

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 83-11931

1. Owner: Lakeview Water District Phone No. (208) 827-0527

Current Address: PO BOX 2136 Orofino, ID 83544

2. Accompanied by: Larry Annen EXAM DATE : 7/8/2008

Address: 4115 Eureka Ridge Road Orofino, ID Phone No: (208) 827-0527

Email Address: larryannen@hotmail.com

Relationship to Permit Holder: President of Water District

3. Source: Groundwater tributary to N/A

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 83-10092 (stock, domestic use); permits 83-7118 and 83-7136

2. Other water rights with the same point of diversion: N/A

C. DIVERSION AND DELIVERY SYSTEM

- 1. Point(s) of Diversion:**

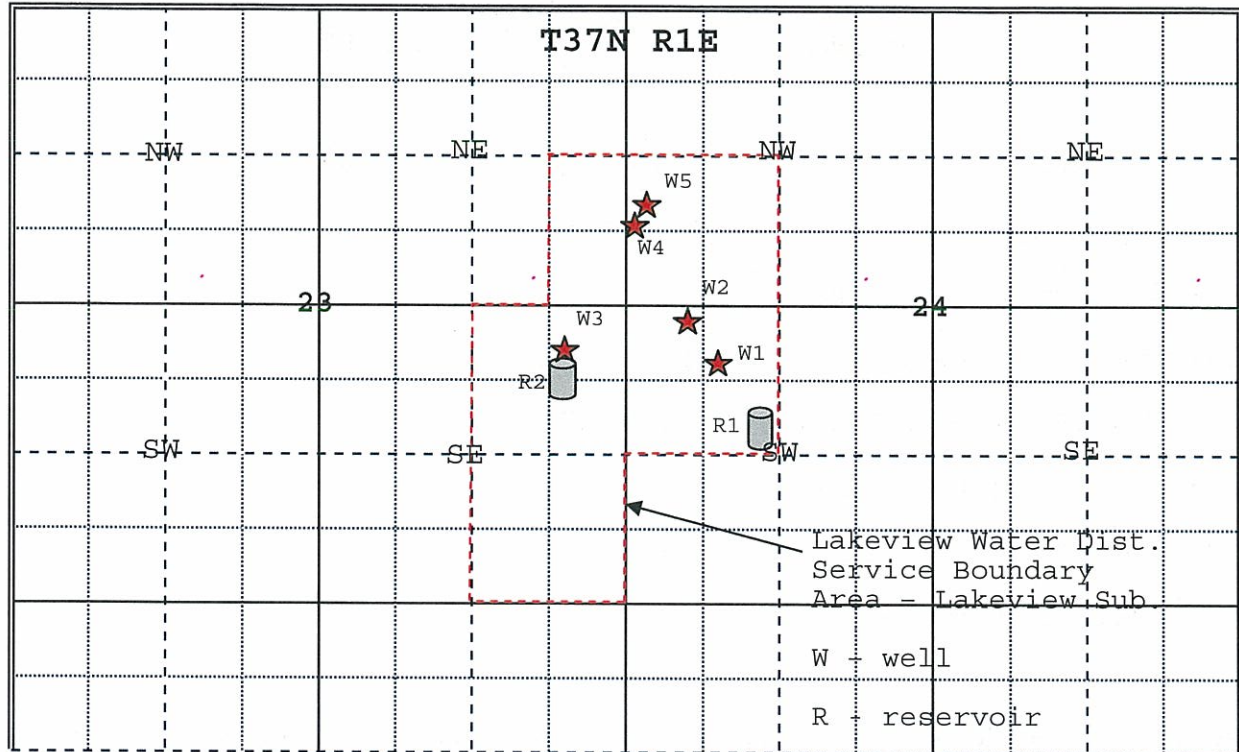
Ident No.	Gov't Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
		NE	NW	SW	24	37N	01E	Clearwater	Aerial Photos/USGS 7.5' Quad/Site Visit
		NW	NW	SW	24	37N	01E	Clearwater	Aerial Photos/USGS 7.5' Quad/Site Visit
		SE	NE	SE	23	37N	01E	Clearwater	Aerial Photos/USGS 7.5' Quad/Site Visit
		NW	SW	NW	24	37N	01E	Clearwater	Aerial Photos/USGS 7.5' Quad/Site Visit
		NW	SW	NW	24	37N	01E	Clearwater	Aerial Photos/USGS 7.5' Quad/Site Visit

- 2. Place(s) of Use:**

Indicate Method of Determination Aerial Imagery

TWP	RGE	SEC	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
37N	01E	24							✓			✓							
37N	01E	23				✓										✓			✓
Within Boundary of Lakeview Water District (IPWS# 1090073)																			

3. **Delivery System Diagram.** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable.



Scale: 1" = N.T.S.

☐ Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

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

☒ Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Well 1*: 284614		1.5		Grundfos	7S15-26, 1" NPT
Well 2*: 284630		1.5		Grundfos	5S15-26, 1" NPT
Well 3*: 284703/28404		2.0		Grundfos	10S20-27, 1" NPT
Well 4*: 336532		1		Grundfos	10S10-15, 1-1/4" NPT
Well 5*: 380302		5.0		Grundfos	25S50-26, 1-1/2" NPT

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Well 1 – Totalizing Meter	Magnetic	Sensus	SR II		5/8"	
Well 2 – Totalizing Meter	Magnetic	Sensus	SR II	48602975	5/8"	
Well 3 – Totalizing Meter	Magnetic	Sensus	SR II	48128945	3/4"	
Well 4 – Totalizing Meter		Rockwell		25371829	1"	
Well 5 – Totalizing Meter	Magnetic	Sensus	SR	46864580	2"	
Well 1 – Totalizing Meter	Magnetic	Sensus	SR II		5/8"	

2. Measurements: N/A

E. NARRATIVE/REMARKS/COMMENTS

GENERAL

Lakeview Water District (LWD) serves the Lakeview Subdivision which consisted of 24 homes in the summer of 2008. The LWD has three permits supporting five wells (PODs). Despite five wells the Lakeview Subdivision is still suffering from a lack of water, curtailment of irrigation water to water users in the summer season is common. Currently to use water from LWD for irrigation requires the water users to pay a premium price when compared to in-home uses.

The five wells feed two storage tank reservoirs, reservoir one has a capacity of 15,000 gallons and reservoir two has a capacity of 20,000 gallons. The reservoirs supply water to a common municipal water distribution system, which serves the subdivision. The distribution system is divided into two pressure zones. Wells one and two supply reservoir one, which supplies water to the upper pressure zone, which has an operating pressure range of 35-125 PSI. Wells four and five supply reservoir two, which supplies water to the lower pressure zone, which has an operating pressure range of 35-85 PSI. Well three can supply water to both zones and storage reservoirs as needed. During the field exam the valving condition was such that well three was supplying water exclusively to the lower zone, this is a typical operating condition in recent years.

All permits need to be amended to correct the owners name and address to Lakeview Water District. Since the system shares all PODs and supplies a common POU the permits need to be updated to reflect a modified POU (service area of LWD) and add POD's as needed so that each license refers to all five wells as a POD. In addition, the beneficial use needs to be updated to "municipal" for 83-7118 and 83-7136, since the permitted beneficial use for these two rights was not originally municipal, annual diversion volume limitations to the license are required.

SPECIFIC TO PERMIT 83-11931

Permit 83-11931 requires the following specific amendments to the permit: a POD for well one, two, three, and four needs to be added; the name of the owner needs to be changed to Lakeview Water district; and the address on the permit needs to be updated to PO Box 2136 Orofino, ID 83544.

Have conditions of permit approval been met? ☐ yes ☒ no

(a condition in the original permit identified the source as well #5, when in fact there are 5 wells that serve the permit)

F. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method:

- Well # 1: A theoretical calculation yielded a capacity of 9 gpm for a lift of 400 feet and system pressure of 65 psi. Performance Curves for a 7S15-26 (1.5 hp) pump indicated a capacity of 8-9 gpm. Recommendation: 9 gpm
- Well # 2: A theoretical calculation yielded a capacity of 6 gpm for a lift of 400 feet and system pressure of 65 psi. Performance Curves for a 5S15-26 (1.5 hp) pump indicated a capacity of 5-6 gpm. Recommendation: 6 gpm
- Well # 3: A theoretical calculation yielded a capacity of 10.3 gpm for a lift of 380 feet and system pressure of 65 psi. Performance Curves for a 10S20-27 (2.0 hp) pump indicated a capacity of 12-13 gpm. Recommendation: 12 gpm
- Well # 4: A theoretical calculation yielded a capacity of 13.5 gpm for a lift of 102 feet and system pressure of 85 psi. Performance Curves for a 10S10-15 (1.0 hp) pump indicated a capacity of 9-10 gpm. Recommendation: 10 gpm
- Well # 5: A theoretical calculation yielded a capacity of 22.4 gpm for a lift of 480 feet and system pressure of 65 psi. Performance Curves for a 25S50-26 (5.0 hp) pump indicated a capacity of 19 gpm. Recommendation: 22.4 gpm

Combined Diversion Rate = 59.4 gpm $\approx$ 0.13 cfs

PERMIT AMOUNT 0.07 cfs $\therefore$ LICENSE AMOUNT = 0.07 cfs

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

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

$V_{D,R} = [\text{Diversion Rate (cfs)} \times (\text{Days in Irrigation Season}) \times 1.488] =$

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

2. Volume Calculations for Other Use:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
	1/1	12/31	0.13 0.07	N/A
Totals:			0.13 0.07	N/A

2. Recommended Amendments

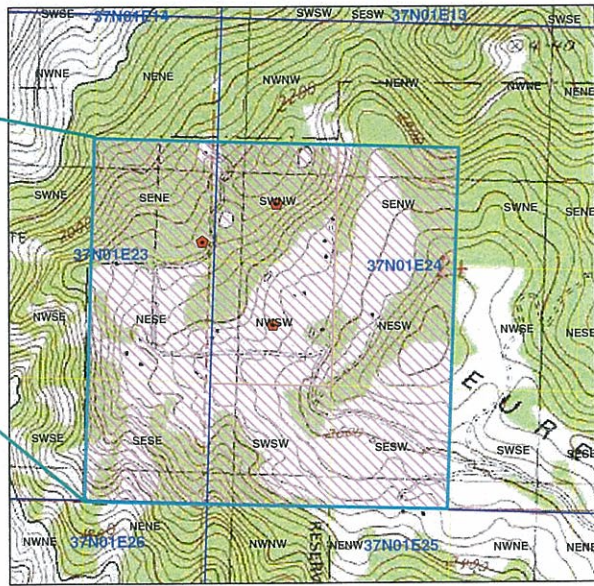
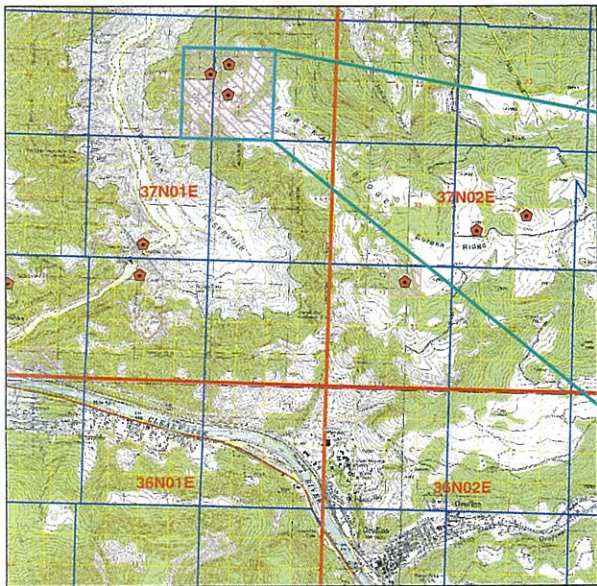
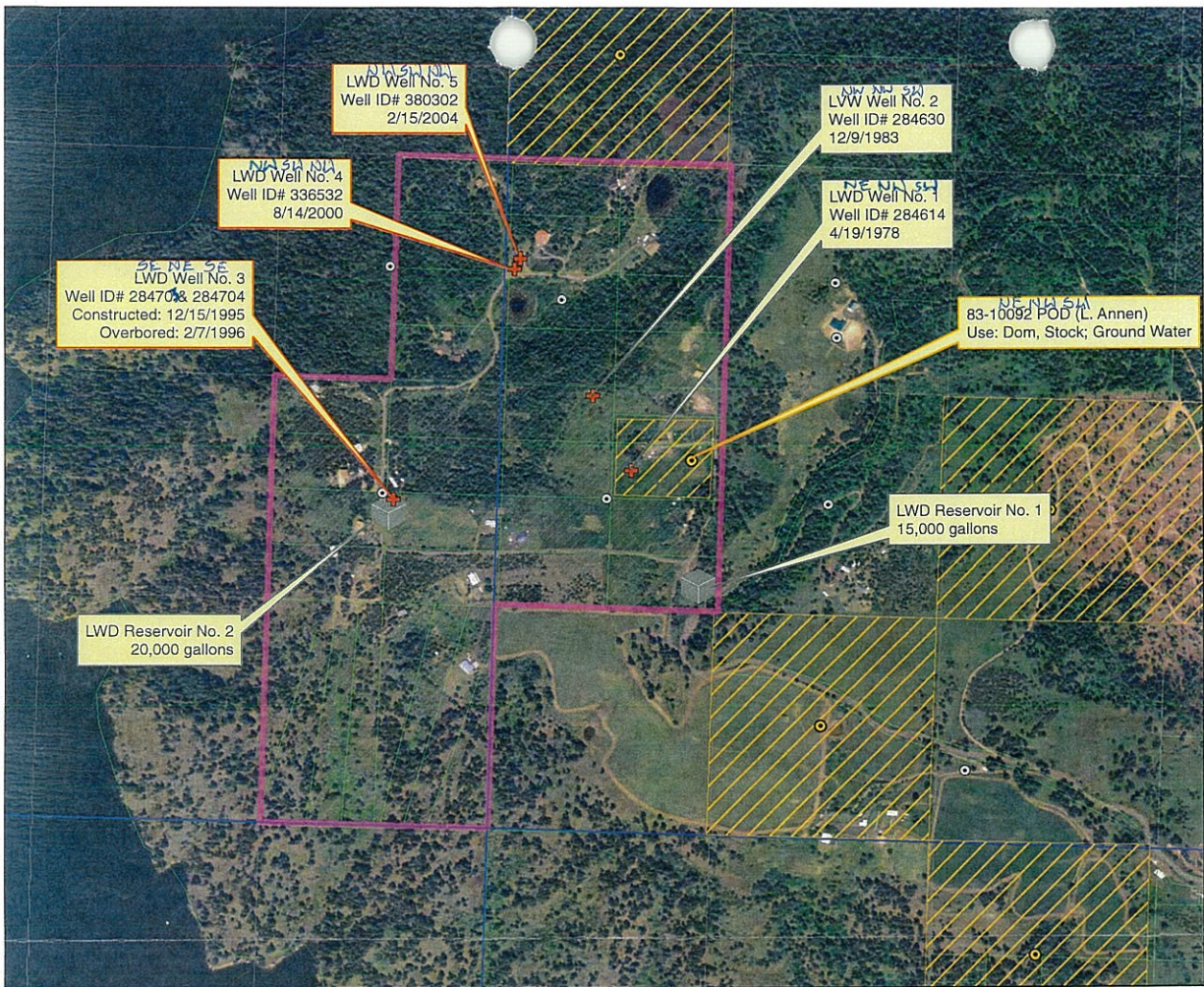
___ Change P.D. as reflected above ☒ Add P.D. as reflected above ___ None
___ Change P.U. as reflected above ___ Add P.U. as reflected above ☒ Other (change owner name and address)

I. AUTHENTICATION

Field Examiner's Name (MAT WEAVER) Date 2/5/10

Reviewer _____ Date _____

SEAL



Legend

- Lakeview Water District
- Active Right POD
- Township/Range
- Lakeview Water District Reservoirs
- Active Right POU
- Sections
- Lakeview Water District Wells
- Taxlots
- QQ
- Well Database Locations



Lakeview Water District Exhibit Map

GROUNDWATER FLOWRATE THEORETICAL ANALYSIS

FILE: Lakeview Water District - Well #1

DATE: 30-Dec-08

BY: Mathew Weaver

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8) \times (HP) \times (EFF.)}{TDH}$

- Q = Flowrate (CFS)
 HP = Total Brake Horsepower of pumping plant (including booster)
 Eff. = Pumping plant efficiency (assume 70% or 0.70)
 TDH = Total Dynamic Head = [Lift + (PSI x 2.31)]
 LIFT = Depth to water in FEET from land surface to pumping water level
 PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$Q = \frac{8.8 \times (1.5) \times 0.70}{[(400) + (65 \times 2.31)]} = 0.02$$

Denotes Cells Requiring Input

LIFT FROM:

Measurement ☐
 Owner ☒
 Area Estimate ☐
 Well Logs ☐
 Booster (Y) ☐ (N) ☒

PSI FROM:

Measurement ☐
 Owner ☒
 Estimate ☐
 Owner Gage ☐

NOTES ON PUMP:

Motor Make, Serial or ID

Pump Make, Serial or ID
 Grundfos 7S15-26 (1.5 hp)

REMARKS: This theoretical calculation is based upon pump specifics, depth to pump, and distribution system pressure information supplied by the owner at the time of the field exam.

This theoretical calculation matches closely with estimated flow rates from the performance curves of the pump.

GROUNDWATER FLOWRATE THEORETICAL ANALYSIS

FILE: Lakeview Water District - Well #2

DATE: 30-Dec-08

BY: Mathew Weaver

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8) \times (HP) \times (EFF.)}{TDH}$

- Q = Flowrate (CFS)
 HP = Total Brake Horsepower of pumping plant (including booster)
 Eff. = Pumping plant efficiency (assume 70% or 0.70)
 TDH = Total Dynamic Head = [Lift + (PSI x 2.31)]
 LIFT = Depth to water in FEET from land surface to pumping water level
 PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$Q = \frac{8.8 \times (1.5) \times 0.55}{[(400) + (65 \times 2.31)]} = 0.013$$

Denotes Cells Requiring Input

LIFT FROM:

Measurement ☐
 Owner ☒
 Area Estimate ☐
 Well Logs ☐
 Booster (Y) ☐ (N) ☒

PSI FROM:

Measurement ☐
 Owner ☒
 Estimate ☐
 Owner Gage ☐

NOTES ON PUMP:

Motor Make, Serial or ID

Pump Make, Serial or ID
 Grundfols 5S15-26 (1.5 hp)

REMARKS: This theoretical calculation is based upon pump specifics, depth to pump, and distribution system pressure information supplied by the owner at the time of the field exam. To match the pump curves an efficiency of 55% was assumed.

This theoretical calculation matches closely with estimated flow rates from the performance curves of the pump, if the right efficiency is used.

GROUNDWATER FLOWRATE THEORETICAL ANALYSIS

FILE: Lakeview Water District - Well #3

DATE: 30-Dec-08

BY: Mathew Weaver

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8) \times (HP) \times (EFF.)}{TDH}$

- Q = Flowrate (CFS)
 HP = Total Brake Horsepower of pumping plant (including booster)
 Eff. = Pumping plant efficiency (assume 70% or 0.70)
 TDH = Total Dynamic Head = [Lift + (PSI x 2.31)]
 LIFT = Depth to water in FEET from land surface to pumping water level
 PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$Q = \frac{8.8 \times (\boxed{2}) \times \boxed{0.70}}{[(\boxed{380}) + (\boxed{65} \times 2.31)]} = 0.023$$

Denotes Cells Requiring Input

LIFT FROM:

Measurement ☐
 Owner ☒
 Area Estimate ☐
 Well Logs ☐
 Booster (Y) ☐ (N) ☒

PSI FROM:

Measurement ☐
 Owner ☒
 Estimate ☐
 Owner Gage ☐

NOTES ON PUMP:

Motor Make, Serial or ID

Pump Make, Serial or ID
 Grundfols 10S20-27 (2.0 hp)

REMARKS: This theoretical calculation is based upon pump specifics, depth to pump, and distribution system pressure information supplied by the owner at the time of the field exam.

This theoretical calculation matches closely with estimated flow rates from the performance curves of the pump.

GROUNDWATER FLOWRATE THEORETICAL ANALYSIS

FILE: Lakeview Water District - Well #4

DATE: 5-Feb-10

BY: Mathew Weaver

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8) \times (HP) \times (EFF.)}{TDH}$

- Q = Flowrate (CFS)
 HP = Total Brake Horsepower of pumping plant (including booster)
 Eff. = Pumping plant efficiency (assume 70% or 0.70)
 TDH = Total Dynamic Head = [Lift + (PSI x 2.31)]
 LIFT = Depth to water in FEET from land surface to pumping water level
 PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$Q = \frac{8.8 \times (1.5) \times 0.70}{[(103) + (85 \times 2.31)]} = 0.03$$

Denotes Cells Requiring Input

LIFT FROM:

Measurement ☒
 Owner ☒
 Area Estimate ☒
 Well Logs ☒
 Booster (Y) ☒ (N) ☒

PSI FROM:

Measurement ☒
 Owner ☒
 Estimate ☒
 Owner Gage ☒

NOTES ON PUMP:

Motor Make, Serial or ID

Pump Make, Serial or ID
 Grundfols 10S10-15 (1 hp)

REMARKS: This theoretical calculation is based upon pump specifics, depth to pump, and distribution system pressure information supplied by the owner at the time of the field exam and in subsequent correspondence (12/17/09).

This theoretical calculation matches closely with estimated flow rates from the performance curves of the pump.

GROUNDWATER FLOWRATE THEORETICAL ANALYSIS

FILE: Lakeview Water District - Well #5

DATE: 31-Dec-08

BY: Mathew Weaver

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8) \times (HP) \times (EFF.)}{TDH}$

- Q = Flowrate (CFS)
 HP = Total Brake Horsepower of pumping plant (including booster)
 Eff. = Pumping plant efficiency (assume 70% or 0.70)
 TDH = Total Dynamic Head = [Lift + (PSI x 2.31)]
 LIFT = Depth to water in FEET from land surface to pumping water level
 PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$Q = \frac{8.8 \times (5) \times 0.70}{[(480) + (65 \times 2.31)]} = 0.05$$

Denotes Cells Requiring Input

LIFT FROM:

Measurement ☐
 Owner ☒
 Area Estimate ☐
 Well Logs ☐
 Booster (Y) ☐ (N) ☒

PSI FROM:

Measurement ☐
 Owner ☒
 Estimate ☐
 Owner Gage ☒

NOTES ON PUMP:

Motor Make, Serial or ID
 Pump Make, Serial or ID
 Grundfols 25S50-26 (5.0 hp)

REMARKS: This theoretical calculation is based upon pump specifics, depth to pump, and distribution system pressure information supplied by the owner at the time of the field exam.

This theoretical calculation matches closely with estimated flow rates from the performance curves of the pump.



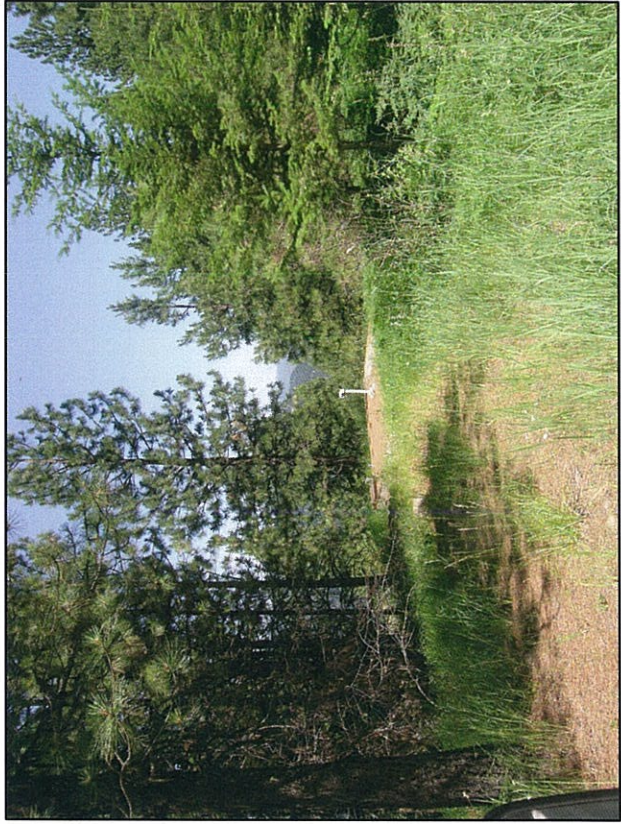
Pic. 1 - Well No. 1 (well ID#284614), Sensus 5/8" SR11 totalizing flow meter (738,120 gallons), services pressure zone 1.



Pic. 2 - Well No. 1 and adjacent totalizing meter vault.



Pic. 3 - Well No. 1 with Larry Annen residence in background.



Pic. 4 - Reservoir No. 1 (15K Gallons) services pressure zone 1.



Pic. 5 – Well No. 2 (well ID# 284614), w/ valve vault in foreground, services pressure zone 1.



Pic. 7 – Well No. 3 in foreground (well ID# 284703 drilling & 284704 repair), pump house and reservoir No. 2. Well no. 3 can service either pressure zone 1 or 2 depending on valving configuration.



Pic. 6 – Well No. 2 Sensus 5/8" SRII totaling meter (1,594,860 gal.)



Pic. 8 – Well No. 3 Sensus 3/4" SRII totaling meter.



Pic. 9 - Well No. 3 pump house including control panel (right),



Pic. 10 - Reservoir No. 2 (20K gallons) services pressure zone 2.



Pic. 11 - Well No. 4 (well ID# 764536) services pressure zone 2.



Pic. 12 - Well No. 5 (well ID# 380302) services pressure zone 2.



Picture 13

Picture 13: valve and meter vault for wells no. 4 and 5 in foreground, control panel for wells 4 and 5 in background.

Picture 14: Meter vault; upper meter is a Sensus 2" 2-13 totalizing flow meter for well no. 5; lower meter is a Rockwell 1" totalizing flow meter for well no. 4.

Picture 15: Control panel for wells no. 4 and 5.



Picture 14



Picture 15



SR II® Water Meters

Displacement Type Magnetic Drive Cold Water Meters

5/8" (DN 15mm), 3/4" (DN 20mm) and 1" (DN 25mm) Sizes

Description

Applications: Measurement of cold water where flow is in one direction only; in residential, commercial and industrial services.

Conformance To Standards: Sensus SR II Water Meters comply with ANSI/AWWA Standard C700-latest revision. Each meter is tested to insure compliance.

Construction: Sensus SR II Water Meters consist of three basic components: maincase; measuring chamber; and sealed register. Maincases are of bronze with externally-threaded spuds. Registers are housed in a bronze bonnet, a bonnet of synthetic polymer is available as an option. Measuring chambers are of Rocksyn® a corrosion-resistant, tailored thermoplastic material formulated for long-term performance and especially suitable for aggressive water conditions. Maincase bottom plates are available in bronze or, if frost protection is desired, in cast iron or synthetic polymer®.

Sealed Register: Hermetically sealed; proven magnetic drive design eliminates dirt and moisture contamination, tampering and lens fogging problems. Standard register includes a straight-reading, odometer-type totalization display; a 360° test circle with center sweep hand; and a low flow (leak) detector. Gears are self-lubricating, molded plastic for long life and minimum friction.

No change gears are required for accuracy calibration. Encoder-type remote reading systems are available for all SR II Water Meters. (See other side of sheet for additional information.)

Tamperproof Features: A unique locking system prevents customer removal of the register to obtain free water. A special tool, available only to water utilities, is required to remove the register bonnet.

Magnetic Drive: The SR II features a hydrodynamically cushioned design that eliminates premature wear of components. The meter utilizes a patented positive, reliable drive coupling. The high-strength magnets used will eliminate "drive slip" in normal use and also provide adequate strength to drive remote register units.

Operation: Water flows through the meter's strainer and into the measuring chamber where it drives the piston. The hydrodynamically balanced piston oscillates around a central hub, guided by the division plate.

A drive magnet transmits the motion of the piston to a driven magnet located within the hermetically sealed register. The driven magnet is connected to the register gear train. It reduces the piston oscillations into volume totalization units displayed on the register dial face.

Maintenance: Sensus SR II Water Meters are engineered to provide long-term value and virtually maintenance-free operation. Simplicity of design and precise machining of components allows interchangeability of parts of like-size meters, reduced parts inventory requirements, and ease of maintenance. The register can be removed without relieving the water pressure or removing the maincase from the installation.

As an alternative to utility repair, Sensus offers maintenance programs to provide factory reconditioning of the maincase and replacement components at low fixed prices. See bulletin PD-299.

Connections: Tailpieces/Unions for installing the meters on a variety of pipe types and sizes are available.

Guarantee: Sensus SR II Water Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.

Specifications



5/8" (DN 15mm) SR II®

3/4" (DN 20mm) SR II®

1" (DN 25mm) SR II®

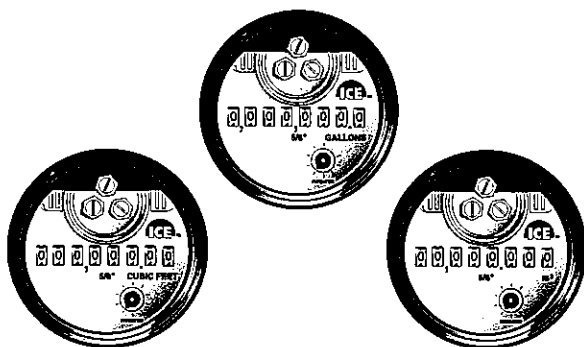
SERVICE	Measurement of cold water with flow in one direction only.
NORMAL OPERATING FLOW RANGE ②	5/8" (DN 15mm) size: 1 to 20 gal/min. (0.25 to 4.5 m³/h) 3/4" (DN 20mm) size: 2 to 30 gal/min. (0.45 to 7.0 m³/h) 1" (DN 25mm) size: 3 to 50 gal/min. (0.7 to 11.0 m³/h)
ACCURACY	100% ± 1.5% of actual thrust
LOW FLOW REGISTRATION	5/8" size: 95% at 1/4 gal/min. (0.06 m³/h) 3/4" size: 95% at 1/2 gal/min. (0.10 m³/h) 1" size: 95% at 3/4 gal/min. (0.15 m³/h)
MAXIMUM PRESSURE LOSS	5/8" size: 7.0 psi at 20 gal/min. (0.5 bar at 4.5 m³/h) 3/4" size: 9.0 psi at 30 gal/min. (0.6 bar at 7.0 m³/h) 1" size: 7.3 psi at 50 gal/min. (0.5 bar at 11.0 m³/h)
MAXIMUM OPERATING PRESSURE	150 psi (10.0 bar)
MEASUREMENT ELEMENT	Oscillating piston
REGISTER	Straight reading, hermetically sealed, magnetic drive. Remote reading unit optional.
REGISTRATION	10 gallons, 1 cubic foot, or 0.01 m³/ or 0.1 m³/sweep hand revolution. 10,000,000 gallons, 1,000,000 cubic feet or 100,000 m³ capacity. 6 odometer wheels.
METER CONNECTIONS ③	5/8" (DN 15mm) size: 3/4" (26.44mm) threads 5/8" x 3/4" (DN 15mm x 33mm) size: 1" (33.25) threads 3/4" (DN 20mm) size: 1" (33.25 threads) 3/4" x 1" (DN 20mm x 42mm) size: 1-1/4" (41.91mm) threads 1" (DN 25mm) size: 1-1/4" (41.91mm) threads (All threads are straight pipe, external type, conforming to ANSI B1.20.1 or ISO R228, if specified.)
MATERIALS	Maincase—Bronze Register box—Bronze (standard), synthetic polymer (optional) Measuring chamber—Rocksyn® Bottom plate—Bronze, cast iron or synthetic polymer® Magnets—Plasticized material Casing bolts—Stainless steel Strainer—Synthetic polymer

① Synthetic polymer maincase bottom plate available on 5/8" meter only.

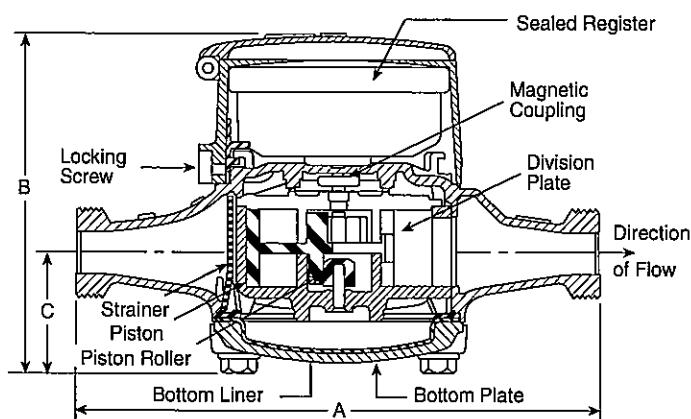
② Maximum rates listed are for intermittent flow only. Maximum continuous flow rates as specified by AWWA are: 5/8" (DN 15mm)—10 gal/min (2.3 m³/h), 3/4" (DN 20mm)—15 gal/min (3.4 m³/h) 1" (DN 25mm)—25 gal/min (5.7 m³/h)

③ Unless otherwise noted, 5/8" size and 5/8" x 3/4" characteristics are identical. (5/8" x 3/4" designates 5/8" with 3/4" connection thread.) Also unless otherwise noted 3/4" size and 3/4" x 1" size characteristics are identical. (3/4" x 1" designates 3/4" with 1" connection thread.)

Metric designation is the normal bore x the outside diameter.



5/8" (DN 15mm) Dials Shown



Dimensions and Net Weights

Meter Size	A	B	C	Width	Net Weight ^①
5/8" (DN 15mm)	7-1/2" (190mm)	5.0" (127mm)	1-3/4" (44mm)	3-7/8" (98mm)	4.3 lb. (1.97 kg)
5/8" x 3/4" (DN 15mm x 33mm)	7-1/2" (190mm)	5.0" (127mm)	1-3/4" (44mm)	3-7/8" (98mm)	4.4 lb. (2.00 kg)
3/4" (DN 20mm)	9" (229mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.4 lb. (2.90 kg)
3/4" x 1" (DN 20mm x 42mm)	9" (229mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.6 lb. (2.99 kg)
3/4" short (DN 20mm)	7-1/2" (190mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.2 lb. (2.81 kg)
1" (DN 25mm)	10-3/4" (273mm)	6-9/16" (167mm)	2-7/16" (62mm)	6-1/2" (165mm)	11.9 lb. (5.4 kg)

① With Rocksyn® measuring chamber.

Reading Systems

PhonRead® and RadioRead® of Sensus Water Meters

All Sensus AMR systems work with the same absolute encoder Electronic Communications Registers (ECR), enabling the utility to mix and match or easily move from one system to another without changing registers for each.

The TouchRead® Automated Meter Reading and Billing System—is a multipurpose encoder remote system suitable for indoor and/or outdoor use. The ECR Register uses a wired connection between the meter and an outside remote for inside set meters—or a pitlid mounted module, enabling underground meters to be read automatically without opening the meter box or vault. All wired connections and terminals of the TouchRead PitLid (TR/PL) modules and registers are fully sealed at the factory using a special process to ensure protection from water infiltration. The connection terminals of ECRWP registers are also factory sealed.

Meters equipped for TouchRead System reading can be read with a visual reading device, stand alone AutoGun, and/or reading gun with an AutoRead HandHeld Device. For more information on TouchRead System equipment refer to bulletins AMR-TR, AMR-401, AMR-403, AMR-312 and EXSUMHH.

PhonRead® AMR—is a reliable telephone based call-in system that does not require batteries for operation. It also does not require equipment to be installed at telephone company facilities. PhonRead

Meter Interface Units (MIU) automatically call "in" to the utility office for transferring meter reading data from the meter site to a PC. PhonRead is a transparent AMR system that does not interfere with customers' telephone service. For more information refer to bulletins AMR-PR and AMR-302.

RadioRead® AMR—uses superior Direct Sequence Spread Spectrum modulation to provide reliable, safe and virtually interference free radio-based transmission of reading data from underground or inside-set meters that are equipped with Meter Transceiver Units (MXU). A choice of meter reading options is available. A radio frequency hand-held device (RF-HHD) can be used by a meter reader on foot. The RF-HHD can also be used to collect readings from TouchRead equipped meters, or for manual meter reading entries. A more powerful Vehicle Transceiver Unit (VXU) can be used in any car or truck to read meters while on the move. (A dedicated meter reading vehicle is not required.) For more information refer to bulletins AMR-RR, AMR-301 and AMR-303, and AMR-401.

MultiRead® Port Expanders—can provide the capability to connect multiple ECR equipped meters to a single PhonRead MIU or RadioRead MXU to save the utility time and money for installations such as apartment complexes and shopping centers. Refer to bulletin AMR-305, AMR-306 and AMR-308.

AUTHORIZED SENSUS DISTRIBUTOR

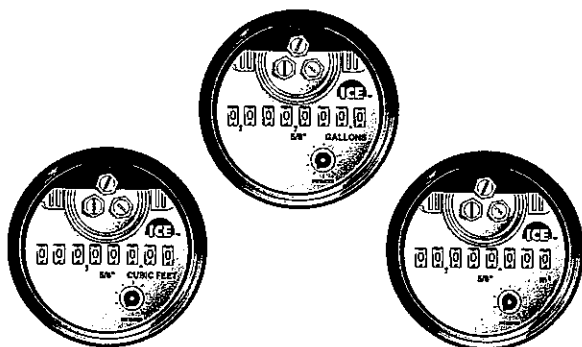


P.O. Box 487 • 450 N. Gallatin Avenue
Uniontown, PA 15401
1-800-METER-IT • 1-800-638-3748

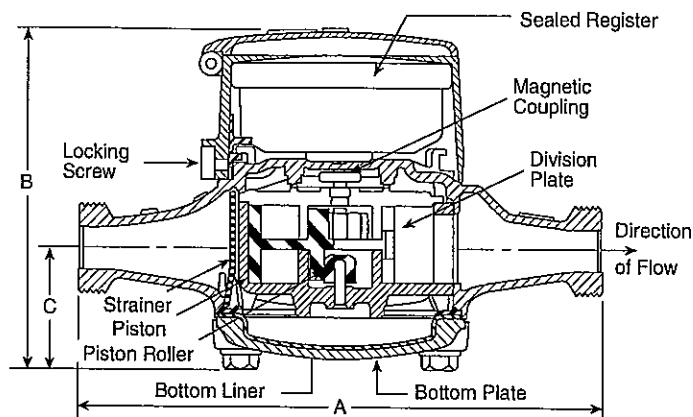
Fax: Direct to Factory
Local: 724-439-7729 • Toll Free: 1-800-888-2403

www.sensus.com (select "North America Water")

Email: h2oinfo@sensus.com



5/8" (DN 15mm) Dials Shown



Dimensions and Net Weights

Meter Size	A	B	C	Width	Net Weight ^①
5/8" (DN 15mm)	7-1/2" (190mm)	5.0" (127mm)	1-3/4" (44mm)	3-7/8" (98mm)	4.3 lb. (1.97 kg)
5/8" x 3/4" (DN 15mm x 33mm)	7-1/2" (190mm)	5.0" (127mm)	1-3/4" (44mm)	3-7/8" (98mm)	4.4 lb. (2.00 kg)
3/4" (DN 20mm)	9" (229mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.4 lb. (2.90 kg)
3/4" x 1" (DN 20mm x 42mm)	9" (229mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.6 lb. (2.99 kg)
3/4" short (DN 20mm)	7-1/2" (190mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.2 lb. (2.81 kg)
1" (DN 25mm)	10-3/4" (273mm)	6-9/16" (167mm)	2-7/16" (62mm)	6-1/2" (165mm)	11.9 lb. (5.4 kg)

① With Rocksyn® measuring chamber.

Remote Reading Systems

Advantages of Sensus Water Meters

All Sensus AMR systems work with the same absolute encoder Electronic Communications Registers (ECR), enabling the utility to mix and match or easily move from one system to another without changing registers for each.

The TouchRead® Automated Meter Reading and Billing System—is a multipurpose encoder remote system suitable for indoor and/or outdoor use. The ECR Register uses a wired connection between the meter and an outside remote for inside set meters—or a pitlid mounted module, enabling underground meters to be read automatically without opening the meter box or vault. All wired connections and terminals of the TouchRead PitLid (TR/PL) modules and registers are fully sealed at the factory using a special process to ensure protection from water infiltration. The connection terminals of ECR/WP registers are also factory sealed.

Meters equipped for TouchRead System reading can be read with a visual reading device, stand alone AutoGun, and/or reading gun with an AutoRead HandHeld Device. For more information on TouchRead System equipment refer to bulletins AMR-TR, AMR-401, AMR-403, AMR-312 and EXSUMHH.

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AUTHORIZED SENSUS DISTRIBUTOR



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www.sensus.com (select "North America Water")

Email: h2oinfo@sensus.com

Lakeview Water District Well Summary Table

Contact	Use	Well ID#	TWP	RNG	SEC	Tract	Gov. Lot	Well Address	Sub	BI	L	Gallons Per Minute	Static Water Level	Total Depth	Casing Depth	CSG. DIA.	Construction Date	Permit Number	Tag Number
SECTION 23																			
LAKEVIEW WATER DIST., ANNEEN, LARRY	Commercial	284703	37N	01E	23	NESE					9	10	250	365	50	8	12/15/1995	743099	
RECREATIONAL WATER DISTRICT	Irrigation	336532	37N	01E	23	NESE		WELL SITE LOCATED IN EASEMENT OWNED BY DISTRICT	Lakeview		17	70	80	180	-138	6	8/14/2000	764536	D0013076
SECTION 24																			
LAKEVIEW WATER DIST., ANNEEN, LARRY	Commercial	284704	37N	01E	23	NESE					9	0	0	300		8	2/7/1996	780079	
DISTRICT, LAKEVIEW SUBDIVISION	Multiple Residence	380302	37N	01E	23	SENE		4115 EUREKA RIDGE RD				60	240	1007	640	8	2/15/2004	809560	D0033480
SECTION 24																			
WILSON, STRIBECK	Domestic- Single Residence	--	37N	01E	24	SWSW						2	417	652	149	8	10/13/1969	742978	
MANGUM, CARLOS, ALGER, PAUL	Domestic- Single Residence	284577	37N	01E	24	NESW						30	10	58	18	8	5/27/1970	742981	
ALGER, PAUL	Domestic- Single Residence	284578	37N	01E	24	NESW						99999.99	Above Ground Level	290		6	5/29/1970	742982	
ALGER, PAUL	Domestic- Single Residence	284579	37N	01E	24	NESW						99999.99	Above Ground Level	35			6/1/1970	742983	
ALGER, PAUL	Domestic- Single Residence	284580	37N	01E	24	NESW						99999.99	Above Ground Level	35		6	6/1/1970	742984	
LAKEVIEW WATER DIST., SUBURBAN DEVELOP CO INC	Commercial	284614	37N	01E	24	NWSW						25	150	400	270	6	4/19/1978	743018	
ANDREWS, RAY	Commercial	284630	37N	01E	24	NWSW					2	15	264	418	408	6	12/9/1983	743034	
BADE, BRUCE, RACKHAM, SAM	Domestic- Single Residence	284638	37N	01E	24	NWSW						2	165	201			1/6/1984	743041	
PETERS, WARREN J	Domestic- Single Residence	284656	37N	01E	24	SENW						0	620	670	280	10	7/13/1992	743057	
PETERS, WARREN J	Domestic- Single Residence	--	37N	01E	24	SWSEN		4111 EUREKA RIDGE ROAD				3	185	256	21	8	8/16/1996	743108	
HAYES, FAY A	Domestic- Single Residence	337701	37N	01E	24	SWNW		4128 EUREKA RIDGE	LAKEVIEW SUBDIVISION		17	12	80	170	-160	6	8/20/2000	765705	D0013564
HUBER, LEN, HUBER, NANCY	Domestic- Single Residence	330654	37N	01E	24	SENW		EUREKA RIDGE				25	405	560	560	8	6/24/2002	778967	D0022375
STRAHAN, JERRY	Domestic- Single Residence	--	37N	01E	24	SESE		EUREKA RIDGE				5	420	530	500	8	4/16/2005	832380	D0040039

1 - Lakeview Water District Well No. 1

2 - Lakeview Water District Well No. 2

3 - Lakeview Water District Well No. 3

3* - Lakeview Water District Overlapping of Well No. 3

4 - Lakeview Water District Well No. 4

5 - Lakeview Water District Well No. 5

USE TYPEWRITER OR
BALL POINT PEN

State of Idaho
Department of Water Resources

WELL DRILLER'S REPORT

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.

1. WELL OWNER Name <u>Suburban Drilling Co. Inc.</u> Address <u>Box 476 Kamiah Ida</u> Owner's Permit No. <u>83-78-N-4-000</u>		7. WATER LEVEL Static water level <u>150</u> feet below land surface Flowing? ☐ Yes ☒ No G.P.M. flow _____ Temperature <u>60</u> ° F. Quality <u>good</u> Artesian closed-in pressure _____ p.s.i. Controlled by ☐ Valve ☐ Cap ☐ Plug																																																																																									
2. NATURE OF WORK <u>W.R. 83-07118</u> ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe method of abandoning)		8. WELL TEST DATA ☐ Pump ☐ Bailer ☒ Other <u>AIR</u> Discharge G.P.M. <u>25</u> Draw Down _____ Hours Pumped _____																																																																																									
3. PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type) ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection		9. LITHOLOGIC LOG <table border="1"><thead><tr><th rowspan="2">Hole Diam.</th><th colspan="2">Depth</th><th rowspan="2">Material</th><th colspan="2">Water</th></tr><tr><th>From</th><th>To</th><th>Yes</th><th>No</th></tr></thead><tbody><tr><td>8"</td><td>0</td><td>5</td><td>Top Soil</td><td></td><td></td></tr><tr><td>11"</td><td>5</td><td>65</td><td>Red Clay</td><td></td><td></td></tr><tr><td>11"</td><td>65</td><td>130</td><td>Basalt</td><td></td><td></td></tr><tr><td>11"</td><td>130</td><td>140</td><td>Gravel</td><td></td><td></td></tr><tr><td>11"</td><td>140</td><td>150</td><td>Basalt</td><td></td><td></td></tr><tr><td>11"</td><td>150</td><td>155</td><td>Clay</td><td></td><td></td></tr><tr><td>11"</td><td>155</td><td>183</td><td>Basalt</td><td></td><td></td></tr><tr><td>11"</td><td>183</td><td>185</td><td>Clay</td><td></td><td></td></tr><tr><td>11"</td><td>185</td><td>233</td><td>Basalt</td><td></td><td></td></tr><tr><td>8"</td><td>233</td><td>255</td><td>Clay</td><td></td><td></td></tr><tr><td>6"</td><td>255</td><td>385</td><td>Gravel</td><td></td><td></td></tr><tr><td>6"</td><td>385</td><td>386</td><td>Sand Screen</td><td></td><td></td></tr><tr><td>6"</td><td>386</td><td>400</td><td>Granite</td><td></td><td></td></tr></tbody></table>		Hole Diam.	Depth		Material	Water		From	To	Yes	No	8"	0	5	Top Soil			11"	5	65	Red Clay			11"	65	130	Basalt			11"	130	140	Gravel			11"	140	150	Basalt			11"	150	155	Clay			11"	155	183	Basalt			11"	183	185	Clay			11"	185	233	Basalt			8"	233	255	Clay			6"	255	385	Gravel			6"	385	386	Sand Screen			6"	386	400	Granite		
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4. METHOD DRILLED ☐ Cable ☒ Rotary ☐ Dug ☐ Other		RECEIVED AUG 22 1998 Department of Water Resources OFFICE USE ONLY Inspected by _____ Date <u>3/27/98</u> by <u>LE Sec 24</u> in NW 1/4 SW 1/4																																																																																									
5. WELL CONSTRUCTION Diameter of hole <u>6</u> inches Total depth <u>400</u> feet Casing schedule: ☒ Steel ☐ Concrete Thickness _____ Diameter _____ From _____ To _____ <u>250</u> inches <u>6</u> inches + <u>1</u> feet <u>270</u> feet _____ inches _____ inches _____ feet _____ feet _____ inches <u>4" P.C.</u> inches <u>360</u> feet <u>400</u> feet _____ inches _____ inches _____ feet _____ feet Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch Size of perforation _____ inches by _____ inches Number _____ From _____ To _____ <u>100</u> perforations <u>360</u> feet <u>390</u> feet _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>20</u> Material used in seal ☐ Cement grout ☒ Pudding clay ☐ Well cuttings Sealing procedure used ☐ Sherry pit ☐ Temporary surface casing ☒ Overbars to seal depth																																																																																											
6. LOCATION OF WELL Sketch map location must agree with written location. <table border="1" style="width: 100px; height: 100px; text-align: center; margin: 10px auto;"><tr><td>N</td><td></td><td>N</td></tr><tr><td>W</td><td></td><td>E</td></tr><tr><td></td><td>X</td><td></td></tr></table> Subdivision Name _____ Lot No. _____ Block No. <u>MICROFILMED</u> County <u>Clearwater</u> <u>SE</u> 1/4 <u>SE</u> 1/4 Sec. <u>24</u> T. <u>37</u> N. 1/4 R. <u>1</u> E. 1/4				N		N	W		E		X																																																																																
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10. Work started <u>4-14-76</u> finished <u>4-19-78</u>		11. DRILLERS CERTIFICATION Firm Name <u>Aqua Drilling Inc.</u> Firm No. <u>356</u> Address <u>Box 657 Hayden Lake</u> Date <u>4-20-78</u> Signed by (Firm Official) <u>E. Brown & Lewis</u> and (Operator) <u>Walt E. Jackson</u>																																																																																									

Well
No. 1

Model 7S

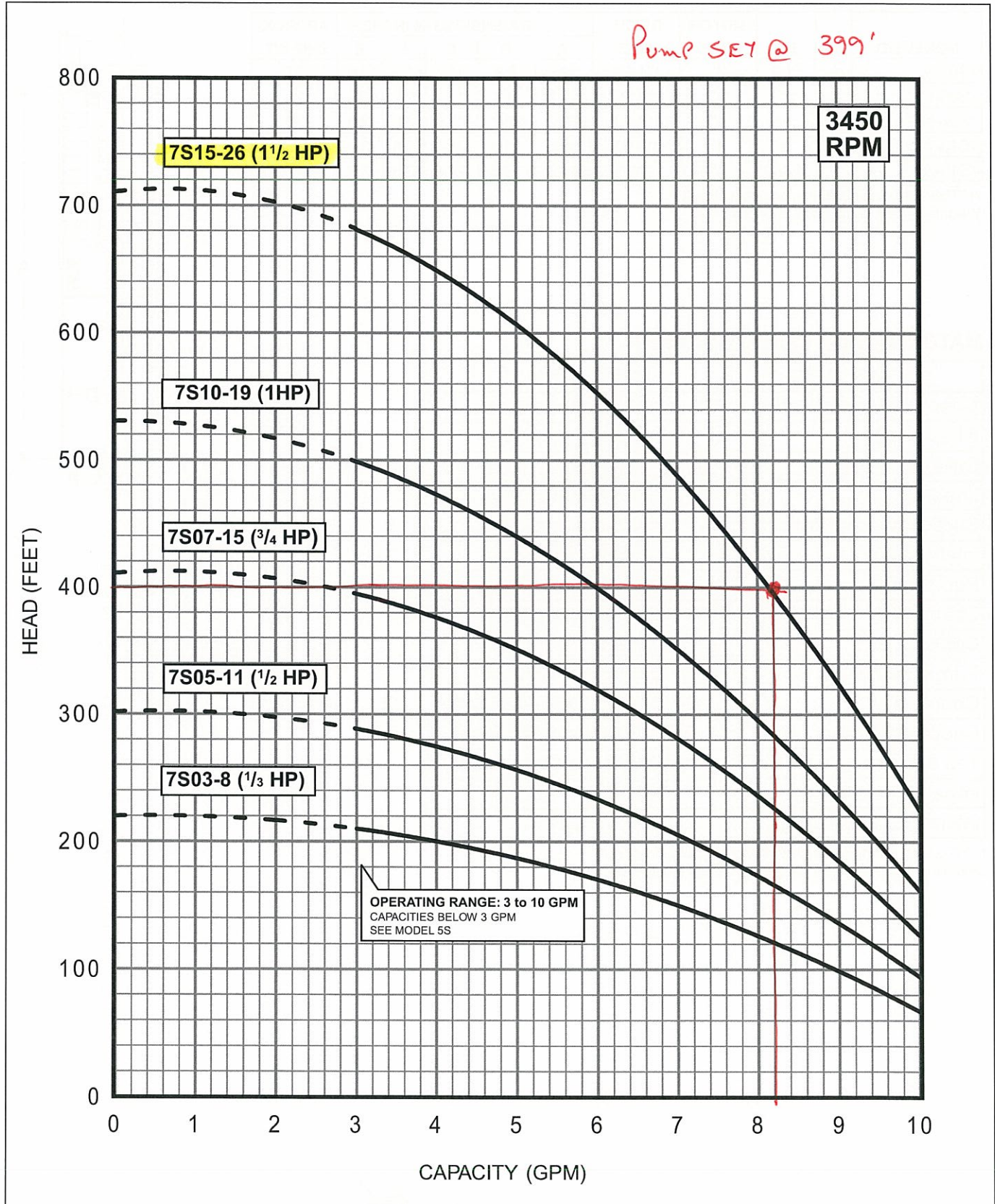
7 GPM

Performance Curves

FLOW RANGE: 3 -10 GPM

OUTLET SIZE: 1" NPT

NOMINAL DIA. 4"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, 3450 RPM.

Performance conforms to ISO 2548 Annex B
@ 2 ft. min. submergence.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

JAN 30 1984

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.

Department of Water Resources

1. WELL OWNER Name <u>Ray Andrews</u> Address _____ Owner's Permit No. <u>83-83-N-2-000</u>		7. WATER LEVEL Static water level <u>264</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature _____ °F. Quality _____ Describe artesian or temperature zones below.																																																																																	
2. NATURE OF WORK <u>W.R. 83-07118</u> ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		8. WELL TEST DATA ☐ Pump ☐ Bailor ☒ Air ☐ Other _____ Discharge G.P.M. <u>Est. 15</u> Pumping Level _____ Hours Pumped _____																																																																																	
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4. METHOD DRILLED ☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary ☐ Cable ☐ Dug ☐ Other _____		10. WORK STARTED Work started <u>Nov 26, 1983</u> finished <u>Dec 9, 1983</u>																																																																																	
5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ Thickness <u>250</u> inches Diameter <u>6"</u> inches From <u>408 1/2</u> feet To <u>405</u> feet Inches inches feet feet Inches inches feet feet Inches inches feet feet Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☒ Yes ☐ No How perforated? ☐ Factory ☐ Knife ☒ Torch Size of perforation <u>1/8"</u> inches by <u>4"</u> inches Number of perforations <u>88</u> From <u>390</u> feet To <u>405</u> feet <u>88</u> perforations <u>295</u> feet <u>310</u> feet perforations feet feet Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>18</u> Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Pudding clay ☐ _____ Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata Describe access port _____		11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>Aqua Enterprises Inc</u> Firm No. <u>163</u> P.O. Address <u>Box 1477 Caldwell, Idaho</u> Date <u>12-19-83</u> Signed by (Firm Official) <u>Robert W. Brown</u> and <u>Scott M. Brown</u> (Operator) MICROFILMED SEP 29 1998																																																																																	
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LVWD Well #2

Model 5S

5 GPM

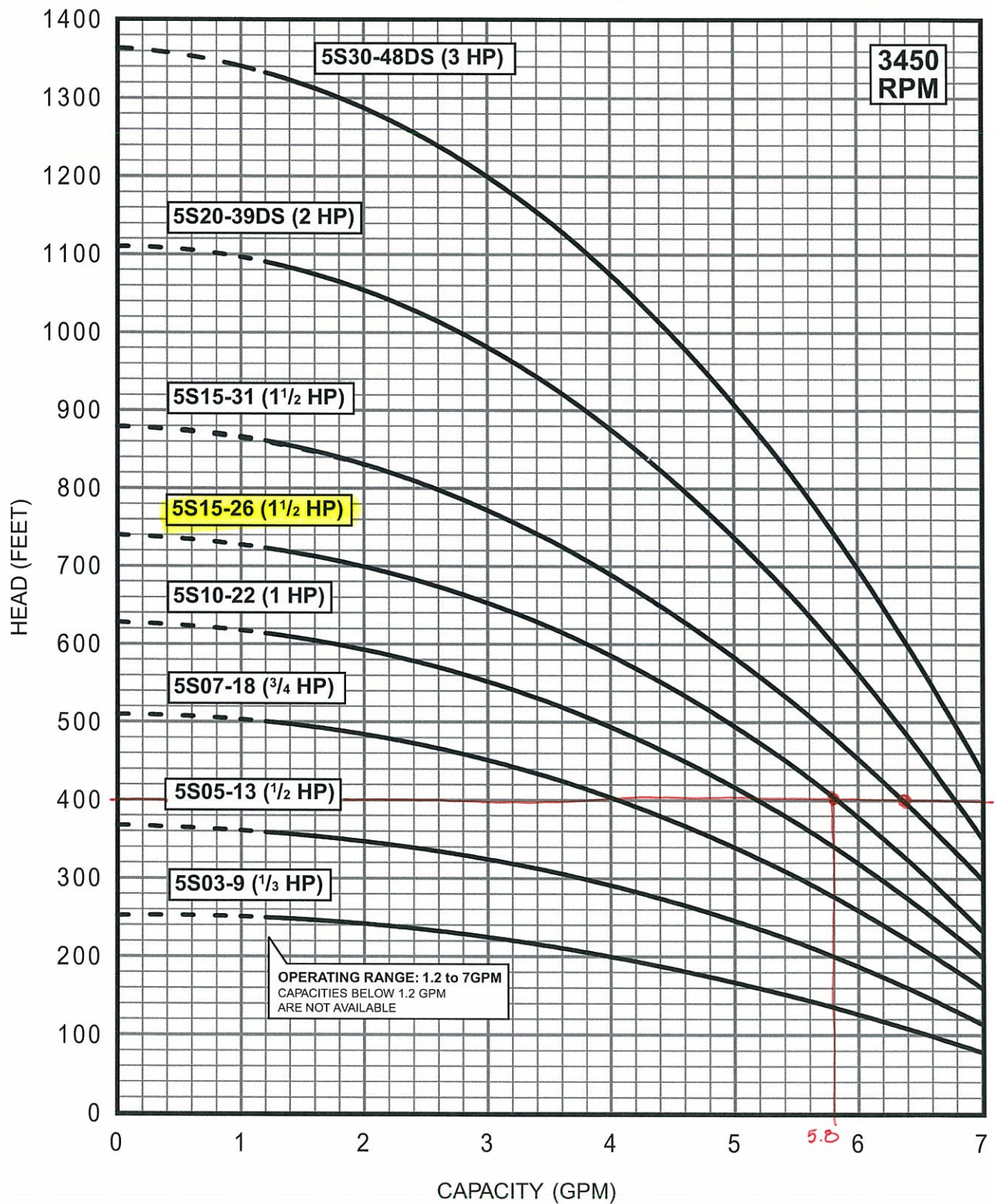
Performance Curves

FLOW RANGE: 1.2 - 7 GPM

OUTLET SIZE: 1" NPT

NOMINAL DIA. 4"

Pump SET @ 400'



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, 3450 RPM.

Performance conforms to ISO 2548 Annex B
@ 2 ft. min. submergence.

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Form 2382

9/95

JAN 17 1996

DANHO DEPARTMENT OF WATER RESOURCE

POSTED

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Office Use Only		
Inspected by		
Twp	Rge	Sec
1/4	1/4	1/4
Lat:	:	Long:
:	:	:
☒ Air	☐ Flowing Artesian	

1. DRILLING PERMIT NO. 83-95-N-0010-000

Other IDWR No.

2. OWNER:

Name

Address

City

LAKEVIEW WATER DISTRICT

LARRY ANNEU

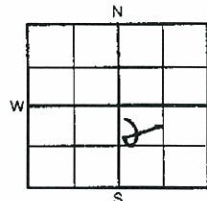
3320 5th Street B

Lewistown

State ID Zip 83501

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.



Twp. 37N

North ☐ or South ☐

Rge. 01E

East ☐ or West ☐

Sec. 23

NE 1/4 SE 1/4

Gov't Lot

County Clearwater

Lat:

Long:

Address of Well Site

City

(Give at least name of road + Distance to Road or Landmark)

Lt. 009

Blk.

Sub. Name Lakeview

Recreational

Subdivision

4. USE:

☒ Domestic

☐ Municipal

☐ Monitor

☐ Irrigation

☐ Thermal

☐ Injection

☒ Other

Non-Domestic

5. TYPE OF WORK check all that apply

(Replacement etc.)

☒ New Well

☐ Modify

☐ Abandonment

☐ Other

6. DRILL METHOD

☒ Air Rotary

☐ Cable

☐ Mud Rotary

☐ Other

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	50	6 Sacks	

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 50'

Was drive shoe seal tested? ☒ Y ☐ N How? AIR

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	0	50		steel	☒	☐	☒	☐

Length of Headpipe Length of Tailpipe

9. PERFORATIONS/SCREENS

☒ Perforations

Method Skill SAW

☐ Screens

Screen Type

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
365	0	6 1/4"	60	6"	PVC	☐	☒

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

250 ft. below ground Artesian pressure lb.

Depth flow encountered 145 ft. Describe access port or

control devices: Remove the well cap

NESE 23 37N 1E

11. WELL TESTS:

☐ Pump

☐ Bailor

☒ Air

☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
10			

Water Temp. 51°

Bottom hole temp. 51°

Water Quality test or comments:

Depth first Water Encountered 145

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
10	0	5	Soil		☒
10	5	40	Clay		☒
10	4	50	Clay Gravel		☒
8	50	365	Gravel	☒	

Completed Depth 365'

(Measurable)

Date: Started 12-13-95

Completed 12-15-95

13. DRILLER'S CERTIFICATION

I certify that all minimum well construction standards were complied with at the time the rig was removed.

SEP 29 1996

Firm Name Burns Well Drilling Firm No. 103

Firm Official G.R. Burns Date 1/10/96

and Supervisor or Operator Dan Myhres Date 12-15-95

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Well No. 3

Search Well Construction

What do you want to search for?

- ☒ Application ☒ Driller Report ☐ All
☒ Permit ☒ Field Inspection ☐ None
☒ Historic Wells

View Results

- ☒ List Box
☐ Excel

Note: In the grid, the date field for type Application and Driller Report: Date Received, type Permit: Date Approved, type Inspection: Date Inspected

Clear

Search

Basin Number	Who?	What?	When?	Where?
Old Permit Num		Activity		
Tag Number		Depth	To	
Permit ID	780079	Project Name		
Well ID		Production Rate	To	
Application ID		Region Office		
Const Method		App Type		
Well Use		Receipt ID		

WHEN ID
 SEARCH RESULTS FOR 284704.
 NO WELL DRILLER'S LOG.
 LARRY ANWEN THINKS THIS IS A
 W/ AN OVERSORE DRILLING OF
 EXISTING WELL (284703) No. 3.

Twp	Rge	Sec	W.	County Name	Date	Lic ...	Permi...	Tag Num	Contact List	ApplID	Type	WellID	Inspected?	Status
☐ 37N	01E	23		CLEARWATER	1995/08/30	103	780079		LAKEVIEW/ WA...	846189	Application	2847...	NO	Closed
☐ 37N	01E	23		CLEARWATER	1995/10/05	103	780079		LAKEVIEW/ WA...	846189	Permit	2847...	NO	Closed
☐ 37N	01E	23			1995/08/30	103	780079		LAKEVIEW/ WA...		Driller Report	2847...	NO	

Record Count: 3

Update
ArcView

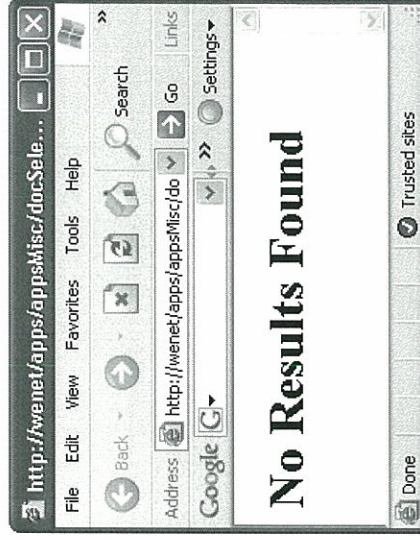
Download Data
to PC

Check Uninspected
Wells

View Well
Proof Report

View Docs

Display Inspection
Report



Model 10S

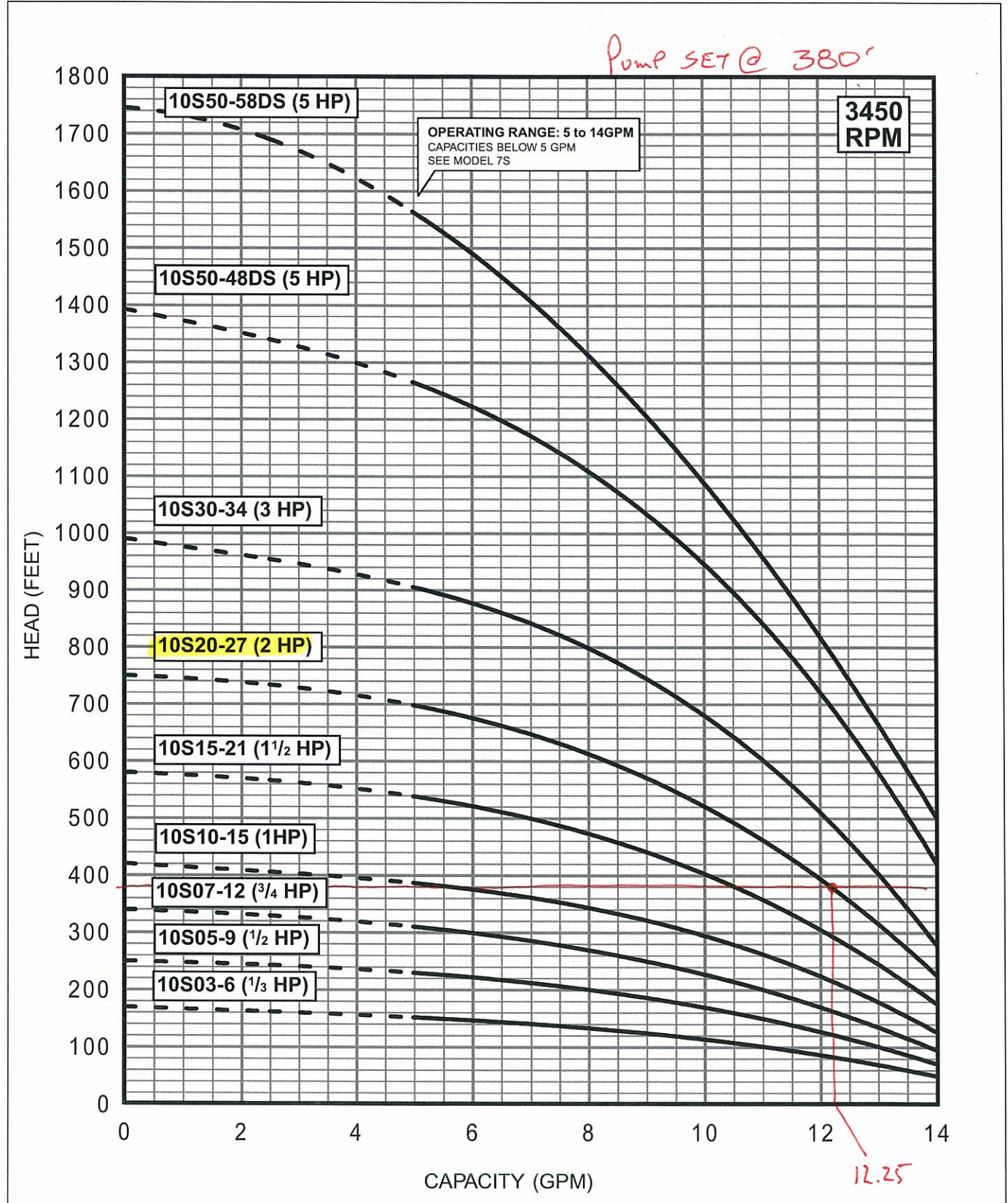
10 GPM

Performance Curves

FLOW RANGE: 5 -14 GPM

OUTLET SIZE: 1 1/4 " NPT

NOMINAL DIA. 4"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, 3450 RPM.

Performance conforms to ISO 2548 Annex B
@ 2 ft. min. submergence.

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Form 238
11/97

FEB 26 2001 IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

IDWR/North

1. WELL TAG NO. D 00 43706013076

DRILLING PERMIT NO. 764536

2. OWNER: Lake View Subdivision

Name Address City State Zip

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

Map grid showing Township, Range, Section, and Government Lot. Township: 37N, Range: 24E, Section: 14, Government Lot: 14. County: Clearwater.

Address of Well Site: Evolve A Ridge City: Orofino

Li. 17 Blk. Sub. Name Lake View Subd.

4. USE: ☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK check all that apply (Replacement etc.) ☒ New Well ☐ Modify ☐ Abandonment ☐ Other

6. DRILL METHOD ☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES

SEA/FILTER PACK	AMOUNT	METHOD
Bentonite 0 31 450		Top pour

Was drive shoe used? ☒ N Shoe Depth(s) 13 ft

Was drive shoe seal tested? ☒ Y ☐ N How? Air Pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Linear	Welded	Threaded
6"	42	438	250	Steel				

Length of Headpipe Length of Tailpipe

9. PERFORATIONS/SCREENS

From	To	Slot Size	Number	Diameter	Material	Casing	Linear
-75	-90	1/4 x 1/300	5"	Steel			

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

20 ft. below ground Artesian pressure 1 lb.

Depth flow encountered Top of casing

37N 1E 24 FORWARD WHITE COPY TO WATER RESOURCES

11. WELL TESTS:

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min. 70 Drawdown Pumping Level Time 1.00

Water Temp. 58.0 Bottom hole temp.

Water Quality test or comments: Good Depth first Water Encounter 73'

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
8 1/2	0	10	Wthrl Bsslt		
8 1/2	10	31	Brown Clay		
8 1/2	31	73	Clay mix c. Some Rck		
8 1/2	73	77	Wthrl Bsslt		
8 1/2	77	100	Clay		
8 1/2	100	109	Gravel Chg		
8 1/2	109	117	Clay & Rck		
8 1/2	117	145	Silty Sand c. Clay		
8 1/2	145	153	Crust c. (Coarse)		
8 1/2	153	223	Comp. Silt. Gravel		
8 1/2	223	250	Mid. H.C. Salt Pepper Gravel		
8 1/2	250	265	Silt. & Salt Pepper Gravel		
8 1/2	265	284	Silt. white Gravel		
8 1/2	284	300	Gravel		
8 1/2	300	300	Back filled well to 100 ft casing perforated casing from 200 ft to 300 ft		
8 1/2	300	300	blowing air 300 ft		
8 1/2	300	300	Department of Water Resources		

Completed Depth 100' (Measurable) Date: Started 9.00 Completed 8.44.00

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name: H. H. Leakey Drilling Firm No. 125

Firm Official: Dan Leakey Date: 2-20-01

Driller or Operator: Dan Leakey Date: 2-20-01

(Sign once if Firm Official & Operator)

PERFORMANCE CURVES

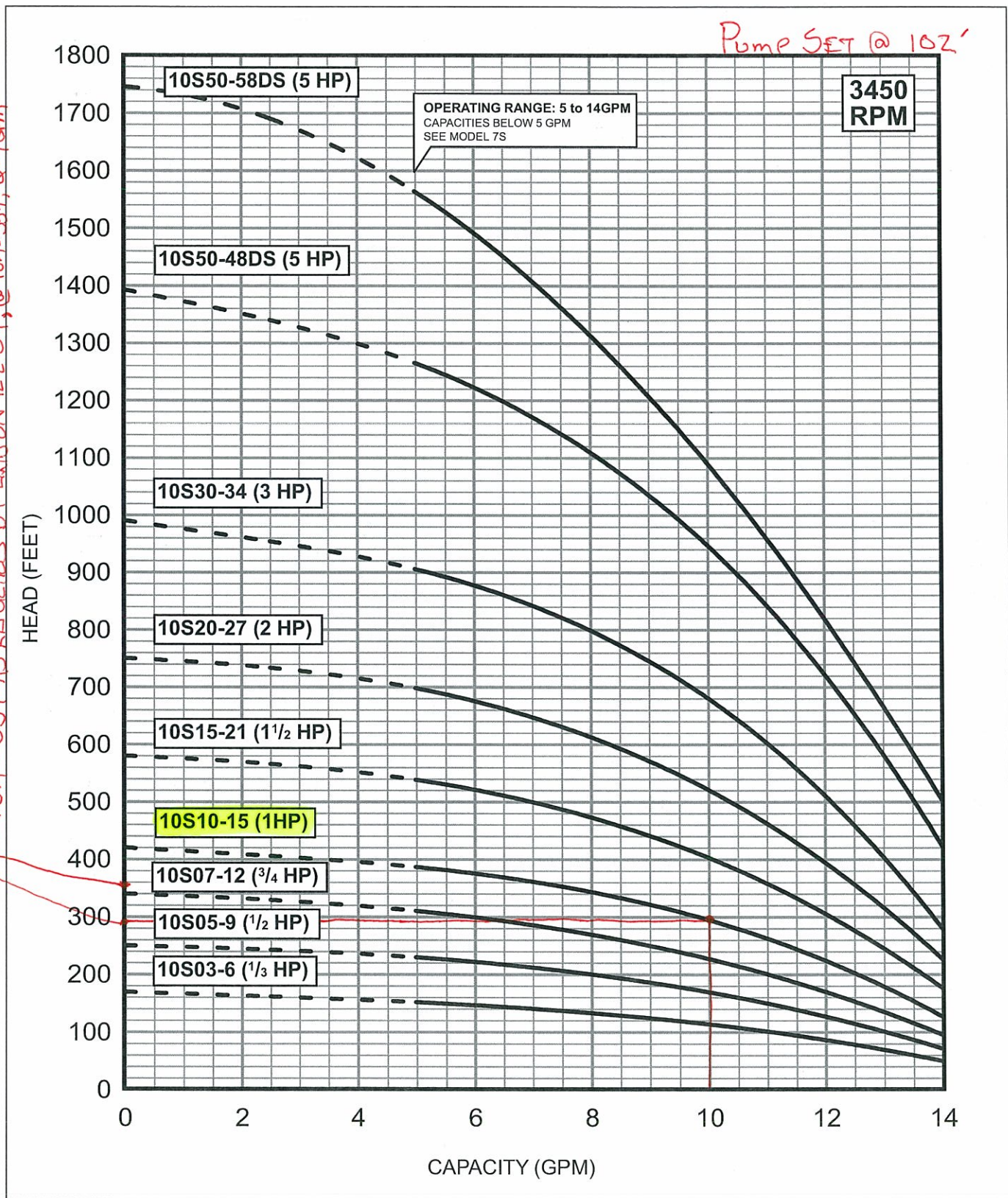
10 GPM

LWO WELL No. 4
MODEL 10S

FLOW RANGE: 5 -14 GPM

OUTLET SIZE: 1 1/4 " NPT

NOMINAL DIA. 4"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, 3450 RPM.

Performance conforms to ISO 9906. 1999 (E) Annex A
Minimum submergence is 2 feet.

SYSTEM PRESS. = 85 PSI
LIFT = 102'
TOH = 298.4'

} Q = 10 GPM
≈ 0.02 CFS

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Well No. 50

Office Use Only			
Well ID No.			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat:	:	:	Long: :

1. WELL TAG NO. D 0033480
DRILLING PERMIT NO. 909560
Water Right or Injection Well No. _____

POSTED

12. WELL TESTS:

☐ Pump ☐ Bailor ☒ LAR ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
60 gpm			

Water Temp. 54° Bottom hole temp. 54°

Water Quality test or comments: Good

Depth first Water Encounter 410

2. OWNER:

Name Lake View Sub Division
Address 4129 Eureka Ridge Rd
City Orofino State ID Zip 83544

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 37 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 23 1/4 SE 1/4 NE 1/4
Gov't Lot _____ County Chautauque

Lat: _____ Long: _____
Address of Well Site Lake View Sub
Division City Orofino
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply

(Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Concrete	0	140	8 gals	Pumped

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 650

Was drive shoe seal tested? ☒ Y ☐ N How? air

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12" removed					☐	☐	☐	☐
8" + 2	140	325		steel	☒	☐	☒	☐
6" - 5	640	188		steel	☒	☒	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method Grasma Cut

Screen Type & Method of Installation _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
-480	620	1/2 X 1/4	140	6"	steel	☐	☒
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

240 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

top of well

37N 1E 23

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
16	0	6	clay		
	6	42	Broken Basalt		
12	42	88	Broken Basalt		
	88	94	clay		
	94	108	Broken Basalt		
	108	129	clay + Broken Basalt		
12	129	146	clay + Broken Basalt		
8	146	166	Decomposed Granite		
	166	260	soft grey granite		
	260	390	green and white granite		
	390	410	Broken green granite		
			60 gpm		
	410	535	Dark green + white granite		
	535	530	soft Dark green granite		
	530	810	med granite		
	810	960	Dark green med granite		
	960	1048	soft and pepper chips		
	1048	1060	soft black + white granite		
	1060	1007	glow Whit + Black		

RECEIVED

RECEIVED

APR 13 2004

IDWR North

IDWR North

Completed Depth 1007 (Measurable)

Date: Started 12/11/03 Completed 2/15/04

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 Whitworth Drill Firm No. 1205

Principal Driller Tom Whitworth Date 3/29/04
and
Driller or Operator II _____ Date _____

Operator I _____ Date _____

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.

Model 25S

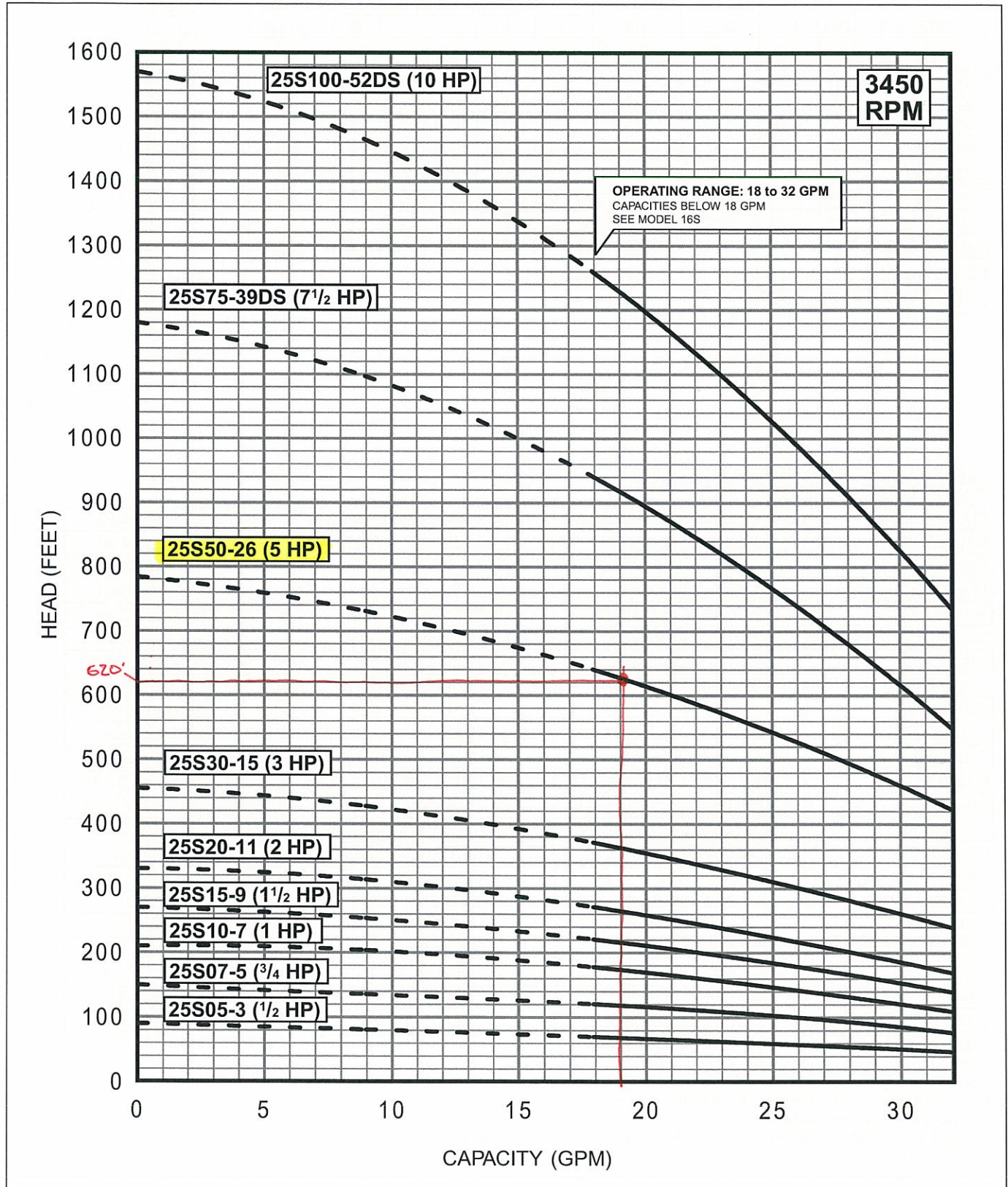
25 GPM

Performance Curves

FLOW RANGE: 18 -32 GPM

OUTLET SIZE: 1½" NPT

NOMINAL DIA. 4"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, 5-5 HP/3450 RPM.
6" MOTOR STANDARD, 7.5-10HP/3450 RPM.

Performance conforms to ISO 2548 Annex B
@ 2 ft. min. submergence.

Typ. 19 GPM @ 65 PSI IN
SYSTEM (65 PSI = 150' OF H₂O)

TSH = 620'



Model 25S

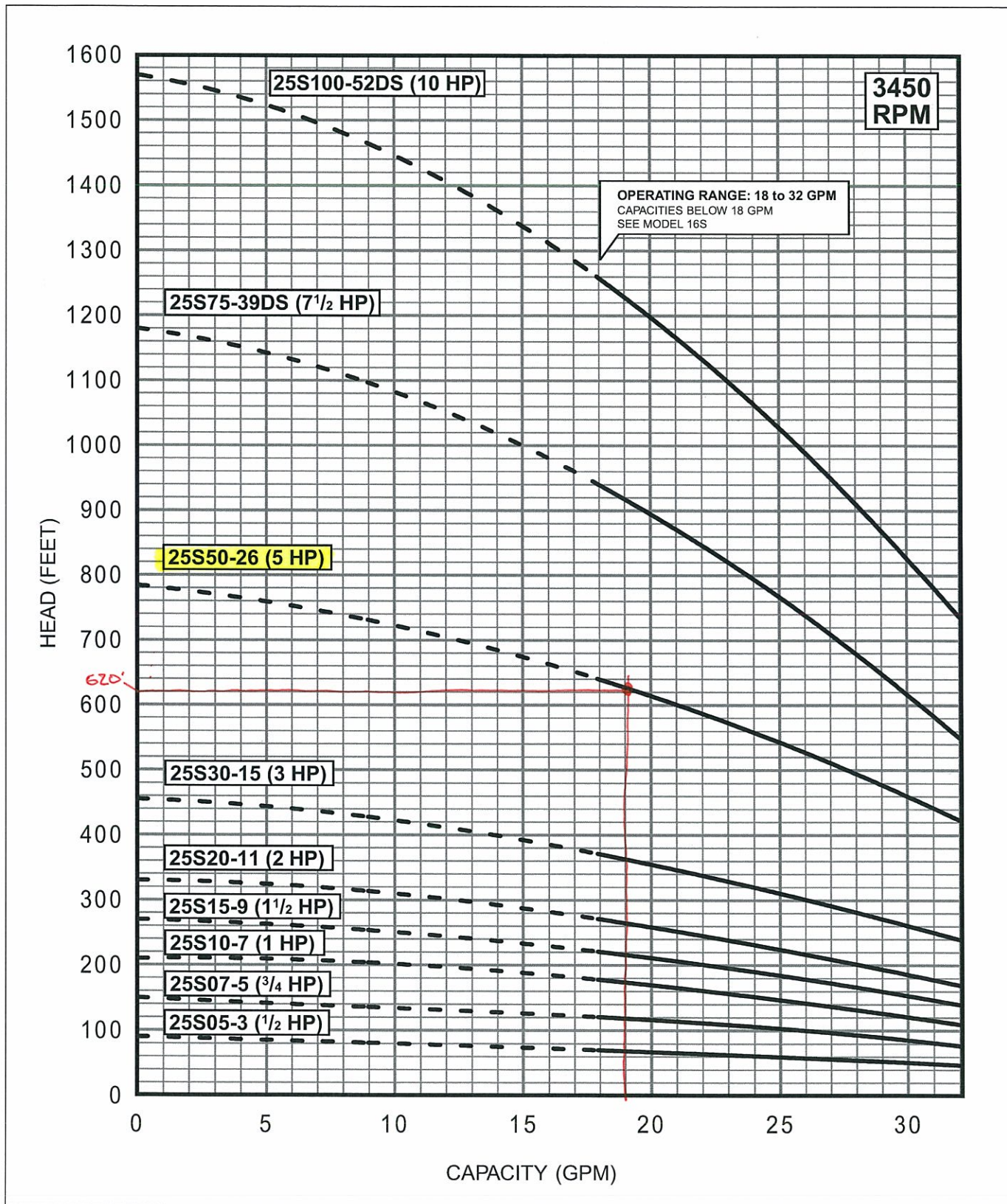
25 GPM

Performance Curves

FLOW RANGE: 18 -32 GPM

OUTLET SIZE: 1½" NPT

NOMINAL DIA. 4"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, .5-5 HP/3450 RPM.
6" MOTOR STANDARD, 7.5-10HP/3450 RPM.

Performance conforms to ISO 2548 Annex B
@ 2 ft. min. submergence.

Typ. 19 GPM @ 65 PSI IN
SYSTEM (65 PSI = 150' of H₂O)

TDH = 620'

620' - 150' = 470' Net. & P



Model 25S

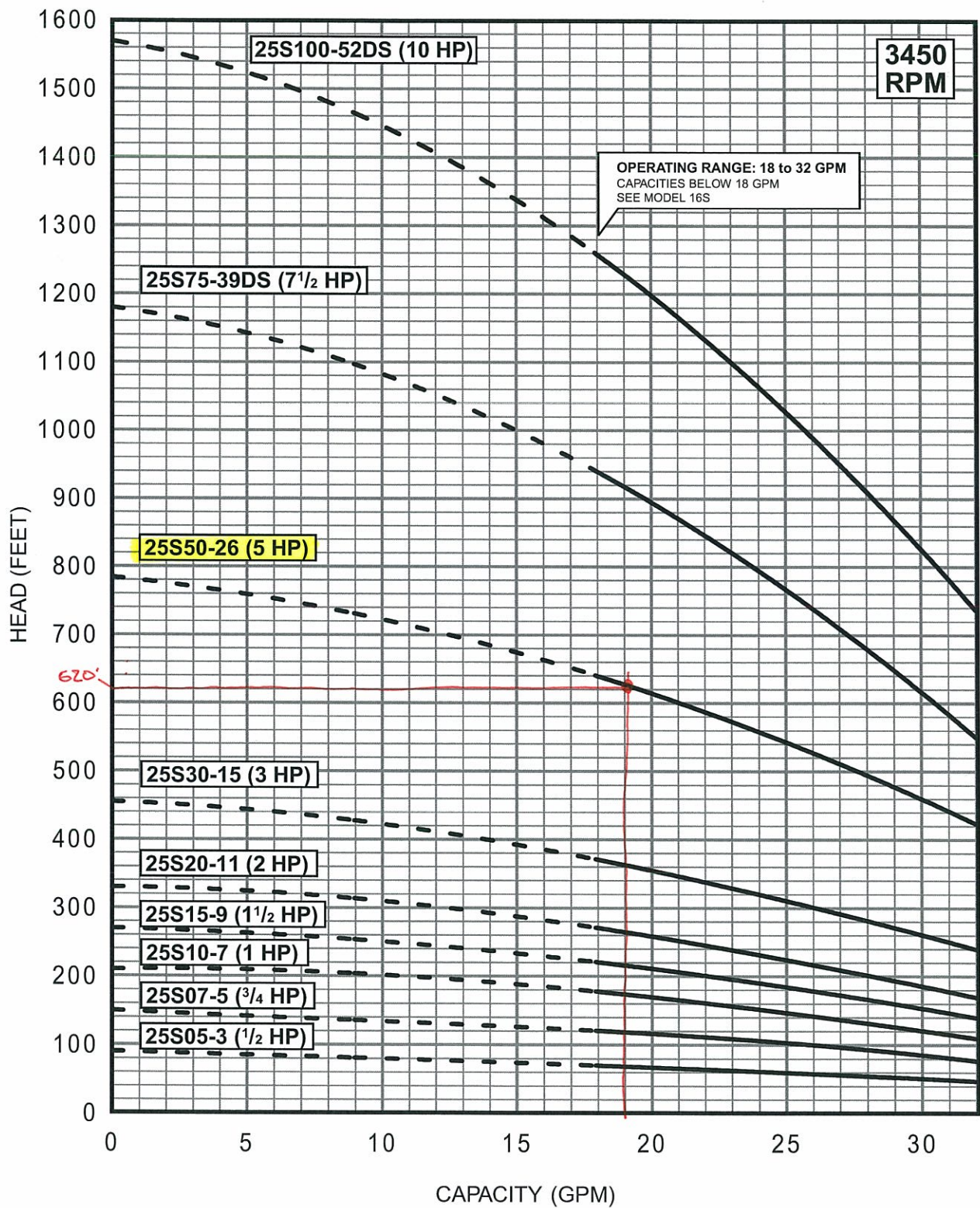
25 GPM

Performance Curves

FLOW RANGE: 18 -32 GPM

OUTLET SIZE: 1½" NPT

NOMINAL DIA. 4"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, .5-5 HP/3450 RPM.
6" MOTOR STANDARD, 7.5-10HP/3450 RPM.

Performance conforms to ISO 2548 Annex B
@ 2 ft. min. submergence.

Typ. 19 GPM @ 65 PSI IN
SYSTEM (65 PSI = 150' OF H₂O)

TSH = 620'

620' - 150' = 470' Net Head

