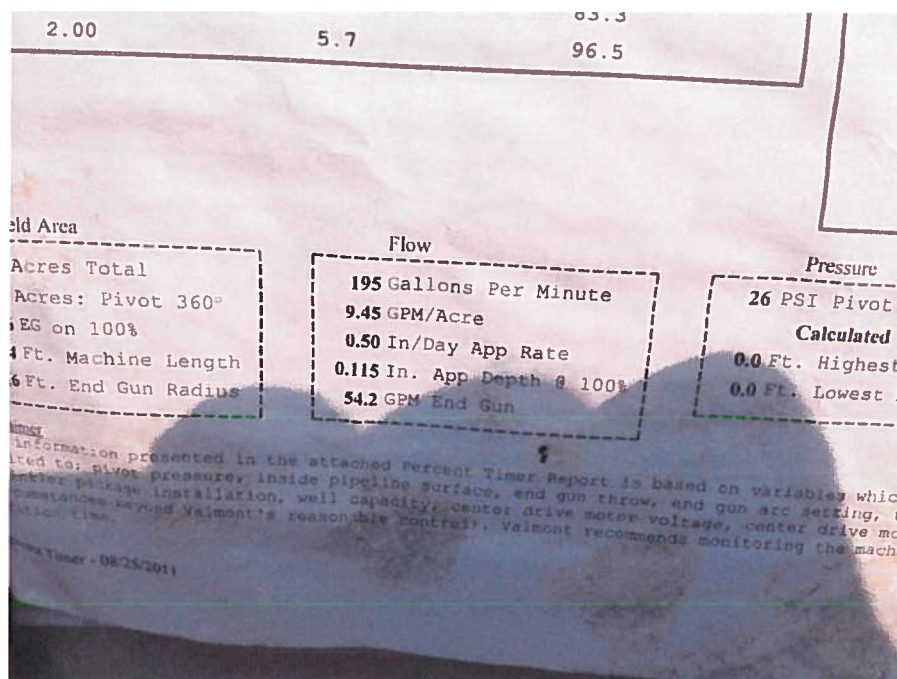


Figure 6 Specs from the pivot info sheet showing the design diversion rate at 26 psi.

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Figure 7 The pivot irrigation, 3 spans in length with end gun.



Figure 8 The sprinkler gun mounted to a mobile chassis. The nozzle on the gun is 0.6”.

0 0.05 0.1 Miles

NWNE



Irrigated Acreage



Pivot



Sprinkler Pods



1 1/2" polyline



Riser



Sprinkler Gun 0.6" nozzle



Well



19 01N01W

SWNE

SENE

State of Idaho
Department of Water Resources
Attachment to Water Right License
63-32220

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



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

0 0.05 0.1 0.2 Miles



Date/Time	Velocity ft/s	Totalizer ft³	Volume ft³/s	Sound speed f/s f/s	Sig Quality Up db	Volume gal/m	Delta T ns
8/16/2017 15:07	1.49	23246.061	0.338	0	2892	151.9	65.32
8/16/2017 15:08	1.48	23266.651	0.336	4828.9	2890	151	62.31
8/16/2017 15:09	1.51	23286.268	0.343	4790.6	2884	153.8	66.91
8/16/2017 15:10	1.55	23307.458	0.351	4790.7	2894	157.5	67.56
8/16/2017 15:11	1.55	23328.032	0.351	4790.6	2882	157.6	66.98
8/16/2017 15:12	1.56	23349.661	0.355	4790.7	2875	159.1	72.37
8/16/2017 15:13	1.57	23370.518	0.355	4790.7	2888	159.5	68.22
8/16/2017 15:14	1.57	23392.161	0.355	4790.6	2872	159.2	71.14
8/16/2017 15:15	1.55	23413.753	0.351	4790.7	2874	157.4	66.46
8/16/2017 15:16	1.58	23434.141	0.358	4790.6	2865	160.5	68.45
8/16/2017 15:17	1.55	23455.772	0.351	4790.7	2875	157.4	66.31

R2000WF Performance/

Rendimiento del R2000WF

Plate*	Nozzle	40 PSI		45 PSI		50 PSI		55 PSI		60 PSI		65 PSI	
		GPM	R	GPM	R	GPM	R	GPM	R	GPM	R	GPM	R
WF12 Purple	#10 Dk Blue** or 5/64"	1.1	36	1.2	36	1.3	36	1.3	35	1.4	35	1.4	35
	#11 Orange or 11/128"	1.4	37	1.5	37	1.5	38	1.6	38	1.7	38	1.8	37
	#12 Purple or 3/32"	1.6	39	1.7	39	1.8	39	1.9	39	2.0	39	2.1	38
WF14 Green	#13 Yellow or 13/128"	1.9	38	2.0	38	2.1	38	2.2	38	2.3	38	2.4	37
	#14 Green or 7/64"	2.2	39	2.3	39	2.4	40	2.5	39	2.6	39	2.8	38
WF16 Red	#15 Tan or 15/128"	2.5	40	2.7	40	2.8	41	3.0	40	3.1	40	3.2	39
	#16 Red or 1/8"	2.9	39	3.1	40	3.2	41	3.4	41	3.5	41	3.7	40
WF18 Gold	#18 Gold or 9/64"	3.7	41	3.9	41	4.1	42	4.3	42	4.5	42	4.7	42
WF20 Brown	#20 Brown*** or 5/32"	4.5	42	4.8	43	5.0	45	5.3	44	5.5	44	5.7	43

R = Radius in feet, measured indoors in no wind conditions with the R2000WF plates mounted 18" above collection cups. GPM = Gallons Per Minute.

*All plate options are high angle.

**Always use a purple motor in combination with a #10 nozzle.

***Always use a gold motor and brown plate in combination with a #20 nozzle.

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

860799

1. WELL TAG NO. D 0057973
 Drilling Permit No. 912148-860799
 Water right or injection well # 63-32220

2. OWNER:
 Name Jimmy Young
 Address 6864 W. Dickman Rd.
 City Melba State ID. Zip 83641

3. WELL LOCATION:
 Twp. 1 North ☒ or South ☐ Rge. 1 East ☐ or West ☒
 Sec. 19 SE 1/4 SW 1/4 NE 1/4

Gov't Lot _____ County ADA
 Lat. 43 ° 24.546 (Deg. and Decimal minutes)
 Long. 116 ° 29.969 (Deg. and Decimal minutes)
 Address of Well Site 6864 W. Dickman Rd.

(Give at least name of road + Distance to Road or Landmark) City Melba
 Lot 2 Blk. 1 Sub. Name Bedrock Est.

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
21 Sack Cement	0	43	2yds	Pour thru 10" casing

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
10	12	38	250	Steel	☐	☐	☐	☒

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) 38'

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) 214 Static water level (ft) 193'
 Water temp. (°F) _____ Bottom hole temp. (°F) _____

Describe access port Top of Casing

Well test: _____ Test method: _____

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
280	275	1 hr.	☐	☐	☒	☐
250	250+	1 hr.	☐	☐	☒	☐

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
14	0	5	Top Soil		X
1	5	8	Hrb pad & Broken Lava		X
1	8	11	Lo Se Broken Lava		X
1	11	19	Solid Lava		X
1	19	35	Fractured lava & Cinders	X	
10	35	38	Solid Lava		X
1	38	64	Fractured Lava		X
1	64	72	Cinders Blk & Red		X
1	72	91	Solid Lava		X
1	91	98	Cinders		X
1	98	141	Solid Lava		X
1	141	161	Lava & Brn Clay		X
1	161	181	Solid Lava		X
1	181	194	Cinders & Fractured Lava		X
1	194	214	Solid Lava		X
1	214	221	Fractured Lava	X	
1	221	229	Brn Clay		X
1	229	238	Red clay & Cinders		X
1	238	244	Solid Lava		X
1	244	249	Brn clay		X
1	249	263	Fractured Lava	X	
1	263	276	Solid Lava		X
1	276	282	Fractured Lava	X	
1	282	286	Red Cinders & Lava	X	
1	286	294	Solid Lava		X
1	294	300	Fine/Med Sand mixed Between Lava layers	X	

RECEIVED

JUN 20 2011

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 294'
 Date Started: 4-5-11 Date Completed: 5-24-11

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 Precision Well Drilling Co. No. 522

*Principal Driller Jeff Ravrom Date 5-26-11

*Driller _____ Date _____

*Operator II _____ Date _____

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

01N01W19

Basin	Sequence	Owner	Source	Use
63-12241	LEAVELL, G	GROUND V	IRRIGATION	
63-136	BARKER RC	BOISE RIVE	IRRIGATION	
63-137B	BARKER RC	BOISE RIVE	IRRIGATION	
63-200A	BARKER RC	BOISE RIVE	IRRIGATION	
63-2106	UNITED ST.	FIVEMILE C	IRRIGATION	
63-233K	AMERICAN	BOISE RIVE	IRRIGATION	
63-2388A	UNITED ST.	BOISE RIVE	IRRIGATION	
63-2392F	BOISE PRO.	WASTE WA	IRRIGATION	
63-251A	UNITED ST.	BOISE RIVE	IRRIGATION	
63-26671	BARKER RC	BOISE RIVE	IRRIGATION	
63-301A	UNITED ST.	BOISE RIVE	IRRIGATION	
63-302A	UNITED ST.	BOISE RIVE	IRRIGATION	
63-32220	ADAMS, W	GROUND V	IRRIGATION	
63-33251	BOISE PRO.	INDIAN CRI	IRRIGATION	
63-33253	BOISE PRO.	TENMILE C	IRRIGATION	
63-3495	FUHRMAN	GROUND V	IRRIGATION	
63-372	BARKER RC	BOISE RIVE	IRRIGATION	
63-373A	UNITED ST.	BOISE RIVE	IRRIGATION	
63-7897	NOE, JOAN	GROUND V	IRRIGATION	

NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
	1	5.8														6.8
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
	3	26														29
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
								33	2.2	7.2	40	19	40	40	24	205.4
	X	X		X	X	X	X	X	X	X	X					
	X	X		X	X	X	X	X	X	X	X					
								25	4	9	39	39	39.7	39	34.1	228.8



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

May 8, 2017

WENDY ADAMS Or JIMMY YOUNG
6864 W DICKMAN RD
MELBA ID 83641

RE: Scheduling Field Exam for Water Right Permit No. 63-32220

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 **0.63 cfs** of **GROUND WATER** for **irrigation** 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,

Cody Parker
Water Resource Agent

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