

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-16497
Exam Date: 09/30/2020

1. Current Owner:
PANHANDLE MOBILE ESTATES WATER ASSN PO BOX 627 RATHDRUM ID 83858
2. Accompanied by: Steve Soper
Phone No: 208-215-5302
Address: 2291 W Judy K Drive, Rathdrum ID 83858
Relationship to permit Holder: Secretary, Panhandle Mobile Estates Water Assn.

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
95-7012	GROUNDWATER	MUNICIPAL	DECREED
95-7201	GROUNDWATER	DOMESTIC, COMMERCIAL	LICENSE

Comments: Decreed right 95-7012 uses groundwater for municipal purposes, with the same POU as this water right. Licensed right 95-7201 uses groundwater for domestic and commercial purposes, with the same POU as this water right. Condition X35 was added to this right, 95-16497, to mitigate overlap concerns associated with rights 95-7012, 95-7201, and 95-16497.

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

Water Right No.	Source	Purpose of Use	Basis
95-7012	GROUNDWATER	MUNICIPAL	DECREED
95-7201	GROUNDWATER	DOMESTIC, COMMERCIAL	LICENSE

Comments: Decreed right 95-7012 uses groundwater from two wells for municipal purposes that are the same POD as this water right. Licensed right 95-7201 uses groundwater from one well for domestic and commercial purposes that is the same POD as one well associated with this water right. Condition F06 was added to this right, 95-16497, to describe that rights 95-7012, 95-7201, and 95-16497 have the same POD(s).

C. DIVERSION AND DELIVERY SYSTEM

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

GROUND WATER NE¼ SE¼, Sec. 22, Twp 52N, Rge 04W, B.M. KOOTENAI County
GROUND WATER NE¼ SE¼, Sec. 22, Twp 52N, Rge 04W, B.M. KOOTENAI County

Method of Determination: GPS. Two well PODs located at -116°48.527, 47°50.203 (well No. 1, no tag – old well located inside pump house, E0005319) and -116°48.532, 47°50.203 (well No. 2, 95-89-N-44, E0005320).

PLACE OF USE: MUNICIPAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
52N	04W	22													X	X	X		

Method of Determination: Field exam and Arcmap 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
OLD WELL NO TAG	JACUZZI	15			
95-89-N-44	JACUZZI	25			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
FLOW METERS		MCCROMETER				

2. Measurements: Applicant's system incorporated two separate flow meters, one installed on each well's piping prior to entering the storage reservoir for distribution with total diversion rate equaling 0.76 cfs.

E. FLOW CALCULATIONS

Measured Method: Flowmeter measurement well No. 1 (no D-tag) = 120 gpm; well No. 2 (95-89-N-44) = 220 gpm; total diversion rate = 120 gpm (well No. 1) + 220 gpm (well No. 2) = 340 gpm = **0.76 cfs**.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

$$\text{Municipal annual volume} / \text{maximum diversion volume} = 19,806,600 \text{ gallons} / 325,850 \text{ gal per af} = \mathbf{60.8 \text{ af}}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 9/30/2020 with the secretary of Panhandle Mobile Estates Water Assn, Steve Soper, showed two wells diverting groundwater for municipal purposes. At the POD(s) location, the applicant's water system had an old well with a 15hp pump located inside the pump house, a second well with a 25 hp pump located adjacent to the pump house, and a 20,000 gallon storage reservoir co-located with the pump house. Inside the pump house there is an additional 500 gallon storage tank that part of the original system, and is still used as a backup for the system. The water system had a flowmeter installed on each of the well's piping prior to water entering the storage reservoir, allowing for direct flow measurement to be taken at time of field exam. The flow measurements equal: well No. 1 (no D-tag) = 120 gpm; well No. 2 (95-89-N-44) = 220 gpm; total diversion rate = 120 gpm (well No. 1) + 220 gpm (well No. 2) = 340 gpm = **0.76 cfs** considering department rounding standards, which will be applied to license as the maximum diversion rate.

At time of field exam, Mr. Soper provided details for service connections associated with the water assn. It was identified that there are 64 domestic hook-ups, and 3 commercial (in home) small business hook ups. There is one new commercial lot currently being developed at time of exam that is not being included in volume calculations for licensing purposed as its construction was outside the permit development period. Arcmap aerial imagery was used to trace out the POU, which includes the parcels located within the Panhandle Mobile Estates Subdivision associated with the DEQ public water system No. ID1280130. Photographs were taken of homes and irrigation occurring in the POU at time of field exam. Mr. Soper provided documented annual volume use, which also breaks down the three commercial business use volumes, for years 2012 to 2020. The permit's development period was from October 2012 to September 2017, and the highest recorded annual volume was from year 2012, which will be used to calculate the annual volume for licensing purposes. The municipal annual volume equals 19,806,600 gallons / 325,850 gal per af = **60.8 af**, which will also be applied as the maximum diversion volume at time of licensing.

Mr. Soper asserted that in the last two decades, the water assn has been systematically identifying and repairing leaks in their water system. Throughout this period the water assn has seen a reduced annual diversion volume that Mr. Soper directly links to these repairs. As an example, in year 2011 the annual volume equaled 37,445,200 gallons and in year 2019 the annual volume equaled 12,825,200 gallons. This dramatic decrease in water consumption identifies that the water system is being managed more efficiently, as the POU has been built-out for the entire time equating to similar water consumption over time by connected users. The largest year volume consumption for the water assn was used to license this right, will factor into play when regarding overlapping water rights listed below.

Condition 26A and 134 were removed from the permit during licensing review. Condition 128 was updated to add the DEQ PWS# in the description. Condition F06 was added to describe that rights 95-7012, 95-7201, and 95-16497 have the same wells used at the POD(s). Condition X35 was added to describe combined water use limitations for rights 95-7012, 95-7201, and 95-16497, which have the same POU and are historically serviced by the same water system. Condition X35 states that rights 95-7012, 95-7201, and 95-16497 when combined shall not exceed a total diversion rate of 0.76 cfs, and a total annual maximum diversion volume of 76.4 af at the field headgate. This value is less than the cumulative maximum diversion volumes of the three rights equaling 137.2 af, based on historic water use and repair of the applicant's water conveyance system. The maximum diversion volume applied to condition X35 is cumulative to rights 95-7012 and 95-7201, which when combined provide a volume established prior to this water right's permit development period, and is excessively higher in value than the past decades water usage for the fully built-out mobile home estates with associated commercial entities included. There are no additional overlap concerns for this water right.

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>
MUNICIPAL	01/01 to 12/31	0.76 CFS	60.8 AF

Totals: 0.76 CFS 60.8 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

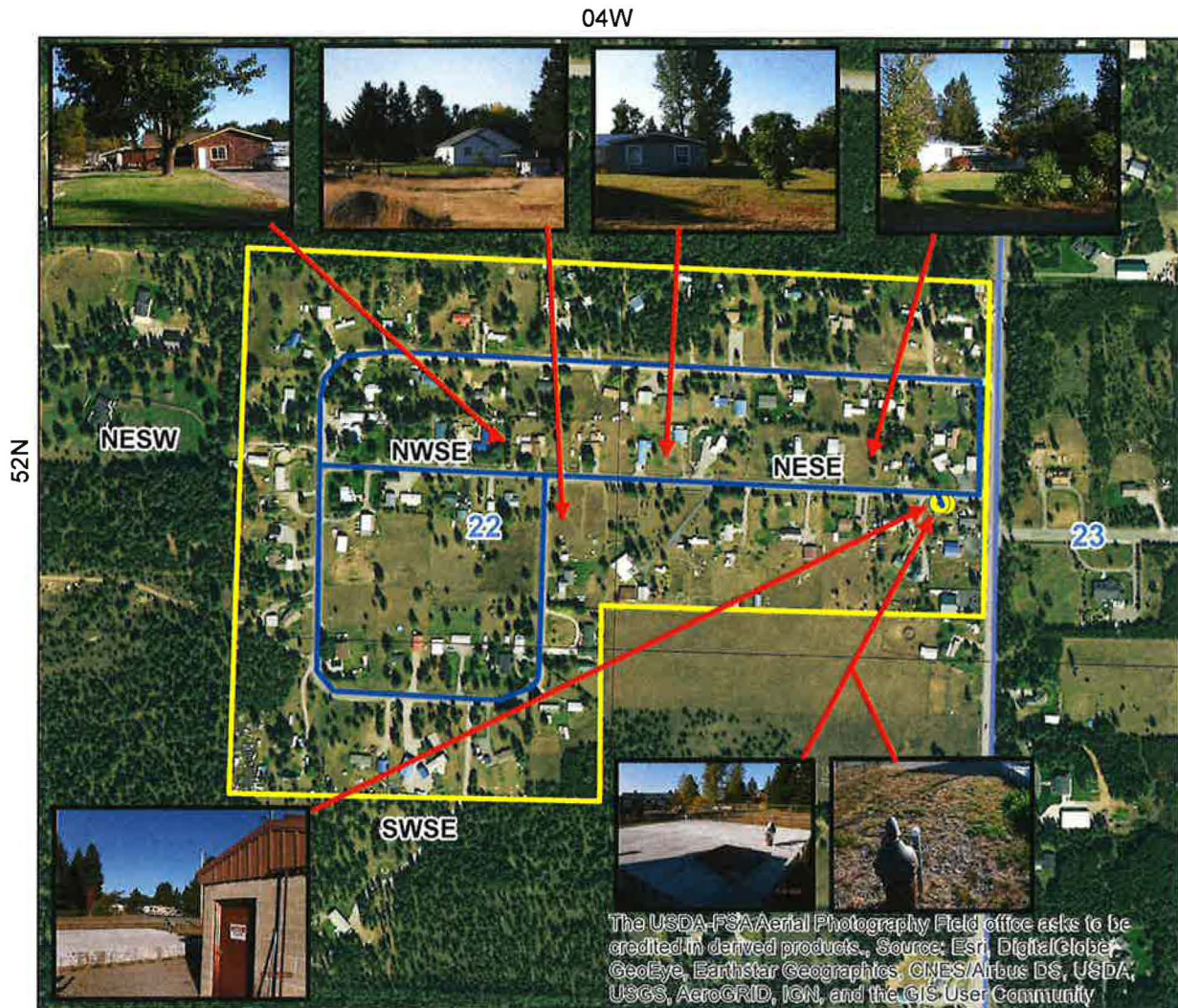
Luke Bates - Water Resource Agent

Field Examiner's Name  Date 10/14/2020

Reviewer  Date 2/26/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-16497

MUNICIPAL system diagram.



-  Point of Diversion
-  Water Service Area Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.075 0.15 0.3 Miles



Bates, Luke

From: sesoper@juno.com
Sent: Friday, October 2, 2020 2:57 PM
To: Bates, Luke
Subject: Panhandle Mobile Estates Water System
Attachments: IRW Survey.xlsx

Luke,

I enjoyed meeting you the other day. Attached is the information you requested. If there is something I missed please let me know.

Steve Soper
Panhandle Mobile Estates Water System
2291 W Judy K Drive
Rathdrum, ID 83858
208-215-5302

PANHANDLE MOBILE ESTATES WATER SYSTEM

RATHDRUM, IDAHO

COMMERCIAL PROPERTY	EMPLOYEES	OWNER	USAGE LAST 2 YEARS
Swat Audio & Video	2	James Johnson Jr.	225,830 Gallons
Paw Taw John's Services #1	5	Jerry Johnson	277,010 Gallons
Paw Taw John's Services #2	5	Jerry Johnson	184,460 Gallons

YEARLY VOLUMES

September-September

2012-- 19,806,600 Gallons

2013-- 16,919,600 Gallons

2014-- 12,288,300 Gallons

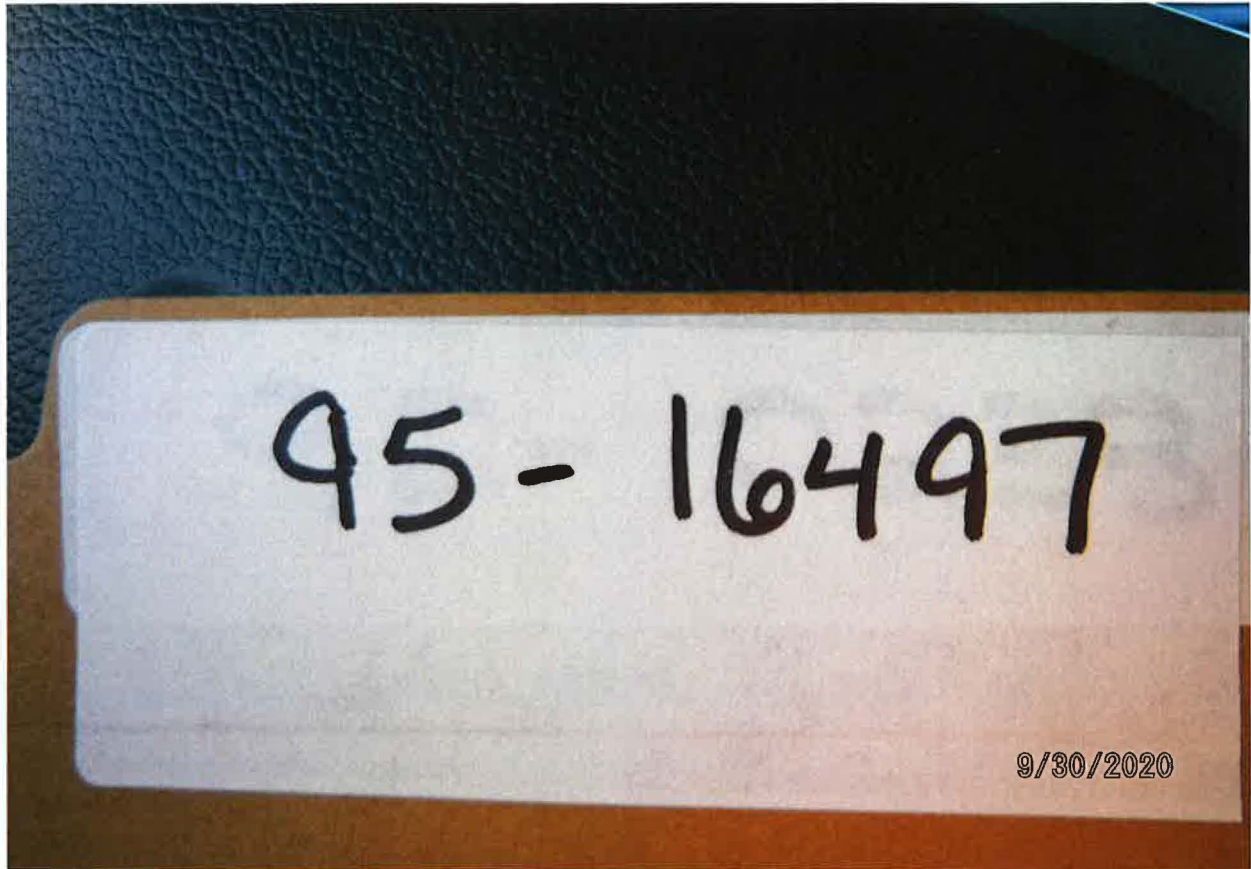
2015-- 16,239,800 Gallons

2017-- 16,462,200 Gallons

2018-- 12,673,800 Gallons

2019-- 12,825,200 Gallons

2020-- 10,128,300 Gallons



POD - WELL 95-89-N-44 (E0005320)



POD – WELL IN PUMP HOUSE (E0005319)



20,000 GALLON STORAGE TANK



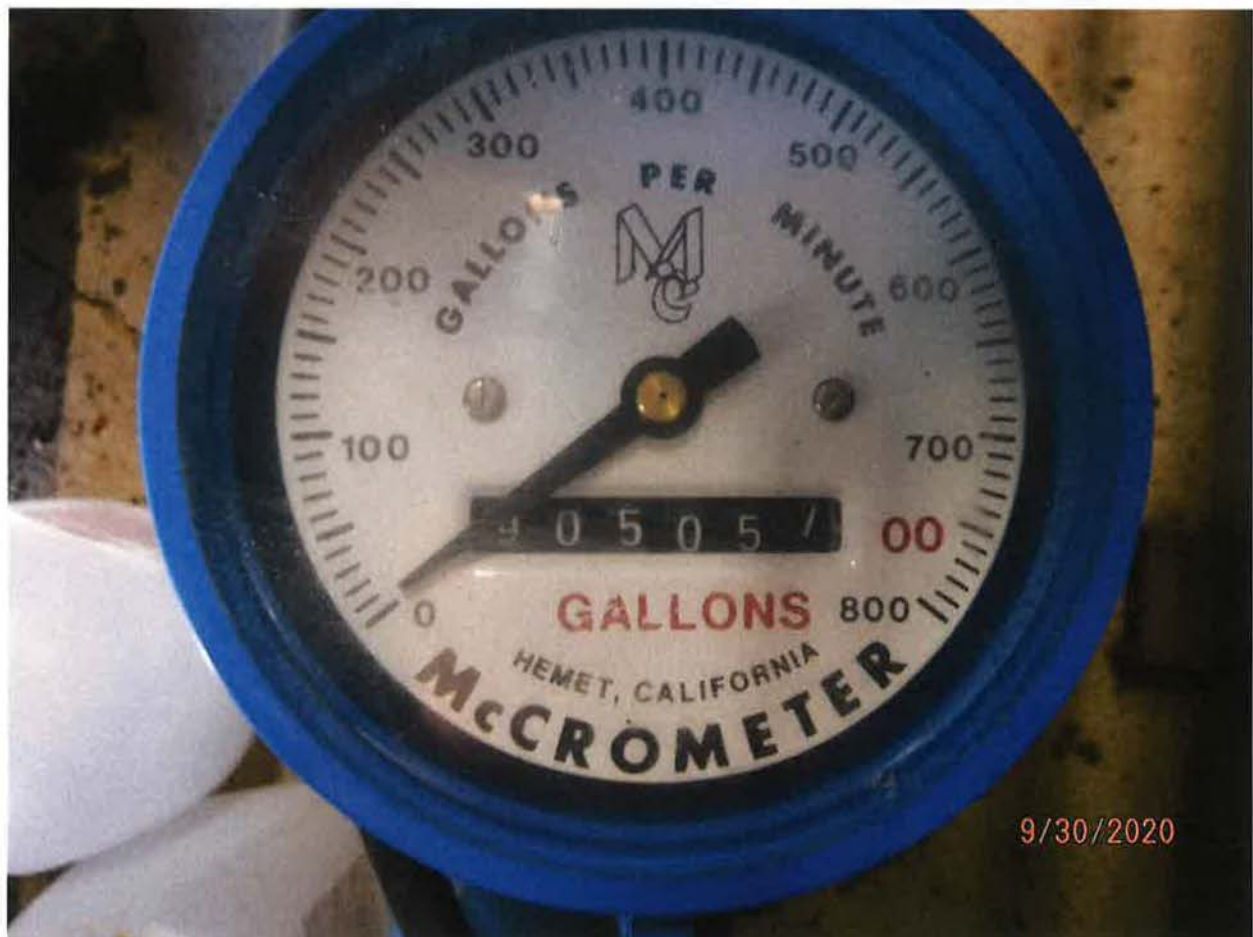
25 HP PUMP IN WELL 95-89-N-44



15 HP PUMP IN WELL LOCATED IN PUMPHOUSE – NO TAG INFORMATION



WATER SYSTEM FLOW METERS

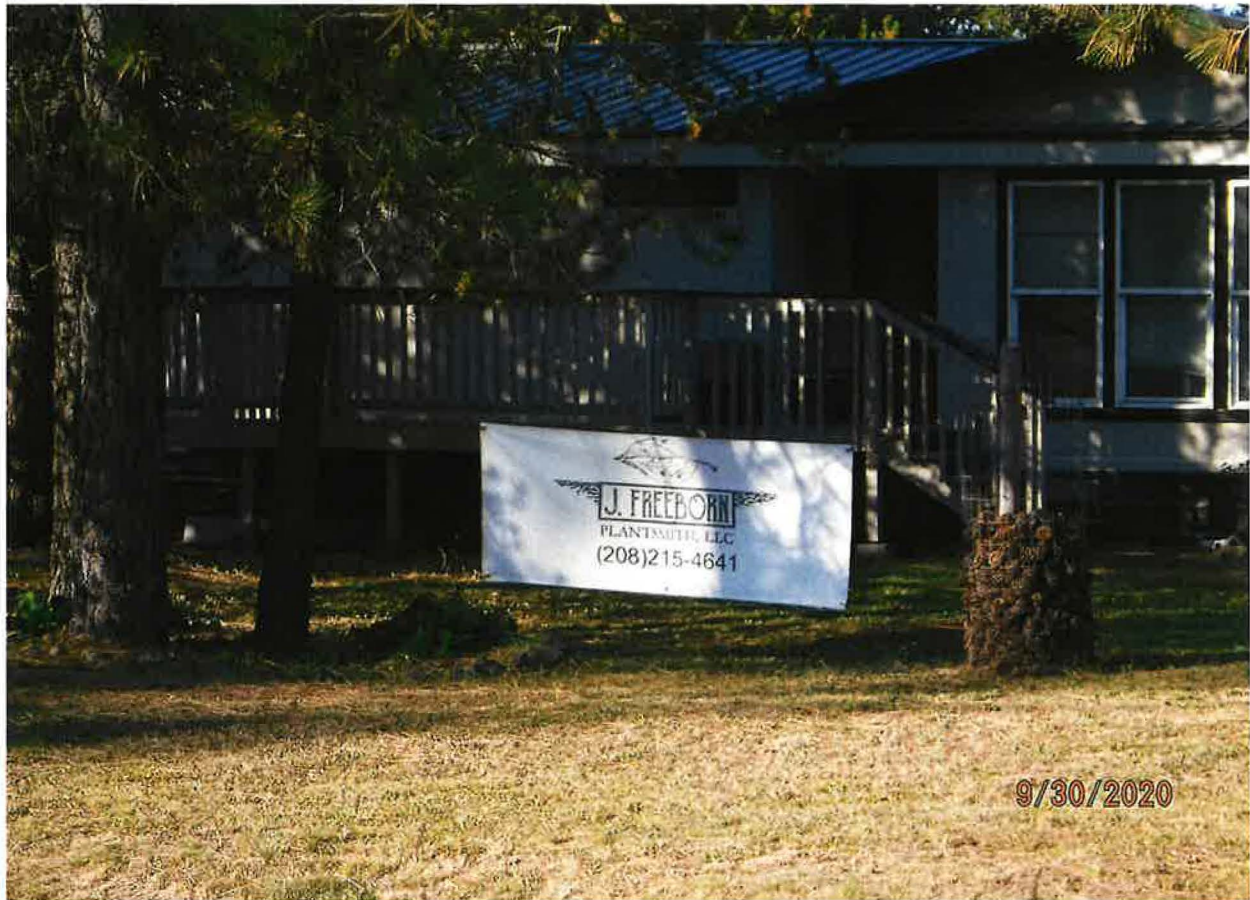




40 – 45 PSI OPERATING PRESSURE



AT POD – PUMP HOUSE, STORAGE TANK, AND WELL



MUNICIPAL POU – ONE OF THREE COMMERCIAL UNITS



MUNICIPAL POU



MUNICIPAL POU





MUNICIPAL POU





MUNICIPAL POU

