

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23595
Exam Date: 07/15/2019

1. Current Owner:
PETER ALLEN PO BOX 3095 MC CALL ID 83638
2. Accompanied by: Current Owner
Phone No:
Address:
Relationship to permit Holder:

3. **SOURCE:**
GROUND WATER

Method of Determination: Well driller's report GPS readings and ArcMap tools

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 SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW¼ SW¼, Sec. 24, Twp 17N, Rge 03E, B.M. VALLEY County

Method of Determination: Garmin GPS collected: 44 47.460N 116 02.666W.

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	
17N	03E	24											0.3						0.3

Total Acres: 0.3

Method of Determination: Irrigation area measured using ArcMap tools and 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
387838	Unknown	Unknown	Unknown	Unknown	Unknown

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
5 Gallon Bucket						

2. Measurements: Able to collect measurement from spigot using 5 gallon bucket

E. FLOW CALCULATIONS

x Additional Computation Sheets Attached

Measured Method #1: Beneficial Use Standard

0.3 acres * 0.03 cfs/acre = 0.01 cfs

Measured Method #2: Theoretical

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Efficiency = 0.70

Depth to Water = 70 ft.

Psi = 35

Hp = 10

See attached theoretical sheet

Theoretical Calculation = 0.41 cfs

Measured Method #3: 5 Gallon Bucket Test

Three trials to fill 5 gallon bucket:

- 1) 16.2 sec
 2) 15.13 sec → Avg. = 15.6 sec / 5 gal
 3) 15.47 sec

$$\frac{5 \text{ gal}}{15.6 \text{ Sec}} * \frac{60 \text{ sec}}{1 \text{ min}} = \frac{19.23 \text{ gal}}{1 \text{ min}} * \frac{1 \text{ cfs}}{448.58 \text{ gpm}} = 0.04 \text{ cfs}$$

Permit	0.10 cfs
B.U. Standard Allowance	0.01 cfs Irrigation use
B.U. Proof Fee	\$50 → 0.01 to 0.20 cfs
Measurement Rate	0.04 cfs
Theoretical Rate	0.41 cfs

License Recommendation 0.01 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.3 \text{ acres} \times 3 \text{ af/acre} = 0.9 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.01 \text{ cfs} \times 214 \times 1.9835 = 4.2 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 0.9 \text{ af}$$

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

Field exam was completed July 15, 2019 by agent Justin Shearer and was accompanied by Shilynn Novak and Tyler Smith of IDWR and current permit owner Peter Allen. Current county taxlot information indicates that Peter Allen is current property owner to 172 Spink Lane in McCall, Idaho.

A GPS location was collected at the well using a Garmin device (44° 47.460N 116° 02.666W). Information about the specific type of pump was not available during the visit. The well and pump were inaccessible due to being encased and insulated for winter conditions. Water was pumped from the well, through a spigot controlled with a timer, through a drip line to the crops. No POD overlap exists at this location.

Due to inaccessibility to the well, a 5 gallon bucket test was used to determine a diversion rate at the spigot. Mr. Allen noted that the well was not running at full capacity for this test, but that this was the capacity in which irrigation was normally used. Three tests were run that averaged to 15.6 seconds per 5 gallons. This is equivalent to 0.04 cfs (calculations included in supporting documents). The precise amount of water diverted is unknown due to the use of a drip line with no measuring device and intermittent watering.

Mr. Allen had pump estimates from Dales Pump Works out of McCall for a 10 hp pump, but no documentation of the actual pump installed. A theoretical was completed using a 10 hp pump. Per the well driller's report, the static water level is 3.5 ft., the well was sealed to 66 ft. with a screen installed from 71 ft. to the completed depth of 150 ft. Pumping level was estimated at 70 ft. and a range of levels were used from 50 and 100 ft. respectively. Discharge psi of 35 was used based on standard rates for small irrigation sprinkler systems. Theoretical average flow rate is 0.41 cfs. Given this result, the full use of a 10 hp pump for irrigation is not likely based on the measured rate of 0.04 cfs taken from the 5 gallon bucket test.

Of the 5 acres permitted, 0.3 acres of garden and yard was developed for irrigation use. Mr. Allen suggested that he had irrigated acreage north of the garden in years prior but was unable to yield a crop and establish beneficial use. This place of use contained approximately 20 trees formed into 3 rows of plum, apple, and pear trees with mint interspersed. The trees were juvenile, young saplings and were irrigated with drip lines going directly to the base of each crop. No POU overlap exists at this location.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Volume</u>
IRRIGATION	04/15 to 10/31	0.01 CFS	0.9 AF
<u>Totals:</u>		0.01 CFS	0.9 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

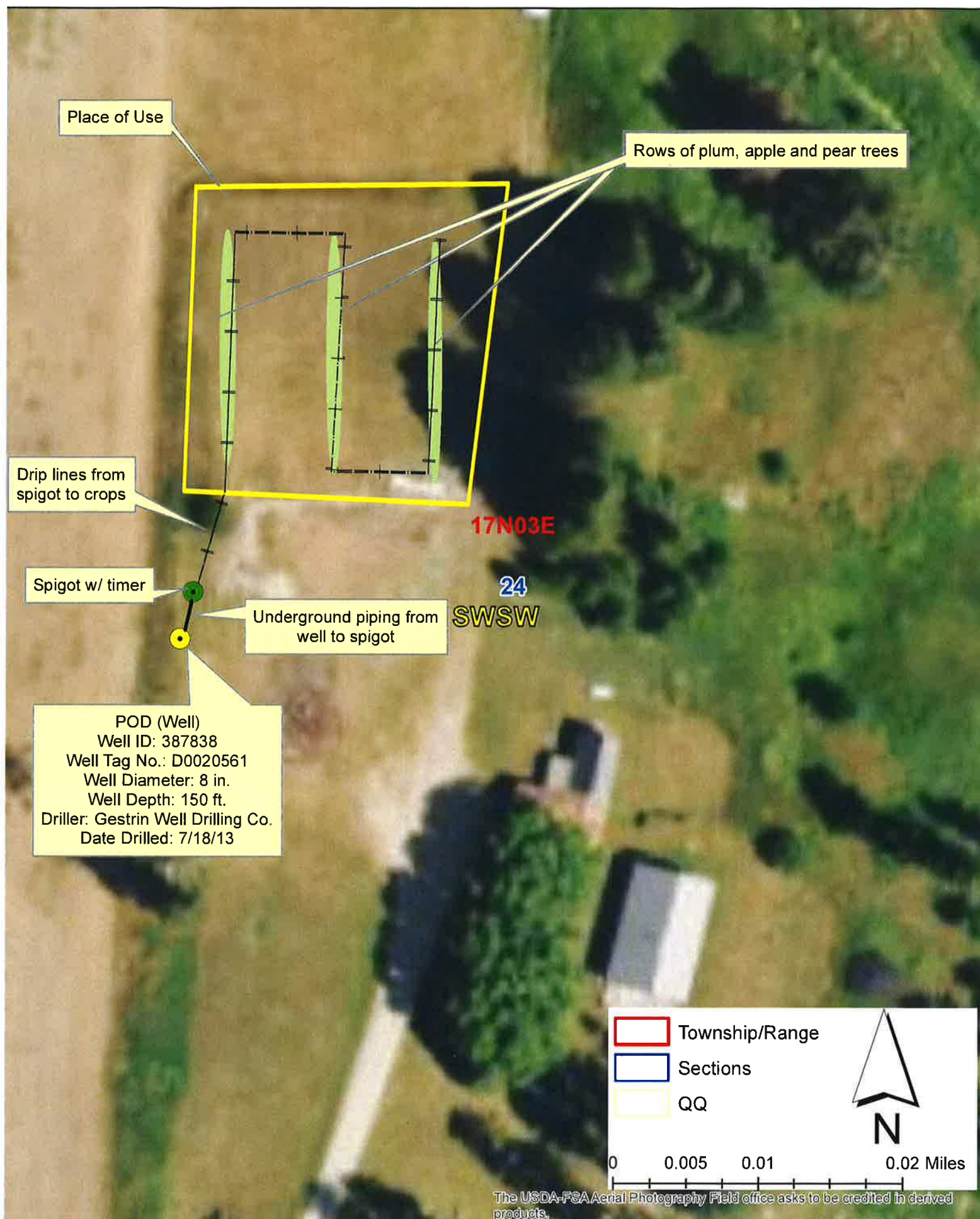
I. AUTHENTICATION

Tyler Smith - Water Resource Agent

Field Examiner's Name  Date 7/29/2019

Reviewer _____ Date _____

Delivery System Diagram for Water Right 65-23595



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 65-23595
 Reviewer: Tyler Smith
 Date of Review: 7/15/2019

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	10	10	10
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	50	70	100
DISCHARGE PRESSURE	35	35	35
RATE OF FLOW (cfs)	0.47	0.41	0.34 0.41

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

Mr. Allen had pump estimates from Dales Pump Works out of McCall for a 10 hp pump. A theoretical was completed using a 10 hp pump. Per the well driller's report, the static water level is 3.5 ft., the well was sealed to 66 ft., with a screen installed from 71 ft. to the completed depth of 150 ft. Pumping level was estimated at 70 ft. and a range of levels were used from 50 and 100 ft. respectively. Discharge psi of 35 was used based on standard rates for small irrigation sprinkler systems. Theoretical average flow rate is 0.41 cfs. Given this result, the full use of a 10 hp pump for irrigation is not likely based on the measured rate of 0.04 cfs taken from the 5 gallon bucket test.

17N03E24	Owner	Source	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
BasinSequence																			
65-2254	DUNCAN, GEORGE H; DUNCAN, LINDA B	WILHELM CREEK					24												24
65-2308	BOULDER IRRIGATION CO	BOULDER CREEK					X		X			X							
65-23595	ALLEN, PETER	GROUND WATER											5						5

OVERLAP ANALYSIS



- Point of Diversion Well (44 47.460N 116 02.666W)
- Well ID: 387838
- Well Tag No.: D0020561
- Well Diameter: 8 in.
- Well Depth: 150 ft.
- Driller: Gestrin Well Drilling Co.
- Date Drilled: 7/18/13
- Picture shows the structure that permit owner installed over well to insulate for winter conditions.



- Spigot with timer attached
- Hosing coming out of the spigot going towards place of use.
- Moisture on the ground present from 5 gallon bucket test conducted out of spigot.



- Western most row of irrigated plum, pear and apple trees with mint in between trees



- All three rows of irrigated fruit trees in the place of use, looking north.



- Eastern two rows of irrigated fruit trees in the place of use, looking east.



- Drip lines in the place of use irrigating mint crops



- Looking north from the place of use.
- Area in which permit owner, Mr. Allen, attempted to irrigate and grow crops but was unable to establish beneficial use.

FIELD EXAM CHECKLIST

PERMIT # 65-23595 STAFF Justin Shearer DATE 7/15/19

PREPARE LICENSING FILE (Left side)

- ☒ Copy of permit approval & proof report (place on top)
☒ Copy of original application for permit
☒ Copy of Proof of Beneficial Use Exam fee required \$ 50 Exam fee paid \$ 50
N/A Copies of any Amendments/Assignments/Ownership Docs

EXAM PREPARATION (Right side)

- ☒ Blank Beneficial Use Field Report form
☒ Aerial photo (system diagram map to be completed with permit owner)
☒ Well log (attach to field exam)

Conditions: Measuring device requirements? No Installed? _____
 Other (supplemental conditions, limits, etc.)? _____

Overlap: POD? None
 POU? None

Ownership

Taxlot / ID SOS match? yes

If new owner, collect Assignment of Permit form / Ownership Change form in field.

EXAM APPOINTMENT

owner or rep phone #? 208-271-1257

Owner or rep will be present at exam (someone familiar with system)¹? Peter Allen

Exam date/time/place? 7/15/19, 10:30am Donnelly, 172 Spink Ln.

If cannot get from web or other references: directions to site? approx driving time from office?

System on/operating normally during exam (not always required)?

SYSTEM INFOPump Diversion

Approx HP?

Owner can provide pump curve?

Pump set or lift?

Approx operating psi?

Approx mainline pipe diameter?

Approx # sprinklers? Nozzle size?

Gravity Flow

Ditch capacity?

Weirs or Flumes installed?

Special Remarks:**POST FIELD EXAM**

- _____ Exam date data entered
 _____ Ad Hoc data entry & license shapes
 _____ Exam file prepared – see N:\WR Field Exams\LicenseFileOrganization
 _____ Licensing amendments required _____ If so, received?
 _____ Draft license & WR Layout maps **OR** _____ Void permit

¹ OK to do exam w/o anyone present if owner agrees in advance, provides info so you can find p/d, how system works, how recognize p/u etc. Usually limited to small systems – spring/creek/well for cabins, few acres irrigation, minor stockwater/wildlife/recreation etc.

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 INFORMATION

Permit No. _____

1. Owner _____ Phone No. _____

Current address _____

2. Examiner's name _____ EXAM DATE _____

3. Accompanied by _____ Email _____

Address _____

Relationship to permit holder _____ Phone No. _____

4. Source _____ tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use _____

2. Other water rights with the same source and point of diversion _____

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	1/4	1/4	1/4	Sec	Twp	Rge	County	Method of Determination/Remarks
									N 44° 47.460
									W 116° 02.666

2. Place(s) of Use: Method of determination _____

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

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

*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: _____

E. NARRATIVE/REMARKS/COMMENTS

5 gal bucket test:

1) 16.20 seconds

2) 15.13

3) 15.47

15.6 sec / 5 gal avg

$$\frac{5 \text{ gal}}{15.6 \text{ sec}} \times \frac{60 \text{ sec}}{1 \text{ min}} = \frac{19.23 \text{ gal}}{1 \text{ min}} \times \frac{1 \text{ cfs}}{148.68 \text{ gpm}} = 0.04 \text{ cfs}$$

plum apples ~~pear~~ mint ~ 20 trees

well-maintained drip irrigation for 3 rows @

water goes through the smaller blue

could not get to well ^{pump} so we did the 5 gal bucket test

well pump was covered + insulated + could not get to

Dales Pump Works out of McCall

10 HP pump estimate list

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:

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

 $V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$ _____ $V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$ _____ $V = \text{Smaller of } V_{I,R} \text{ and } V_{D,R} =$ _____

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Totals:			_____	_____

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 _____

SEAL

Reviewer _____ Date _____



SENE

SSW

SENE

NESE

NWSW

NESW

23

24

SESE

SSW

17N03E

SESW

23

NWNW

25

NENW

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 00 20561
Drilling Permit No. 883311-817170
Water right or injection well # 65-22897

2. OWNER:
Name PETER ALLEN
Address P.O. Box 3095
City MCCALL State ID. Zip 83638

3. WELL LOCATION:
Twp. 17 North ☒ or South ☐ Rge. 3 East ☒ or West ☐
Sec. 24 NE 1/4 SW 1/4 SW 1/4

Gov't Lot _____ County VALLEY
Lat. 44 ° 47.461 (Deg. and Decimal minutes)
Long. 116 ° 02.667 (Deg. and Decimal minutes)
Address of Well Site 172 SPINK LANE
City MCCALL

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

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
BENTONITE CHIP	0	6	200 lbs.	POURED
CEMENT/BENTONITE	6	60	150 GAL	PUMPED
BENTONITE CHIP	60	66	150 lbs.	POURED

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	Welded
8"	+2	11	.250	STEEL	☒	☐	☒
8"	11	71	SDR17	PVC	☒	☐	☐
					☐	☐	☐
					☐	☐	☐

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

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☒ Y ☐ N Type SAWED PVC

Method of installation SET IN PLACE

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
71	150	.032		8	PVC	SDR 17

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
8-12 COLORADO SAND	66	150	3,800 lbs	POURED

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) _____ Static water level (ft) 3 1/2

Water temp. (°F) 50 Bottom hole temp. (°F) _____

Describe access port SANITARY WELL SEAL

Well test:	Test method:
Drawdown (feet)	Discharge or yield (gpm)
140	200 + -
Test duration (minutes)	
840	
Pump	Bailer
☐	☐
Air	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
12 1/4	0	2	TOP SOIL	
12 1/4	2	12	BROWN SAND	
12 1/4	12	19	BROWN + GRAY CLAY	
12 1/4	19	24	BROWN SAND	
12 1/4	24	25	BROWN CLAY	
12 1/4	25	64	BROWN + GRAY SAND + SMALL GRAVEL	X
12 1/4	64	70	BROWN CLAY	
12 1/4	70	87	GRAY CLAY w/ SAND STREAKS	X
12 1/4	87	92	GRAY SAND	X
12 1/4	92	117	GRAY CLAY	X
12 1/4	117	135	BROWN + GRAY SAND w/ CLAY STREAKS	X
12 1/4	135	147	BROWN CLAY w/ SAND STREAKS	X
12 1/4	147	150	FINE GRAY SAND	X
6	150	158	FINE GRAY SAND	X
6	158	170	GRAY CLAY w/ FINE SAND STREAKS	X
6	170	210	GRAY SANDY CLAY	X
			BACK FILLED w/ DRILL CUTTINGS FROM 150' TO 210'	

RECEIVED

AUG 12 2013

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 150'

Date Started: 7-2-13 Date Completed: 7-13-13

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 GESTRIN WELL DRILLING Co. No. 408

*Principal Driller Robert W. Gestrin Date 7-18-13

*Driller Robert W. Gestrin Date 7-18-13

*Operator II _____ Date _____

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 W Airport Way • Boise ID 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348

Website: idwr.idaho.gov • Email: westerninfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

April 29, 2019

PETER ALLEN
PO BOX 3095
MCCALL ID 83638

COPY

RE: Scheduling Field Exam for Water Right Permit No. 65-23595

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 **0.100 CFS** from **GROUNDWATER** 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,

Justin Shearer
Water Resource Agent, Sr.

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