

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

**Permit No:** 96-9690  
**Exam Date:** 05/26/2022

1. Current Owner:  
GARFIELD VILLAS HOMEOWNERS ASSN PO BOX 1053 SAGLE ID 83860
2. Accompanied by: James E Shelledy  
Phone No: 208-265-5830  
Address: Same as above  
Relationship to permit Holder: President, Garfield Villas HOA.

**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                                             |
|-----------------|-------------|-----------------------------|---------------------------------------------------|
| 96-8713         | Groundwater | Domestic (in-home use only) | License with Notice of Claim filed in the CFPRBA. |
| 96-2286         | Spring      | Domestic                    | License                                           |

**Comments:**

- Licensed Right 96-8713 with priority date 8/26/1992 authorizes groundwater use at a rate of 0.10 cfs for 6 homes, with a diversion volume of 3.6 af. The POU is described as Garfield Villas in the license proof reports. Backfile review validates 96-8713 covers in-home domestic use for the initial 6 homes of the subdivision. Current Permit 96-9690 was filed for 9 homes and includes the initial 6 homes in the accounting of domestic use that includes ½ acre per home. There is a direct overlap between Rights.
  - A Notice of Claim was filed in the Clark Fork Pend Oreille River Basin Adjudication process for 96-8713. During licensing review for 96-9690 I have added condition 928 versus X35 to mitigate overlap concerns between WRs due to the active claim requiring court decree to keep 96-8713 active following a basin wide decree for administrative basin 96. Condition 928 describes that if 96-8713 is decreed as recommended in the CFPRBA process, 96-9690 shall be diminished by the amount necessary to avoid any redundancy of water rights. In this case, the annual volume for 96-9690 would be reduced by 3.6 af resulting in an annual volume of 7.2 af. 7.2 af would cover the domestic use for additional 3 homes added to the system and 9 home's ½ acre irrigation per home included in domestic use = (3 homes x 0.6 af) + (9 homes x 0.6 af ½ ac irr) = 1.8 af + 5.4 af = 7.2 af. The 2<sup>nd</sup> well on the water system wasn't added until 2018, so an accomplished transfer can't add I to the adjudication claim. I have revised condition X35 to the license that describes 96-8713 and 96-9690 when combined shall not exceed the diversion rate of 0.13 cfs.
- Licensed Right 96-2286 was licensed for domestic use from a Spring source with a bulk POU shape that overlaps this Permit's POU. Backfile review of 96-2286 illustrates the historic water use from the spring was associated with the Cramer Homesite Subdivision located to the North of this Permit's POU. At the time of licensing review for 96-9690 a Notice of Claim has not been submitted for 96-2286, but if it does gain decree status following the CFPRBA basin wide decree there is no concern for overlap between 96-2286 & 96-9690.

2. Other water rights with the same point-of-diversion: YES Overlap

| Water Right No. | Source      | Purpose of Use | Basis                                            |
|-----------------|-------------|----------------|--------------------------------------------------|
| 96-8713         | Groundwater | Domestic       | License with Notice of Claim filed in the CFPRBA |

Comments: Right 96-8713 has a single groundwater POD, well 96-92-N-166 which is shared with the current Permit's PODs. The applicants added a second well to their system under the active permit 96-9690. I've added condition F06 during licensing review to describe the shared POD(s) between 96-8713 & 96-9690.

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

GROUND WATER SW¼ SE¼, Sec. 21, Twp 56N, Rge 01W, B.M. BONNER County

GROUND WATER SW¼ SE¼, Sec. 21, Twp 56N, Rge 01W, B.M. BONNER County

Method of Determination: GPS. POD(s) are located at -116°26.615, 48°10.860; well permit No. 96-92-N-166 and -116°26.616, 48°10.874; well with D-Tags D0076649 & D0079009 (modified well that was deepened).

**PLACE OF USE: DOMESTIC**

| Twp | Rng | Sec | NE |    |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    | Totals |
|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
|     |     |     | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE |        |
| 56N | 01W | 21  |    |    |    |    |    |    |    |    |    |    |    |    |    | X  | X  |    |        |

Method of Determination: Beneficial use field examination and ArcMap aerial imagery.

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 1:24,000 or greater.

X

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 Model No. | Pump Make | Pump Serial No. or Discharge Size |
|---------------------------|-------------------|----|-----------------|-----------|-----------------------------------|
| 96-92-N-166               | Franklin Electric | 2  | 2823018310      |           |                                   |
| D0079009 / D0076649       | Franklin Electric | 5  | 2821139310      |           |                                   |

**D. FLOW MEASUREMENTS**

1.

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

2. Measurements: I was unable to perform flow measurements due to inadequate pipe requirements. Groundwater from two wells route by main service pipes directly to two 3,000-gal storage reservoirs prior to distribution to water uses. Theoretic pump equations were calculated during licensing review that derive a maximum diversion rate of 56.6 gpm or 0.13 cfs considering department rounding standards.

**E. FLOW CALCULATIONS**  X   Additional Computation Sheets Attached

Measured Method: Theoretic pump equation estimates flow as follows:

- 96-92-N-166 - 2 hp pump at 100 ft with 45 PSI operating pressure equals 31.0 gpm or 0.069 cfs.
- D0076649/D0079009 - 5 hp pump at 515 ft with 45 PSI operating pressure equals 25.6 gpm or 0.057 cfs.
- The combined total diversion rate equals the sum of two pumps or 0.13 cfs considering department rounding standards.

Department standard diversion rate for 9 homes = 0.14 cfs, but applicant is limited by pump performance derived at time of field exam or **0.13 cfs** as recommended for licensing.

**F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation: N/A – irrigation occurring under domestic use only.
2. Volume Calculations for Other Uses: domestic maximum diversion volume = 9 homes x 1.2 af per home = **10.8 af**.

**G. NARRATIVE/REMARKS/COMMENTS**

Beneficial use field exam conducted on 5/26/2022 with the applicant's HOA President, James Shelledy, showed two groundwater wells using water for domestic uses. The original well on the water system, 96-92-N-166, is located within Replat Lot 1 Well Lot, Garfield Villas Replat Lot 1 Subdivision. The second well was constructed in May of 2018 but modified in August of 2018 as described by well driller reports for D0076649 & D0079009; both tags are welded to the casing and the well is located just off the well lot in Lot 1, L & P Lots Subdivision. Both wells have main service lines routing directly to two 3,000-gal community storage reservoirs prior to distribution for domestic uses. A Goulds Aquavar Solo Submersible Pump Controller 3AS30 that is compatible with a 1.5, 2 or 3 hp pump motor is associated with pumping from the storage reservoirs but I'm not certain which HP and make (CentriPro, Pentek, Franklin, or Grundfos) pump is installed in the delivery from reservoir(s).

I was unable to perform flow measurements and theoretic pump equations were calculated using well driller reports and pump motor information during licensing review. The combined diversion rate from the two wells equals **0.13 cfs** considering department rounding standards, which is recommended for licensing. The permit authorized 0.20 cfs for development, but the applicant is limited in diversion rate by pumping capacities from the 2 HP pump installed in 96-92-N-166 & 5 HP pump installed in D0076649/D0079009. From the storage reservoirs water is routed by a main service line north & south along the primary roadway with service stub-ins for 9 parcels.

During the exam Mr. Shelledy and I walked the POU, and I used field maps to sketch the approximate routing of water main lines. Photographs were taken that clearly illustrate the 3ea stub-ins with frost-free hydrants and water shut off valve pipes located on lots RP02350000080A, RP02350000090A, and RP023520000110A. The remaining six lots associated with the domestic POU have homes constructed on them and actively use water for in-home and up to ½ acre irrigation per home. During licensing review, I used ArcMap aerial imagery to assign the domestic POU. The polygon shapes for the three stub-in lots are larger in size than the built-out lots, but IDWR can't be certain which side of the primary roadway a home may be constructed so the larger polygon provides flexibility in the domestic development; each home is still authorized only ½ acre irrigation covered under domestic use. The annual volume and maximum diversion volume recommended for licensing equals 9 homes x 1.2 af per home = **10.8 af**.

Permitted conditions of approval have been changed during licensing review as follows:

- 26A and 046 have been removed, as the applicant complied with the conditions.

- 134 was removed; email correspondence received from Panhandle Health District on 12/29/2023 (attached) identifies the water system as currently used doesn't require PWS monitoring as the population base may not exceed the threshold for serving 25 people for 9 homes. Condition 134 is not applicable at the time of licensing.
- X35 was revised to describe that when combined 96-8713 & 96-9690 shall not exceed a total diversion rate of 0.13 cfs. I recommend keeping this condition despite adding condition 928 which also serves to reduce redundancy between water rights but may not adequately capture the diversion rate overlap between the license and decree process.
- Conditions X59, X60, and F06 were added to the permit describing POD/POU being in named subdivision(s) and the shared well(s) between two Rights.
- All other conditions on the Permit shall be carried forward to licensing.

Overlapping concerns have been discussed in detail on PG 1 of this report, and there are not additional overlapping water right concerns toward licensing this permit.

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>Annual Volume</u> |
|-----------------------|----------------------|--------------------------|----------------------|
| DOMESTIC              | 01/01 to 12/31       | 0.13 CFS                 | 10.8 AF              |
| <u>Totals:</u>        |                      | 0.13 CFS                 | 10.8 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

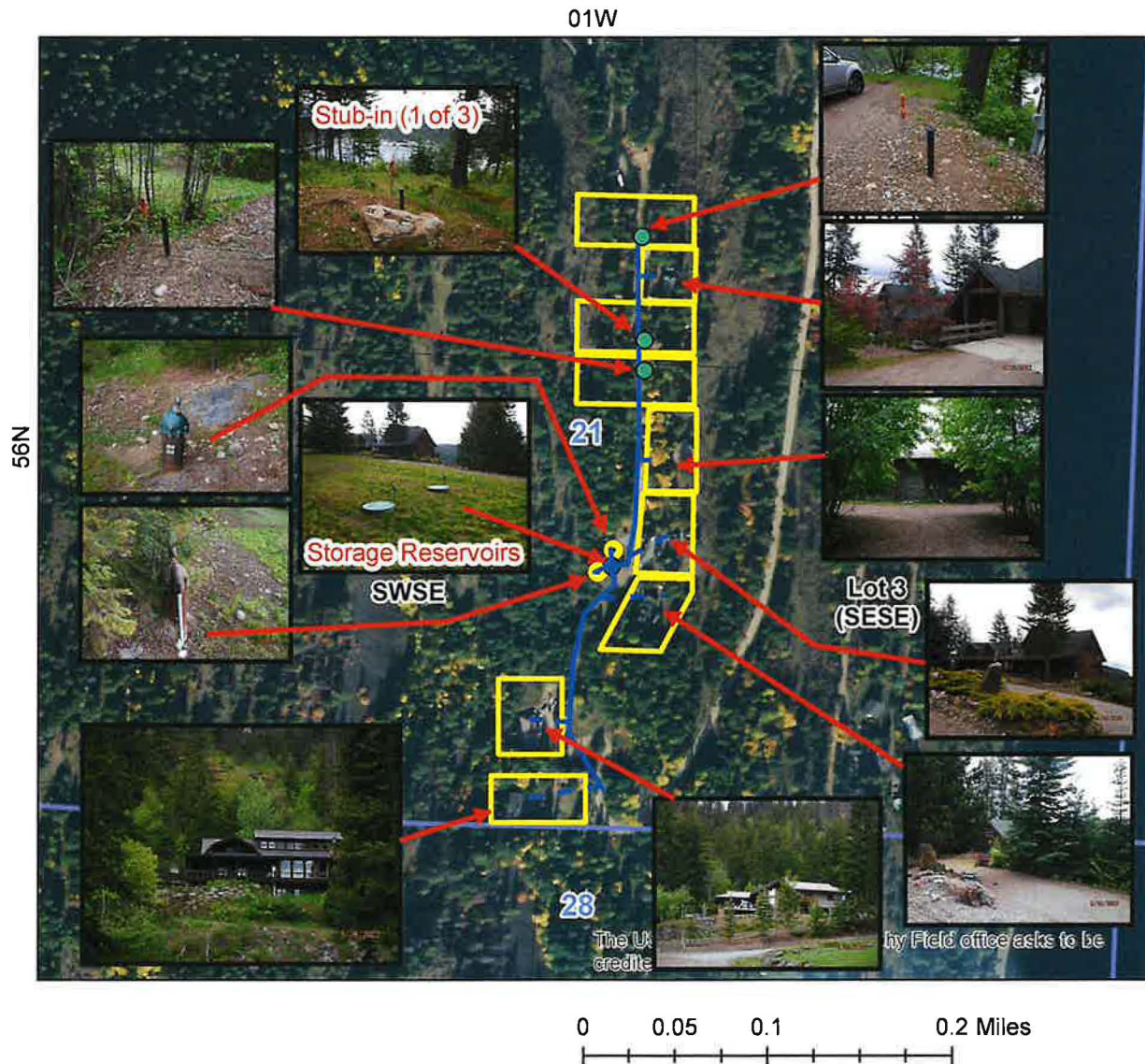
Luke Bates -

Field Examiner's Name                     *[Signature]*                     Date           1/11/2024          

Reviewer                     *[Signature]*                     Date           6/26/24

State of Idaho  
Department of Water Resources  
**Attachment to Field Exam**  
96-9690

This map depicts the DOMESTIC system diagram.



- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters
- Point of Diversion
- Stub-in service connection



## Bates, Luke

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**From:** Jamie Barton <JBarton@phd1.idaho.gov>  
**Sent:** Friday, December 29, 2023 7:38 AM  
**To:** Bates, Luke  
**Cc:** Anna Moody  
**Subject:** RE: IDWR Permit 96-9690

Luke,  
If this system reaches PWS threshold, PHD would have regulatory oversight; however, I believe Garfield Villas does not have more than 9 lots so they may not reach the threshold of serving 25 people per day.  
Jamie



**Public Health**  
Prevent. Promote. Protect.

**Panhandle Health District**

Jamie Barton | Environmental Health Program Manager  
8500 N. Atlas Rd., Hayden ID 83835  
P: 208-415-5208 | C: 208-215-6878  
W: [Panhandlehealthdistrict.org](https://panhandlehealthdistrict.org)

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**From:** Bates, Luke <Luke.Bates@idwr.idaho.gov>  
**Sent:** Wednesday, December 27, 2023 8:31 AM  
**To:** Jamie Barton <JBarton@phd1.idaho.gov>  
**Cc:** Anna Moody <Anna.Moody@deq.idaho.gov>  
**Subject:** IDWR Permit 96-9690

**CAUTION:** This message originated outside of Panhandle Health District. Do not click links or open attachments unless you recognize the sender, are expecting something from them, and know the content is safe. Please forward spam & phishing emails to IT Support.

Jamie,  
Good morning, IDWR is currently processing Permit 96-9690 for licensing review, and I wanted to validate whether this system was deemed necessary for monitoring by DEQ or if it remains at the Panhandle Health District's level if required.

I note an inactive DEQ PWS# ID1090203 for 1 well. Garfield Villas Homeowners Assn owns the system, which served 6 homes and three stub-in service connections on undeveloped lots at time of exam in 2022.

There are two wells service connected to two 3k or 5k storage tanks prior to distribution. Well locations: -116 26.615, 48 10.860 & -116 26.616, 48 10.874.

I appreciate your consideration of the request for information.

Happy holidays!

**Luke Bates**

Sr. Water Resource Agent

Northern Region

P: 208-762-2817



IDAHO DEPARTMENT OF  
**WATER RESOURCES**

7600 N. Mineral Dr., Suite 100  
Coeur D'Alene, ID 83815-7763

THEORETICAL PUMPING EQUATION(S) FOR WR# 96-9690

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 100 ft, and running at 45 psi.

**PUMP EQUATION**

**WATER RIGHT No. 96-9690**

| <b>96-92-N-166</b> | <b>HP</b> | <b>H in feet</b> | <b>Efficiency as a decimal</b> | <b>Pumping lift in feet</b> | <b>System pressure in PSI</b> |
|--------------------|-----------|------------------|--------------------------------|-----------------------------|-------------------------------|
| Q = HP*8.8*Eff/H   | 2         | 204.0816         | 0.8                            | 100                         | 45                            |

Q = **0.069 cfs** **31.0 gpm**

|                                                                                                                                                          |           |                  |                                        |                                 |                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|----------------------------------------|---------------------------------|---------------------------------------|
| Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 515 ft, and running at 45 psi. |           |                  |                                        |                                 |                                       |
| <b><u>PUMP EQUATION</u></b>                                                                                                                              |           |                  |                                        |                                 |                                       |
| <b>WATER RIGHT No. 96-9690</b>                                                                                                                           |           |                  |                                        |                                 |                                       |
| <b>D0076649 &amp;<br/>D0079007 (2 TAGS<br/>ON WELL)</b>                                                                                                  | <b>HP</b> | <b>H in feet</b> | <b>Efficiency<br/>as a<br/>decimal</b> | <b>Pumping<br/>lift in feet</b> | <b>System<br/>pressure<br/>in PSI</b> |
| Q = HP*8.8*Eff/H                                                                                                                                         | 5         | 619.0816         | 0.8                                    | 515                             | 45                                    |
| Q = 0.057 cfs 25.6 gpm                                                                                                                                   |           |                  |                                        |                                 |                                       |

31.0 GPM + 25.6 GPM = 56.6 GPM or 0.13 CFS based on Department rounding standards.

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

[illegible]

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT



# IDAHO DEPARTMENT OF WATER RESOURCES

## WELL DRILLER'S REPORT

Well Log 2 of 2

### 1. WELL TAG NO. D D0076649

Drilling Permit No. \_\_\_\_\_  
Water right or Injection well # 96-09690

### 2. OWNER: Garfield Villas Home Owners Assoc.

Name \_\_\_\_\_  
Address P.O. Box 1053  
City Sagle State ID Zip 83860

### 3. WELL LOCATION:

Twp. 56 N North ☒ or South ☐ Rge. 01W East ☐ or West ☒  
Sec. 21 10 acres 1/4 SW 1/4 SE 1/4 160 acres

Gov't Lot \_\_\_\_\_ County Bonner  
Lat. N48 10.877 (Deg. and Decimal minutes)  
Long. W116 26.625 (Deg. and Decimal minutes)  
Address of Well Site 1188 Midas Dr.

(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 Commercial

### 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 <sup>3</sup> ) | Placement method/procedure |
|---------------|-----------|---------|------------------------------------|----------------------------|
| Holeplug      | 0         | 38      | 1150 lbs.                          | Dry Pour                   |

### 8. CASING/LINER:

| Diameter (nominal) | From (ft) | To (ft) | Gauge/Schedule | Material | Casing                              | Unr                      | Threaded                 | Welded                              |
|--------------------|-----------|---------|----------------|----------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| 10"                | +2        | 38      | .250           | Steel    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6"                 | -7        | 202     | .250           | Steel    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) \_\_\_\_\_

### 9. PERFORATIONS/SCREENS:

Perforations ☒ Y ☐ N Method Torch Cut

Manufactured screen ☐ Y ☒ N Type \_\_\_\_\_

Method of installation \_\_\_\_\_

| From (ft) | To (ft) | Slot size | Number/ft | Diameter (nominal) | Material | Gauge or Schedule |
|-----------|---------|-----------|-----------|--------------------|----------|-------------------|
| 182       | 202     | 1/4x6     | 20'       | 6"                 | Steel    | .250              |

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

Packer ☐ Y ☒ N Type \_\_\_\_\_

### 10. FILTER PACK:

| Filter Material | From (ft) | To (ft) | Quantity (lbs or ft <sup>3</sup> ) | 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) 139 Static water level (ft) 100

Water temp. (°F) Cold Bottom hole temp. (°F) Cold

Describe access port \_\_\_\_\_

#### Well test:

| Drawdown (feet) | Discharge or yield (gpm) | Test duration (minutes) | Pump                     | Ballor                   | Air                                 | Flowing artesian         |
|-----------------|--------------------------|-------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
|                 | 25                       | 60                      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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         | 24      | Black, White & Peach Granite                                             |       | X |
| 14             | 24        | 38      | Black Granite                                                            |       | X |
| 10             | 38        | 139     | Black Granite                                                            |       | X |
| 10             | 139       | 141     | Fractured Grey Granite 25 gpm                                            | X     |   |
| 10             | 141       | 202     | Gray Granite                                                             |       | X |

Completed Depth (Measurable): 202'

Date Started: May 25, 2018 Date Completed: May 30, 2018

### 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 H2O Well Service Inc. Co. No. 448

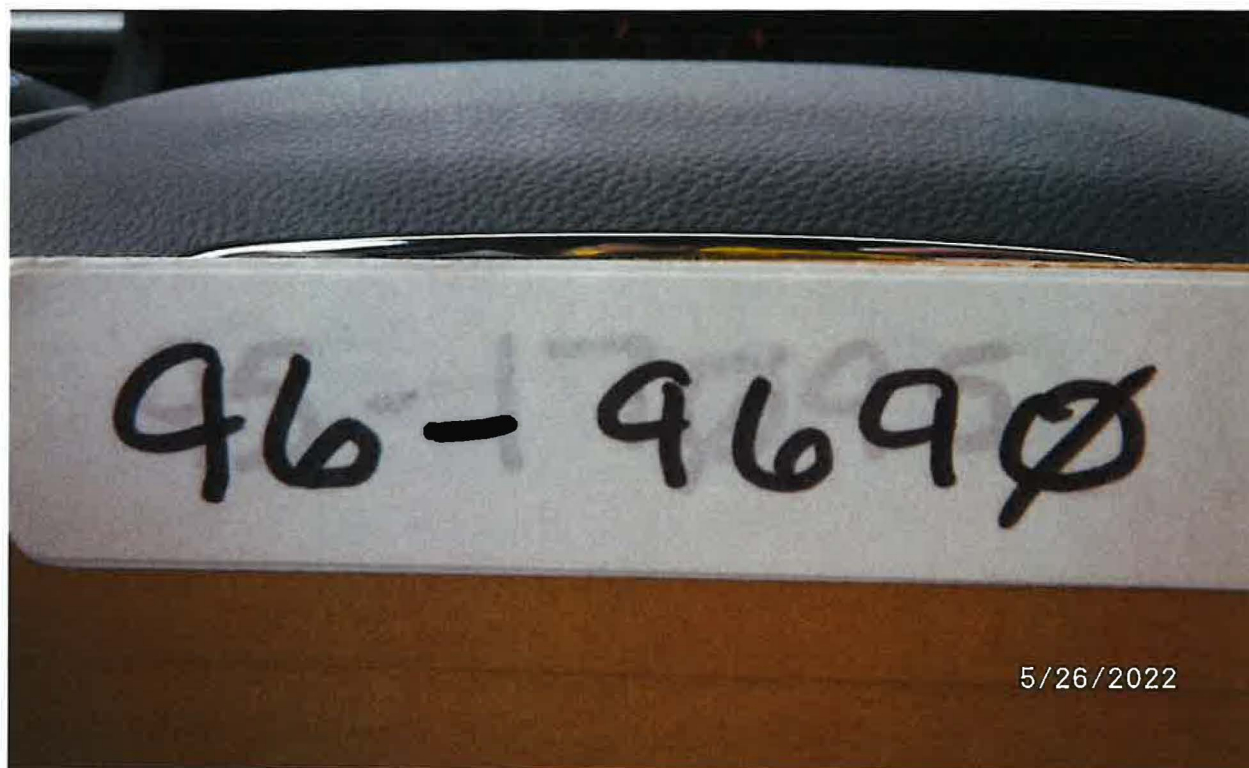
\*Principal Driller [Signature] Date 5-31-18

\*Driller [Signature] Date 6-4-18

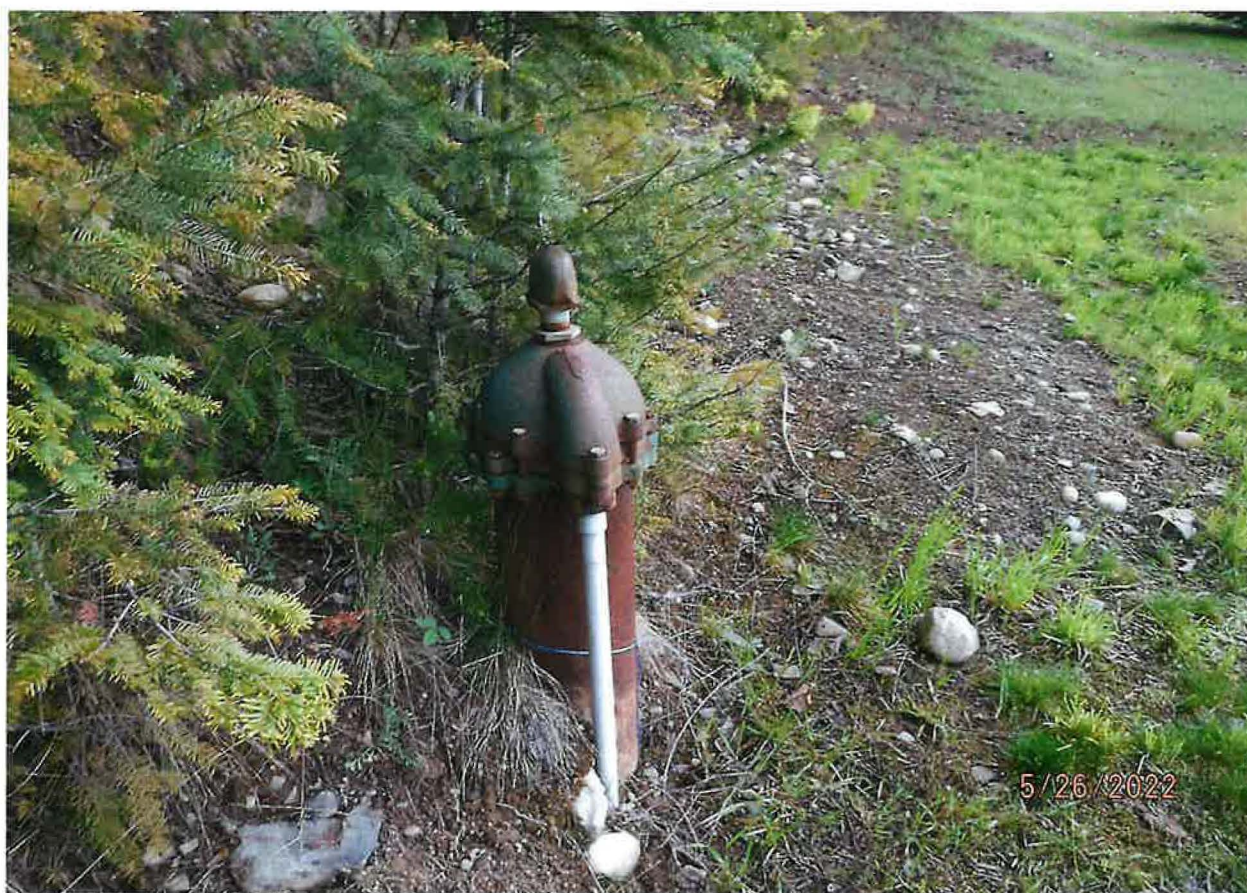
\*Operator II \_\_\_\_\_ Date \_\_\_\_\_

Operator I \_\_\_\_\_ Date \_\_\_\_\_

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

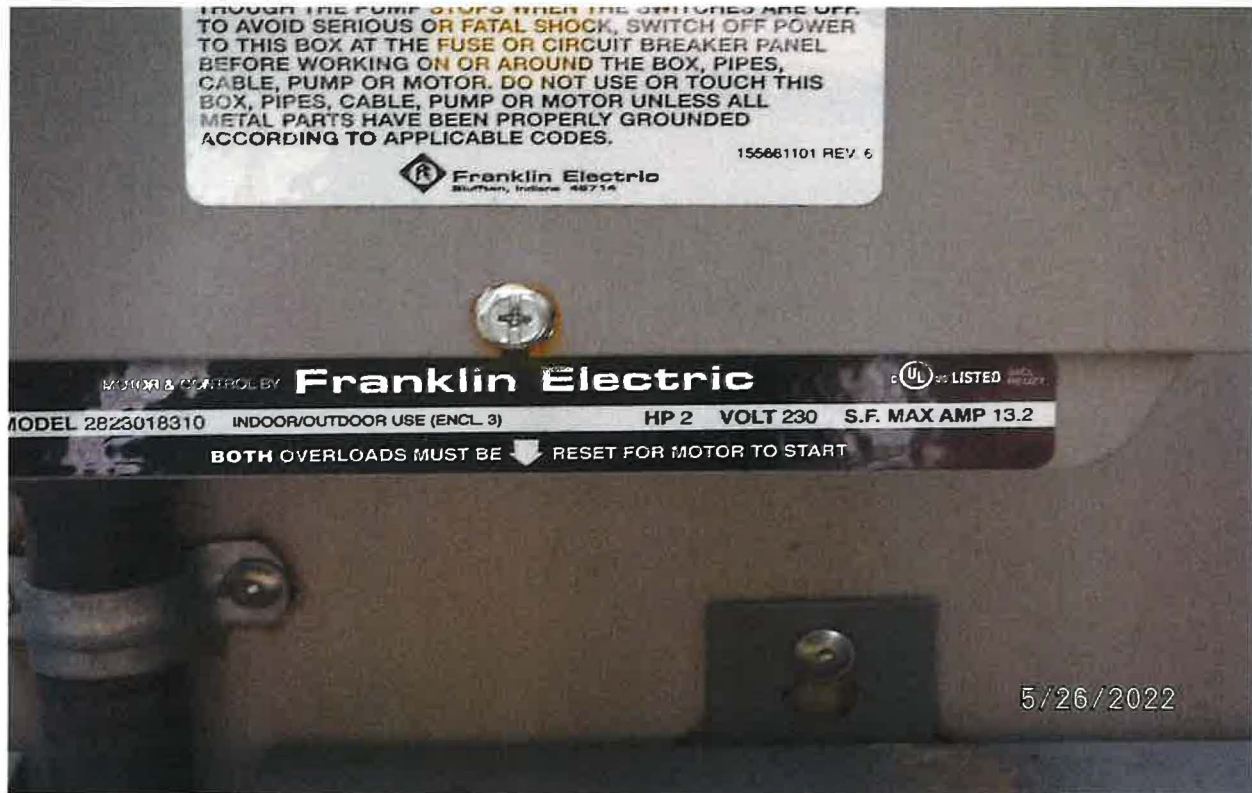


BENEFICIAL USE FIELD EXAMINATION DATE 5/26/2022



GROUNDWATER POD – WELL 96-92-N-166; SOUTHERN MOST WELL NEAR STORAGE TANKS

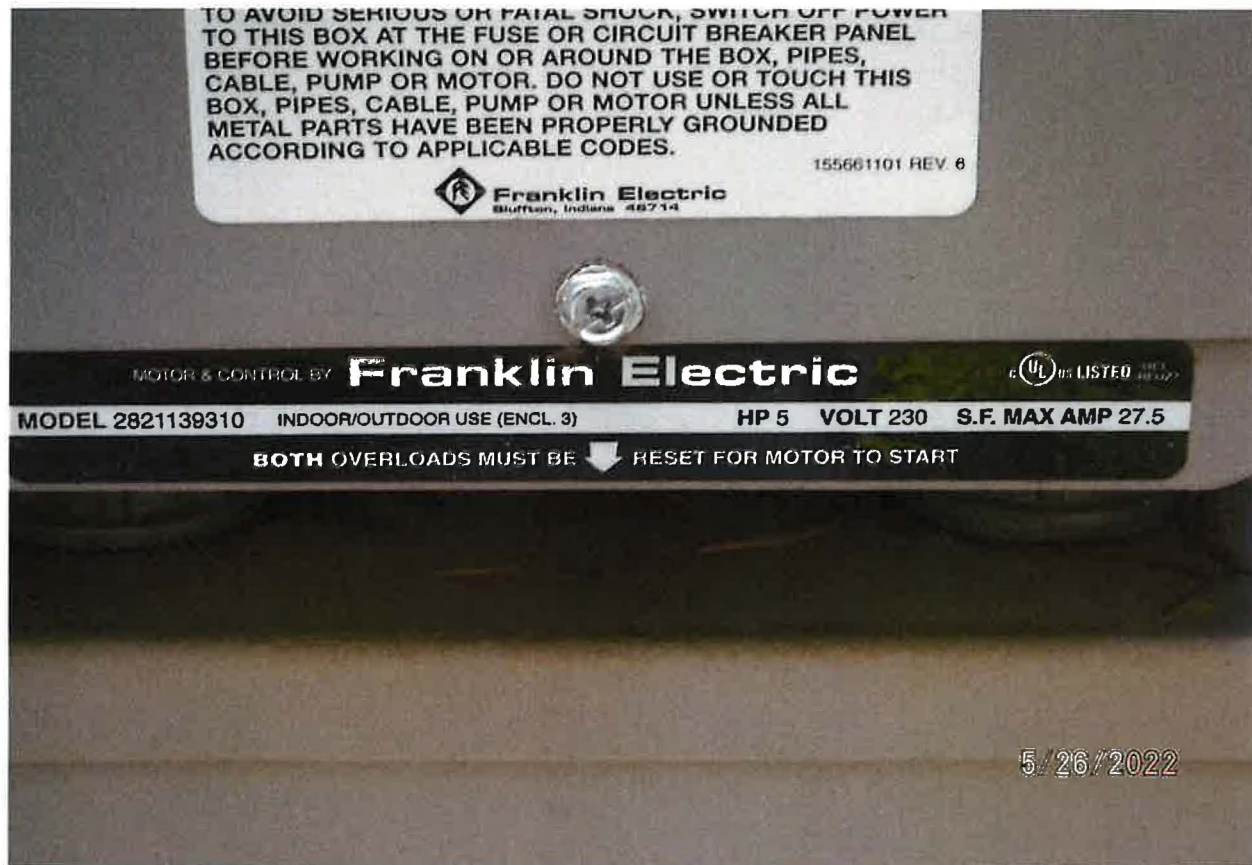
NO TAG ASSOCIATED WITH THIS WELL



2 HP PUMP MOTOR INSTALLED IN WELL 96-92-N-166



GROUNDWATER POD – WELL D0076649 & D0079009; NORTHERN MOST WELL THAT HAS BEEN DEEPENED.



5 HP PUMP MOTOR INSTALLED IN WELL D0076649/D0079009



61 PSI WATER SYSTEM OPERATING PRESSURE



2EA 3,000 GALLON COMMUNITY STORAGE TANKS INCLUDED IN WATER CONVEYANCE SYSTEM



DOMESTIC POU – LOT 1 REPLAT, GARFIELD VILLAS SUBDIVISION. RP0235200001A0A



DOMESTIC POU – LOT 2 REPLAT, GARFIELD VILLAS SUBDIVISION. RP0235200002A0A



DOMESTIC POU – LOT 4A REPLAT, GARFIELD VILLAS REPLAT LOT 1 SUBDIVISION. RP0235200004A0A



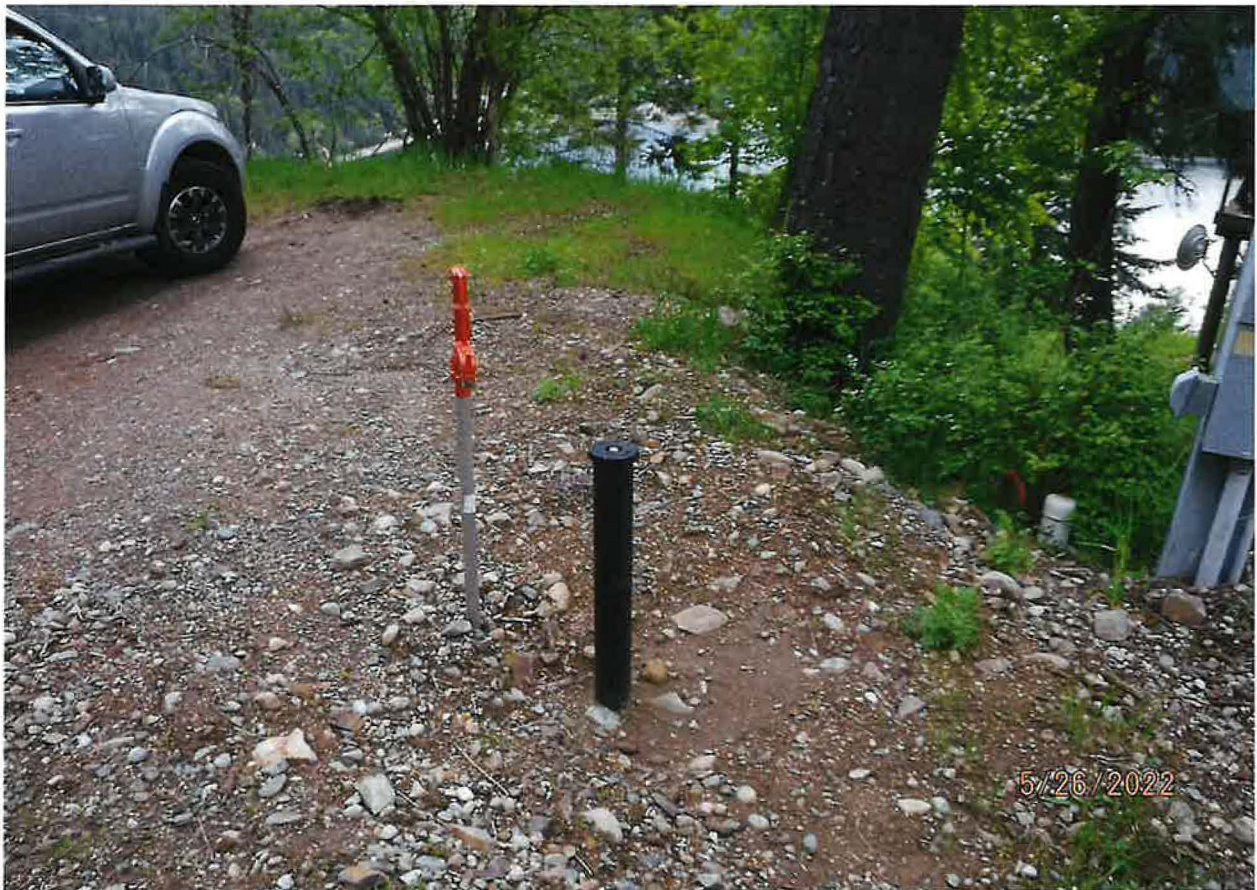
DOMESTIC POU – LOT 1, L & P LOTS SUBDIVISION. RP023810000010A



DOMESTIC POU – LOT 2, L & P LOTS SUBDIVISION. RP023810000020A



DOMESTIC POU – STUB-IN - LOT 8, GARFIELD VILLAS REPLAT LOT 1 SUBDIVISION. RP023520000080A



DOMESTIC POU – STUB-IN - LOT 9, GARFIELD VILLAS REPLAT LOT 1 SUBDIVISION. RP023520000090A



DOMESTIC POU – LOT 10, GARFIELD VILLAS REPLAT LOT 1 SUBDIVISION. RP023520000100A



DOMESTIC POU – STUB-IN - LOT 11, GARFIELD VILLAS REPLAT LOT 1 SUBDIVISION. RP023520000110A