STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9535
Exam Date: 07/09/2020

1. Current Owner:
GYPSY BAY HOME OWNERS ASSN C/O DANIEL RESSO
1630 GYPSY BAY RD SAGLE ID 83860-9175

2. Accompanied by: Daniel Resso
Phone No: 208-794-9954
Address: Same as above
Relationship to permit Holder: Gypsy Bay Home Owners Assn Representative

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
96-8275	GROUND WATER	DOMESTIC / IRRIGATION	LICENSE

Comments: Right 96-8275 is a prior issued license for Gypsy Home Owners Assn, which overlaps this right's POU; right 96-9535 was applied for to increase volume. Condition X35 was added to apply limitations to combined diversion rate and diversion volume for rights 96-8275 and 96-9535.

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

Water Right No.	Source	Purpose of Use	Basis
96-8275	GROUND WATER	DOMESTIC / IRRIGATION	LICENSE

Comments: Rights 96-8275 and this right 96-9535 share a well, which has no data in the system. The well was licensed on right 96-8275, and this right, 96-9535, includes the old well and incorporates a 2nd well D0061860. Condition F06 was added to describe the same POD.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER L1 (NE¼ NE¼), Sec. 34, Twp 57N, Rge 03W, B.M. BONNER County
GROUND WATER L1 (NE¼ NE¼), Sec. 34, Twp 57N, Rge 03W, B.M. BONNER County

Method of Determination: GPS. PODs are two wells located at -116° 40.631, 48° 14.954 (old well, no tag information), and -116° 40.623, 48° 14.951 (new well, D0061860, E0009273).

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
OLD WELL NO TAG INFORMATION	**UNK**	**3.75**			
D0061860	**UNK**	**5**			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: Unable to perform flow measurement due to piping from wells going directly into storage tank and three 86 gal pressure tanks.

E. FLOW CALCULATIONS

__X__ Additional Computation Sheets Attached

Measured Method: 2ea Theoretical Pumping Equations were completed to derive diversion rate for two wells servicing system:

- Old Well – no tag: theoretic pumping equation derived 37.4 gpm = 0.08 cfs. As no data was available in back file, two pumps were used with well (3 hp & ¾ hp), similar pump depth (190 ft) as new well D0061860, and a pressure of (55 psi) were used to determine flow rate for well. Right 96-8275 was licensed with same well, and was licensed with a Maximum Diversion Rate of 0.08 cfs, which aligns with the theoretic pumping equation results used for this right.
- Well D0061860: theoretic pumping equation derived 0.11 cfs with 5 hp pump estimated to be at a depth of 190 feet and operating pressure of 55 psi.
- Combined flow rate between two wells = 0.08 cfs (old well) + 0.11 cfs (well D0061860) = **0.19 cfs** diversion rate.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

V_{IR} = (Acres Irrigated) x (Irrigation Requirement) = 0.6 acres x 3.0 afa = 1.8 af

V_{DR} = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.03 cfs x 246 days x 1.9835 = 14.6 af

V = Smaller of V_{IR} and V_{DR} = 1.8 af (irrigation use of municipal component volume)

2. Volume Calculations for Other Uses:

Domestic use of Municipal component annual volume = 30 homes x 0.6 af per home = 18.0 af

Municipal Maximum Diversion Volume = 1.8 af (irrigation use of Municipal volume) + 18.0 af (domestic use of Municipal volume) = **19.8 af**

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 7/9/2020 with the applicant's representative, Daniel Resso, showed two wells providing ground water for the Gypsy Bay Homeowners Assn. The water conveyance system incorporated 2 well, an old well with 2ea pumps (3 hp and ¾ hp), and a new well with a 5hp pump; the system diverted water directly to 10ea pressure tanks. Due to piping from wells going directly to pressure tanks, I was unable to perform flow measurements. Two theoretical pumping equations were used to derive the flow rate as listed below:

- Old Well – no tag: theoretic pumping equation derived 37.4 gpm = 0.08 cfs. As no data was available in back file, two pumps were used with well (3 hp & ¾ hp), similar pump depth (190 ft) as new well D0061860, and a pressure of (55 psi) were used to determine flow rate for well. Right 96-8275 was licensed with same well, and was licensed with a Maximum Diversion Rate of 0.08 cfs, which aligns with the theoretic pumping equation results used for this right.
- Well D0061860: theoretic pumping equation derived 0.11 cfs with 5 hp pump estimated to be at a depth of 190 feet and operating pressure of 55 psi.
- Combined flow rate between two wells = 0.08 cfs (old well) + 0.11 cfs (well D0061860) = 0.19 cfs diversion rate.

The maximum diversion rate that will be applied to license equals **0.19 cfs**.

Applicant was permitted for municipal use to services to 30 homes and 7.5 acres of irrigation, and using aerial imagery and physical count at time of field exam 31 homes were identified as being hooked up to the system, as stated by Mr. Resso. The annual volume for domestic use of the municipal component was determined using 30 homes without ½ acre of irrigation and equals 30 homes x 0.6 af per home = 18.0 af. Applicant's representative, Mr. Resso, stated that only one home used well water for irrigation, and at time of field exam the irrigated area was sketched out on a field map; at time of licensing review, arcmap was used to trace out irrigation acreage equaling 0.6 acres. The parcel using irrigation is co-located with the two wells, and uses frost free and hose-to-sprinklers to irrigation and water a small garden. The irrigation use of municipal component volume equals 0.6 acres x 3.0 afa = 1.8 af. The maximum diversion volume is the combined domestic and irrigation use and equals 1.8 af (irrigation use of Municipal volume) + 18.0 af (domestic use of Municipal volume) = **19.8 af**, which will be applied to license.

Conditions 26A, 046, and a text condition describing number of homes and irrigation of lawns were removed from permit at time of licensing. Condition 126 was replaced with condition 128, in order to describe a home owner association POU instead of water district municipal POU. Condition 180 was added describing that a map depicting service area was attached for illustrative purposes. Condition F06 was added to describe WRs 96-8275 and this right 96-9535 using the same well (1 of 2) at POD. Condition X35 was added to describe and limit overlap of POU between rights 96-8275 and 96-9535 when combined shall not exceed a total diversion rate of 0.19 cfs, and a total annual maximum diversion volume of 19.8 af at the field headgate.

Right 96-8275 overlaps this right's POU, and right 96-9535 was applied for to add a new POD-well and additional diversion rate to meet the needs of the Gypsy Bay Homeowners Assn. Both rights use groundwater for the same municipal beneficial use, and condition X35 was added to right 96-9535 to mitigate any concern of overlap between rights. There are no additional overlap concerns for this right.

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
MUNICIPAL	01/01 to 12/31	0.19 CFS	19.8 AF
	Totals:	0.19 CFS	19.8 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

Luke Bates - Water Resource Agent

Field Examiner's Name _____ Date 7/24/2020

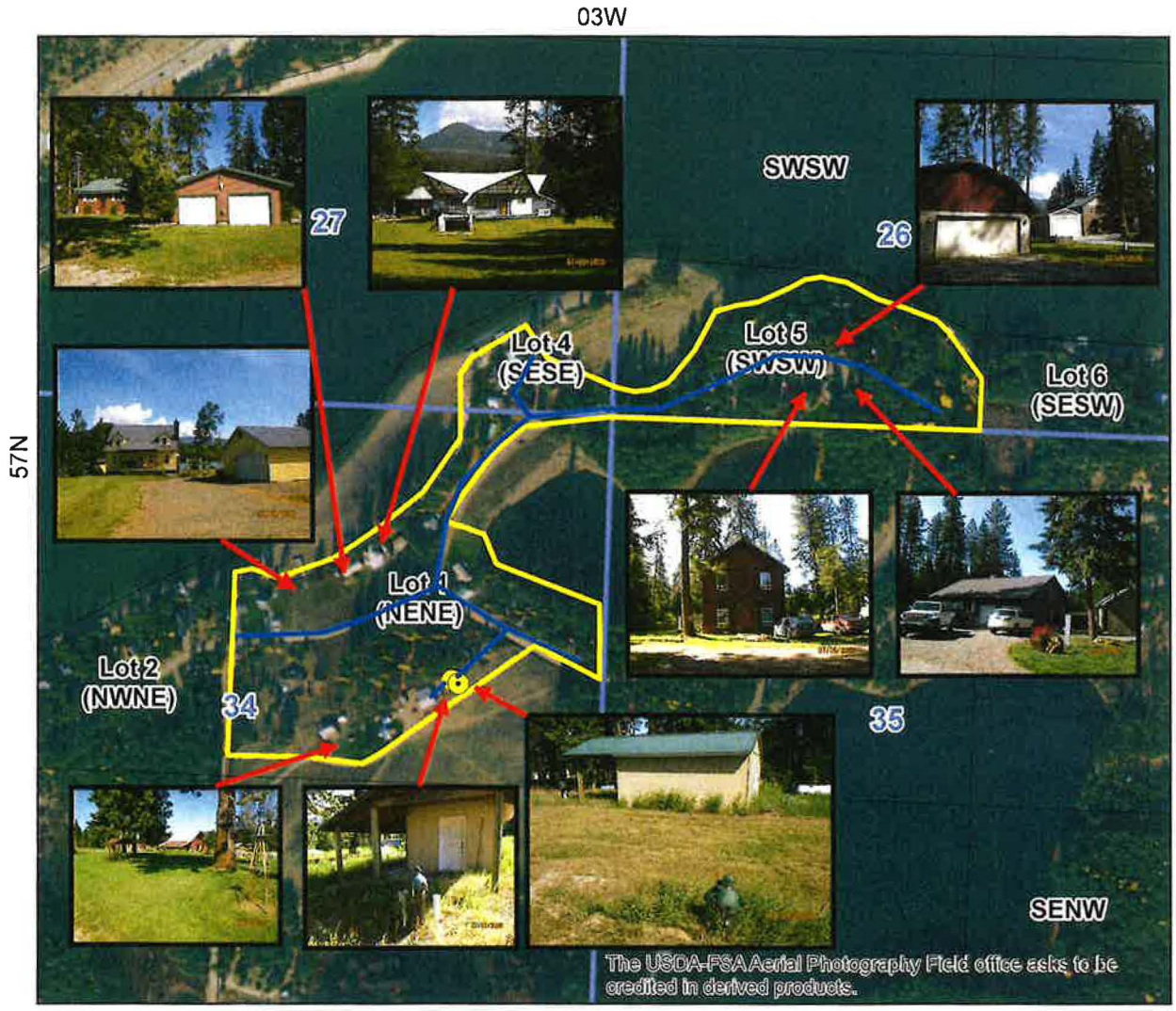
Reviewer _____ Date 7/24/2020

Gypsy Bay Home Owners Assn

Attachment to Field Exam

96-9535

MUNICIPAL system diagram.



Point of Diversion

Water Service Area Boundary

Townships

PLS Sections

Quarter Quarters

0 0.075 0.15 0.3 Miles

N

Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0061860
Drilling Permit No. 871058
Water right or injection well # 96-9535

2. OWNER:
Name Gypsy Bay Water Association
Address 1126 Gypsy Bay Rd
City Sagle State ID Zip 83860

3.WELL LOCATION:
Twp. 57 North ☒ or South ☐ Rge. 3 East ☐ or West ☒
Sec. 34 ____ 1/4 (10 acres) NE 1/4 (40 acres) NE 1/4 (160 acres)
Gov't Lot ____ County Bonner
Lat. 48 ° 14.952 (Deg. and Decimal minutes)
Long. 116 ° 40.625 (Deg. and Decimal minutes)
Address of Well Site 1630 Gypsy Bay Rd
(Give at least name of road + Distance to Road or Landmark) City Sagle
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 ft³)	Placement method/procedure
Bentonite Pellet	0	63	2800 lbs.	Temp. Casing/Dry

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
8"	+1.5	180	.322	Steel	☒	☐	☐	☒
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 200'

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method ____
Manufactured screen ☒ Y ☐ N Type Stainless Steel
Method of installation Placed @ bottom and pulled casing back

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
200	190	50	10	7	Stainless	.322
190	185	25	5	7	Stainless	.322
185	180	20	5	7	Stainless	.322

Length of Headpipe 6' Length of Tailpipe N/A
Packer ☒ Y ☐ N Type K-packer 1@ top of screen 1@ to head

10.FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	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) 55' Static water level (ft) 55'
Water temp. (°F) ____ Bottom hole temp. (°F) ____
Describe access port ____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
200	200+	360

Test method:

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	Water N
13	0	55	Fine Sand		X
13	55	60	Fine Sand w/ clay	X	
10	60	140	Fine Sand w/ clay	X	
10	140	190	Fine Sand w/ gravel	X	
10	190	200	Coarser Sand w/ gravel	X	

RECEIVED
APR 15 2014
IDWR / NORTH

Completed Depth (Measurable): 200'
Date Started: Mar 11, 2014 Date Completed: Mar 19, 2014

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 Mar 26, 2014
*Driller Steven C Horsley Date Mar 26, 2014
*Operator II Zach Horsley Date Mar 26, 2014
Operator I ____ Date ____

* **Signature of Principal Driller and rig operator are required.**

THEORETICAL PUMPING EQUATION FOR WR# 96-9535

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 185 ft, and running at 55 psi.

PUMP EQUATIONS

WATER RIGHT No. 96-9535

OLD WELL NO TAG		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	3.75	317.2109	0.8	190	55

Q = **0.083 cfs** **37.4 gpm**

THEORETICAL PUMPING EQUATION FOR WR# 96-9535

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 185 ft, and running at 55 psi.

PUMP EQUATIONS

WATER RIGHT No. 96-9535

WELL - E0009273		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	5	317.2109	0.8	190	55
Q =	**0.111 cfs**		**49.9 gpm**			

POD – WELL N0 TAG; PUMP HOUSE

POD – NEW WELL E009273

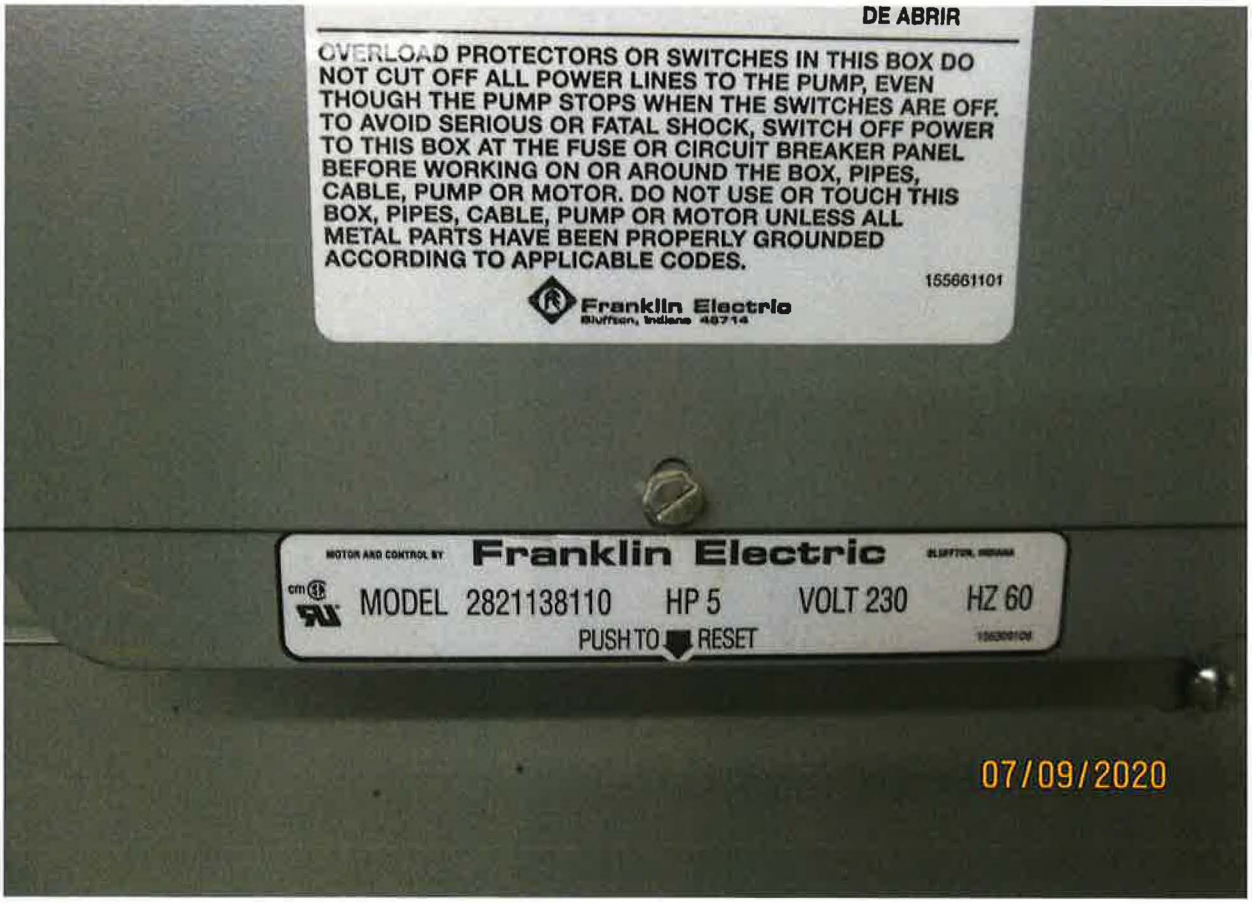
PUMP HOUSE

10 PRESSURE TANKS

OLD WELL 2EA PUMPS; 3 HP & ¾ HP

OLD WELL 3 HP PUMP

OLD WELL ¾ HP PUMP



NEW WELL E009273 – 5 HP PUMP

IRRIGATION POU

IRRIGATION POU

IRRIGATION POU

MUNICIPAL POU

MUNICIPAL POU

MUNICIPAL POU

MUNICIPAL POU