STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-15328
Exam Date: 04/11/2025

1. Current Owner:
   CLARENCE E HOWELL 11785 N RIVER RD PAYETTE ID 83661-5085 AND/OR
   KAREN S HOWELL 11785 N RIVER RD PAYETTE ID 83661-5085

2. Accompanied by: CLARENCE HOWELL
   Phone No: **(719) 395-7873**
   Address: SAME AS ABOVE
   Relationship to permit Holder: PERMIT HOLDER

3. **SOURCE:**
GROUND WATER

Method of Determination: GARMIN MAP76 GPS, GIS imagery

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
3-4002, 3-10235	Snake River	Irrigation (permit holders)	Decreed 2007
67-11450, 67-13969, 67-13928	Groundwater	Domestic and Stockwater	Decreed

Comments: This permit is for supplemental groundwater within a POU receiving primary irrigation through the permit holders Snake River rights. The only other apparent overlap are domestic and stockwater rights with different appurtenant parcels.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
None	NA	NA	NA

Comments: No irrigation rights share the permitted PODs.

ONLY 1 WELL DEVELOPED FOR IRRIGATION . IT IS LOCATED SOUTHEAST OF THE HOME

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER L3 (NW¼ SE¼), Sec. 2, Twp 09N, Rge 05W, B.M. PAYETTE County

GPS COORDINATES: N 44.14431° W 116.89962 °.
Method of Determination: GARMIN MAP76 GPS, GIS imagery

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	
09N	05W	2			1.0 L2	4.3 L2									0.8	8.3 L3			14.4

Total Acres: 14.4
Method of Determination: GIS Imagery and Payette County tax parcel map data.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.
X 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
X 1:24,000 or greater.

X Aerial Photo Attached (required for irrigation of 10+ acres).

X 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
D0083260	UNKNOWN	10	UNKNOWN	UNKNOWN	UNKNOWN

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
PANAMETRIC	Acoustic Flowmeter	GE	PT878	10700	Unknown	03/02/2025

2. Measurements: Measurements taken using 402 transducers.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: A Panametrics PT878 was used to record 10 x 1-minute measurements taken at each the pivot riser and the upstream end of the 4" aluminum handline. As these measurements exceeded the permitted rate no further measurements were necessary (see measurement tables below).

Table 1- Pivot Riser Measurement Log

Time 25/04/18	Velocity ft / sec	Vol ft^3 / Sec	FWD Totalizer (GAL)
10:58	Lost Data	Lost Data	Lost Data
10:59	1.74	0.273	459,970.44
11:00	1.75	0.273	460,093.01
11:01	1.75	0.273	460,215.54
11:02	1.75	0.273	460,338.10
11:03	1.72	0.271	460,459.71
11:04	1.72	0.271	460,581.35
11:05	1.72	0.271	460,703.01
11:06	1.72	0.271	460,824.64
11:07	1.72	0.271	460,946.30
11:08	1.72	0.271	461,067.90

Table 2- Aluminum Wheel Line Measurement Log

Time 25/04/18	Velocity ft / sec	Vol ft^3 / Sec	FWD Totalizer (GAL)
9:57	2.45	0.09	459,317.89
9:58	2.45	0.09	459,358.20
9:59	2.48	0.091	459,398.79
10:00	2.48	0.091	459,440.57
10:01	2.48	0.091	459,479.69
10:02	2.48	0.091	459,521.10
10:03	2.48	0.091	459,562.67
10:04	2.48	0.091	459,603.66
10:05	2.48	0.091	459,644.79
10:06	2.48	0.091	459,685.93
10:07	2.48	0.091	459,725.38

Permitted Rate: 0.32cfs
Measured Rate: 0.36cfs
BU Limited Rate: 0.29cfs
Recommended Rate: 0.29cfs
Comments/Recommendations: **The measurements were taken with pivot and wheel line simultaneously operational. The combined rate rounded to the nearest 1/100thcfs is 0.36cfs, which exceeds the permitted rate of 0.32cfs. However, the GIS measured irrigated area is only 14.4 acres and at the standard rate of 0.02cfs/acre the licensed rate should not exceed 0.29cfs. I am recommending that the license be issued with a maximum rate of 0.29cfs, limited by the beneficial use developed and the standard rate established by IC 42-202.3.**

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) = 14.4 acres x 4.5 AF/acre = **64.8 AF annually**

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.29cfs x 260 Days x 1.9835 = **149.6 AF**

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ = **64.8 AF annually**

2. Volume Calculations for Other Uses: NA

Comments/Recommendation: I recommend that the license is issued with an annual volume of **64.8 AF**, per the field headgate standard calculation above.

G. NARRATIVE/REMARKS/COMMENTS

The Department received the Proof of Beneficial Use for permit 67-15328 on July 15, 2024, submitted and signed by the permit holder Clarence Howell. In section 5 of the proof the permit holder stated that beneficial use was developed for the irrigation of 16 acres. On April 11, 2025, a field examination was conducted with "Butch" Clarence Howell (permit holder) as escort. Permit 67-15328 is for supplemental irrigation from groundwater within the place of use (POU) overlapped by rights 3-4002 and 3-10235. When the water level is sufficient surface water is diverted from a pumping station in a pond south of the permitted POU. The surface water is delivered using the same mainline as the permitted use.

The wellhead POD is on the south side of the driveway in the southeast corner of the permit holder's property. The permit holder stated that water is diverted using a 10 Hp submersible pump set at a depth of approximately 45 ft. The system delivers water via a 4" steel main to 2 rows of risers on the north and south ends of the property and a pivot riser on the east side of the property. A large wheel line with 18 sprinkler heads, multiple sections of handline, and 2 sets of K-Line Pods (11 total heads) are attached to the risers using flex line in various combinations. The pivot with end gun and the wheel line were running during the field examination. The combined rate measured during the field examination was 0.36cfs.

Approximately 1.6 acres of the 16-acre place of use (POU) are either occupied by structures or roadways. A GIS measurement found beneficial use has been developed for approximately 14.4 acres of the POU. Although the system can divert the full permitted rate the licensed rate should be limited by the beneficial use developed and the standard rate established by IC 42-202.3. I recommend the license is issued with a maximum rate of 0.29cfs for the irrigation of 14.4 acres, and an annual volume of 64.8 AF per the headgate calculation in section F of this report.

I recommend the license is issued with conditions, 943, WB7, R61, 01M, 931, and 103. Permit condition 121 should be replaced with license condition 103 at licensing. Condition 076 should be removed at licensing as only one point of diversion was developed for the permitted irrigation use. Conditions 046 and 26A should be removed at licensing, according to current guidance.

Have conditions of permit approval been met? _X_ Yes ____ No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
IRRIGATION	03/01 to 11/15	0.29 CFS	64.8 AF
	Totals:	**0.29 CFS**	**64.8 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

Bob Howe - Water Resource Agent, Sr.

Field Examiner's Name Bob Howe Date 5/9/2025

Reviewer Cody Date 5-9-25



Figure 1- Google Earth Pro, c. 2024.- South end of permitted POU.

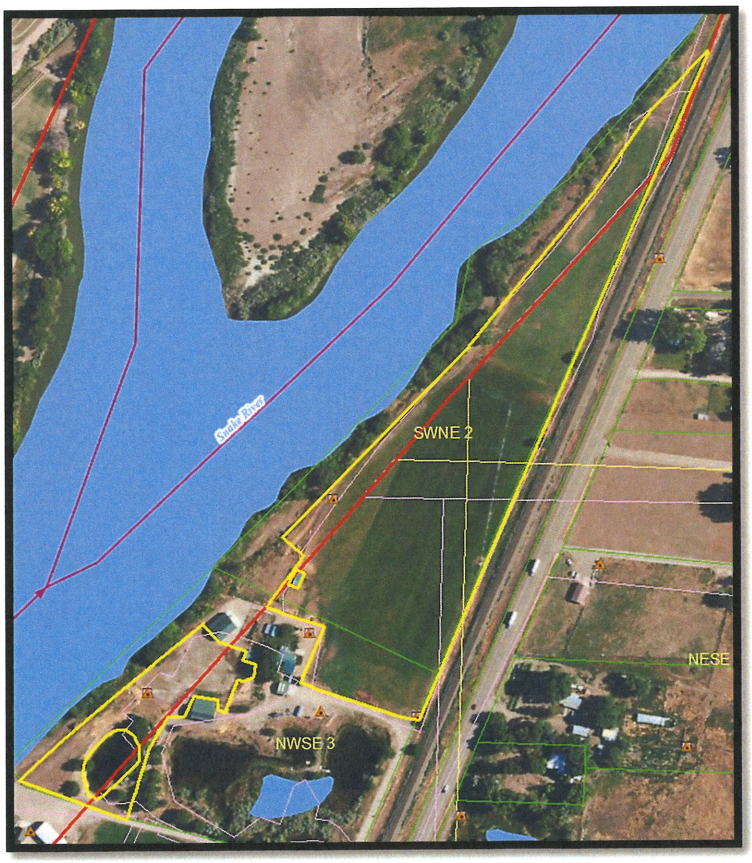


Figure 2- 2023 GIS NAIP Imagery- Measured POU- approx. 14.4 acres

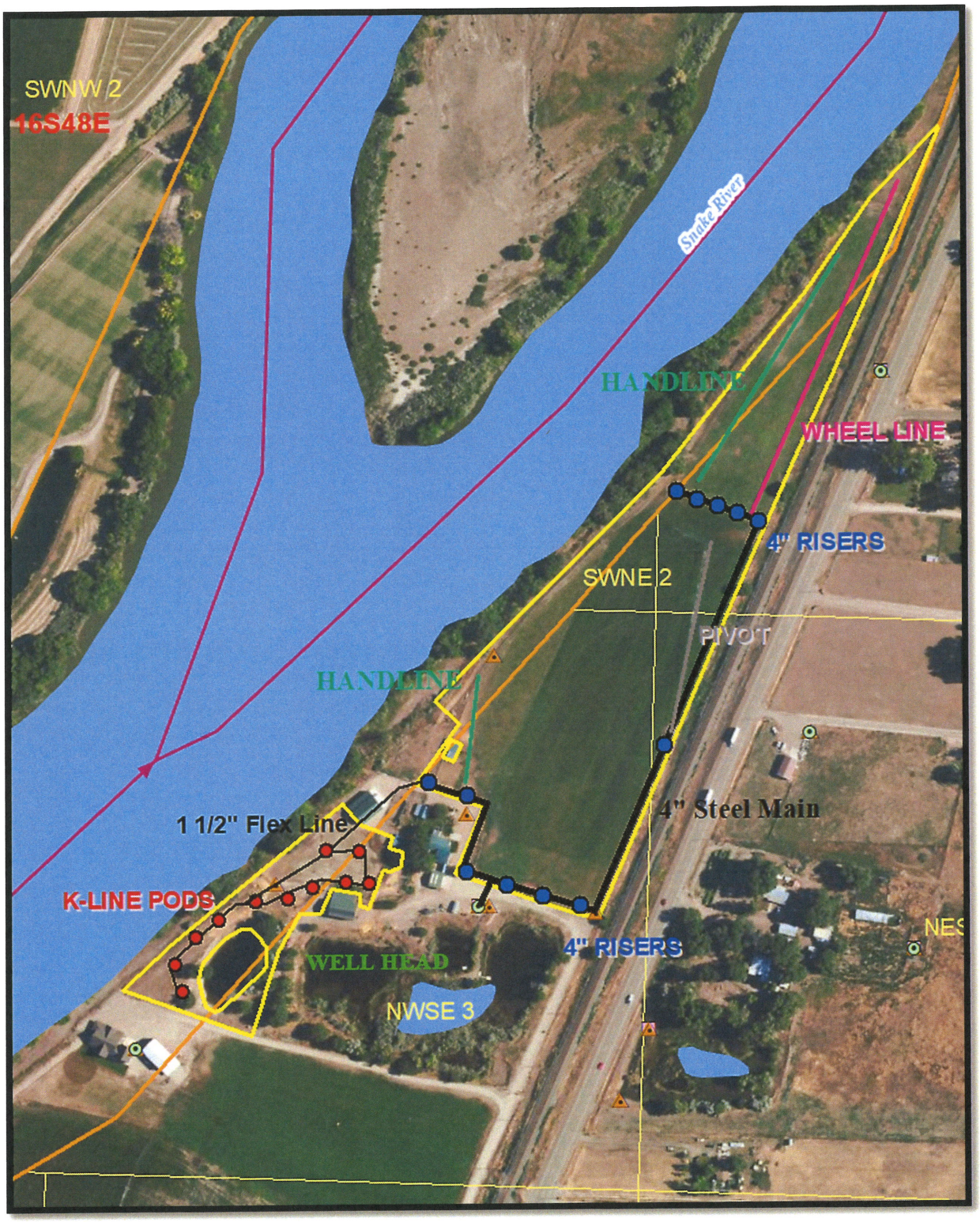


Figure 3- System Diagram (Groundwater) **The wheel line, hand lines, and K-Line Pods can be configured throughout the POU by connecting to the nearest riser. The K-Line in the image represents 2 separate sets of 5 and 6 Pods.**

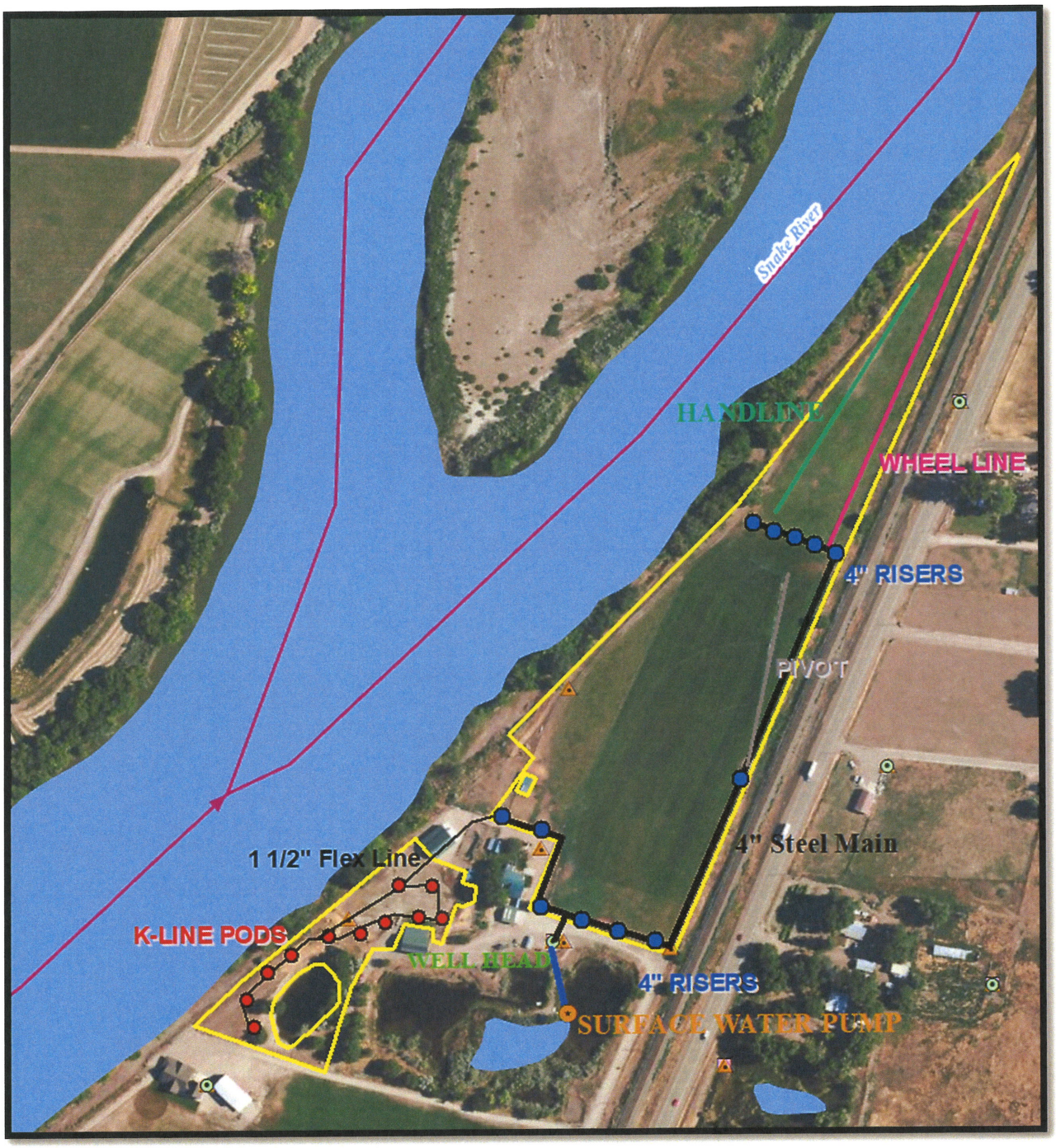


Figure 4- System Diagram (Surface Water) **The primary irrigation is pumped from the pond fed by the Snake River diversion for rights 3-4002 and 3-10235. When the water level in the pond is not sufficient for pumping the system is supplied by the well head.**



Photo 1- At the northeast corner of the POU facing west. The risers along the driveway are circled in blue. The Control panel for the pivot and power for the pumps next to the well head are circled in green on the southside of the driveway.



Photo 2- **The instrument control for the pivot operating at approximately 44.4 PSI with all 33 sprinkler heads and the end gun operational. The wheel line was operating at the time of the photo.**



Photo 3- **Pivot operational while the Panametric records measurements at the tower riser. The wheel line is circled in blue in the center background near the fence line to the left of the field.**

REINKE MANUFACTURING COMPANY
PIVOT SYSTEM SPRINKLER CHART
ELECTROGATOR II Opt 57"

CASE NUMBER: RP215480 DATE: 18 Oct 2021

DEALER: WARRINGTON IRRIGATION NUMBER: 478978

CUSTOMER NAME: BUTCH HOWELL
SERIAL NUMBER: 1021-81622-2060

NUMBER OF TOWERS:	3	NOZZLE FILES:	O3030B, R3030R
GAUGE PRESSURE:	58.0 psi	FRICTION C-FACTOR:	135
TOTAL SYSTEM FLOW:	125.0 gpm	FULL CIRCLE GPM / ACRE:	6.9
TOTAL PIPE LENGTH:	437.0 FT	COVERAGE WITHOUT GUN:	439.7 FT
END GUN TYPE:	SR75-18	ADJ. END GUN RADIUS:	63.7 ft

SYSTEM MANUFACTURER: RMCE2

		FT	PIPE ID	TIRE SIZE	CENTER DRIVE
1 137F2060	SPAN 1,	141.3,	5.80 in		
2 137F2060	SPANS 2- 3,	137.0,	5.80 in	11.2 x 38	40:1
1 23GF	OVERHANG,	21.8,	2.78 in		

Photo 4- **Reinke Pivot System Specifications (inside the control panel). Details include gun type, sprinkler head types, and the total system flow of 125 GPM (0.28cfs).**



Photos 5-7- **Diameter measurement on the pivot riser and images of the sprinkler heads.**



Photos 8 &9- **Pivot facing east at the driveway.**



Photos 10 & 11- **Wheel line diameter measurement and row of risers on the north end of the POU near the end of the wheel line on the right. Handlines are near the horizon in the image on the right.**



Photo 12- **Wheel line in the northern field of the POU.**



Photo 13- **View from beneath the pivot of the wheel line operational at the north end of the POU.**



Photos 14 & 15- Handline leaning on the fence line north of the Pivot. Each section has one sprinkler hear with a 9/64 tip.



Photo 16- Standing at the western end of the fence line north of the pivot looking east. Handlines are stacked in the left of the image and the row of risers are on the left of the fence line in the image right.



Photos 17 & 18- K-line Pods stringed along a 1 ½ " poly line laid out around buildings and corrals along the fence lines west and to the southwest of the home.



Photos 19 & 20- K-Line Pod and sprinkler found throughout the areas southwest of the home.

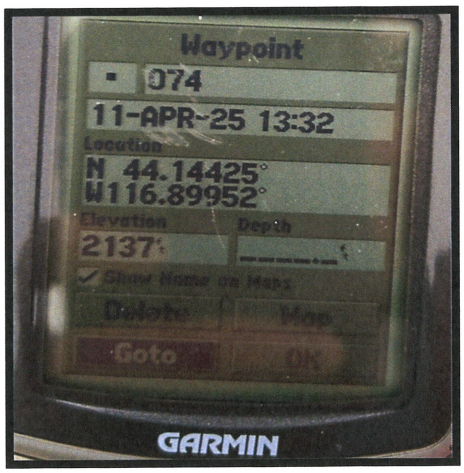


Photo 21- Well head GPS coordinates.

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IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0083260
Drilling Permit No. 892106
Water right or injection well # _____

2. OWNER:
Name Clarence Howell
Address 11785 N River Rd
City Payette State ID Zip 83661

3. WELL LOCATION:
Twp. 09 North ☒ or South ☐ Rge. 05 East ☐ or West ☒
Sec. 2 _____ 1/4 (10 acres) NW 1/4 (40 acres) SE 1/4 (160 acres)
Gov't Lot _____ County Payette
Lat. 44 ° 8.655 (Deg. and Decimal minutes)
Long. 116 °53.976 (Deg. and Decimal minutes)
Address of Well Site 11785 N River Rd
City Payette
(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 cable mud

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite chip	0	18	600lbs	pour in overbore

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
8	+1.5	36	.250	steel	☒	☐	☐	☒
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

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

9. PERFORATIONS/SCREENS:
Perforations ☒ Y ☐ N Method plazma cutter double thick
Manufactured screen ☐ Y ☐ N Type _____
Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
23	31	3/16	13	8	steel	.250

Length of Headpipe 24.5 Length of Tailpipe 5
Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
3/8-pea gravel	18	36	1250lbs	pour in overbore

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) 13 Static water level (ft) 13
Water temp. (°F) cold Bottom hole temp. (°F) cold
Describe access port flat plate

Well test: **Test method:**

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
to 23ft	175	60	☒	☐	☐	☐
to 30	220	15	☒	☐	☐	☐

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	Water N
10	0	2	sand gravel		X
10	2	17	silty sands		X
10	17	31	gravel	X	
10	31	36	blue clay		X

Completed Depth (Measurable): 36
Date Started: 11-5-19 Date Completed: 11-6-19

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 Bens Well Drilling and Repair Co. No. 753
*Principal Driller Ben McGee Date 11-9-19
*Driller _____ Date _____
*Operator II _____ Date _____
Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.