Form 219 07/11

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATION

Permit No. 63-34660

1. Owner Eagle Sewer District Phone No. 208-939-0132
   Current address 44 N. Palmetto Ave., Eagle, ID 83616
2. Examiner's name Kevin Boggs EXAM DATE 4/29/2020
3. Accompanied by NA Email
   Address
   Relationship to permit holder Phone No.
4. Source Groundwater tributary to NA

B. OVERLAP REVIEW

1. Other water rights with the same place of use None
2. Other water rights with the same source and point of diversion None

C. DIVERSION AND DELIVERY SYSTEM

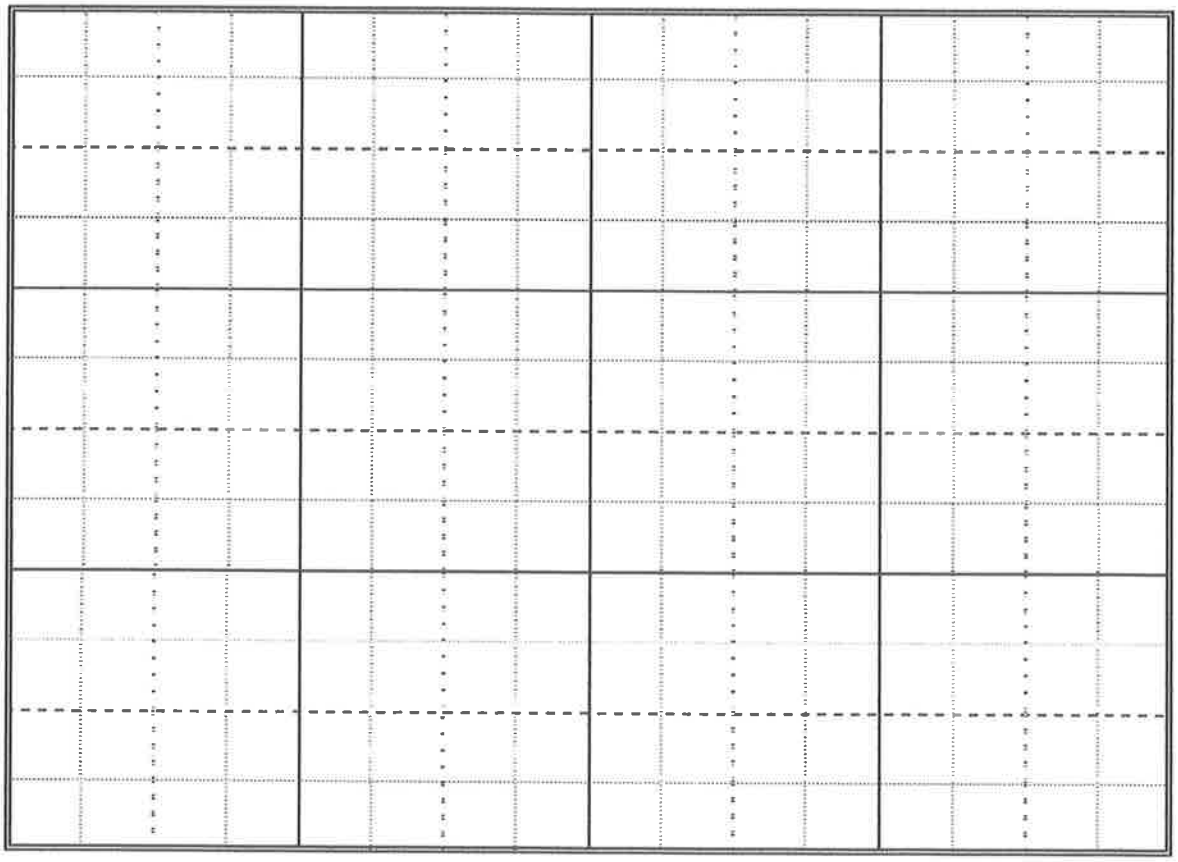
1. **Point(s) of Diversion:**

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
Well 2		SE	SE		7	04N	01E	Ada	Records review and site visit

2. **Place(s) of Use:** Method of determination Records review and site visit - see attached map and site plan

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

3. **Delivery System Diagram**: Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.



Scale: 1" = _____

☒ 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 2 (See attached)	Grundfos type	15	00239592	Grundfos	3-inch
	MS6000			15B73604	
	96166164			230S150-4 60 Hz	

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
No flow meter						
See attached field notes						

2. **Measurements:** _____

See attached.

E. NARRATIVE/REMARKS/COMMENTS

See attached.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

F. FLOW CALCULATIONS

☒ Additional computation sheets attached

Measured Method:

See attached

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R}$ = (Acres Irrigated) x (Irrigation Requirement) = 2 acres x 4.5 acre-feet per acre = 9 acre-feet

$V_{D.R}$ = [Diversion Rate (cfs)] x (Days in Irrigation Season) x 1.9835 = =0.03 x 259 days x 1.9835 = 15.41 acre-feet

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ = 9 acre-feet

2. Volume Calculations for Other Uses:

See attached

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use From	Period of Use To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
Fire protection	1/1	12/31	1.11	0.74 (per 8 hr event)
Domestic	1/1	12/31	0.03	0.33
Industrial	1/1	12/31	0.03	20.73
Irrigation	3/1	11/15	0.03	9
		Totals:	1.20	30.80

2. Recommended Amendments

☐ Change P.D. as reflected on page 1 ☐ Add P.D. as reflected on page 1 ☐ None

☐ Change P.U. as reflected on page 1 ☐ Add P.U. as reflected on page 1 ☐ Other

I. AUTHENTICATION

Field Examiner's Signature Kevin Boggs Date 4/30/2020

Reviewer _____ Date _____

REGISTERED PROFESSIONAL GEOLOGIST * STATE OF IDAHO * KEVIN G. BOGGS NO. 1005 4/30/2020

EAGLE SEWER DISTRICT BENEFICIAL USE FIELD EXAM ATTACHMENTS:

A. NARRATIVE – BENEFICIAL USE FIELD REPORT
B. WELL COMPLETION DIAGRAM
C. FIELD PHOTOS
D. WATER SYSTEM SCHEMATIC
E. PUMP AND MOTOR DETAILS

Attachment A.

Beneficial Use Field Exam Narrative – Eagle Sewer District Water Right No. 63-34660

Water Right 63-34660 Background Information

Water Right No. 63-34660 is associated with Eagle Sewer District's (District) wastewater treatment facility located south of ID-44, in Eagle, ID 83616 (Figure 1). The District has an existing domestic well (Well 1) on site that has historically provided domestic supply to a building in Township 4N, Range 1E, Section 18, NW¼ NE¼ under a domestic exemption (that is, not water right license). Well 2 (Attachment B – well diagram) is the point of diversion for Water Right 63-34660, and is located in Township 4N, Range 1E, Section 7 (SE¼ of the SE¼), approximately N 43° 41.5552', E 116° 22.7520' (Figure 1).

Figure 1. Well 2 Location

Well 2 is located in the SE quarter of the SE quarter of Township 4N, Range 1E, Section 7, to the west of the District's blower building

Existing Water Rights

There are two water rights in Eagle Sewer District's name, water from neither of which are used on the property associated with this application for permit.

- 63-2960
- 63-17822

The district has used irrigation water from Farmer's Union Ditch Company to irrigate the berms (trees and grass) along the northern border of the District's property. This water continues to be available. In addition, the District has irrigated the land using water diverted from Well 2 into a 4,000 gallon water

tanker truck, and then filled their on-site pond with well water that was subsequently pressurized and used to irrigate the berms (see Attachment C – field photos).

Water Right 63-34660 Place of Use

The places of use for water right No 63-34660 include the following:

- Irrigation: 1.1 acres in Township 4N, Range 1E, Section 7, SW¼SE¼
- Irrigation: 0.9 acre in Township 4N, Range 1E, Section 7, SE¼SE¼
- Domestic, industrial, and fire protection: 4N, Range 1E, Section 7, SW¼SE¼ and SE¼SE¼

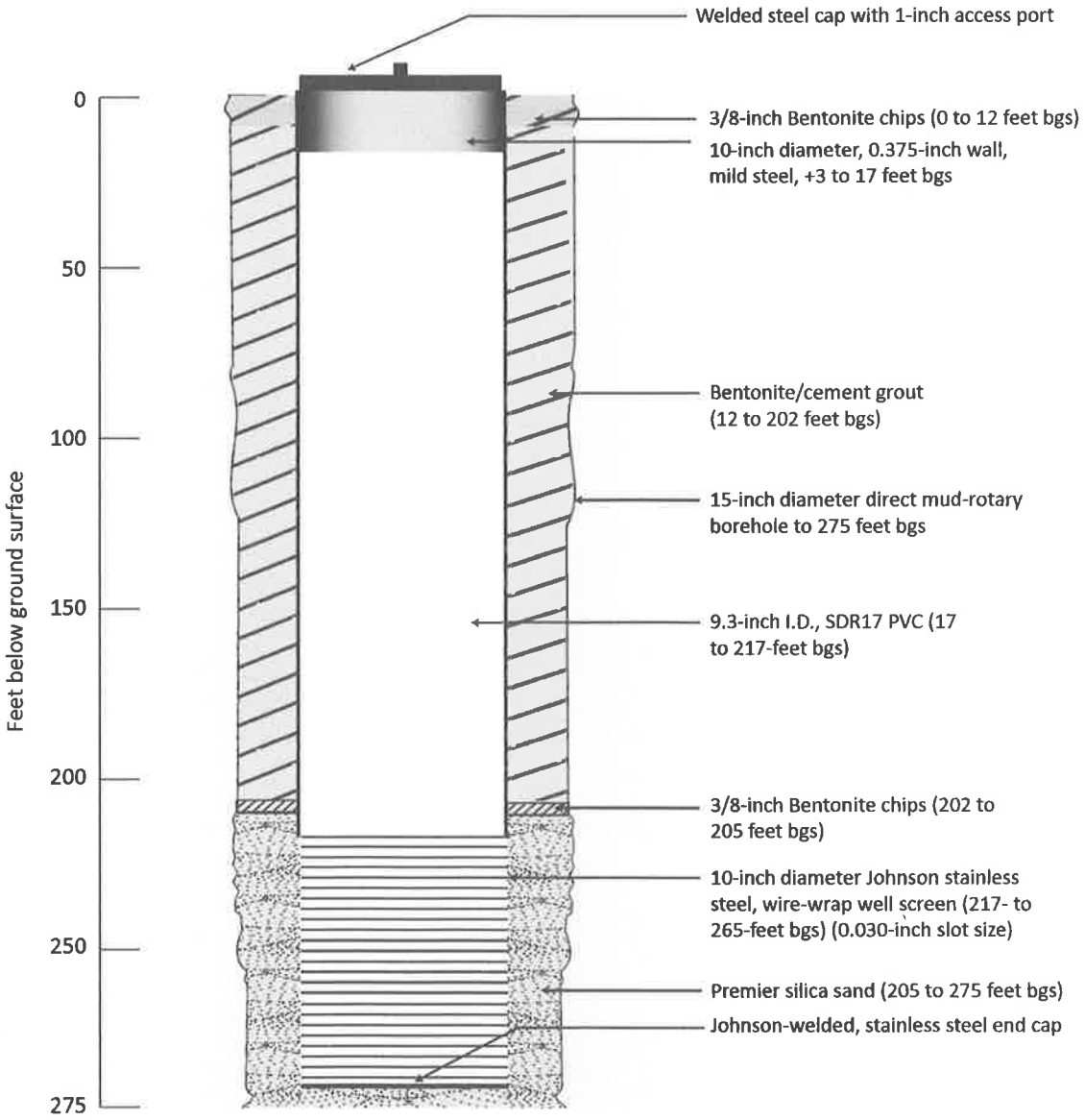
Delivery System and Water Usage

Water from Well 2 is distributed to several locations on site (Attachment D – water system schematic and layout), including:

- fire hydrants,
- blower building with a restroom and hose bibs,
- headworks building that includes headworks screens, washer/compactor, and grit classifier,
- water tanker truck fill station; water from these tanker trucks is used for sewer cleanouts,
- a stubbed-in water line that will be extended to the newly designed operations building that has two showers for on-site construction workers and a clothes washer.
- a 40-ft diameter irrigation pond that is equipped with a pump station for a pressurized irrigation system to irrigate an approximate 2-acre area on the northern boundary of the plant site.

Water Use	Period of Use	Water Use Calculations	Rate of Diversion (cfs)	Annual Volume (acre-feet)
Industrial				
• Sewer Cleanout	1/1 through 12/31	• Fill two, 4,000 gallon water trucks twice per work day (Monday through Friday) from May 1 through Sept. 30 (4000 gallons x 4 truck fills per day x 22 work days per month x 5 months = 1,760,000 gallons • Fill one, 4,000 gallon water truck once per work day (Monday through Friday) from October 1 through April 30 (4000 gallons x 1 truck fill per day x 22 work days per month x 7 months = 616,000 gallons TOTAL sewer cleanout water volume = 2,376,000 gallons **(7.29 acre-feet per year)**	0.029 (avg rate over period of use)	20.73 (total industrial)
• Headworks grit classifier	1/1 through 12/31	5 gpm x 60 min/hr x 8 hours/day x 365 days per year = 1,095,000 gallons per year **(3.36 acre-feet per year)**		
• Headworks screen washer/ compactor	1/1 through 12/31	15 gpm x 60 min/hr x 4 hours/day x 260 days per year = 3,285,000 gallons per year **(10.08 acre-feet per year)**		
Fire suppression	1/1 through 12/31	6 hydrants x 50 gpm/hydrant x 8 hour fire event (demand) plus 200 gpm available from truck fill line = 240,000 gallons per assumed 8-hour fire event **(0.74 acre-feet per 8 hour fire event)**	1.11 (avg rate over period of event)	0.74 (per event)
Domestic	1/1 through 12/31	5 construction workers x 50 gallons per shift x 365 shifts per year = 91,250 gallons per year **(0.28 acre-feet per year)** 3 office ("day") workers x 15 gallons per shift x 365 shifts per year = 16,425 gallons per year **(0.05 acre-feet per year)**	4.6E-4 (avg rate over the year); 0.03 cfs diversion to pressure tanks for domestic system	0.33

Attachment B.



Attachment C. Field Photos

Well head and well piping/valve vault

View of the inside of the well piping/valve vault

4,000 gallon water tanker truck used to haul water for sewer cleanouts.

Offloading water from Well 2 into the irrigation pond on site.

View of drip irrigation on berm

Attachment E.

PumpTech Inc.

SERVING THE PACIFIC NORTHWEST

PUMP SALES & SERVICE

EQUIPMENT DESCRIPTION

(ITEMS INCLUDED IN SCOPE OF WORK)

EAGLE SEWER DISTRICT WELL PUMP & SAND

SEPARATOR:

WELL PUMP ASSEMBLY CONSISTING OF THE FOLLOWING:
1EA. 230S150- 4 3NPT 6"3X440-480/60
1EA. BAKER MONITOR STANDARD PITLESS UNIT 4PS1012WBWE06T4E NSF RATED
3EA. 4" GALV T&C DROP PIPE 20'
1EA. 6"M TO 4"F ADAPTER
1EA. 4"M TO 3"M ADAPTER
75' 12/3 W/G PAIGE PLUS HD FLAT JKT PUMP CABLE UL 600V Paige Spec P7271-SP
7EA. FLUSH THREAD, 1IN x 10FT SCHEDULE 80
1EA. FLUSH THREAD, CAP 1IN

1 ROLL BANDING, SS, .75IN
1 BOX BANDING, SS, CLIPS, .75IN
4EA. #8AWGRedButtSplice
3' 12AWG48"BlkHWDW HST

BE › THINK › INNOVATE ›

Being responsible is our foundation
Thinking ahead makes it possible
Innovation is the essence

Become a Grundfos certified WaterPro – for details, visit:
www.grundfos.us/waterpro

L-SP-SL-002	4/06
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Phone: (913) 227-3400
Telefax: (913) 227-3500

Canada
GRUNDFOS Canada Inc.
2941 Brighton Road
Oakville, Ontario
L6H 6C9
Phone: (905) 829-9533
Telefax: (905) 829-9512

Mexico
Bombas GRUNDFOS de Mexico S.A. de C.V.
Boulevard TLC No. 15
Parque Industrial Stiva Aeropuerto
C.P. 66600 Apodaca, N.L. Mexico
Phone: 011-52-81-8144 4000
Telefax: 011-52-81-8144 4010

www.grundfos.com

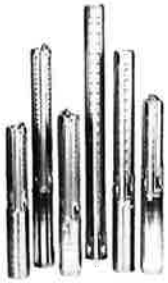
GRUNDFOS®

GRUNDFOS

Company name:
Created by:
Phone:

Date: 11/18/2019

Count	Description
1	**230S150-4**



Product photo could vary from the actual product

Product No.: 15B73604
Multi-stage submersible pump for raw water supply, groundwater lowering and pressure boosting. The pump is suitable for pumping clean, thin, non-agressive liquids without solid particles or fibers.

The pump is made entirely of Stainless steel DIN W.-Nr. EN 1.4301 and suitable for horizontal and vertical installation.
The pump is fitted with a built-in non-return valve.

The motor is a 3-phase motor of the canned type with a sand shield, liquid-lubricated bearings and pressure-equalizing diaphragm.

Liquid:

Pumped liquid:	Water
Maximum liquid temperature:	104 °F
Max liquid temperature at 0.15 m/sec:	104 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³

Technical:

Pump speed on which pump data is based:	3450 rpm
Actual calculated flow:	101 US gpm
Resulting head of the pump:	232.2 ft
Shaft seal for motor:	SIC/SICNBR
Curve tolerance:	ISO9906:2012 3B
Motor version:	T40

Materials:

Pump:	Stainless steel EN 1.4301 AISI 304
Impeller:	Stainless steel EN 1.4301 AISI 304
Motor:	Stainless steel DIN W.-Nr. 1.4301 AISI 304

Installation:

Maximum ambient pressure:	870.23 psi
Pump outlet:	3"NPT
Motor diameter:	6 inch

Electrical data:

Motor type:	MS6000
Rated power - P2:	15 HP

GRUNDFOS

Company name:
Created by:
Phone:

Date: 11/18/2019

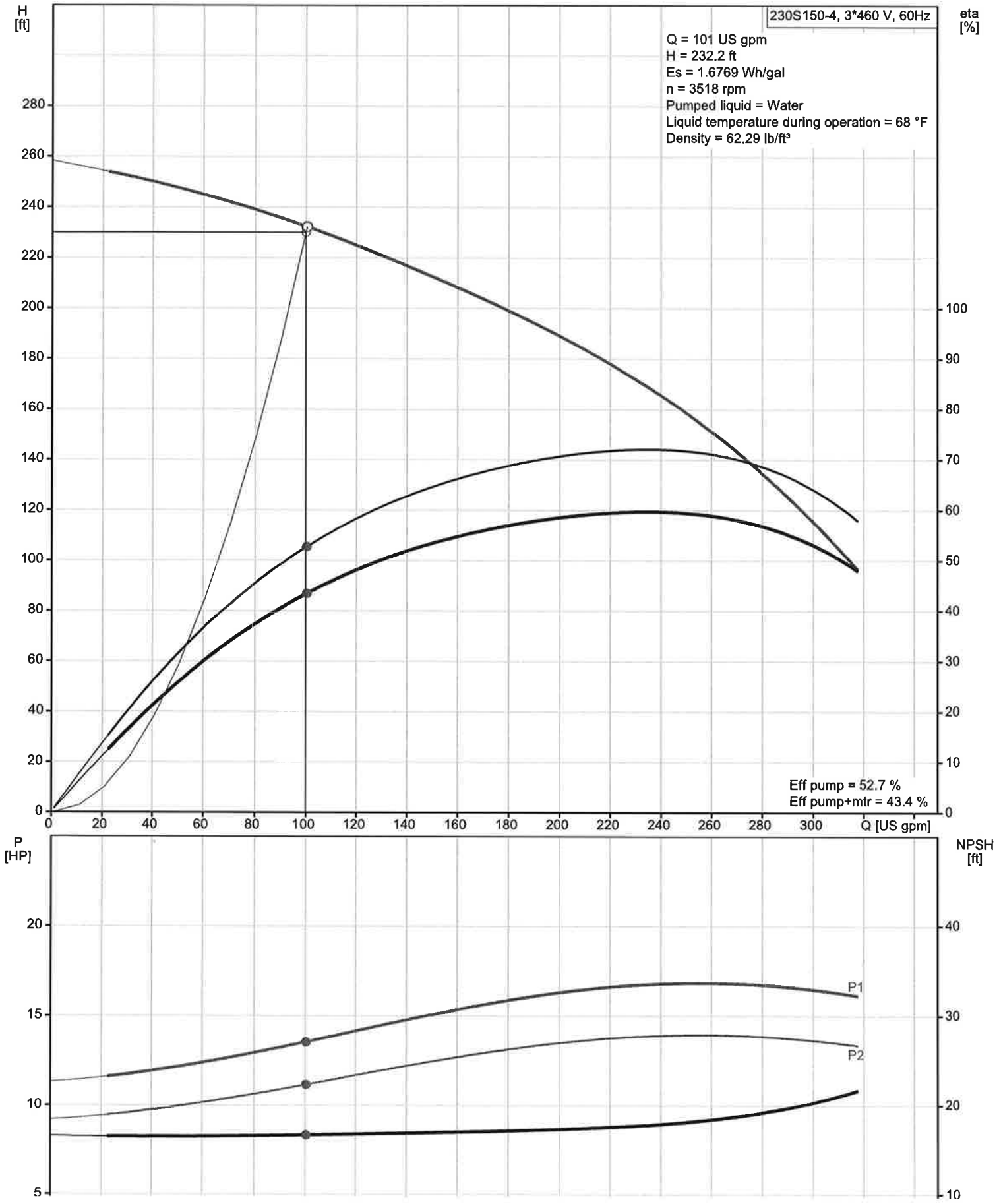
ount	Description	
		115 A
	Cos phi - power factor:	0.84-0.83-0.80
	Rated speed:	3450-3470-3480 rpm
	Motor efficiency at full load:	82.5 %
	Start. method:	direct-on-line
	Enclosure class (IEC 34-5):	IP68
	Insulation class (IEC 85):	F
	Built-in temperature transmitter:	yes
	Motor Number:	96166164
	Others:	
	ErP status:	EuP Standalone/Prod.
	Net weight:	143 lb
	Gross weight:	200 lb
	Shipping volume:	7.06 ft³
	Country of origin:	US
	Custom tariff no.:	8413.70.2004

GRUNDFOS

Company name:
Created by:
Phone:

Date: 11/18/2019

I5B73604 230S150-4 60 Hz

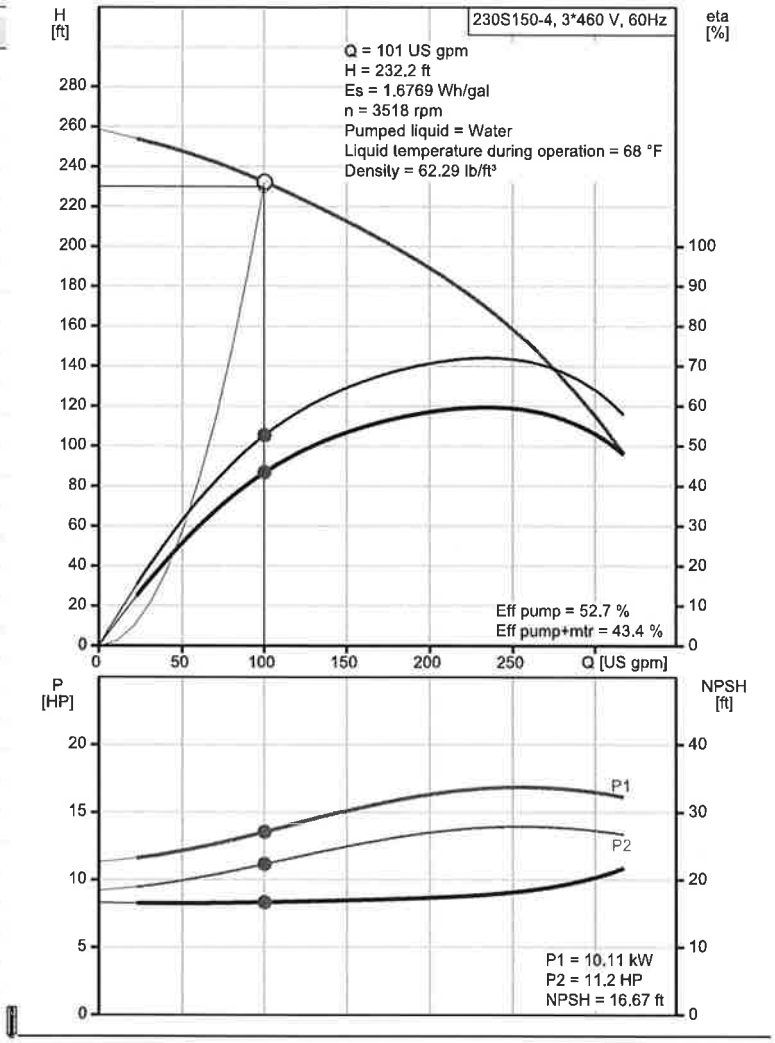


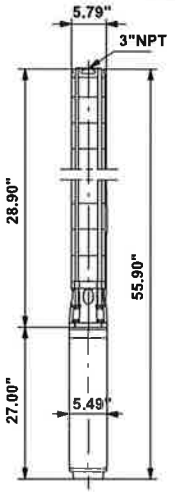
GRUNDFOS

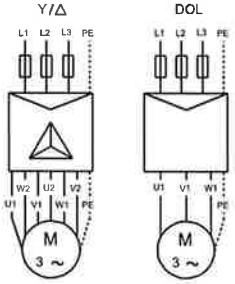
Company name:
Created by:
Phone:

Date: 11/18/2019

Description	Value
General information:	
Product name:	230S150-4
Product No.:	15B73604
EAN:	5700391831331
	5700391831331
Technical:	
Pump speed on which pump data is based:	3450 rpm
Actual calculated flow:	101 US gpm
Resulting head of the pump:	232.2 ft
Stages:	4
Impeller reduc.:	NONE
Shaft seal for motor:	SIC/SICNBR
Curve tolerance:	ISO9906:2012 3B
Model:	B
Valve:	YES
Motor version:	T40
Materials:	
Pump:	Stainless steel
	EN 1.4301
	AISI 304
Impeller:	Stainless steel
	EN 1.4301
	AISI 304
Motor:	Stainless steel
	DIN W.-Nr. 1.4301
	AISI 304
Installation:	
Maximum ambient pressure:	870.23 psi
Pump outlet:	3"NPT
Motor diameter:	6 inch
Liquid:	
Pumped liquid:	Water
Maximum liquid temperature:	104 °F
Max liquid temperature at 0.15 m/sec:	104 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³
Electrical data:	
Motor type:	MS6000
Applic. motor:	GRUNDFOS
Rated power - P2:	15 HP
KVA code:	H
Main frequency:	60 Hz
Rated voltage:	3 x 440-460-480 V
Starter:	1 3/4
Service factor:	1.15
Rated current:	25.0-24.4-24.0 A
Starting current:	420-460-490 %
	115 A
Cos phi - power factor:	0.84-0.83-0.80
Rated speed:	3450-3470-3480 rpm
Axial load max:	59.5 lb
Motor efficiency at full load:	82.5 %
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Motor protection:	NONE
Thermal protec:	external
Built-in temperature transmitter:	yes
Motor Number:	96166164
Cable number:	96163476
Controls:	







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Company name:
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Phone:

Date: 11/18/2019

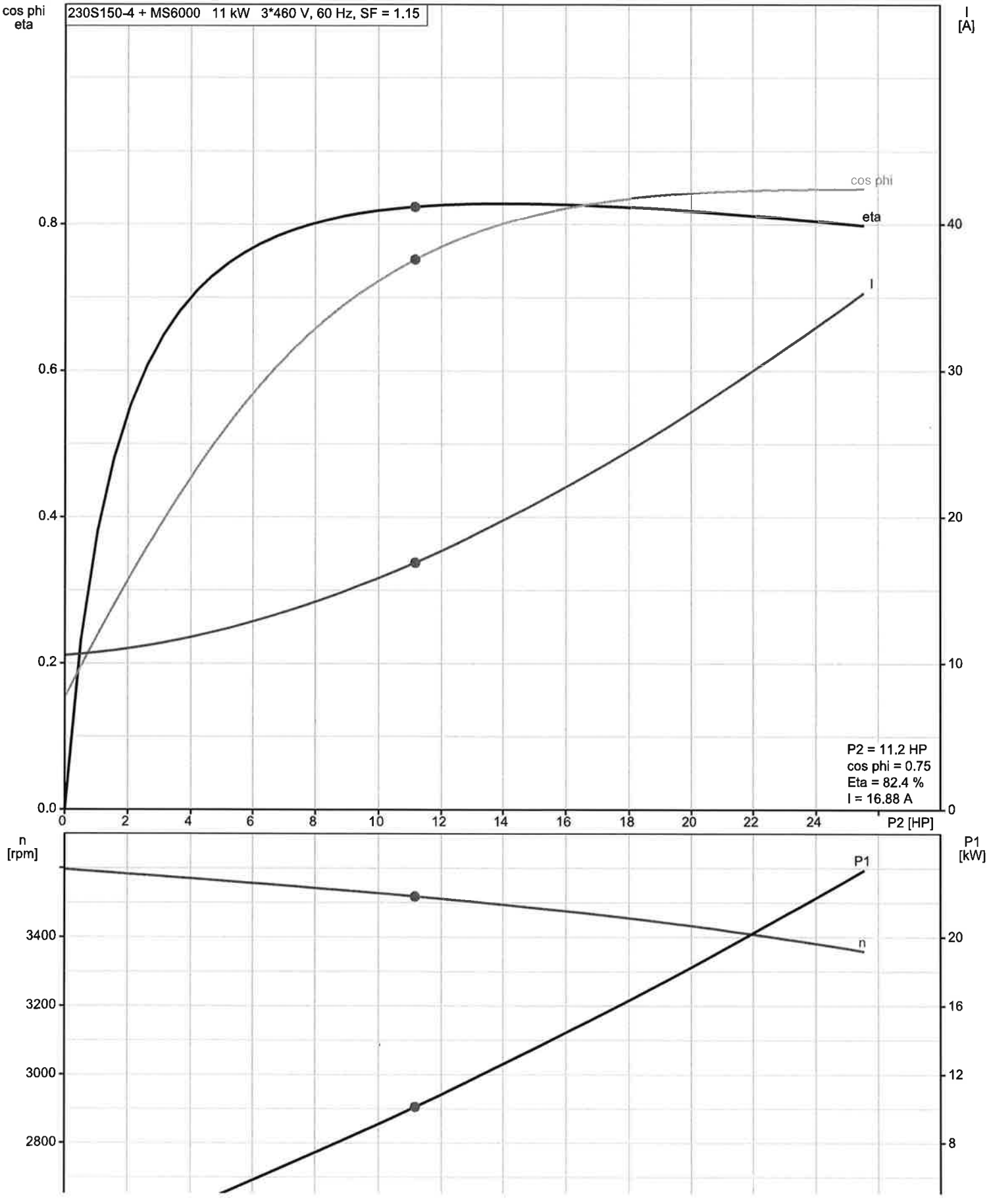
Description	Value
Gross weight:	200 lb
Shipping volume:	7.06 ft³
Sales region:	Namreg
Country of origin:	US
Custom tariff no.:	8413.70.2004

GRUNDFOS

Company name:
Created by:
Phone:

Date: 11/18/2019

I5B73604 230S150-4 60 Hz

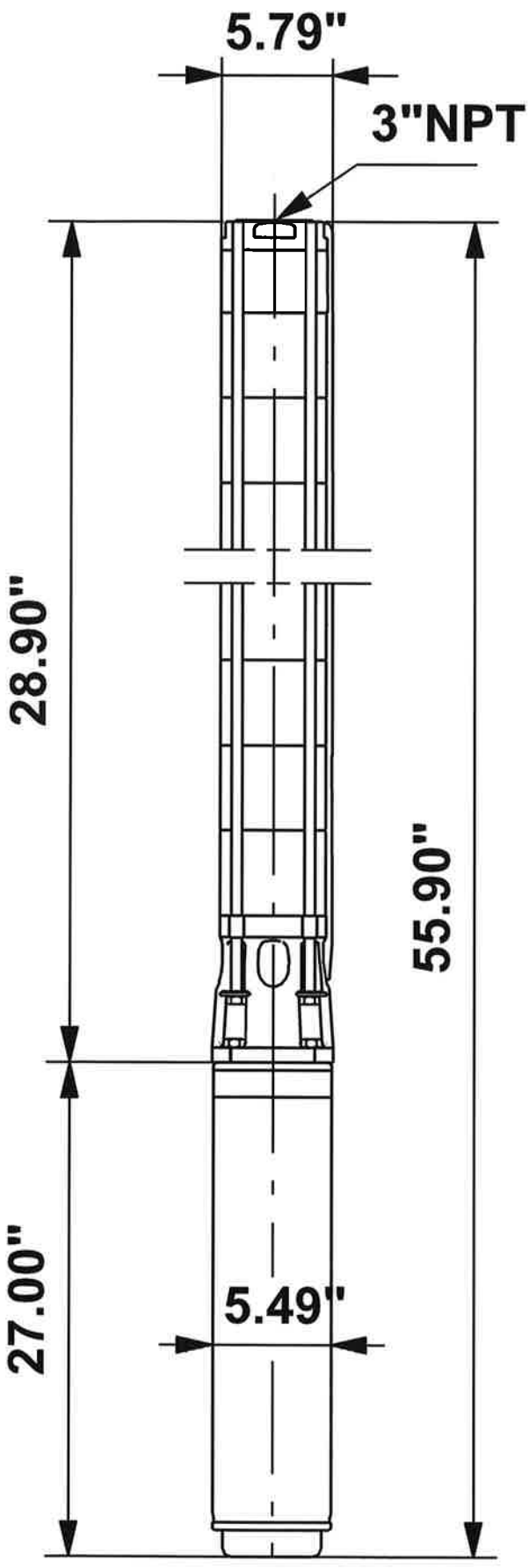


GRUNDFOS

Company name:
Created by:
Phone:

Date: 11/18/2019

5B73604 230S150-4 60 Hz

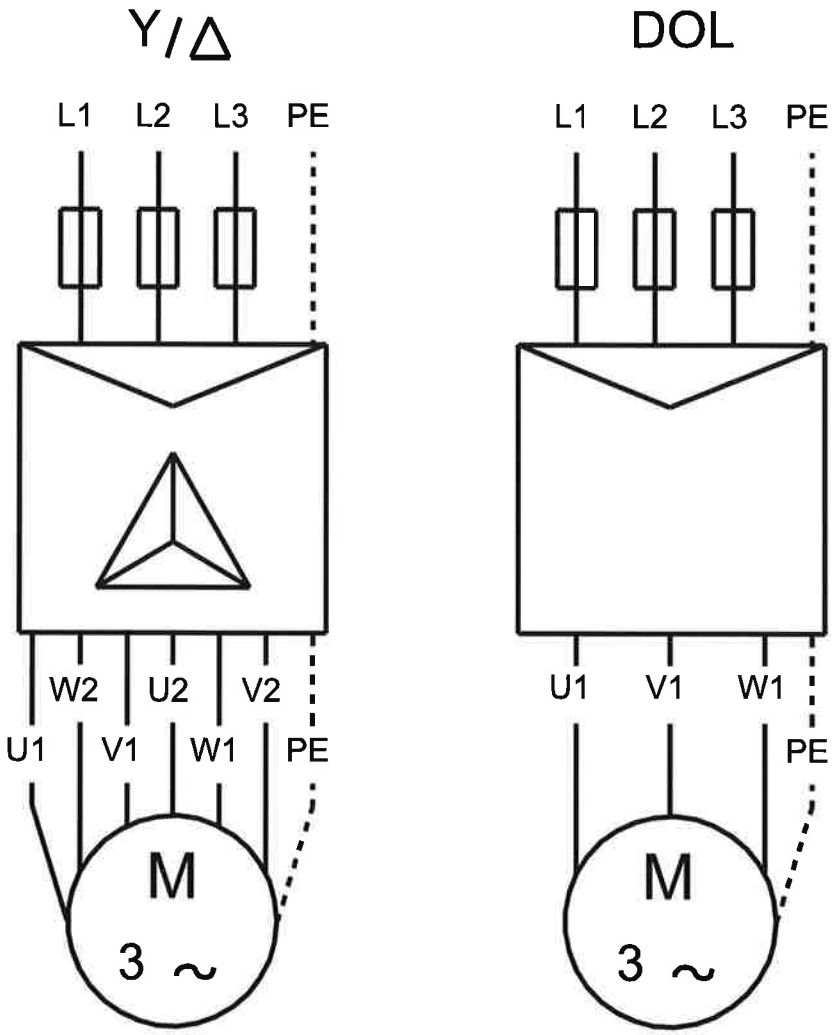


GRUNDFOS

Company name:
Created by:
Phone:

Date: 11/18/2019

5B73604 230S150-4 60 Hz



U1, W2	Brown
V1, U2	Black
W1, V2	Grey

SP

Stainless steel submersible pumps 4", 6", 8", and 10"

Installation and operating instructions

be
think
innovate

GRUNDFOS

3. Product description

3.1 Introduction

Your Grundfos SP submersible pump is of the highest quality. Combined with proper installation, your Grundfos pump will give you many years of reliable service.

To ensure the proper installation of the pump, carefully read the complete manual before attempting to install the pump.

3.2 Applications

Grundfos SP submersible pumps are suitable for the following applications:

- groundwater supply to waterworks
- irrigation in horticulture and agriculture
- groundwater lowering (dewatering)
- pressure boosting
- industrial applications
- domestic water supply.

3.3 Features and benefits

- State-of-the-art hydraulics provide high efficiency and low operating costs
- 100 % stainless steel components inside and outside for long service life
- sand resistant
- resistant to aggressive water
- monitoring, protection, and communication via protection unit MP 204, and GO remote control.

3.4 Type key

Example **475 S 500 - 5 - A B**

- Rated flow rate in gpm
- Type range
  Stainless steel parts of material
  S = AISI 304
  N = AISI 316
  R = AISI 904L
- Hp of motor
- Number of impellers
- First reduced-diameter impeller (A, B or C)
- Second reduced-diameter impeller (A, B or C)

4. Delivery, handling and storage

4.1 Delivery

CAUTION

Caution Keep the pump in the shipping carton until it is placed in the vertical position during installation.

Handle the pump with care.

Examine the components carefully to make sure no damage has occurred to the pump end, motor, cable or control box during shipment.

4.2 Handling

Keep the pump in the shipping carton until it is ready to be installed. The shipping carton is specially designed to protect it from damage. During unpacking and prior to installation, make sure that the pump is not dropped or mishandled.

Do not expose the pump to unnecessary impact and shocks.

The motor is equipped with a power cable.

CAUTION

Caution Never use the power cable to support the weight of the pump.

You will find a loose nameplate with an adhesive backing with the pump. If the nameplate is blank, complete it in pen and attach it to the control box.

Note Fix the extra nameplate supplied with the pump at the installation site.

4.3 Storage

4.3.1 Storage temperature

Pump: -4 - +140 °F (-20 - +60 °C).

Motor: -4 - +158 °F (-20 - +70 °C).

Store the motors in a closed, dry and well ventilated room.

CAUTION

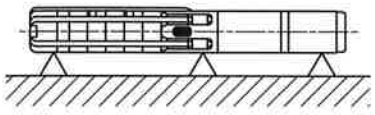
Caution

If MMS motors are stored, the shaft must be turned by hand at least once a month. If a motor has been stored for more than one year before installation, the rotating parts of the motor must be dismantled and checked before use.

Do not expose the pump to direct sunlight.

If the pump has been unpacked, store it horizontally, adequately supported, or vertically to prevent misalignment. Make sure that the pump cannot roll or fall over.

During storage, the pump can be supported as shown in fig. 1.



TM00 1349 2495

Fig. 1 Pump position during storage

4.3.2 Frost protection

If the pump has to be stored after use, it must be stored on a frost-free location, or the motor liquid must be frost-proof.

5. Operating conditions

Flow rate, Q:		Up to 1400 gpm (318 m^3/h)
Head, H:		Up to 2657 ft (810 m)
Liquid temperature:		32-140 °F (0-60 °C)
Maximum submersible depth:	MS 402	492 ft (150 m) (213 psi)
	MS 4000	1969 ft (600 m) (852 psi)
	MS 6000	1969 ft (600 m) (852 psi)
	All MMS	1969 ft (600 m) (852 psi)

6. Installation

Install products in accordance with the local code of the authority having jurisdiction. Installation must be carried out by a qualified person.

WARNING

Risk of electric shock. Do not remove cord and strain relief. Do not connect conduit to pump.

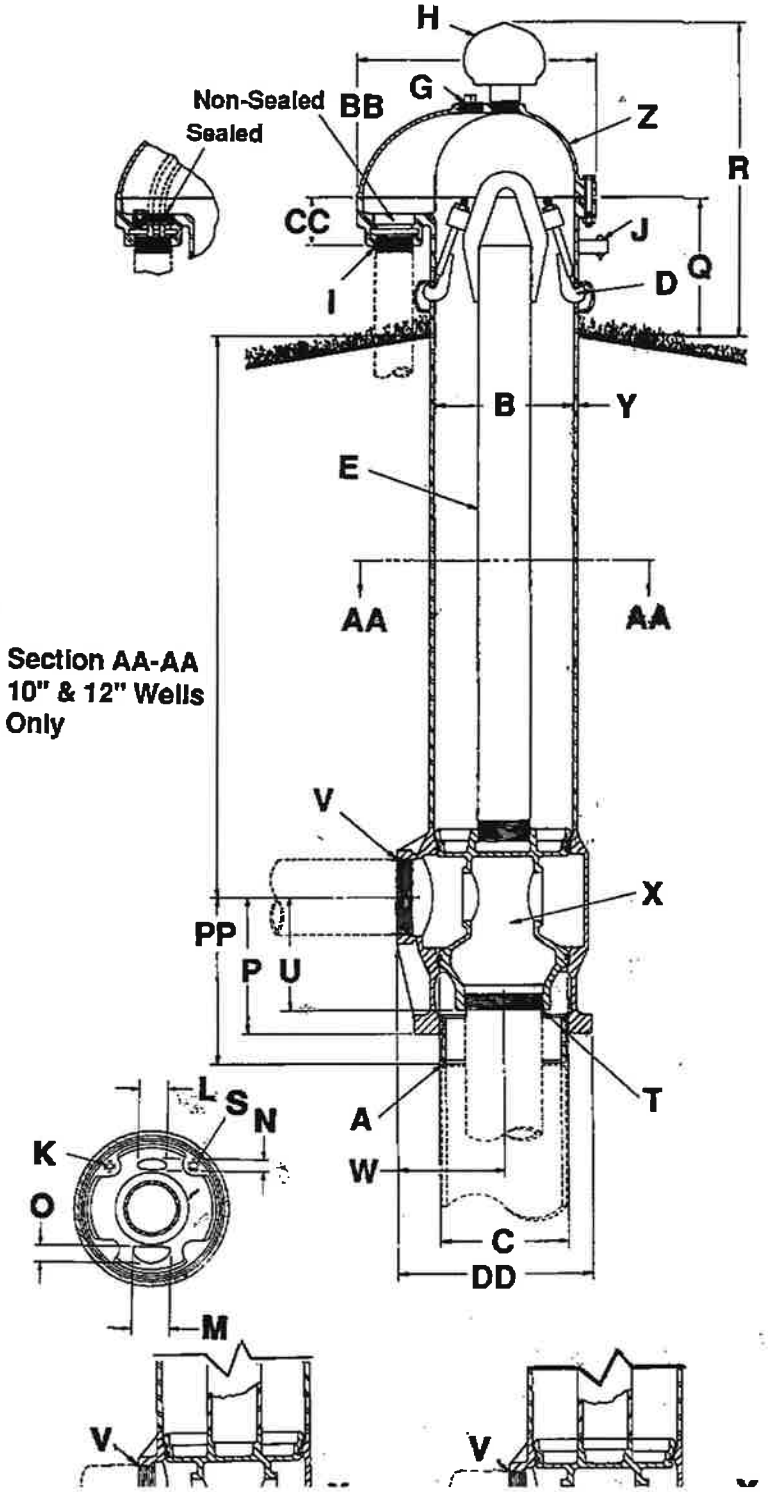
6.1 Pre-installation checklist

Make the following checks before beginning installation:

- condition of the well
- condition of the water
- installation depth
- power supply
- cable type.

These checks are all critical for the proper installation of this submersible pump.

STANDARD MODEL *Monitor* PS INDUSTRIA



SPECIFICATIONS		10" Well	12" Well
A	Pitless Unit to Well Casing Connection:	Chamfered for butt weld	Chamfered for butt weld
B	Pitless Unit with black upper case standard:	12" I.D. X 12-3/4" O.D.	13-1/4" I.D., 14" O.D.
C	Discharge body minimum I.D.	11"	12"
D	Hold-down Mechanism:	Locks spool in place and prevents lifting and turning during pump start-up. Two adjustable hooks on lift-out pipe hook into side of pitless case.	Locks spool in place and prevents lifting and turning during pump start-up. Two adjustable hooks on lift-out pipe hook into side of pitless case.
E	Lift-out pipe with lifting bail:	4" I.P.S. assembly designed for a 45,000 lb. load	4" I.P.S. assembly designed for a 60,000 lb. load
G		2" F.I.P. tapping	2" F.I.P. tapping
H	Well vent:	Screws into a 2-1/2" F.I.P. tapping	Screws into a 2-1/2" F.I.P. tapping
I	Conduit tappings:	3" F.I.P. Watertight conduit seals for most common cable sizes are available.	2" & 1" std. Also available with single 2", 3" or 4" F.I.P. All tapping sizes available with or without electrical cable seal.
J	Depth tester block tappings:	1/4" F.I.P. standard	1/4" F.I.P. standard
K	Pressure switch tapping:	Not Available	3/8" N.P.T. standard
	MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)		
L		2-5/8"	2-3/4"
M		2-5/8"	3-5/8"
N		1-5/16"	1"
O		1-5/16"	1-3/4"
P	Dimension from center of discharge outlet to bottom of discharge Body:	11-7/8"	11-7/8"
PP	Dimension from center of discharge outlet to bottom of weld nipple:	14-3/8"	16-1/4"
Q	Distance from ground level to top of the pitless case:	12"	12"
R	Distance from ground level to top of the watertight cap: (Vent height may be increased if necessary)	28-1/2"	27-9/16"
S	Water sampler tapping:	Not Available	Optional
T	SPOOL TO DROP PIPE CONNECTION:	6" F.I.P. tapping Spool designed for load of 11,750 lbs. at safety factor of 4.	6" F.I.P. tapping Spool designed for load of 11,750 lbs. at safety factor of 4
U	Dimension from center of discharge outlet to bottom of spool:	9-5/8"	10-1/2"
V	Discharge connection tapping size:	6" F.I.P.	6" F.I.P.
W	Dimension from center of well casing to the end of discharge outlet:	9-1/8"	9-1/16"
X	SPOOL ASSEMBLY -Without check valves- Area of water passages:	26.73 Sq. In.	25.12 Sq. In.
	Percent area of water passages to area of drop pipe:	93%	87%

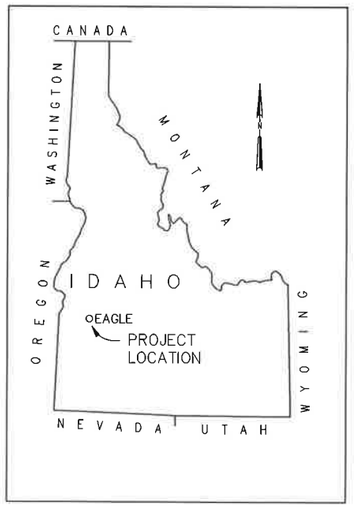
AS-Built

Attachment D.

EAGLE SEWER DISTRICT
WASTEWATER LAGOON TREATMENT FACILITY WELL NO. 2 PUMP PROJECT
EAGLE, IDAHO

VOLUME 2

NOVEMBER 2019



LOCATION MAP

INDEX TO DRAWINGS

GENERAL

SHEET NO.	DRAWING NO.	DESCRIPTION
1	G-001	COVER SHEET, AND INDEX TO DRAWINGS

SITE

SHEET NO.	DRAWING NO.	DESCRIPTION
2	C-001	GENERAL NOTES AND LEGEND
3	C-100	EXISTING CONDITIONS SITE PLAN
4	C-101	SITE PLAN
5	C-401	WELL VALVE VAULT PLAN & SECTIONS
6	C-402	TRUCK FILL VALVE VAULT PLAN AND SECTIONS
7	C-403	TRUCK FILL PAD PLAN AND SECTION
8	C-501	DETAILS AND SCHEMATIC FLOW DIAGRAM

ELECTRICAL

SHEET NO.	DRAWING NO.	DESCRIPTION
9	ES-101	SITE PLAN
10	ES-102	BLOWER ROOM, WELL VALVE VAULT & TRUCK FILL VALVE VAULT PLANS
11	ES-103	ONE-LINE DIAGRAMS

VICINITY MAP

PROFESSIONAL ENGINEER LICENSED 16872 STATE OF IDAHO NICHOLAS D. JENKINS
15 November 2019

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		J PIGMAN	J PIGMAN	L FETTKETHER	APVD	N JENKINS	

JACOBS
999 WEST MAIN STREET
SUITE 1200
BOISE, IDAHO 83702

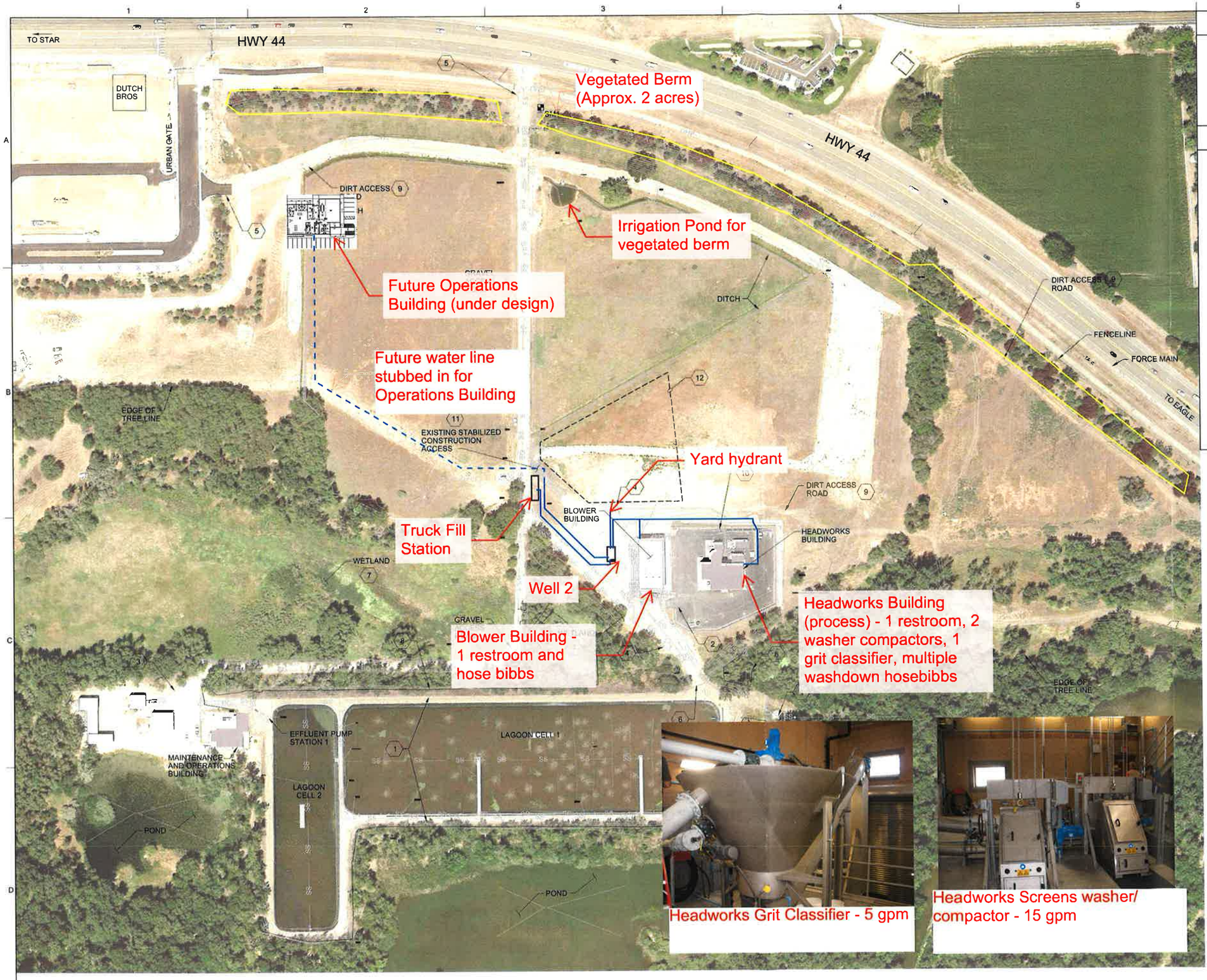
EAGLE SEWER DISTRICT
WELL NO. 2 PUMP PROJECT
EAGLE, IDAHO 83616

GENERAL
COVER SHEET AND INDEX TO DRAWINGS

BID DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	NOV 2019
PROJ	D3130900
DWG	G-001
SHEET	of



GENERAL NOTES

A. SEE VICINITY MAP FOR PROXIMITY OF SITE TO BOISE RIVER.

B. CONTRACTOR TO KEEP EQUIPMENT AND VEHICLES OFF ASPHALT SURROUNDING BLOWER BUILDING & HEADWORKS BUILDING AND IS RESPONSIBLE FOR DUST CONTROL AND REPAIRING ANY DAMAGE CAUSED BY CONTRACTOR TRAFFIC ON ALL EXISTING ASPHALT (INCLUDING HIGHWAY 44).

SHEET KEYNOTES

1. EXISTING POST AND WIRE FENCING SURROUNDS LAGOONS
2. CHAIN LINK GATE
3. EXISTING CONCRETE PAVEMENT
4. EXISTING UNDERGROUND VAULT
5. MAIN ENTRANCE GATE
6. SWING GATES
7. RETAIN AND PROTECT
8. BOISE RIVER 100 YEAR FLOOD ELEVATION: 2542
9. DIRT ACCESS ROADS LOOP PERIMETER OF PROPERTY
10. EXISTING CHAIN LINK FENCE SURROUNDS THE LIMITS OF ASPHALT PAVEMENT AT HEADWORKS AND BLOWER BUILDINGS
11. ALL CONSTRUCTION TRAFFIC SHALL PASS THROUGH CONSTRUCTION ACCESS.
12. APPROXIMATE LOCATION OF CONTRACTOR STAGING AREA; COORDINATE WITH OWNER.

CONTROL POINT TABLE			
POINT	NORTHING	EASTING	ELEVATION
BM1	140000.06	458492.18	2553.02

AS-Built

PROFESSIONAL ENGINEER LICENSED 16872 STATE OF IDAHO NICHOLAS D. JENKINS
15 November 2019

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION	CHK	APVD	BY
		A. TOLMAN	J. PIGMAN	L. FETTKETHER	N. JENKINS					

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EAGLE SEWER DISTRICT
WELL NO. 2 PUMP PROJECT
EAGLE, IDAHO 83616

CIVIL
EXISTING CONDITIONS SITE PLAN

VERIFY SCALE
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0 1"

DATE	NOV 2019
PROJ	D3130900
DWG	C-100
SHEET	of

BID DOCUMENTS

N

0 100 200 300
Scale In Feet

AS-Built

GENERAL NOTES

A. SEE C-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.

B. LOCATION INFORMATION SHOWN ON THIS SHEET IS FOR REFERENCE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION.

C. TRENCHING FOR PIPE INSTALLATION SHALL CONFORM TO ISPWC SD-301. PIPE BEDDING SHALL CONFORM TO THE REQUIREMENTS OF ISPWC SECTION 306 AND SD-302, CLASS A-1; 3/4" MINUS GRAVEL AND SAND.

D. BACKFILL SHALL BE NATIVE TRENCH BACKFILL MATERIAL AND COMPACTION OF PIPE TRENCH SHALL CONFORM TO THE REQUIREMENTS OF ISPWC SECTION 308; TYPE A-1.

E. SEE ES-101 FOR ELECTRICAL INFORMATION.

F. SEE C-100 FOR BENCHMARK BM-1 LOCATION & DATA.

SHEET KEYNOTES

1. RETAIN AND PROTECT
2. SEE C-401 FOR WELL VALVE VAULT PLAN AND SECTIONS.
3. SEE C-402 AND C-403 FOR TRUCK FILL PAD AND VAULT PLAN AND SECTIONS.
4. SEE DETAIL B/C-403 FOR CONCRETE PAD SECTION & STRUCTURAL INFORMATION.
5. 2" W STUB OUT FOR FUTURE OPERATIONS BUILDING.
6. 1-1/2" V301 WITH VALVE BOX. CONNECT TO EXST 1-1/2" W TO BLOWER BLDG. SEE ISPWC SD-406.
7. CLOSE AND CAP EXST VALVE, REMOVE METER, AND PLUG VALVE. RETURN METER TO EAGLE WATER CO.
8. EXTEND LINE 2' AT END OF 3" W AND CAP FOR FUTURE EXTENSION.
9. 2-1/2" V301 WITH VALVE BOX. CONNECT TO EXST 2-1/2" W TO HEADWORKS. SEE ISPWC SD-406.
10. NEW WATER LINE TO BE INSTALLED ON NORTH SIDE OF THE EXST FENCE AND ROCK-LINED SWALE.
11. PROVIDE COMPACTED GRAVEL ACCESS TO TRUCK FILL PAD SIM TO ISPWC SD-303 TYPE "C".
12. FIELD LOCATE EXISTING WELL & COORDINATE LOCATION WITH C-401.
13. PROVIDE & INSTALL 6" GRAVITY DRAIN. SEE C-401 FOR PIPE MATERIAL. AVOID REMOVAL OF TREES BY USING 22 1/2° ELBOWS TO JOG 6" SD TO MISS TRUNKS BY 5' MINIMUM.
14. PROVIDE & INSTALL STANDARD CONCRETE CATCH MANHOLE PER ISPWC SECTION 602 & SD-611. MANHOLE TO BE PLACED TO AVOID EXST WATER LINE AND BE OUTSIDE THE EXTENTS OF THE ROADWAY.
15. OUTLET PROTECTION CLASS 1 GRADED RIPRAP (d50 = 6").
16. LOCATE WELL VALVE VAULT IN N-S DIRECTION TO ALIGN WITH REQUIRED 4" W PENETRATION LOCATION INTO VAULT.

1 WATER STRUCTURE
T.O.P. ~2549.0
CORNER OF TRUCK FILL PAD
N 139230.67
E 458493.79
5
EXST ROAD ~2548.65
FILL PAD DRAIN
RIM = 2548.58
INV (S) = 2545.5
11
4" D
3 4
SDMH
RIM = 2548.5
INV IN (N) [6"] = 2545.0
INV IN (E) [3"]2545.0
INV IN (SE) [1.5"] = 2545.0
INV OUT (S) [6"] = 2544.5
N 139173.51
E 458471.39
14
11
4" W 45° ELBOW (FIELD LOCATE)
2" W 45° ELBOW (FIELD LOCATE)
1 1/2" PD
1 1/2" PD 11.25° ELBOW OR DEFLECT PIPE
RETAIN EXST DRAIN PIPE
2" W
4" W
13
205 LF
S=0.5%
SD
6" SD DAYLIGHTED
INV 6" = 2543.47±
N 138981.83
E 458546.03
15

1" TO YARD HYDRANT
1 EFFLUENT PUMP STATION
3" 90° ELBOW (FIELD LOCATE)
2" V301 WITH VALVE BOX PER ISPWC SD-406. PLUG VALVE FOR FUTURE USE FOR BACKUP WATER SUPPLY FROM HYDRANT ON EAGLE WATER LINE.
1 1/2"x3"x3" TEE (FIELD LOCATE)
6
1 1/2" W
3" W
7
3" W
2" W 45° ELBOW
4" W 45° ELBOW
1 1/2" PD 45° ELBOW (FIELD LOCATE)
2 12
10'-0"
1 WELL
16
4" W (FROM WELL)
6" D VAULT OVERFLOW
2" 90° ELBOW (FIELD LOCATE)
4" W 90° ELBOW
1 1/2" PD 90° ELBOW (FIELD LOCATE)
1 ELEC VAULT
BLOWER BUILDING

2" Line to Blow Off
10
2 1/2"x3"x3" TEE (FIELD LOCATE)
8
7
9
1 ROCK-LINED SWALE
HEADWORKS BUILDING

N
0 20 40 60
Scale In Feet

PROFESSIONAL ENGINEER LICENSED 16872 STATE OF IDAHO N. D. JENKINS
15 November 2019

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
		A TOLMAN	J PIGMAN	L FETTKETHER		N JENKINS	

REVISION

JACOBS
999 WEST MAIN STREET
SUITE 1200
BOISE, IDAHO 83702

EAGLE SEWER DISTRICT
WELL NO. 2 PUMP PROJECT
EAGLE, IDAHO 83616

CIVIL
SITE PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	NOV 2019
PROJ	D3130900
DWG	C-101
SHEET	of

BID DOCUMENTS

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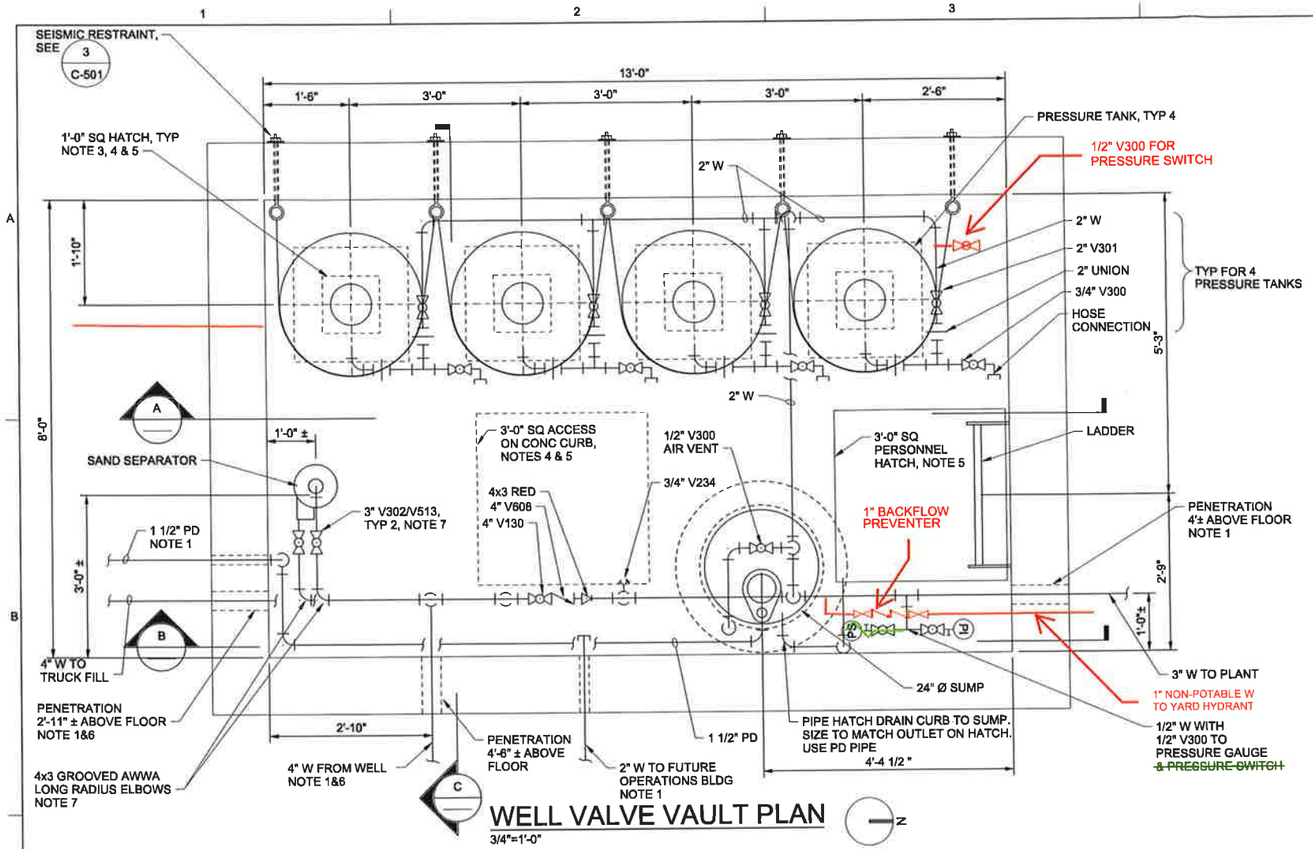
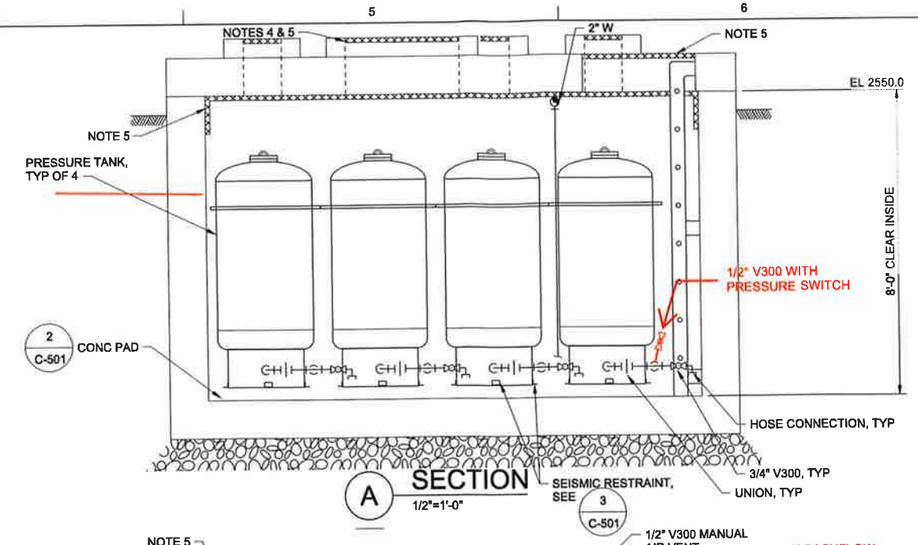


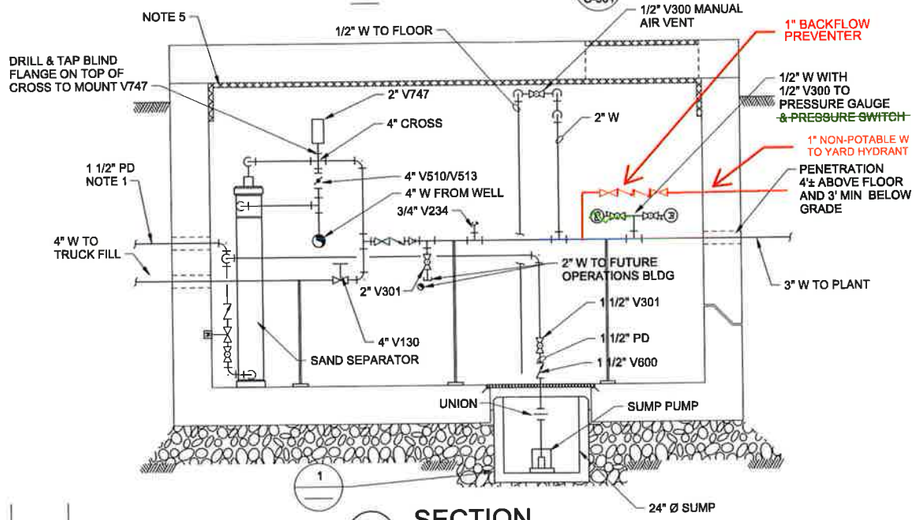
WELL VALVE VAULT PLAN

3/4"=1'-0"



A SECTION

1/2"=1'-0"



B SECTION

1/2"=1'-0"

NOTES:

1. DRY PACK GROUT PIPE PENETRATIONS & SEAL WITH FLEXIBLE SEALANT AT OUTSIDE OF PENETRATION.
2. SUPPORT SAND SEPARATOR FROM FLOOR.
3. COORDINATE HATCH SIZE WITH SIZE OF ACCESS FLANGE ON TANKS TO ENSURE TANK BLADDERS CAN BE REMOVED.
4. COVERS FOR EQUIPMENT ACCESS HATCHES SHALL BE 12 GA GALV STEEL SHEET TURNED DOWN 2" OVER 6"x6" CONCRETE CURB WITH WELDED OR SOLDERED CORNERS. PROVIDE A HASP OR LUG ON 2 OPPOSITE SIDES OF EACH COVER TO SECURE COVER TO VAULT LID.
5. PROVIDE 1 1/2" OF EXTRUDED POLYSTYRENE BOARD INSULATION GLUED TO UNDERSIDE OF VAULT LID, HATCH COVERS & PERSONNEL HATCH. EXTEND DOWN WALLS TO 2' BELOW GRADE.
6. COORDINATE PIPE PENETRATION LOCATION & ELEVATION WITH VAULT PIPE & EQUIPMENT LAYOUT PRIOR TO MANUFACTURE OF VAULT.
7. VALVE & FITTING TYPE DEPEND ON WHETHER SAND SEPARATOR HAS FLANGED OR GROOVED CONNECTIONS.

PIPING SCHEDULE

Flowstream	Service	Size	Installation	Specification	Joints	Notes
D	Gravity Drain	4" - 10"	BUR	40 27 00.12	SW	Where noted on drawings
			ISPWC		PO	
PD	Pressure Drain	<=2"	BUR	40 27 00.10	SW	
			EXP	40 27 00.10	SW	PVC or GALV at Contractor's option
				40 27 00.07	THD or GR	PVC or GALV at Contractor's option
SD	Storm Drain	6"	BUR	ISPWC	PO	Solid Wall SDR 35 PVC Gravity Sewer
W	Potable Water	>=4"	BUR	40 27 00.01	MJ or PRJ	DI or C900 PVC at Contractor's option
				40 27 00.11	Restrained PO	DI or C900 PVC at Contractor's option
		>=4"	EXP	40 27 00.01	FLG or GR	FLG or GR at Contractor's option
			EXP	40 27 00.03	W	Use for truck fill pipe
		<4"	BUR	40 27 00/10	SW	
		<4"	EXP	40 27 00.10	SW	
				40 27 00.07	GR	Use GALV where required to groove

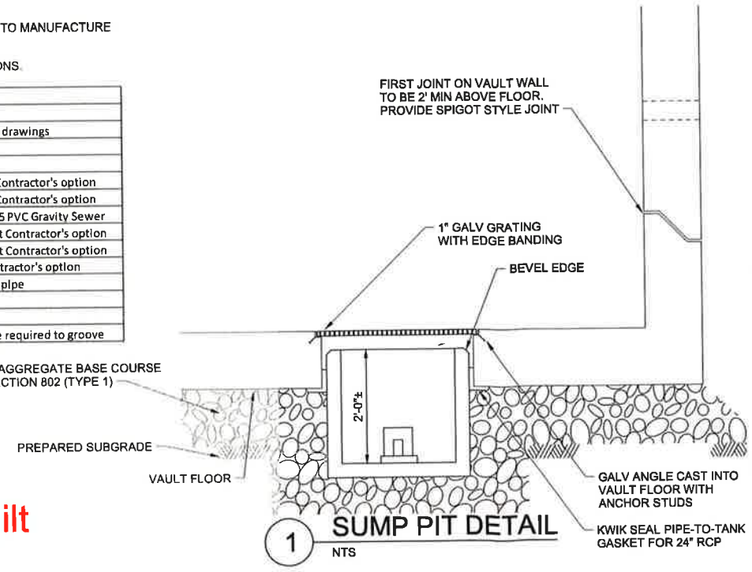
Installation Abbreviations:
BUR - Buried
EXP - Exposed above ground or in a vault

Pipe Material Specification:

40 27 00.01	Cement lined ductile iron
40 27 00.03	Carbon steel
40 27 00.07	Galvanized steel
40 27 00.10	PVC
40 27 00.11	C900 PVC
40 27 00.12	DWV PVC
ISPWC	ID Stds for Public Consruction

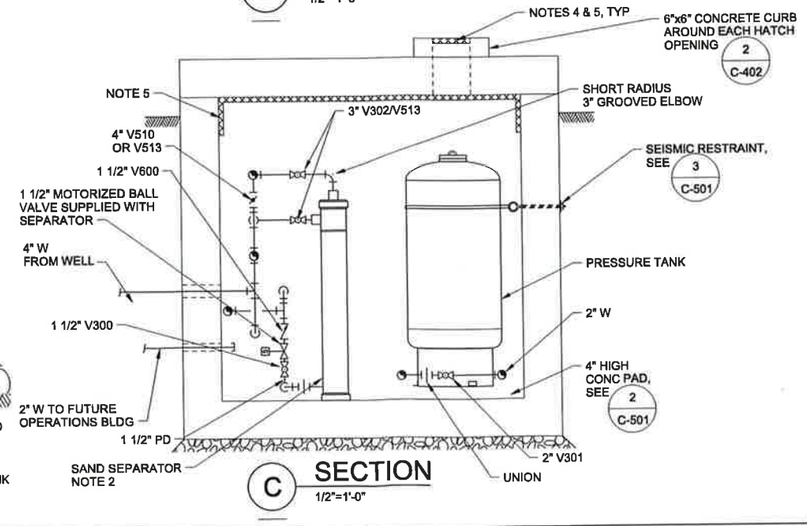
Joint Abbreviations:
FLG - Flanged
GR - Grooved
MJ - Mechanical Joint
PO - Push On
PRJ - Proprietary Restrained Joint
SW - Socket Weld (Glued)
THD - Threaded
W - Welded

AS-Built



1 SUMP PIT DETAIL

NTS



C SECTION

1/2"=1'-0"

JACOBS
999 WEST MAIN STREET
SUITE 1200
BOISE, IDAHO 83702

EAGLE SEWER DISTRICT
WELL NO. 2 PUMP PROJECT
EAGLE, IDAHO 83616

CIVIL
WELL VALVE VAULT PLAN AND SECTIONS

PROFESSIONAL ENGINEER LICENSED 16872 STATE OF IDAHO NEIL D. JENKINS
15 November 2019

NO.	DATE	BY	APVD
DSGN	L FETTKETHER		N JENKINS
DR	L FETTKETHER		
CHK	J PIGMAN		
REVISION			APVD

BID DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	NOV 2019
PROJ	D3130900
DWG	C-401
SHEET	of

Jacobs TRANSMITTAL

To: Idaho Department of Water Resources
322 East Front Street
Suite 600
Boise, ID 83702

From: Kevin Boggs
Jacobs
999 W. Main St. Suite 1200
Boise, ID 83702
208-340-1753

Attn: Dan Nelson

Date: 4/29/2020

Re: Eagle Sewer District Water Right 63-34660 Beneficial Use Field Report

We Are Sending You:		Method of shipment:	
X	Attached	Under separate cover via	
	Shop Drawings	Documents	Tracings
	Prints	Specifications	Catalogs
	Copy of letter	Other:	

Quantity	Description
1	Eagle Sewer District Water Right 63-34660 Beneficial Use Field Exam Report

If the material received is not as listed, please notify me at 208-340-1753.

Copy To: Lynn Moser/General Manager, Eagle Sewer District