

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-18371
Exam Date: 08/20/2024

1. Current Owner:
GRANITE TRACTS ASSN INC 67 WILD HORSE TRL SANDPOINT ID 83864-8701
2. Accompanied by: Unaccompanied - Robert Hanson
Phone No: 208-265-4270
Address: Same as above
Relationship to permit Holder: Permit Holder's Representative – Water System Operator.

3. **SOURCE:**
GROUND WATER

Method of Determination: ArcMap and DRG Layer.

B. OVERLAP REVIEW

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

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SW¼ SE¼, Sec. 33, Twp 54N, Rge 03W, B.M. BONNER County

Method of Determination: GPS; GW well is located at -116°42.2160, 47°58.6516 well D0082361.

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	
54N	03W	33			X	X									X	X	X	X	

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

3.
 - X Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
 - X 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 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
D0082361	Franklin Electric	5	2821138110	Unknown	Unknown

D. FLOW MEASUREMENTS

1.

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

2. Measurements: I was unable to perform flow measurement due to inadequate pipe requirements. Water is pumped directly to a vaulted storage tank prior to distribution using a separate 5 HP transfer pump with pressure tank conveying water via a main service line to each service connection. During licensing review a Theoretic Pump Equation was developed calculating the flow rate of 0.06 cfs considering department rounding standards.

E. FLOW CALCULATIONS X Additional Computation Sheets Attached

Measured Method: Theoretic Pump Equation as follows:

- D0082361 – 5 hp pump installed at depth of 465 ft with operating pressure of 45 PSI = 27.8 gpm or **0.06 cfs**.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A Irrigation of ½ acre per home authorized under domestic beneficia use component.

2. Volume Calculations for Other Uses: Domestic Annual Volume = 6 homes x 1.2 afa per home = **7.2 af**.

G. NARRATIVE/REMARKS/COMMENTS

I performed a beneficial use field examination on 8/20/2024, unaccompanied with authorization from Mr. Robert "Bob" Hansen, which showed a cased ground water well diverting water for domestic uses. At the POD, well D0082361 with main service line uses a 5-HP pump diverting directly to two vaulted storage reservoirs. I wasn't able to take a flow measurement due to inadequate pipe requirements and I developed a theoretical pump equation that derived a diversion rate of 0.06 cfs as illustrated above. The permit authorized a maximum diversion rate of 0.12 cfs for development based on department standards for six homes domestic use, but the Right Holder is limited by pump performance, and I've reduced the diversion rate for licensing recommendations to reflect **0.06 cfs**.

The water system uses a 5-HP Pentek transfer pump to convey water from the storage reservoirs with assistance from a large pressure tank from the POD site to each service connection in the domestic POU. The buried pipeline routes north along each parcel's roadside frontage with a dedicated stub-in for each parcel & dedicated flowmeter for each hook-up. Photographs were taken of an example of one stub-in water box with connection valve controls and flowmeter for reference. During the exam I noted that one parcel, RP0138000050A – Lot 5 Granite Tracts Subdivision had two residences & a shop. The second home had a two-car garage attached and in appearance was a residence vice additional dwelling unit.

During the licensing review I corresponded with Mr. Hansen validating a 7th home had been service connected to the water system. Based on the Permit, 6 homes were authorized for development, and I can only recommend 6 for licensing 95-18371. Mr. Hansen's company – Water System Management Inc. is contracted by the applicant to manage their community

water system and is authorized to file for water rights for the Applicant. IDWR received a new application for permit No. 95-18612 on 11/18/2024 seeking to add the 7th home to the water system; once perfected 95-18612 shall bring the water system into compliance pertaining to recorded water rights.

During the exam I photographed each domestic use with authorized ½ acre irrigation per home and sketched the domestic beneficial use POU on field maps. During licensing review, I used ArcMap aerial imagery to assign 0.8-acre polygons for each of the 6 homes developed under the Permit; 0.8 acre per residence is for illustrative purposes only, and each home is authorized ½ acre irrigation for lawn/garden/landscape irrigation covered by domestic use. I'm recommending the annual volume of 1.2 af per home with maximum diversion volume equaling **7.2 af** for licensing purposes.

During licensing review I removed condition 046 from the Permit based on compliance by the applicant. All other conditions on the Permit are recommended for licensing purposes. I added condition F06 describing the shared POD between 95-18371 & 95-18612. I added condition X59 & X60 which describe the POD & POU being located within the Granite Tracts Subdivision. The water system lies within the Rathdrum Prairie Groundwater Management Area (RPGWMA) boundary and is subject to GWMA requirements. I noted condition 071, which limits the domestic use to 13,000 gallons per day for each home's domestic use wasn't added to the Permit at time of approval but is required by the RPGWMA. I'm not authorized to make the license more restrictive than the Permit authorized and haven't added condition 071 to the license recommendation. There are no overlapping water right concerns toward licensing 95-18371.

Have conditions of permit approval been met? ☒ 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	0.06 CFS	7.2 AF
<u>Totals:</u>		0.06 CFS	7.2 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

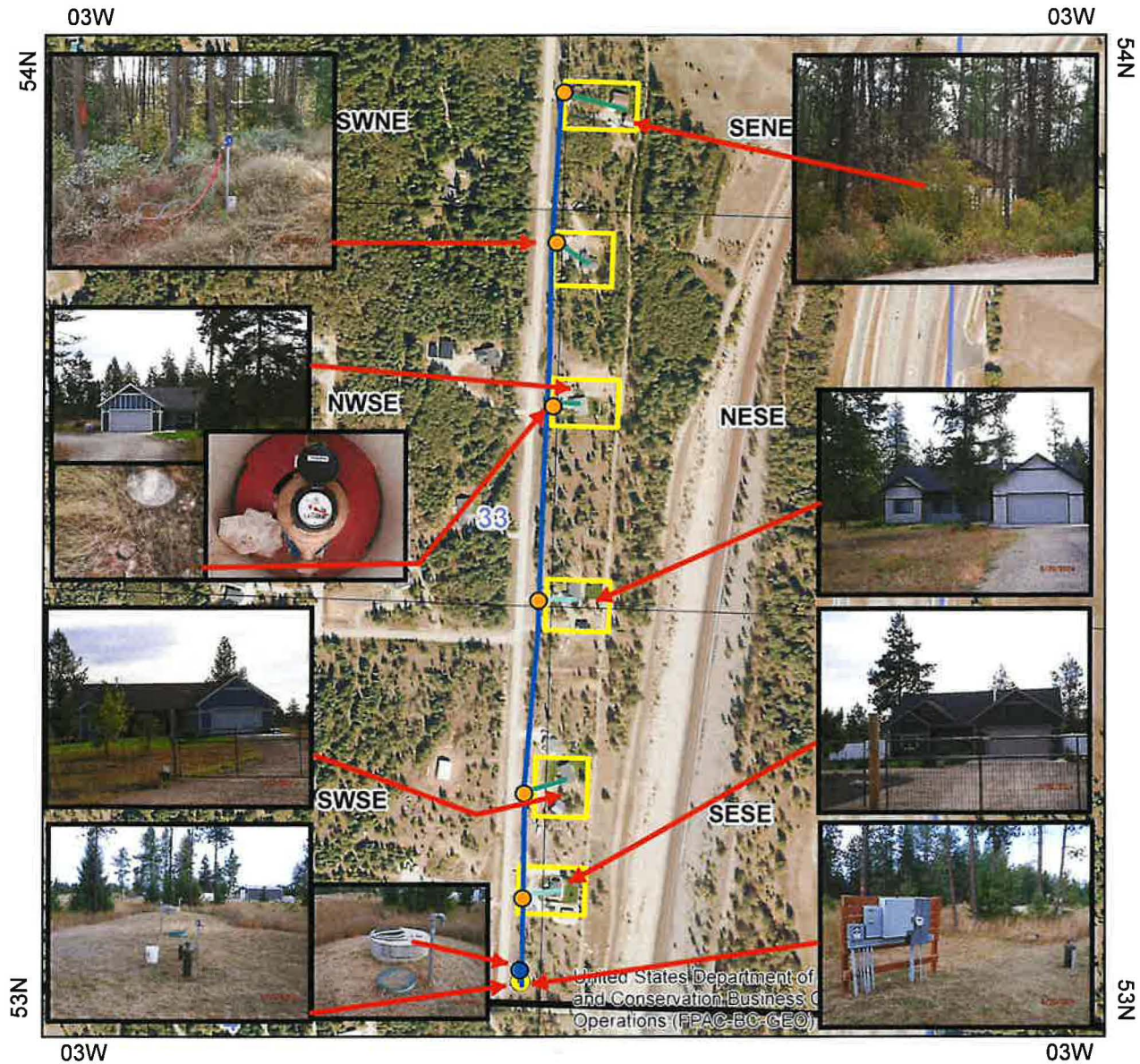
I. AUTHENTICATION

Luke Bates – Sr Water Resource Agent

Field Examiner's Name  Date 11/25/2024
 Reviewer  Date 4/9/2025

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-18371

This map depicts the DOMESTIC system diagram.



Place Of Use Boundary

Point of Diversion

Townships

PLS Sections

Quarter Quarters

Example - Water Service Stub and Connection Flowmeter (6ea)

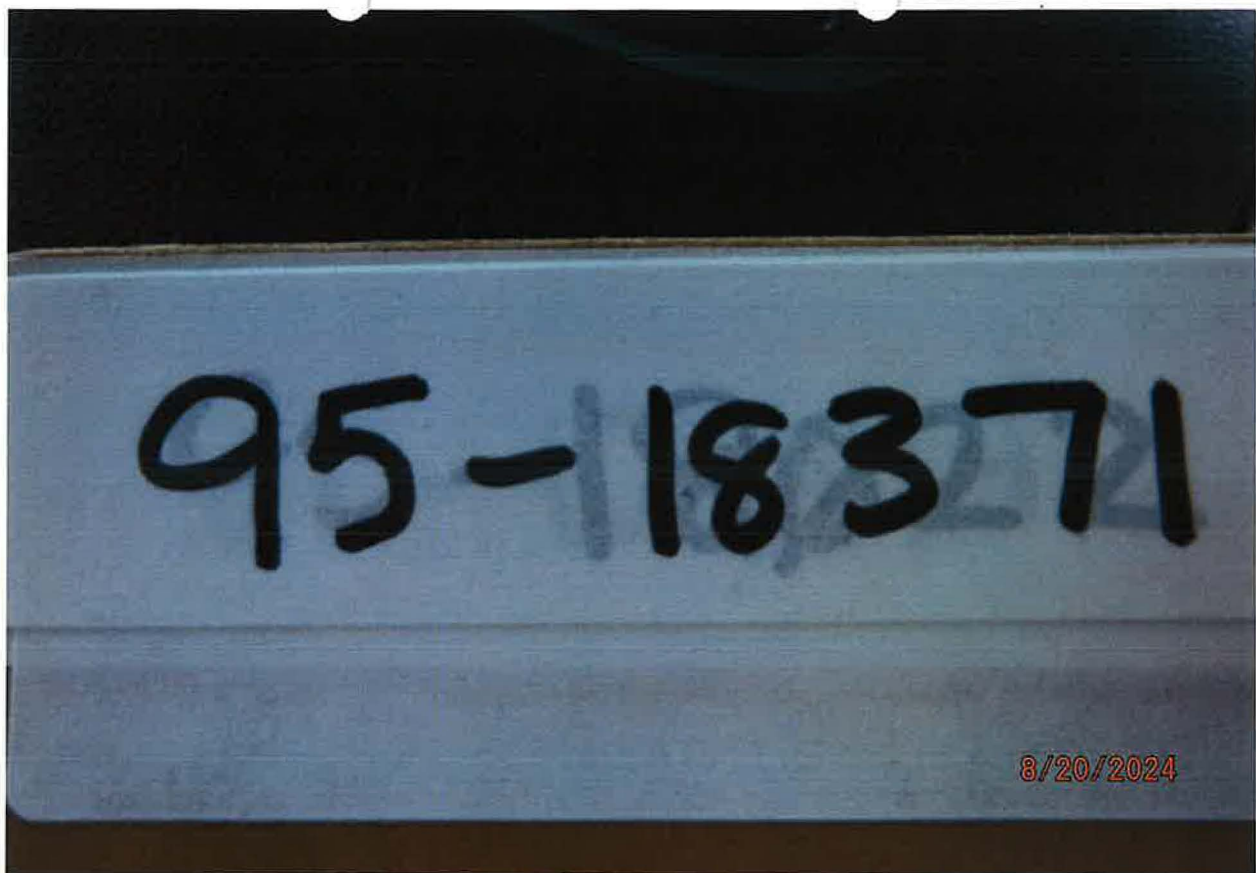
THEORETICAL PUMPING EQUATION(S) FOR WR# 95-18371

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 465 ft, and running at 45 psi.

PUMP EQUATION

WATER RIGHT No. 95-18371

D0082361	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = $HP * 8.8 * Eff / H$	5	569.0816	0.8	465	45
Q = 0.062 cfs 27.8 gpm					



BENEFICIAL USE FIELD EXAM DATE 8/20/2024



POD - GROUNDWATER WELL D0082361



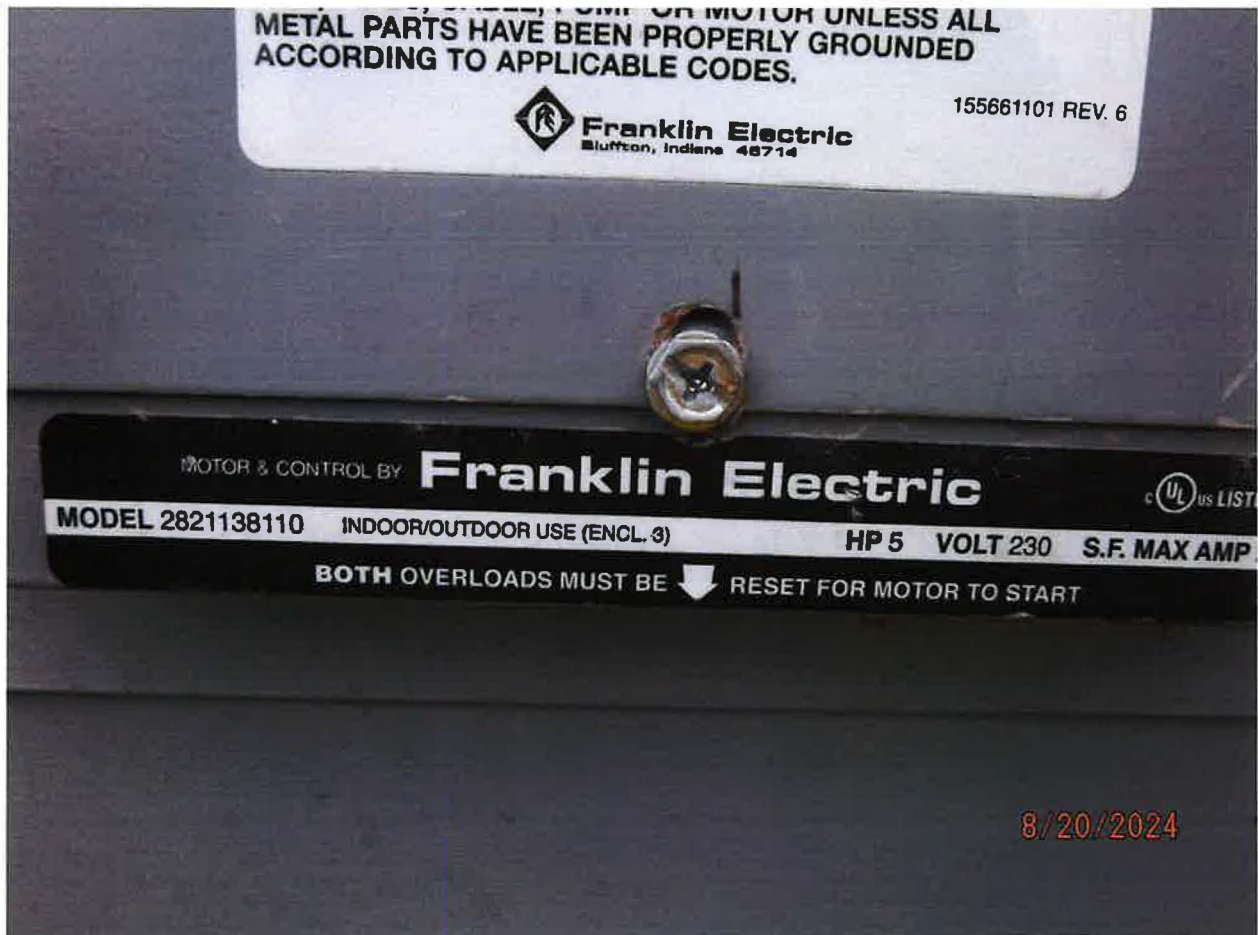
WELL D-TAG D0082361



DIVERTING WORKS – WATER SYSTEM CONTROL PANEL(S)

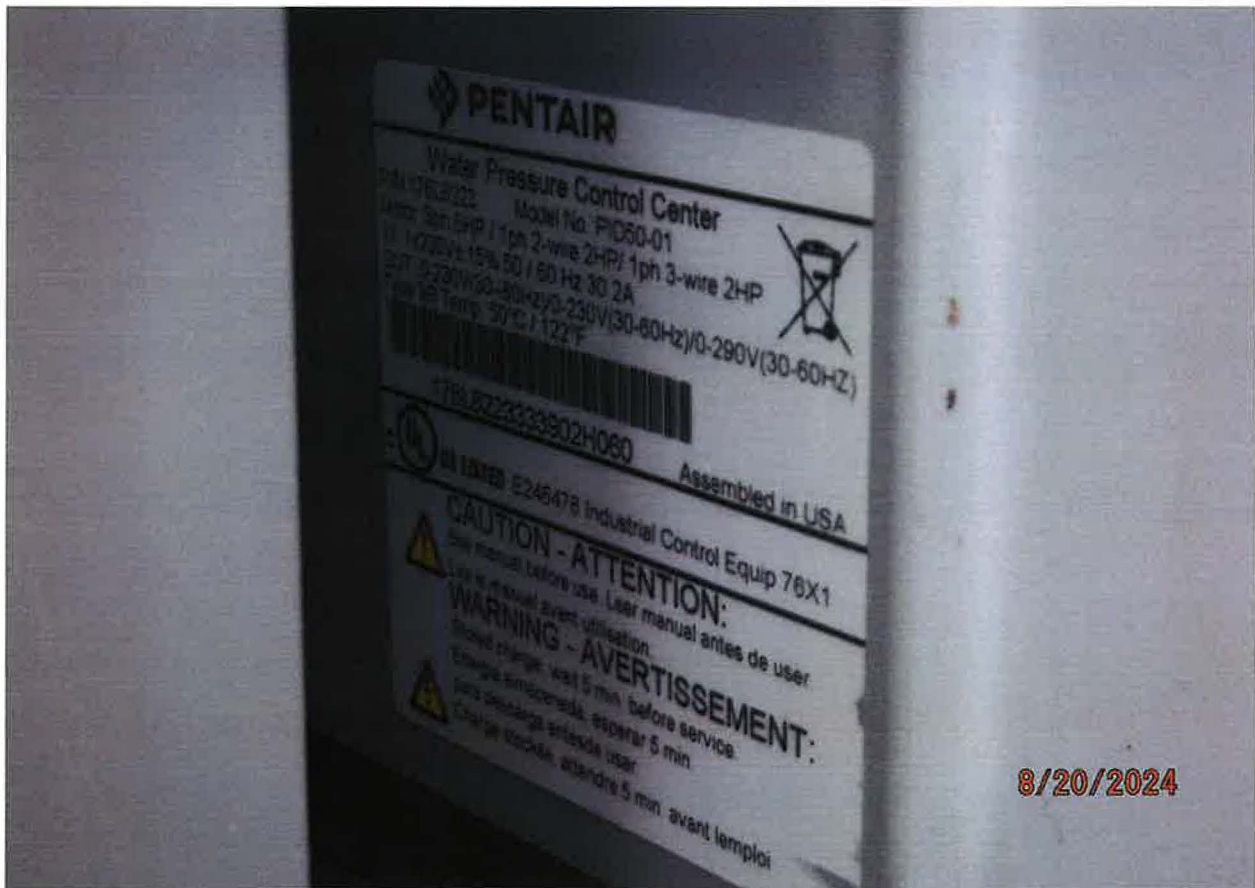


FRANKLIN ELECTRIC 5-HP PUMP MOTOR INSTALLED IN WELL

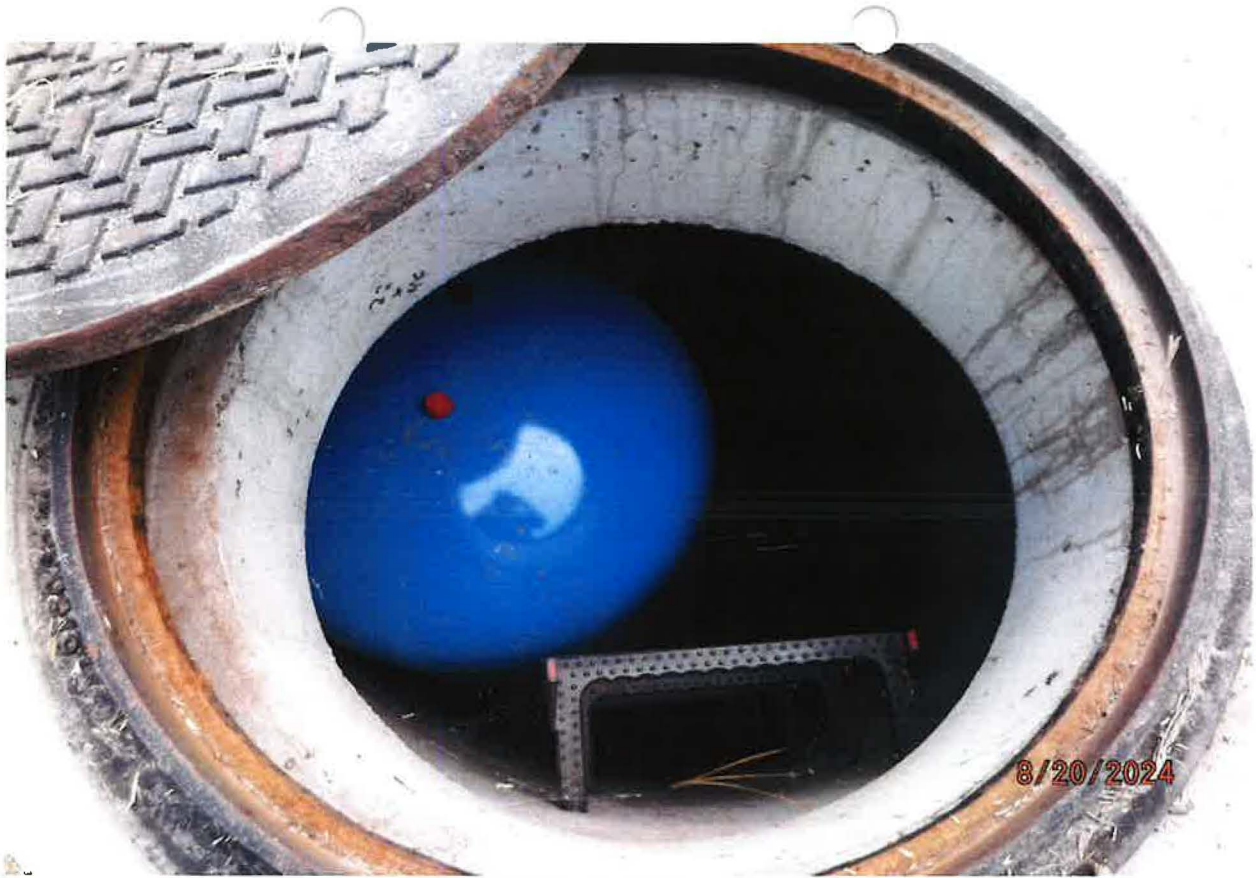




VAULTED STORAGE TANKS BUILT INTO WATER CONVEYANCE SYSTEM



5 HP PENTEK-PENTAIR TRANSFER PUMP INSTALLED TO DIVERT FROM STORAGE TANKS TO SERVE DOMESTIC BENEFICIAL USES



CONVEYANCE SYSTEM – A PRESSURE TANKS IS INSTALLED DOWNSTREAM FROM STORAGE TANKS TO STABILIZE WATER SERVICES



CONVEYANCE SYSTEM – 2-INCH MAIN SERVICE PIPELINE FROM WELL ROUTED ALONG ROAD FRONTAGE WITH SERVICE STUBS ON EACH PARCEL



DOMESTIC POU – RP013810000060A; LOT 6, GRANITE TRACTS SUBDIVISION



DOMESTIC POU – RP013810000050A; LOT 5, GRANITE TRACTS SUBDIVISION



DOMESTIC POU – (2ND HOME SERVICE CONNECTED ON LOT 5) THIS RESIDENCE IS THE 7TH RESIDENCE SERVED WATER BY THE COMMUNITY WATER SYSTEM



DOMESTIC POU – RP013810000040A; LOT 4, GRANITE TRACTS SUBDIVISION



DOMESTIC POU – RP013810000030A; LOT 3, GRANITE TRACTS SUBDIVISION



EXAMPLE – MAIN WATER SERVICE STUB WITH SHUTOFF VALVE & FLOWMETER.
INSTALLED ONE PER SERVICE CONNECTION



EXAMPLE – SERVICE CONNECTION WITH RECORDALL BRAND FLOWMETER
INSTALLED





DOMESTIC POU – RP013810000020A; LOT 2, GRANITE TRACTS SUBDIVISION





DOMESTIC POU – RESIDENCE AND LAWN IRRIGATION OCCURING AT 87 POLARIS WAY – RP013810000010A; LOT 1, GRANITE TRACTS SUBDIVISION