

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

JAN 20 2010

DEPARTMENT OF
WATER RESOURCES

A. GENERAL INFORMATION

Permit No. 37-8837

1. Owner: City of Hailey Phone No. (208) 788-4221

Current Address: 115 S. Main St., Hailey, ID 83333

2. Accompanied by: Reese Dibble EXAM DATE: December 08, 2009

Address: same as above Phone No same

Relationship to Permit Holder: Water Manager

3. Source: Ground Water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 37-2698, 37-2699, 37-7305, 37-296A, 37-717, 37-1216

2. Other water rights with the same point of diversion: 37-2698, 37-2699, 37-7305

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

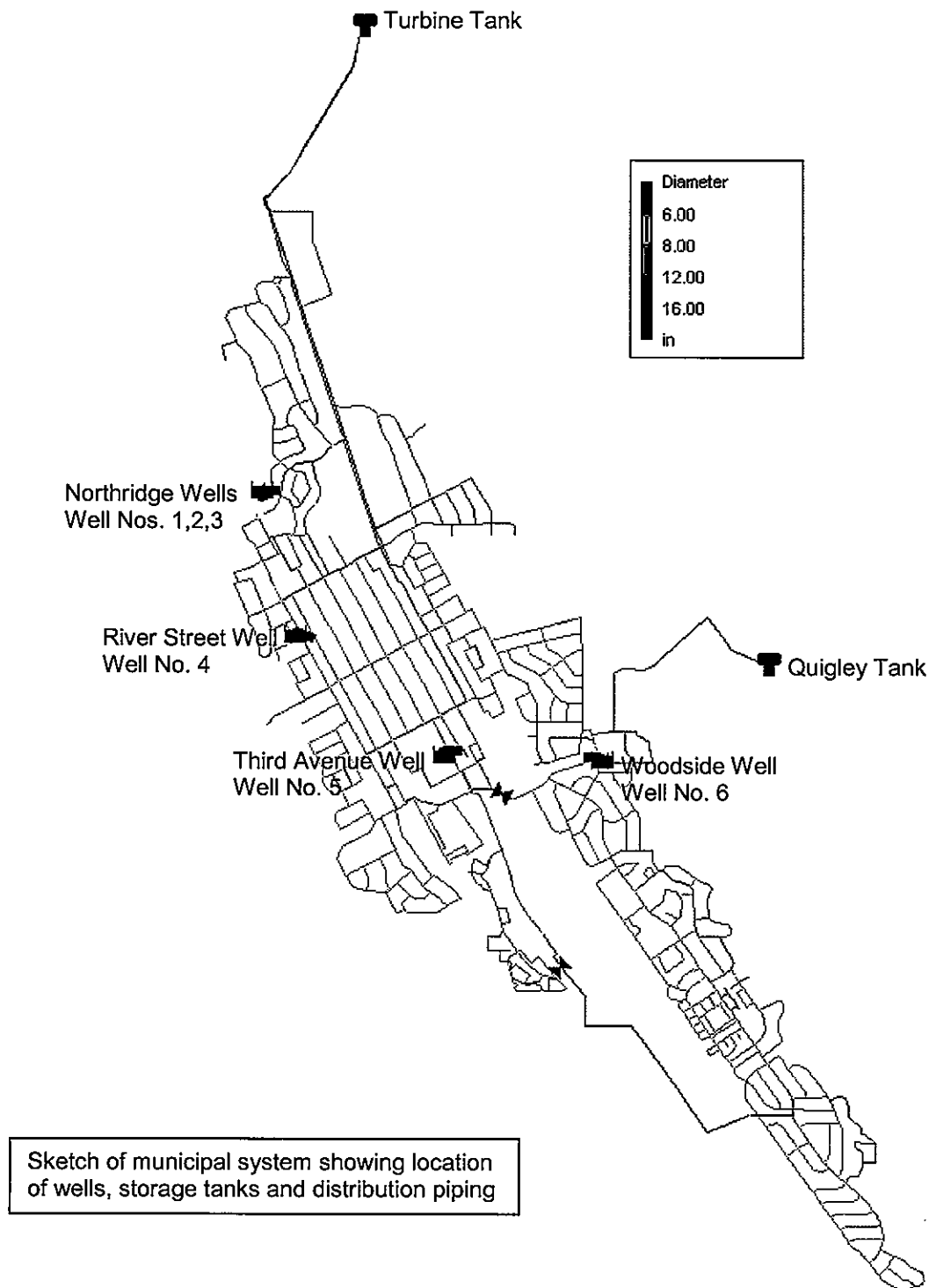
Ident. No.	Gov't Lot	¼	¼	¼	Sec.	Twp.	Rng.	County	Method of Determination/Remarks
1		NW	SE	SW	4	2N	18E	Blaine	GPS, USGS Quad
2		NW	SE	SW	4	2N	18E	Blaine	GPS, USGS Quad
3		NW	SE	SW	4	2N	18E	Blaine	GPS, USGS Quad
4		SE	SE	NW	9	2N	18E	Blaine	GPS, USGS Quad
5		NE	SE	SE	9	2N	18E	Blaine	GPS, USGS Quad
6		NW	SW	SE	10	2N	18E	Blaine	GPS, USGS Quad

2. Place(s) of Use:

Indicate Method of Determination: Existing service area unchanged

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

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



☒ 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
1 (Northridge Well A)	Hitachi	50	Unknown	National Pump Company	Unknown SN. 6" discharge size. Model H10HC, rated 800 gpm at 170 ft TDH.
2 (Northridge Well B)	Hitachi	50	Unknown	National Pump Company	Unknown SN. 6" discharge size. Model H10HC, rated 800 gpm at 170 ft TDH.
3 (Northridge Well C)	Unknown (submersible)	30	Unknown	National Pump Company	Unknown SN and discharge size. Model S8HC, rated 500 gpm at 170 ft TDH.
4 (River Street)	General Electric	75	GNJ727330	Verti-Line / Aurora	3X270992 (model 12 RM, rated 1,000 gpm at 240 ft TDH).
5 (Third Avenue)	General Electric	125	HY343039	Verti-Line / Aurora	86 70201 (model 12 RH, rated 1,500 gpm at 235 ft TDH)
6 (Woodside)	US Motors	40	6229A / 2062136R087R-16	Verti-Line / Aurora	SN 89255 (model 2RLM, rated 1,100 gpm at 100 ft TDH); 8-inch discharge head

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calibration Date

2. Measurements: No flow measurements made at time of exam.

E. NARRATIVE/REMARKS/COMMENTS

Six wells are used to compliment a spring source to supply municipal water to the city's interconnected delivery system. Three wells are located at the Northridge site, two of which are equipped with 50-hp submersible pumps designed and rated for 800 gpm (1.78 cfs) at 170 feet TDH each while the third is equipped with a 30-hp submersible pump designed and rated for 500 gpm (1.11 cfs) at 170 feet TDH for a total diversion capacity of 4.68 cfs from the well pumps. The wells discharge into a buried tank where two boosters redivert to the municipal supply system. These boosters are 75-hp submersible National Pump Company model E12HC, each designed and rated for 1,050 gpm at 150 ft TDH for a total booster capacity of 2,100 gpm (4.68 cfs). Therefore, total diversion capacity developed for delivery into the municipal system at the Northridge site is 4.68 cfs.

The River Street well is equipped with a 75-hp vertical turbine Aurora/Verti-Line pump rated at 1,000 gpm (2.23 cfs) at 240 ft TDH that discharges directly into the municipal supply system (no tank or boosters).

The Third Avenue well is equipped with a 125-hp vertical turbine Aurora/Verti-Line pump rated at 1,500 gpm (3.34 cfs) at 235 ft TDH that discharges directly into the municipal supply system (no tank or boosters).

The Woodside well is equipped with a 40-hp vertical turbine Aurora/Verti-Line pump rated at 1,100 gpm (2.45 cfs) at 100 ft TDH that discharges into a buried tank where two boosters redivert to the municipal supply system. One booster is 100-hp vertical turbine Layne Verti-Line model 12RL with a rated capacity of 1,003 gpm (2.23 cfs) at 262 ft TDH. The second is 7.5-hp with a rated capacity of 70 gpm, but this smaller booster is not typically used for delivery to the municipal system. Therefore, total diversion capacity at the Woodside site is 2.23 cfs based on the 100-hp booster capacity.

Measuring devices are installed at each pumping site. A SCADA system is used to monitor and control system operation.

Have conditions of permit approval been met? X yes no

F. FLOW CALCULATIONS

 Additional Computation Sheets Attached

Measured Method: The capacity of the Northridge pumping site is 4.68 cfs based on the design capacity of the wells and booster pumps (supported by pump curves). The combined capacity of the remaining three pumping systems (Woodside, Third Street and River Street) is 7.80 cfs based on the design capacity of the wells and booster pumps (supported by pump curves). Hence, the total delivery capacity of the system is 12.48 cfs at the time of the beneficial use field exam.

G. VOLUME CALCULATIONS not applicable

1. Volume Calculations for Irrigation:

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

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

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

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Municipal	1/1	12/31	4.67	

Totals: 4.67 cfs

2. Recommended Amendments

 X 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

I. AUTHENTICATION

Field Examiner's Name Scott N. King Date January 18, 2010

Reviewer Date





ATTACHMENT A

PERMIT RECORD AND PROOF OF BENEFICIAL USE

FOR OFFICE USE ONLY
Amt. of Fee \$: 200.00
Receipt No. 2056106
Receipt By: [Signature]
Date Received: 9-10-01

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

RECEIVED

PROOF OF BENEFICIAL USE

SEP 10 2001

Department of Water Resources

The Idaho Department of Water Resources considers this form a statement that the permit holder(s) has/have completed all development that will occur under this permit and that water has been applied according to the provisions of the permit for the beneficial use(s) described below. This form must be accompanied by a license examination fee, when necessary, or be accompanied by a completed field examination report prepared by a certified water right examiner.

1. Permit No. 37-08837 Telephone No. (208) 788-4221

2. Name of Permit Holder(s): CITY OF HAILEY

3. Mailing Address: 115 S. MAIN ST.

City HAILEY State ID Zip 83333

4. Source of Water: GROUNDWATER If GROUNDWATER (well), Date Drilled: mo. 5 / yr. 96
6 / 97

a. Well Driller: WOOD RIVER DRILLING INC. Drilling Permit Number: 37-96-5-0052-P01
VOLUME WELL DRILLING 37-96-5-0104-000
37-96-5-0105-000

5. Use(s) (as authorized by the water right permit):

Domestic (No. of households): _____ Stockwater (No. and type of stock): _____

Irrigation (No. of acres): _____ Other: MUNICIPAL

6. Total rate of diversion and/or volume for which proof is submitted: 4.67 cfs OR _____ acre feet

7. Measuring Device Requirement: (refer to the approval conditions on your permit and respond accordingly)
(This question is not optional. Please check either yes or no. Proofs returned not checked accordingly, will be considered incomplete)

Measuring Device: Is a measuring device required? Yes X or No _____
Has the measuring device been installed? Yes X or No _____

8. Fee Enclosed: \$ 200.00 (See Fee Schedule on back of the instructions for filing proof of beneficial use)

9. Person to contact to accompany the Department representative during field examination of the water system.

Name: TOM HELLEN Telephone Number: 208-4221

Address: 115 S. MAIN ST., HAILEY, ID 83333

10. The information given on this form is my true statement of the extent to which the above numbered permit has been developed and water has been diverted. I agree to relinquish any undeveloped portion of the permit to the State of Idaho.

Signature of permit holder: [Signature] CITY ENGINEER Date: 9/31/01
(include your title, if on behalf of company or organization)

MICROFILMED

SEP 10 2001

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPROVED

AMENDMENT OF PERMIT
PERMIT NO. 37-08837

This is to certify, that CITY OF HAILEY
PO BOX 945
MAILER ID 83333-0945

has requested a change to the above captioned water right(s). This change in water right(s) is authorized pursuant to the provisions of Section 42-211, Idaho Code. The approved amendment of permit is described as follows:

SOURCE

GROUNDWATER

Priority: 11/04/1994

BENEFICIAL USE

PERIOD OF USE

DATE OF DIVERSION

MUNICIPAL

01/01 to 12/31

4.67 CFS

LOCATION OF POINT(S) OF DIVERSION:

SWSESW , Sec. 4, Township 02N, Range 18E
SESENN , Sec. 9, Township 02N, Range 18E
NESESE , Sec. 9, Township 02N, Range 18E
NWSWE , Sec. 10, Township 02N, Range 18E
BLAINE County

PLACE OF USE: See Remarks

CONDITIONS OF APPROVAL AND REMARKS

1. After specific notification by the department, the right holder shall install a suitable measuring device or shall enter into an agreement with the department to determine the amount of water diverted from power records and shall annually report the information to the department.
2. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code.
3. The right holder shall comply with Idaho well construction standards when constructing a well pursuant to this right.
4. The daily diversion volume for non-domestic uses under this municipal right shall not exceed 2,500 gallons per use and the daily diversion volume for domestic uses under this right shall not exceed 13,000 gallons per dwelling in accordance with Section 42-111, Idaho Code.

PAGE 2

AMENDMENT OF PERMIT
PERMIT NO. 37-08837

CONDITIONS OF APPROVAL AND REMARKS

5. Place of use is within the city limits of City of Hailey and surrounding service area.
6. Irrigation of large projects such as parks, golf courses, or sports activities fields is not authorized under this permit.
7. The maximum combined diversion from the three points of diversion located in the SWSESW, S4, shall not exceed 2100 gpm as identified for diversion from a single well in the same location under the original application for permit.
8. Three points of diversion located in SWSESW, S4, T2N, R18E.

Witness my hand this 28th day of

August, 1996
J. Glen Saylor
Chief, Water Alloc. Bureau



ATTACHMENT B
WELL DRILLER'S REPORTS
AND
PUMP CURVES

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

68130

Northridge

Office Use Only
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 1/4 1/4
Lat : : Long : : :

1. DRILLING PERMIT NO. 37-96-S-0104-000
Other IDWR No. 37-08837

2. OWNER:
Name City of Hailey
Address Po Box 945
City Hailey State ID Zip 83333

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N
W E S
Twp. 2 North ☒ or South ☐
Rge. 18 East ☒ or West ☐
Sec. 4 SE 1/4 SW 1/4 1/4
Gov't Lot _____ County BLAINE
Lat : : Long : :
Address of Well Site _____ City _____
(Give at least name of road - Distance to Road or Landmark)

Lt. _____ Bk. _____ 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/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
<u>Bentonite</u>	<u>170'</u>	<u>175'</u>	<u>50 bags</u>		<u>Over bore</u>

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 175' 1/2'
Was drive shoe seal tested? ☒ Y ☐ N How? Pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Uner	Welded	Threaded
<u>12"</u>	<u>172'</u>	<u>175'</u>	<u>12.5</u>	<u>Casing</u>	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

- ☒ Perforations Method Knife
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Uner
<u>100'</u>	<u>172'</u>	<u>3/16" x 3/32"</u>	<u>400</u>	<u>6"</u>	<u>Steel</u>	☒	☒

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

13' 11" ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

- ☐ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
<u>16"</u>	<u>0</u>	<u>20</u>	<u>Dirt, Cobble Stones, etc.</u>			☒
<u>12"</u>	<u>20</u>	<u>42</u>	<u>Clay, sandy gravel</u>			☒
<u>12"</u>	<u>42</u>	<u>75</u>	<u>sandy gravel</u>			☒
<u>12"</u>	<u>75</u>	<u>120</u>	<u>sandy gravel - streaks of clay</u>			☒
<u>12"</u>	<u>120</u>	<u>171</u>	<u>sandy gravel</u>			☒
<u>12"</u>	<u>171</u>	<u>175</u>	<u>brown clay</u>			☒
<u>12"</u>	<u>175</u>	<u>198</u>	<u>hard mountain rock</u>			☒
<u>12"</u>	<u>198</u>	<u>201</u>	<u>loose brown rock</u>			☒
	<u>201</u>	<u>199</u>	<u>Cased in to 199'</u>			

RECEIVED

JUL 07 1997

Department of Water Resource
Southern Region

JUL 29 1997

RECEIVED

AUG 26 1997

Department of Water Resources

Completed Depth 199' (Measurable)
Date: Started 06/20/97 Completed 06/25/97

13. DRILLER'S CERTIFICATION

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

Firm Name Vallier Water Drilling Firm No. 383

Firm Official [Signature] Date 06/26/97

and Supervisor or Operator [Signature] Date 07/01/97

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Northridge
Use Typewriter
or
Ball Point Pen

1. DRILLING PERMIT NO. 37- 95- S 0070 - 000
Other IDWR No. T-4508 37-02698 37-2699 37-07305

2. OWNER:

Name EMB HAILEY
Address 9530 PICO BLVD.
City LOS ANGELES State CA Zip 90035

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.


 Twp. 2 North ☒ or South ☐
 Rge. 18 East ☒ or West ☐
 Sec. 4 1/4 NE 1/4 SW 1/4
 Gov't Lot _____ 10 acres BLAINE 10 acres 160 acres
 County _____

Address of Well Site CENENNIAL BLVD.
City HALEY
(Give at least name of road & distance to road or landmark)

Li. _____ Bk. _____ Sub. Name NORTHBRIDGE

4. PROPOSED USE:

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

5. TYPE OF WORK

☐ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD

☐ Mud Rotary ☐ Air Rotary ☒ Cable ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
CEMENT	0	20	80 SKS	OVERBORE

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

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

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16	+1	159.5	.375	STEEL	☒	☐	☒	☐
12.75	-155	-190	.375	STEEL	☐	☒	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method MILLS KNIFE
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
10	110	.5	400			☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

Depth flow encountered _____ ft. Describe access port or control devices:

11. WELL TESTS:

☐ Pump. ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
1566 w/ air	108'	130'	20HR
825		11'	.5HR

Water Temp. 48 Bottom hole temp. _____

Water Quality test or comments:

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

[illegible]

13. DRILLER'S CERTIFICATION

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

Firm Name **WALKER WATER SYSTEMS INC.** Firm No. **15**

Firm Official Paul Walker Date 11/14/95

and

Supervisor or Operator _____ Date 11/14/95

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

W.R.C.

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT
Use Typewriter or Ballpoint Pen

68129

Northridge

Office Use Only			
Inspected by _____			
Twp. _____	Rge. _____	Sec. _____	
1/4 _____		1/4 _____	
Lat. : : _____	Long. : : _____		
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian			

1. DRILLING PERMIT NO. 37-96-S-0105-000
Other IDWR No. 37-08839

2. OWNER:

Name City of Hailey
Address PO Box 945
City Hailey State ID Zip 83333

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N		Twp. <u>2</u>		North ☒ or South ☐	
E		Rge. <u>18</u>		East ☒ or West ☐	
S		Sec. <u>4</u>		SE 1/4 SW 1/4	
		Gov't Lot _____		County <u>Blaine</u>	
		Lat. : : _____		Long. : : _____	

Address of Well Site _____

City _____

(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/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
Bentonite	0	100'	15 bags	drill bore	

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 161 1/2'
Was drive shoe seal tested? ☒ Y ☐ N How? Pressure

8. CASING/LINER:

Depth	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12"	+24"	161'0"	.750	STEEL	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☒ Perforations Method Knife
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
100'	160'	1/8"x3	400	6"	Steel	☒	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

13'3" ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
16"	0	20	Dirt & Gravel		☒
12"	20	30	Sandy Gravel		☒
12"	30	45	Clay, Sand Gravel	☒	
12"	45	90	Sandy Gravel	☒	
12"	90	124	Sandy gravel, little clay	☒	
12"	124	132	gravel, sand	☒	
12"	132	155	Clay, gravel	☒	
12"	155	161	Sand, gravel	☒	
12"	161	194	Hard Mountain Rock	☒	
12"	194	205	Broken Rock	☒	

12'205' 194' Caved in to 194'

RECEIVED

JUL 07 1997

Department of Water Resources
Southern Region

RECEIVED JUL 29 1997

AUG 26 1997

Department of Water Resources

Completed Depth 194 (Measurable)
Date: Started 06/16/97 Completed 06/19/97

13. DRILLER'S CERTIFICATION

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

Firm Name VOLUME WELL DRILLING Firm No. 383Firm Official [Signature] Date 06/26/97and Supervisor or Operator [Signature] Date 07/01/97

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Oct. 14, 2008 2:12PM

PUMP OH

No. 3648 P. 5

H10HC Northridge
1770 RPM Well
(from Pumptech)

N

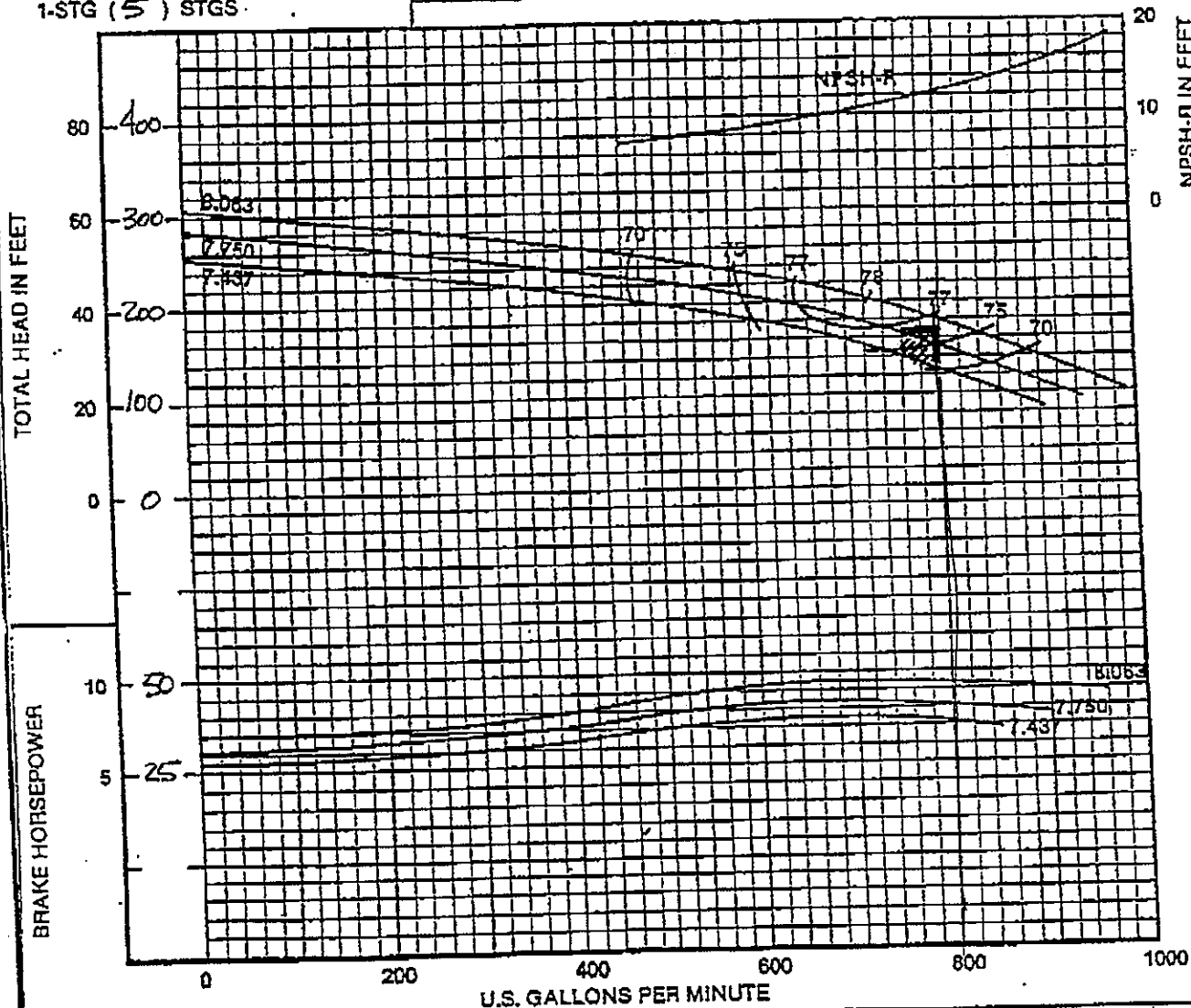
**NATIONAL PUMP
COMPANY L.P.**

SPRING CLEAR, FRESH
NON-AERATED WATER AT
5° F. MAXIMUM.

CHANGE EFFICIENCY AS FOLLOWS	NUMBER OF STAGES	1	3	5
	NUMBER OF PORTS	-2	1	0

DESIGN: 800 GPM 170 TDH 50 BHP 77 EFF.%
USER: CITY OF HAILEY 50 HP DEEPWELL (2 UNITS)
SUBMERSIBLE

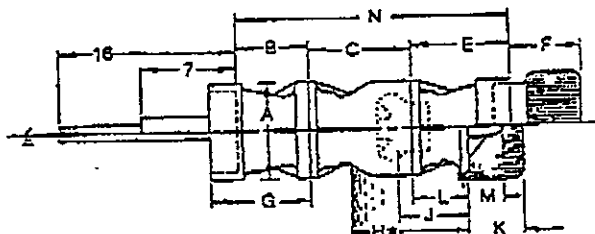
1-STG (5) STGS



DIMENSION IN INCHES	A	B	C ADD/STG	E	F	G	H*	J	K	L	M	N		
	9.75	5.31	9.82	8.19	7.56	7.25	12.50	8.50	N/A	N/A	N/A	23.12		

PUMP DATA

IMPELLER TYPE-	ENCLOSED	BOWL CONNECTION-	FLANGED
NUMBER OF VANES-	7	DISCHARGE SIZE-	6" - 8"
THRUST CONSTANT (K)-	6.9	SUCTION SIZE-	6"
LATERAL-	1.25	STD. TUBE-	2 1/4"
EYE AREA IN. ²	15.89	WRL-	75 LB. FT. ²
SHAFT DIA.-	1.50	CHESTAGE WT. LB.	210
		ADDOSTAGE WT. LB.	80



* MIN. SUBMERGENCE

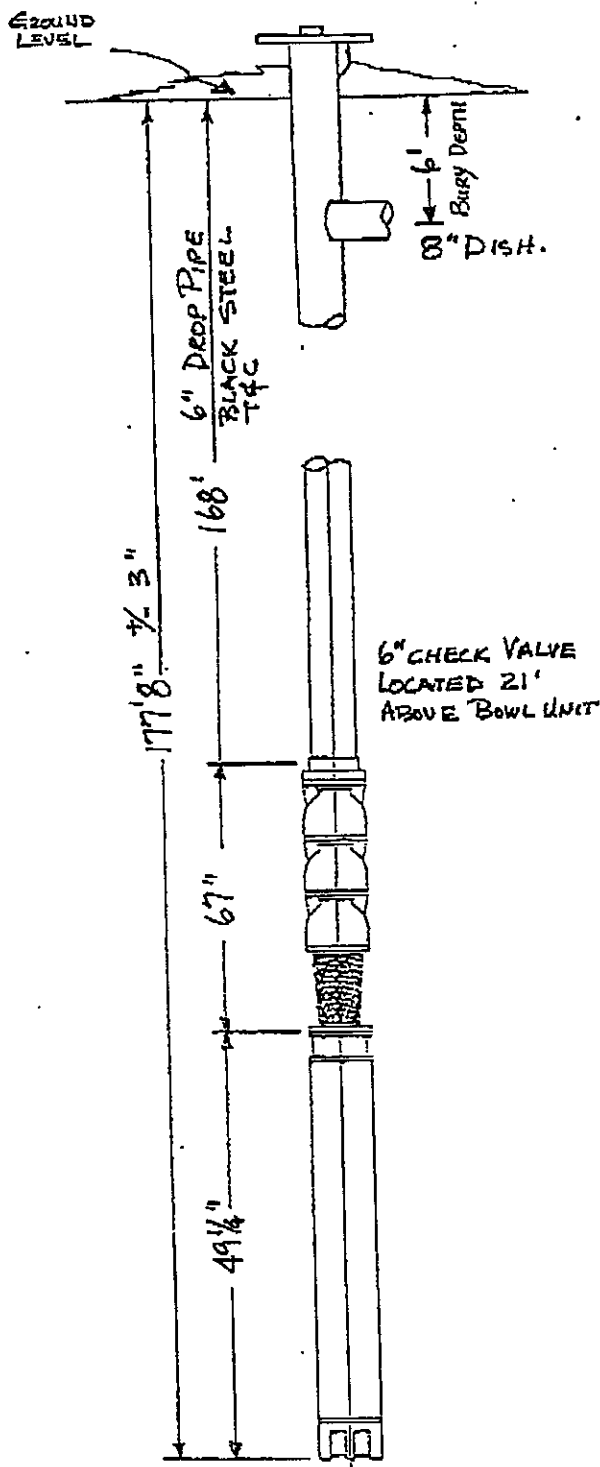
*THIS DIMENSION TO BE USED IN CONJUNCTION WITH NPSH
REQUIRED. PUMP INSTALLATION AND SYSTEM MUST SATISFY BOTH VALUES.
NOTE: PERFORMANCE BASED ON CAST IRON ENAMELED BOWLS AND BRONZE IMPELLERS.

Oct. 14. 2008 2:12PM

PUNTECH

SUBMERSIBLE PUMP W/PITLESS ADAPTER

No. 3648 P. 4

Northridge
Well
(from
Pomptech)

DATE MARCH 15, 1997
 CUSTOMER CONNELLY CONST.
 JOB NAME CITY OF HAILEY SOHP WELL

MOTOR

H.P. 50 MFR. HITACHI
 R.P.M. 1800 SIZE 10"
 PHASE/CYCLE/VOLTS 3/60/460

DISCHARGE ELBOW

SIZE 8"
 MATERIAL STEEL

COLUMN ASSEMBLY

PIPE SIZE/LENGTH 6"/21'
 PIPE WALL SCH. 40

CABLE

SIZE #4 AWG - FLAT 3 CON. W/GRD.
 MATERIAL COPPER
 LENGTH 175'

BOWL ASSEMBLY

MODEL H10HC
 NO. OF STAGES 5
 G.P.M. 800 T.D.H. 170'
 MATERIAL:
 BOWL CAST IRON IMPELLER BRONZE
 SHAFT 4140SS BEARING BRONZE
 COLLET G1045 BOLTS GR. 5 STEEL
 BOWL W.R. MATERIAL N/A
 IMPELLER W.R. MATERIAL N/A

MOTOR ADAPTER

TYPE FLANGED
 SIZE 10"

~~SHROUD~~

MATERIAL ~~SHROUD~~
 SIZE ~~SHROUD~~

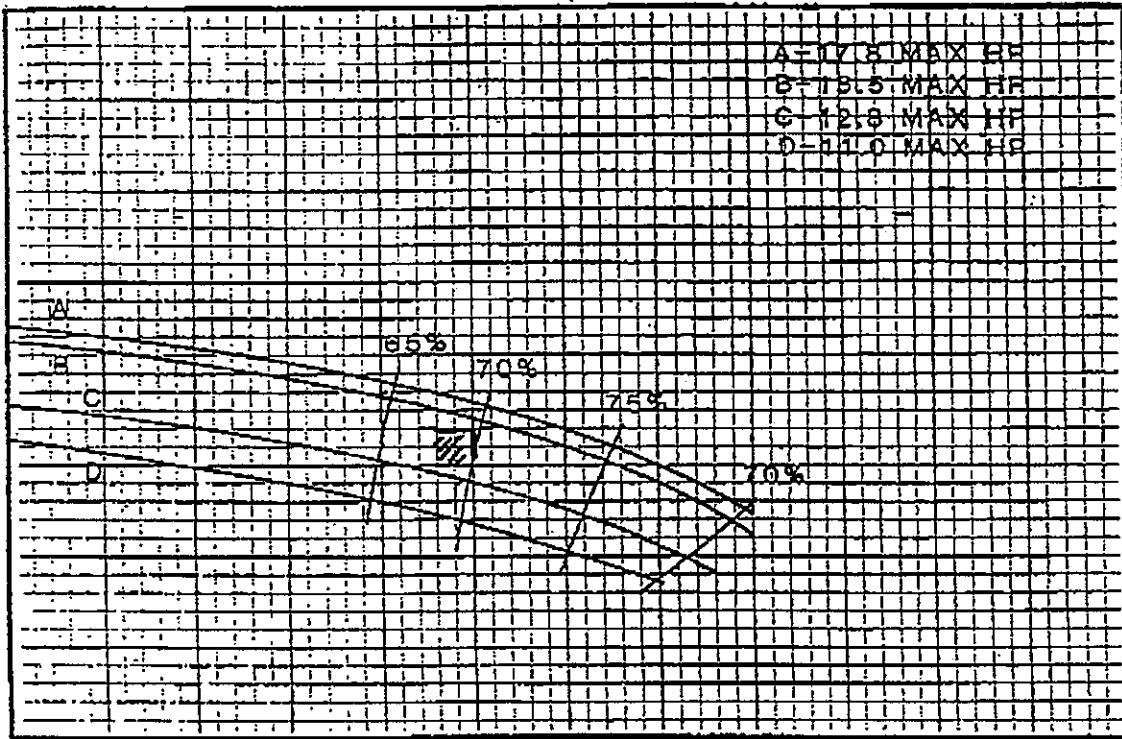
COMMENTS: 2 UNITS

HEAD IN FEET

150

100

50



0 200

400

600

800

U.S. GALLONS PER MINUTE

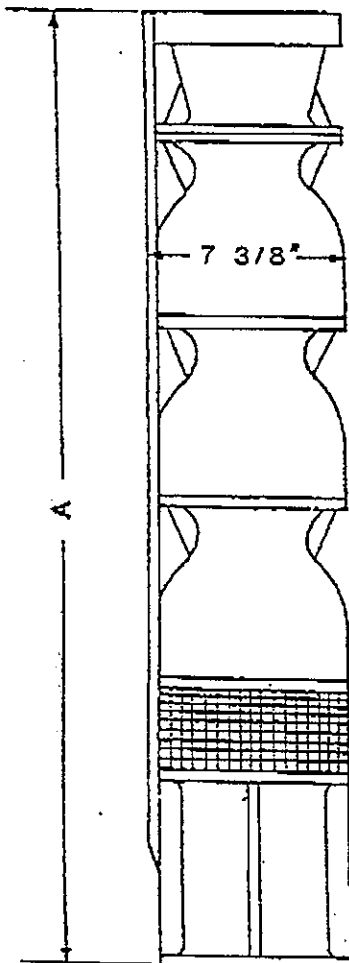
500 GPM @ 170' TDH.
2 STG.

DIMENSIONS & SPECIFICATIONS

Model Number	Stages	HP	"A" Length Inches	Approx. Shipping Wgt. lbs.
S8HC 1D-10	1	10	27.75	115
S8HC 1B-15	1	15	27.75	115
S8HC 2D-20	2	20	34.50	150
S8HC 2C-25	2	25	34.50	150
S8HC 2B-30	2	30	34.50	150
S8HC 4D-40	4	40	48.00	220
S8HC 3A-50	3	50	41.25	185
S8HC 4B-60	4	60	48.00	220
S8HC 5B-75	5	75	54.75	265
S8HC 6A-100	6	100	61.50	290

MATERIALS OF CONSTRUCTION

DESCRIPTION	MATERIAL	DESCRIPTION	MATERIAL
BOWL	CAST IRON	THRUST. ASSY.	BRONZE
IMPELLER	BRONZE	BOLTS	GRADE 5 STEEL
SHAFT	STAINLESS STEEL	SCREEN	STAINLESS STEEL
BEARING	BRONZE	CABLE GUARD	STAINLESS STEEL



Oct. 14. 2008 2:12PM

PUMP

SUBMERSIBLE PUMP w/ FITLESS ADAPTER

No. 3648 P. 1

Attn: Kathy Northridge
Well Pump

DATE MARCH 15, 1997CUSTOMER CONNELLY CONST.JOB NAME CITY OF HAILEY 30HP WELL

(from Pumptech)

MOTOR

H.P. 30 MFR. FRANKLINR.P.M. 3500 SIZE 6PHASE/CYCLE/VOLTS 3/60/460

DISCHARGE ELBOW

SIZE 8"
MATERIAL STEEL

COLUMN ASSEMBLY

PIPE SIZE/LENGTH 5" / 21'
PIPE WALL SCH. 40

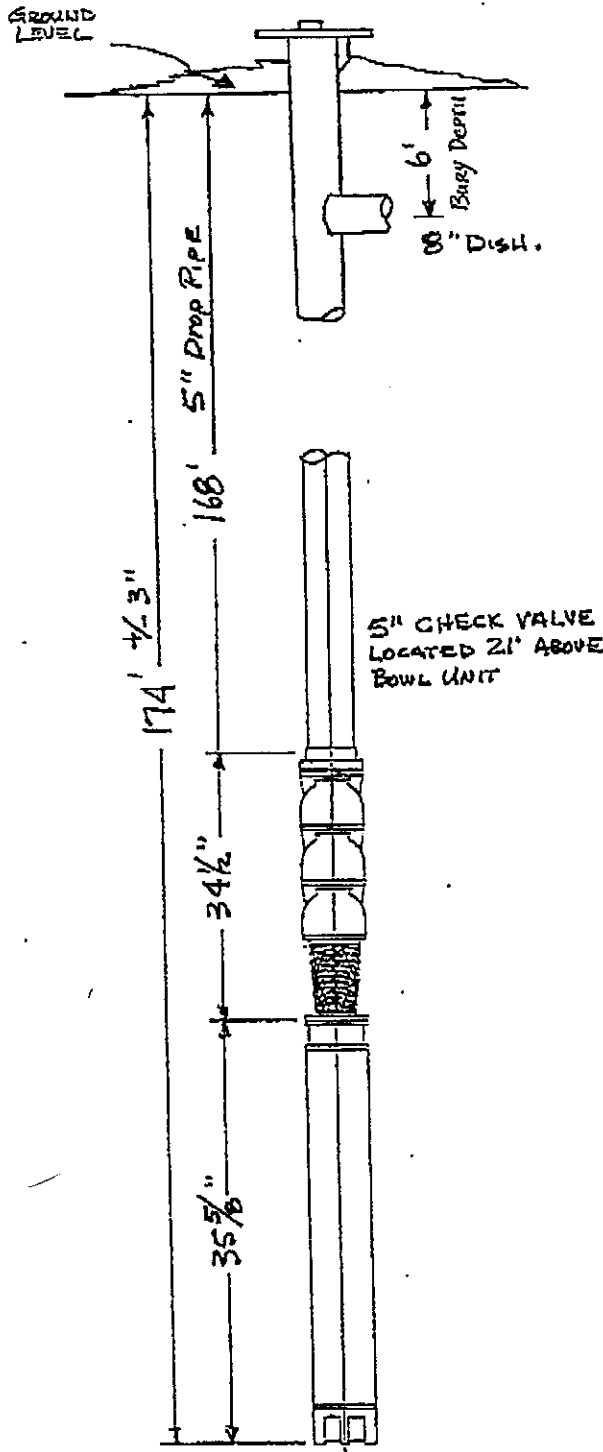
CABLE

SIZE #8 AWG - FLAT 3CON. W/GRD.
MATERIAL COPPER
LENGTH 175'

BOWL ASSEMBLY

MODEL 38HC2B-30
NO. OF STAGES 2
G.P.M. 500 T.D.H. 170'
MATERIAL:
BOWL CAST IRON IMPELLER BRONZE
SHAFT 416SS BEARING BRONZE
COLLET C-1045 BOLTS GR. 5 STEEL
BOWL W.R. MATERIAL N/A
IMPELLER W.R. MATERIAL N/A

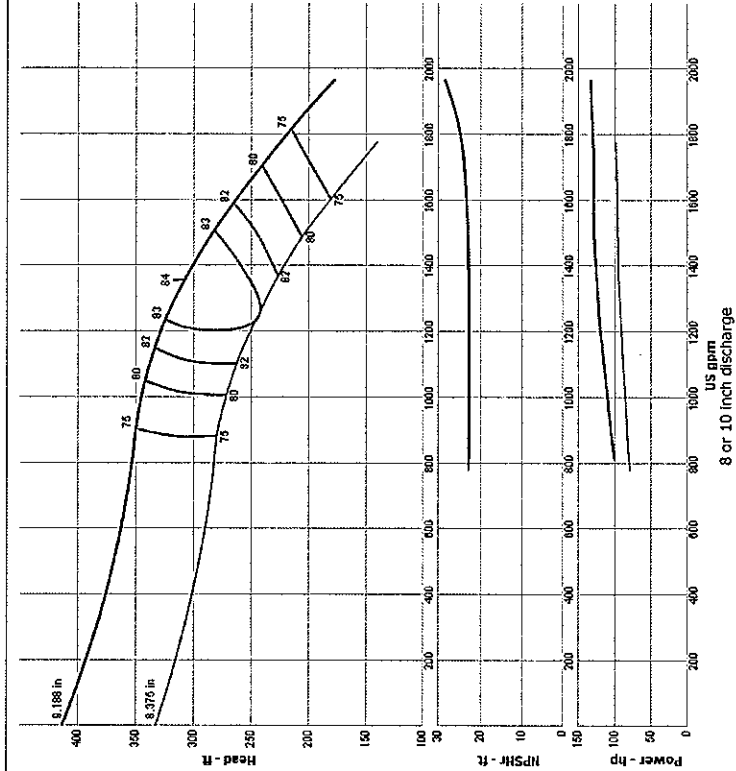
MOTOR ADAPTER

TYPE FLANGED
SIZE 6"~~SHROUD~~MATERIAL ~~_____~~
SIZE ~~_____~~COMMENTS: _____



Pentair Water

[My Profile](#)
[Catalogs](#)
[Manual Selection](#)
[Design Point Search](#)
[Selected Pump](#)
[Pump Curve](#)
[Design Notes](#)
[Cost Analysis](#)
[Printed Reports](#)
[Documents](#)



Head - ft vs US gpm

US gpm	75 ft	80 ft	82 ft	83 ft	84 ft
0	308	308	308	308	308
400	300	305	310	315	320
800	290	295	300	305	310
1200	275	280	285	290	295
1600	255	260	265	270	275
2000	230	235	240	245	250

NPSHr - ft vs US gpm

US gpm	75 ft	80 ft
0	0	0
400	5	10
800	10	15
1200	15	20
1600	20	25
2000	25	30

Power - hp vs US gpm

US gpm	125 hp	150 hp
0	0	0
400	10	15
800	20	30
1200	30	45
1600	40	60
2000	50	75

Flow	Head	Eff	BEP	NPSHr	Power	Motor	Frame	Min flow	Sphere	Bowl size
1354 US gpm	308 ft	84 %	84 %	22.7 ft	125 hp	150 hp	445T	---	0.75 in	11.4 in

Powered By **PUMP-FLO**
Free 24-Hour Flow

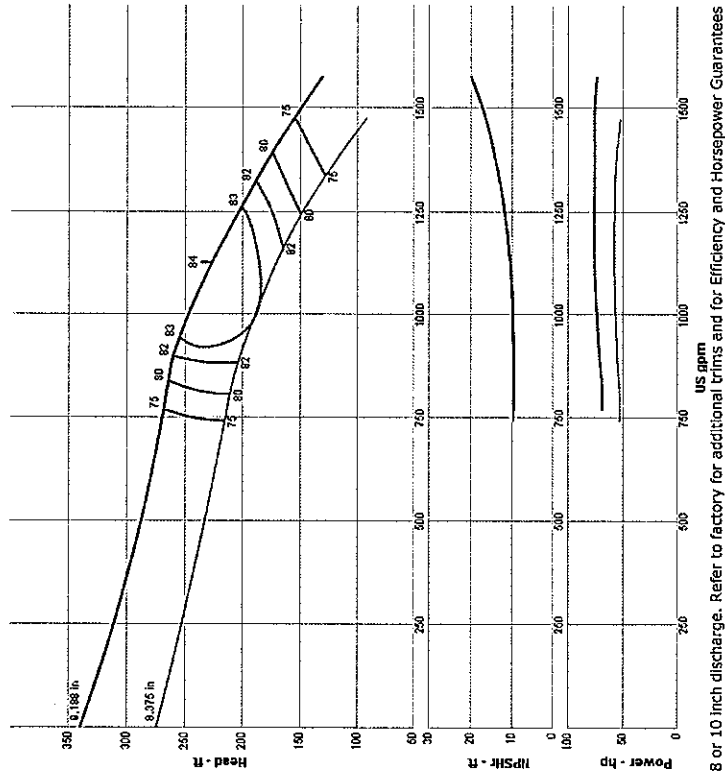
© 2002 - 2009 Engineered Software, Inc. All Rights Reserved | [Terms of Use](#) | [Privacy Policy](#) | [Software Requirements](#)

Third Ave well Pump
Vertiline 12 RH 5 stage
125-hp
1500 gpm @ 235 ft



Pentair Water

[My Profile](#)
[Catalogs](#)
[Manual Selection](#)
[Design Point Search](#)
[Selected Pump](#)
[Pump Curve](#)
[Design Notes](#)
[Cost Analysis](#)
[Printed Reports](#)
[Documents](#)
[Return to Pump-110.0000](#)



8 or 10 inch discharge. Refer to factory for additional trims and for Efficiency and Horsepower Guarantees

Flow	Head	Eff	BEP	NPSHr	Power	Motor	Frame	Min flow	Sphere	Bowl size
1125 US gpm	225 ft	84 %	84 %	10.4 ft	76.5 hp	100 hp	405T	---	0.75 in	11.4 in

© 2002 - 2009 Engineered Software, Inc. All Rights Reserved | [Terms of Use](#) | [Privacy Policy](#) | [Software Requirements](#)

River Street Well Pump
Verti Line
12 Rm
4-5tg
75-hp
1800 rpm
1000 gpm @ 240 ft



Pontair Water

My Profile

Catalogs

Manual Selection

Design Point Search

Selected Pump

Pump Curve

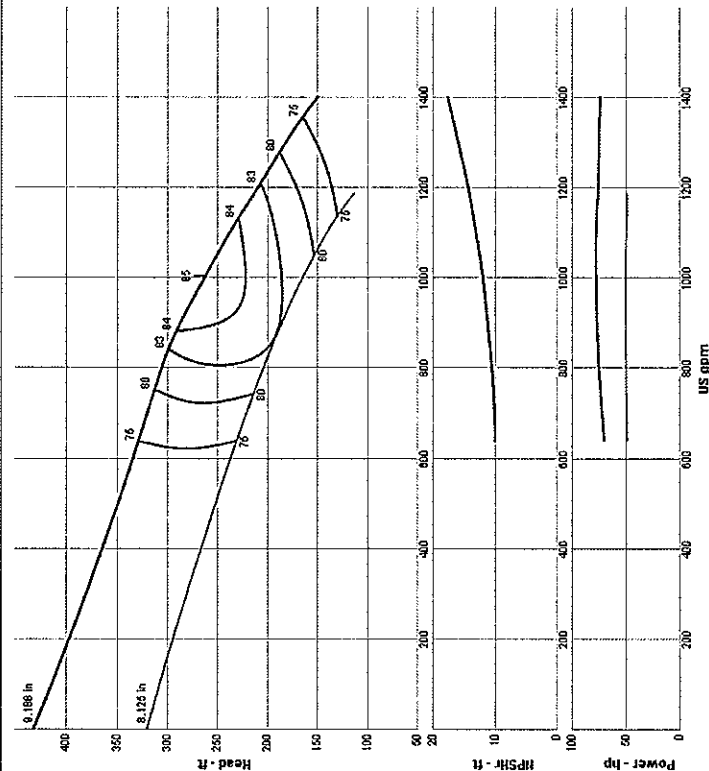
Design Notes

Cost Analysis

Printed Reports

Documents

Return to Pump-It.com



Request for Quote

Submit your selection to Layne Verti-Line.

Pump

Type Vertical Turbine
 Size 12RL (5 stage)
 Speed 1770 rpm
 Diameter 9.188 in

Display Options

☒ Manufacturer settings
☐ Custom

Multiple Pumps

Number of pumps 1
☒ Parallel ☐ Series

Multiple Speeds (rpm)

900 rpm - 1800 rpm

Flow	Head	Eff	BEP	NPSHr	Power	Motor	Frame	Min flow	Sphere	Bowl size
1003 US gpm	262 ft	85 %	85 %	12 ft	78.1 hp	100 hp	405T	---	0.75 in	11.4 in

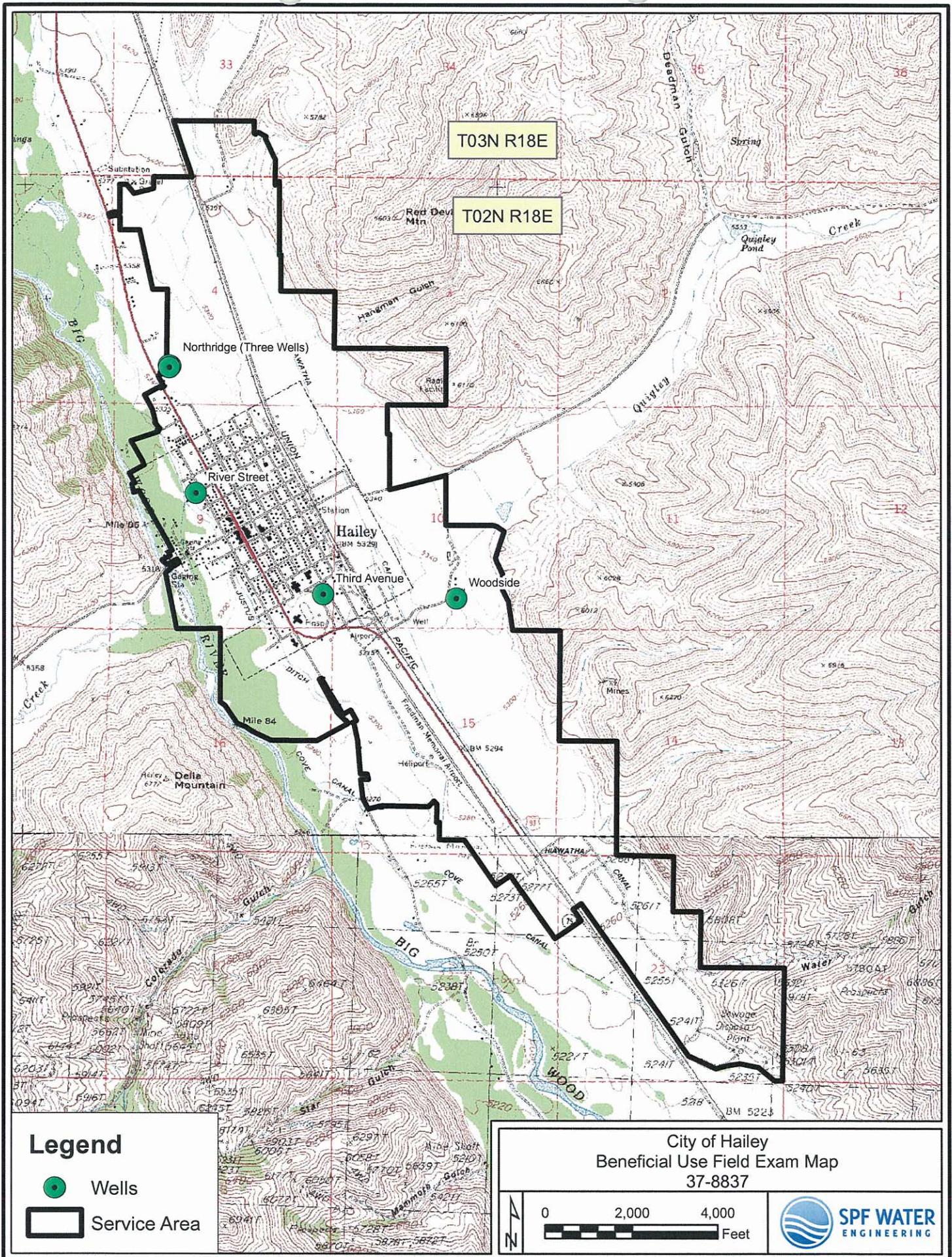
© 2002 - 2009 Engineered Software, Inc. All Rights Reserved | [Terms of Use](#) | [Privacy Policy](#) | [Software Requirements](#)

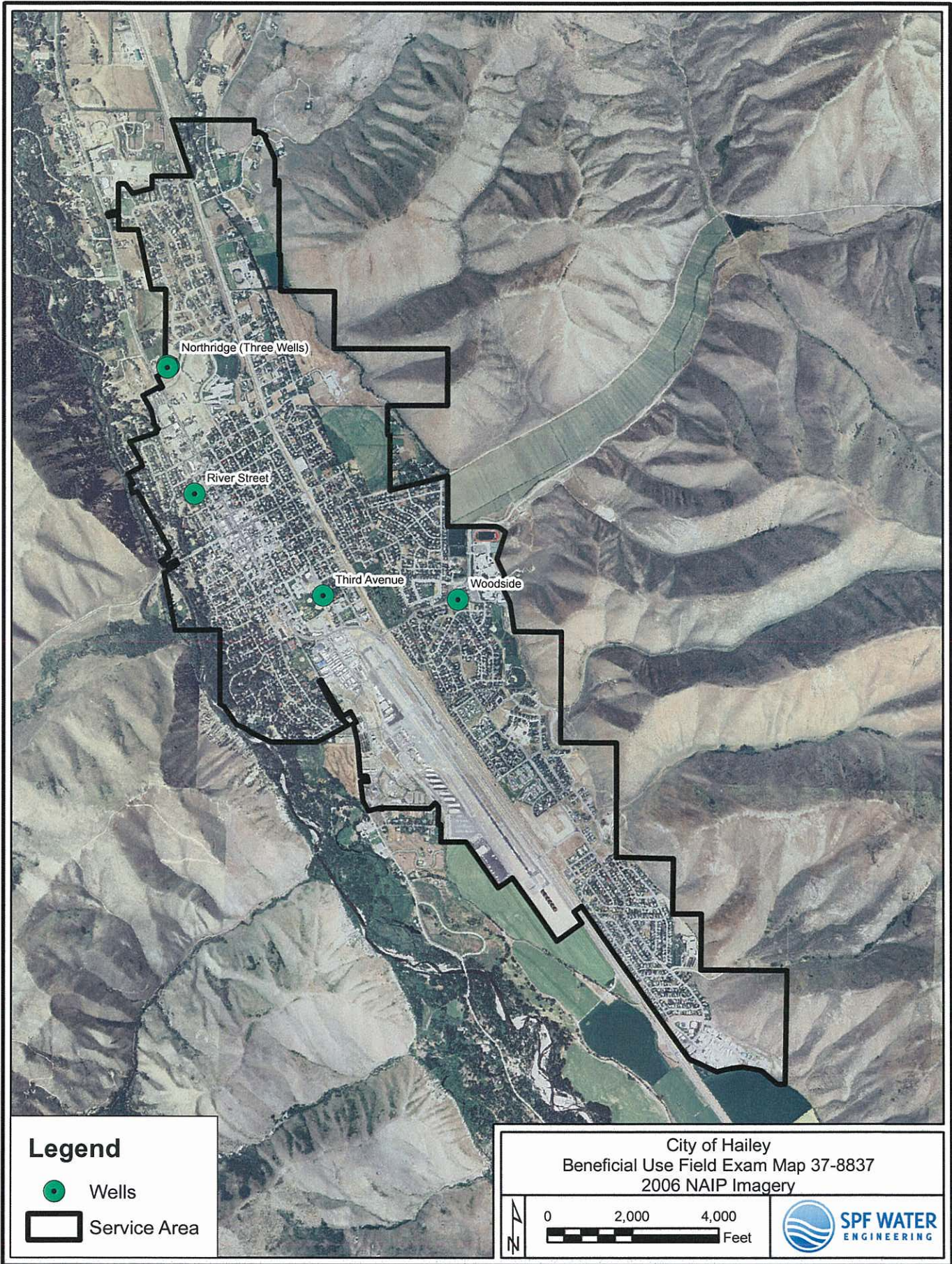
Woodside Booster Pump
Vertiline 12 RL 5-Stage 1770 rpm



ATTACHMENT C

USGS QUADRANGLE and AERIAL PHOTO MAPS
POINTS OF DIVERSION
and
PLACE OF USE BOUNDARY







ATTACHMENT D
PHOTOS



Figure 1: Northridge site well field with Well A in the foreground, Well B in the right background, and Well C in the left background. Pump house on photo left.



Figure 2: Inside of Northridge pump house with incoming flow from three wells on right and two booster pumps in photo center and left.

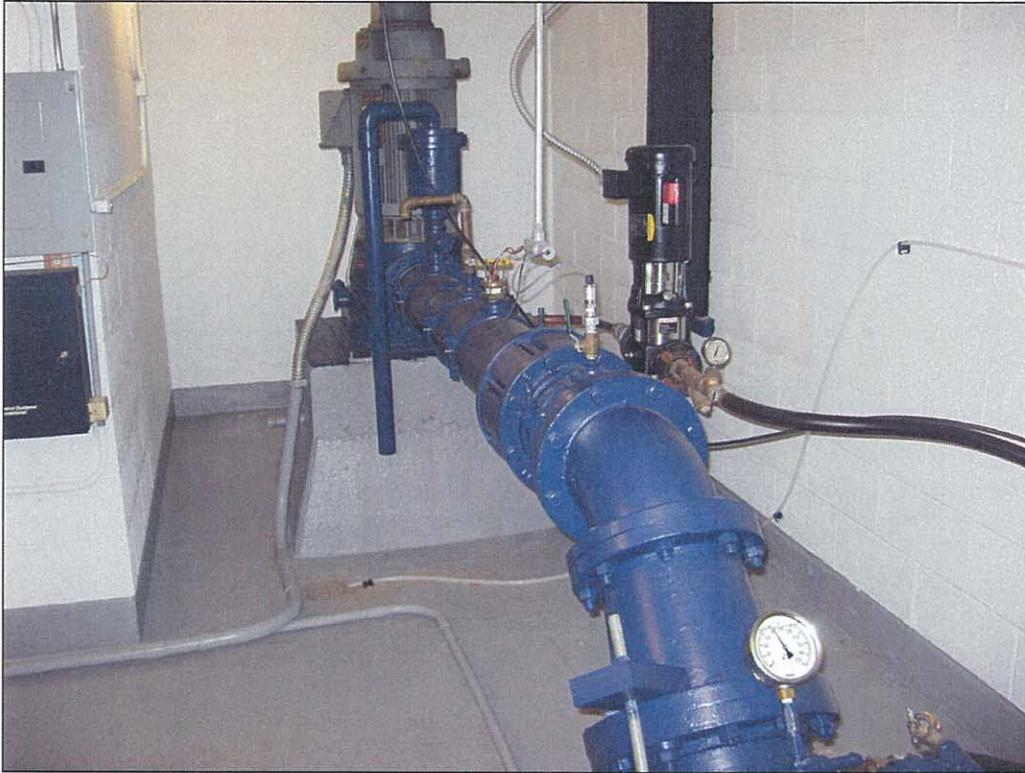


Figure 3: River Street well pump.



Figure 4: River Street pump house.

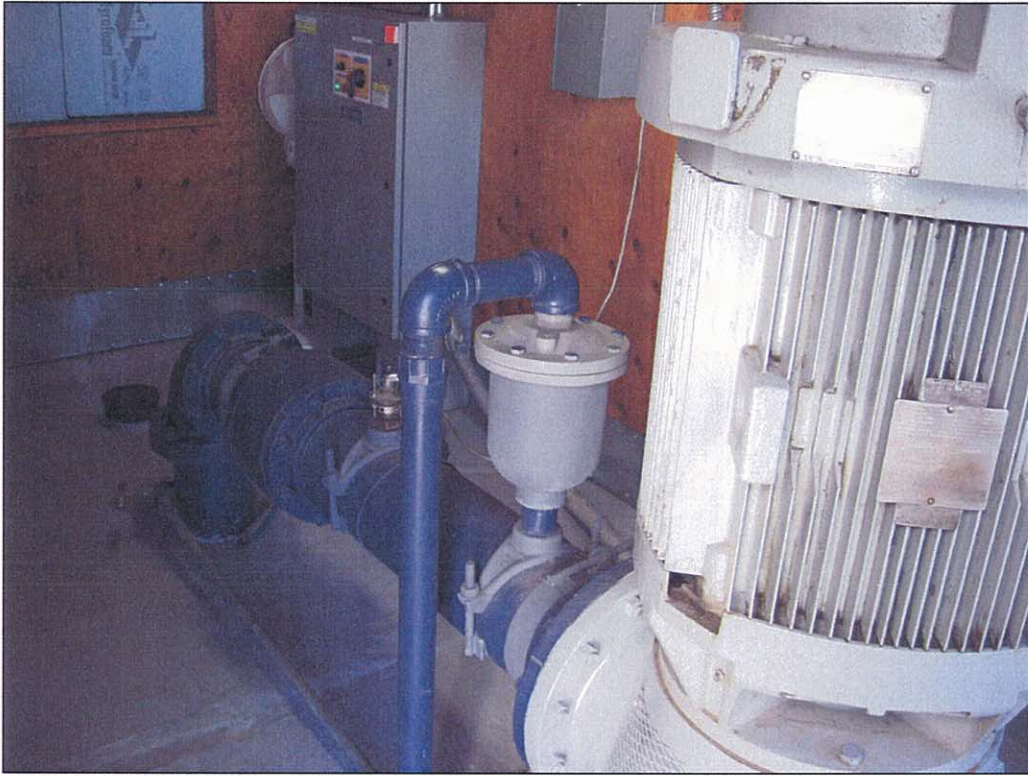


Figure 5: Third Ave well pump.



Figure 6: Third Ave pump house.



Figure 7: Woodside well pump.



Figure 8: Woodside booster pumps.



Figure 9: Woodside well house (right) and booster pump house (left).



SPF WATER
ENGINEERING

RECEIVED

JAN 20 2010

DEPARTMENT OF
WATER RESOURCES

January 18, 2010

Idaho Department of Water Resources
The Idaho Water Center
322 E Front St
PO Box 83720
Boise, ID 83720-0098

Attention: Shelley Keen

Subject: Beneficial Use Field Report, 37-8837, City of Hailey

Dear Shelley,

On behalf of our client, City of Hailey, enclosed is my Beneficial Use Field Report for the above-referenced permit no. 37-8837.

Please contact me if you have any questions regarding this report.

Sincerely,

Scott N. King, P.E.
Supervising Engineer

cc: Tom Hellen, City of Hailey

File: 330.0070