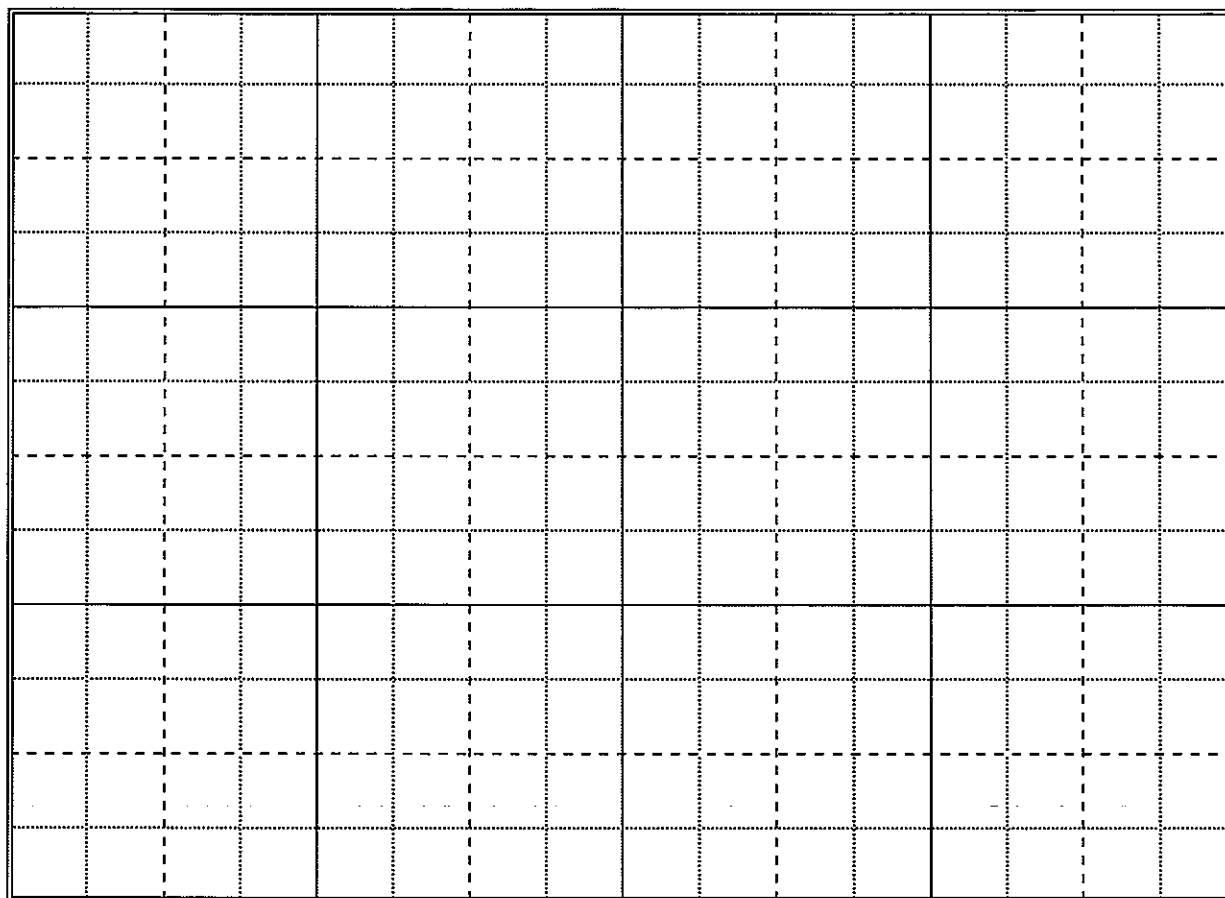


[illegible]

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



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
6-inch		5	Submersible	Goulds 60GS50	2-inch

*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

2. Measurements: _____ none _____

E. NARRATIVE/REMARKS/COMMENTS

A 5-hp submersible well pump supplies landscape irrigation water for the Church of Jesus Christ of Latter Day Saints located at 484 S. Main Street in Star. The well is 6-inch diameter with a completed depth of 159 feet. The well pump is controlled by a variable frequency drive. The irrigation system consists of 2-inch buried mainline and pop-up rain-bird sprinklers that are used to irrigate three acres of landscape area surrounding the church facility. Rock seepage beds on the north and south sides of the church facility were included in the three-acre calculation. Originally, the irrigation system utilized a ground water infiltration system that was replaced in 2004 with the 6-inch well and pump system currently used.

To mitigate the consumptive use resulting from this permit, three shares of Pioneer Ditch Co. water are not diverted from the Boise River per approved transfer No. 71198.

Permitted water-bearing zone was 100 to 200 feet. Water-bearing zone developed is 148 to 158 feet.

Attachment A is a copy of the permit and the proof of beneficial use.

Attachment B is the well driller's report and pump performance curve.

Attachment C is a topographical map and aerial photos.

Attachment D are photos of the place of use, point of diversion, and pump system controlling works inside the pump house.

Have conditions of permit approval been met? X yes ___ no

F. FLOW CALCULATIONS

Y Additional Computation Sheets Attached

Measured Method:

Pump Curve (Attachment B)

Pump Curve: 60 gpm at 200 feet TDH

Static water level = 2 feet (well driller's report)

Drawdown = assume 50 ft (pump set at 60 ft)

Friction loss = assume 22 ft

Assume sprinkler system is operated between 50 and 60 psi:

Discharge Pressure @ 50 psi (115 ft)

TDH = 2 ft + 50 ft + 115 ft + 22 ft = 189 ft = 62 GPM per pump curve = 0.14 cfs

Discharge Pressure @ 60 psi (137 ft)

TDH = 2 ft + 50 ft + 137 ft + 22 ft = 211 ft = 58 gpm per pump curve = 0.13 cfs

Limit flow rate to permit rate of 0.09 cfs.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3 \times 4.5 = 13.5$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 0.09 \times 260 \times 1.9835 = 46.4$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 13.5$$

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		
Irrigation	3/1	11/15	0.09 cfs	13.5 afa

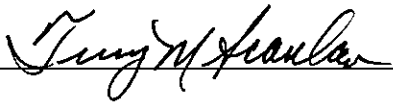
2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

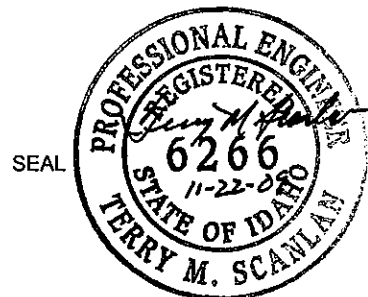
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Terry M. Scanlan, P.E., Certified Water Right Examiner 10-129 Date 11-22-09

Field Examiner's Signature 

Reviewer _____ Date _____



ATTACHMENT A

PERMIT RECORD AND PROOF OF BENEFICIAL USE

CloseIDAHO DEPARTMENT OF WATER RESOURCES
Water Permit Report

11/5/2009

WATER RIGHT NO. 63-31890

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	CORP OF THE PRESIDING BISHOP CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS 50 E NORTH TEMPLE ST SALT LAKE CITY, UT 84150 (801) 240-4074
Representative	SPF WATER ENGINEERING LLC C/O TERRY SCANLAN 300 E MALLARD DR, STE 350 BOISE, ID 83706 (208)383-4140

Priority Date: 12/22/2003

Status: Active

<u>Source</u>	<u>Tributary</u>
GROUND WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
IRRIGATION	03/01	11/15	0.09 CFS	
Total Diversion			0.09 CFS	

Location of Point(s) of Diversion:

GROUND WATER|SWNW|Sec. 17|Township 04N|Range 01W|ADA County

Place(s) of use:

Place of Use Legal Description: IRRIGATION ADA County

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>
04N	01W	17		SWNW	3									

Total Acres: 3

Conditions of Approval:

1.26A	Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to
-------	---

- circumstances over which the permit holder had no control.
2. 046 Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
3. Water bearing zone to be appropriated is from 100 to 200 feet.
4. Mitigation for consumptive use of water under this right shall be provided by Right 63-00183 as approved by Transfer 71198.
5. R69 This right when combined with all other rights shall provide no more than 0.03 cfs per acre nor more than 4.5 afa per acre at the field headgate for irrigation of the lands above.
6. 121 The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.

Dates:

Proof Due Date: 12/01/2009

Proof Made Date:

Approved Date: 12/14/2004

Moratorium Expiration Date:

Enlargement Use Priority Date:

Enlargement Statute Priority Date:

Application Received Date: 12/22/2003

Protest Deadline Date: 10/25/2004

Number of Protests: 1

Field Exam Date::

Date Sent to State Off:

Date Received at State Off:

Other Information:

State or Federal:

Owner Name Connector:

Water District Number:

Generic Max Rate per Acre: 0.03

Generic Max Volume per Acre: 4.5

Swan Falls Trust or Nontrust:

Swan Falls Dismissed:

DLE Act Number:

Cary Act Number:

Mitigation Plan: False

[Close](#)

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
STATEMENT OF COMPLETION
FOR SUBMITTING PROOF OF BENEFICIAL USE

FOR OFFICE USE ONLY

Amt. of Fee \$: _____
Receipt No. _____
Receipt By: _____
Date Received: _____

The Idaho Department of Water

Resources considers this form a statement by the permit holder(s) that development of a water right has been completed and that water has been applied to beneficial use to the extent described below. This form must be accompanied by an examination fee, when necessary, or by a completed Beneficial Use Field Report prepared by a certified water right examiner. Please refer to the instructions and fee schedule for this form. If ownership of the permit has changed, please contact any Department office or visit the Department's website at: www.idwr.idaho.gov for an Assignment of Permit form. If you wish to relinquish your permit because you have not established the authorized use of the water and are not applying for an extension, please notify the Department in writing.

1. Permit No. 63-31890 Telephone No. 801-240-4074

2. Name of Permit Holder(s): The Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter Day Saints

3. Mailing Address: 50 E. N. Temple St. 12th Fl. East COB City Salt Lake City

State UT Zip 84150 Email: johnsondw@ldschurch.org

4. Source of Water: Ground Water If **GROUND WATER** (well), Date Drilled: mo. Apr / yr. 2004

Well Driller: Down Right Drilling and Pump Drilling Permit Number: 811503

5. Extent of use(s) completed (as authorized by the water right permit):

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

Irrigation (No. of acres): 3.0 Other: _____

6. Total rate of diversion or storage volume for which proof is submitted: 0.09 cfs OR _____ acre-feet.

7. Compliance with a Measuring Device requirement and/or other Conditions of Permit: (Refer to the approval conditions on your permit and respond accordingly.)

Measuring Device: Is a measuring device required?

If yes, has the measuring device been installed?

Yes ☐ or No ☒
Yes ☐ or No ☐

Conditions of Permit: Does your permit require you to submit additional information in connection with your proof of beneficial use? (If yes, please list the conditions below and provide documents if necessary.)

Completed?

Yes ☐ or No ☐

Completed?

Yes ☐ or No ☐

8. Fee Enclosed: \$ N/A (See Fee Schedule on back of the instructions for filing proof of beneficial use. Proofs filed without an appropriate fee, will be considered incomplete.)

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

Name: _____ Telephone Number: _____

Mailing Address: _____ City _____

State _____ Zip _____ Email: _____

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 and applied to a beneficial use. I understand that any undeveloped portion of the permit is relinquished to the State of Idaho.

Signature of permit holder: Tony F. Pridel

AUTHORIZED AGENT

Date: 16 Nov 2009

(Include your title, if on behalf of company or organization)

Corporation of the Presiding Bishop of The Church of
Jesus Christ of Latter-day Saints, a Utah corporation sole.

ATTACHMENT B
WELL LOG AND PUMP CURVE

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

8/1503

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

1. DRILLING PERMIT NO. _____

Other IDWR No. D0031064

2. OWNER:

Name LDS Eagle ID Fac. Mngmnt. Group

Address P O Box 609

City Eagle State ID Zip 83616

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location

N

W		Twp. <u>4</u> North ☒ or South ☐
		Rge. <u>1</u> East ☐ or West ☒
		Sec. <u>17</u> 1/4 SW 1/4 NW 1/4 10 acres 40 acres 160 acres

S Gov't lot _____ County Ada

Lat: _____ Long: _____

Address of Well Site 484 S. Main Street

City Star

(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	1'	19'	550#	overbore

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 145'

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

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	+1.5	145'	.250	steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe 11' Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method pull back

☒ Screens Screen Type johnson

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
148'	158'	.025		5"	St.St	☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

2ft. 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
100+			2 Hrs.

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: Iron .75

Depth first Water Encountered 6'

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water				Y	N
Bore Dia	From	To	Remarks: Lithology, Water Quality & Temp.		
10"	0'	1'	top soil	☒	☒
10"	1'	6'	gravel, big	☒	☒
10"	6'	19'	sand & gravel	☒	☒
6"	19'	30'	sand & gravel	☒	☒
6"	30'	35'	sand, brown	☒	☒
6"	35'	45'	sand & gravel	☒	☒
6"	45'	50'	brown clay	☒	☒
6"	50'	60'	brown sand	☒	☒
6"	60'	70'	brown sand	☒	☒
6"	70'	80'	brown clay	☒	☒
6"	80'	84'	soft clay, brown	☒	☒
6"	84'	90'	hard sticky clay	☒	☒
6"	90'	95'	sand	☒	☒
6"	95'	100'	clay, brown	☒	☒
6"	100'	115'	strips clay sand	☒	☒
6"	115'	121'	brown clay	☒	☒
6"	121'	124'	cemented sand	☒	☒
6"	124'	125'	clay	☒	☒
6"	125'	133'	brown sand	☒	☒
6"	133'	138'	brown clay	☒	☒
6"	138'	144'	brown sand	☒	☒
6"	144'	146'	brown clay	☒	☒
6"	146'	159'	brown sand	☒	☒

RECEIVED

APR 21 2004

WATER RESOURCES
WESTERN REGION

Completed Depth: 159' (Measurable)

Date: Started 4/14/04 Completed 4/16/04

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 Down Right Drilling & Pump

Firm No. 637

Firm Official [Signature]

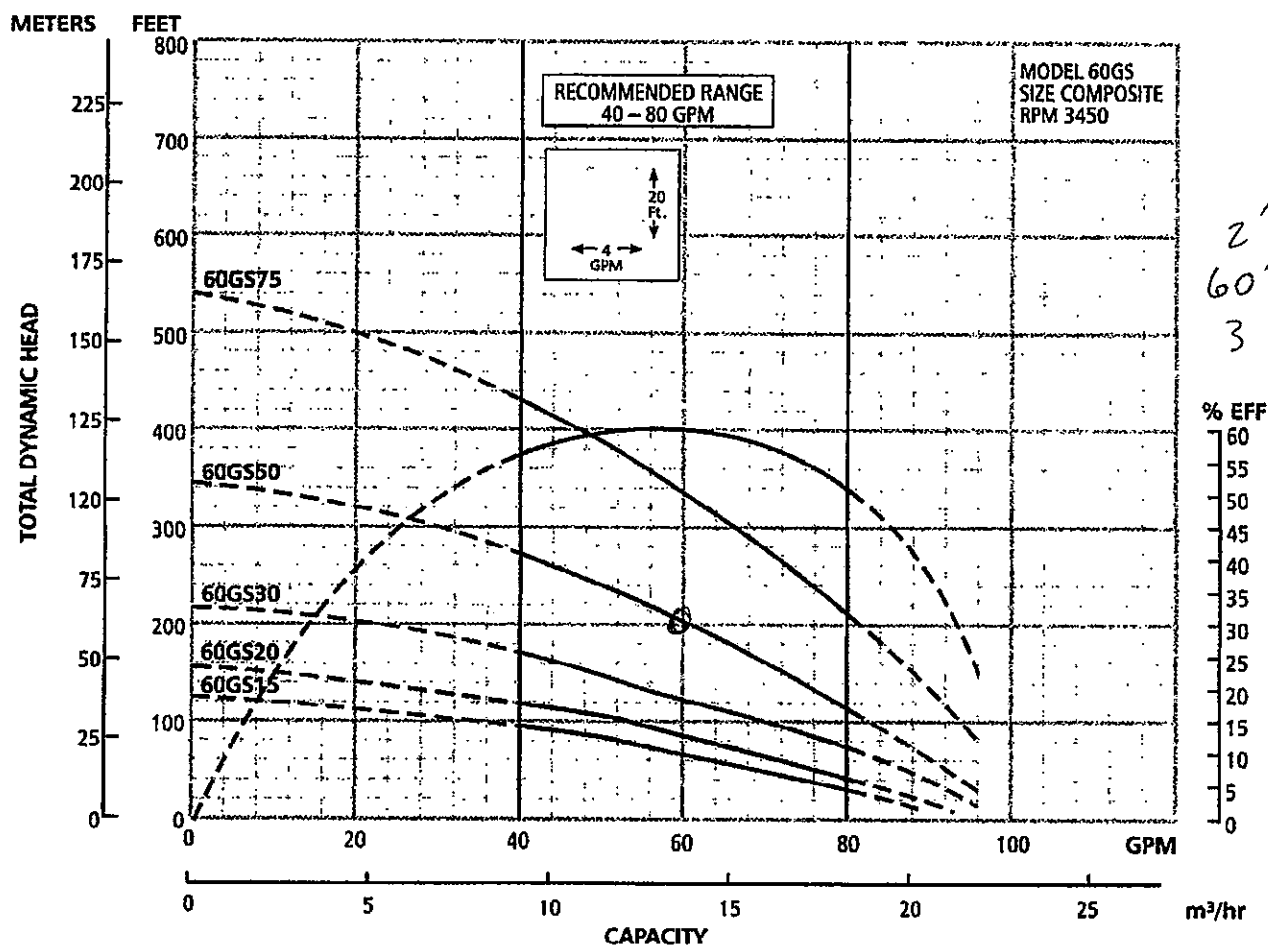
Date 4-2004

Supervisor or Operator [Signature]
(Sign once if Firm Official & Operator)

Date 4-2004

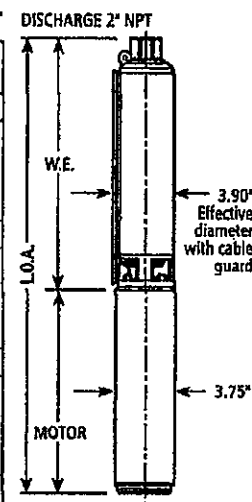
Date: 4/19/2004 Time: 3:42 PM

Model 60GS



DIMENSIONS AND WEIGHTS

HP	Stages	W.E. Order No.	Motor Order No.	PH	Motor Volts	Motor Length	W.E.① Length	L.O.A.②	W.E. and Motor Weight
1½	4	60GS15	S07940	1	230	13.6	15.0	28.6	36
			S07978	3	200	11.8	15.0	26.8	31
			S07970		230				
			S07975		460				
			S07979		575				
2	5	60GS20	S08940	1	230	15.1	17.1	32.2	39
			S08978	3	200	13.6	17.1	30.7	37
			S08970		230				
			S08975		460				
			S08979		575				
3	7	60GS30	S09940	1	230	19.1	21.2	40.3	51
			S09978	3	200	16.1	21.2	37.3	45
			S09970		230				
			S09975		460				
			S09979		575				
5	11	60GS50	S10940	1	230	28.2	30.9	59.1	78
			S10978	3	200	22.2	30.9	53.1	62
			S10970		230				
			S10975		460				
			S10979		575				
7½	17	60GS75	S119784	3	200	28.2	43.2	71.4	80
			S119704		230				
			S119754		460				
			S119794		575				



NOTES:

For complete pump, order water end and motor.

① W.E. = water end or pump without motor.

② L.O.A. = length of assembly - complete pump - water end and motor.

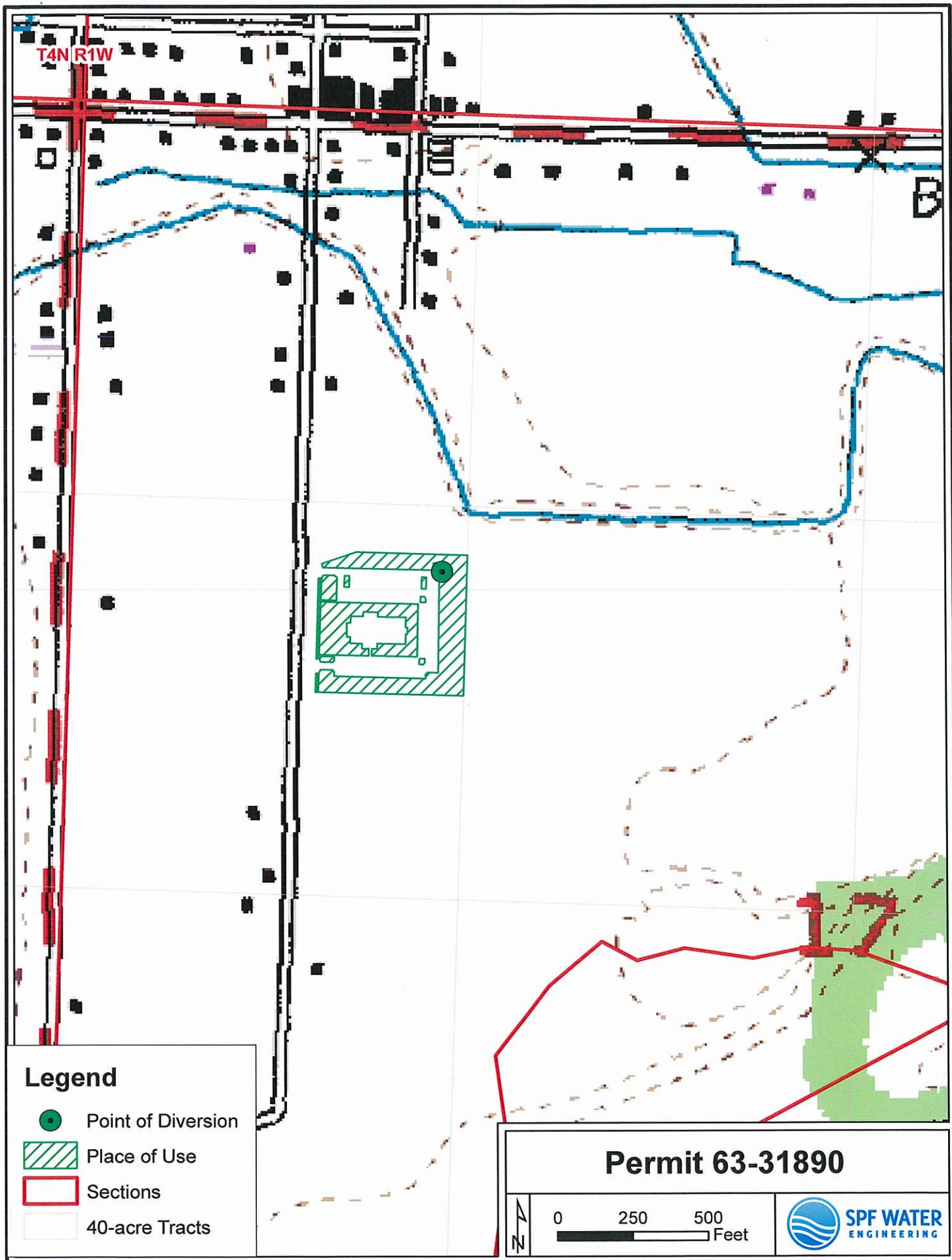
Model 60GS

SELECTION CHART

Horsepower Range 1½ – 7½, Recommended Range 40 – 80 GPM, 60 Hz, 3450 RPM

Pump Model	HP	PSI	Depth to Water in Feet/Ratings in GPM (Gallons per Minute)																							
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480
60GS15	1½	0		75	64	51																				
		20	60	47																						
		30	44																							
		40																								
		50																								
		60																								
Shut-off PSI			45	36	28	19																				
60GS20	2	0			73	63	52																			
		20	70	60	48																					
		30	58	46																						
		40	44																							
		50																								
		60																								
Shut-off PSI			58	50	41	32	24	15	6																	
60GS30	3	0				77	70	62	54	45																
		20		74	67	59	51	42																		
		30	73	66	58	50	40																			
		40	65	57	48																					
		50	56	47																						
		60	45																							
Shut-off PSI			86	77	68	60	51	42	34	25																
60GS50	5	0							75	70	65	60	55	49	43											
		20					73	69	64	59	53	47	41													
		30				73	68	63	58	52	47	40														
		40		76	72	67	62	57	52	46	39															
		50	76	71	66	62	56	51	45	38																
		60	70	66	61	55	50	44																		
Shut-off PSI			140	131	123	114	105	97	88	79	71	62	53	45	36											
60GS75	7½	0											78	75	72	69	66	62	59	55	51	47	42			
		20								80	77	74	71	68	65	61	58	54	50	46	41					
		30							80	77	74	71	68	64	61	57	53	49	45	40						
		40						79	76	73	70	67	64	60	56	52	48	44	40							
		50					79	76	73	70	67	63	60	56	52	48	43									
		60				78	76	73	69	66	63	59	55	51	47	43										
Shut-off PSI			224	215	207	198	189	181	172	163	155	146	137	129	120	111	103	94	85	77	68	59	51			

ATTACHMENT C
TOPO MAP AND AERIAL PHOTOS



T4N R1W

2006 Photo

Legend

-  Point of Diversion
-  Place of Use
-  Sections
-  40-acre Tracts

Permit 63-31890

N
↑

0 250 500
Feet



2007 Photo

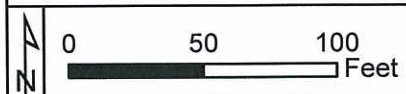
Pump House

© 2009 Europa Technologies
© 2009 Google
Image U.S. Geological Survey
41°14.45' N 116°29.21' W elev

Legend

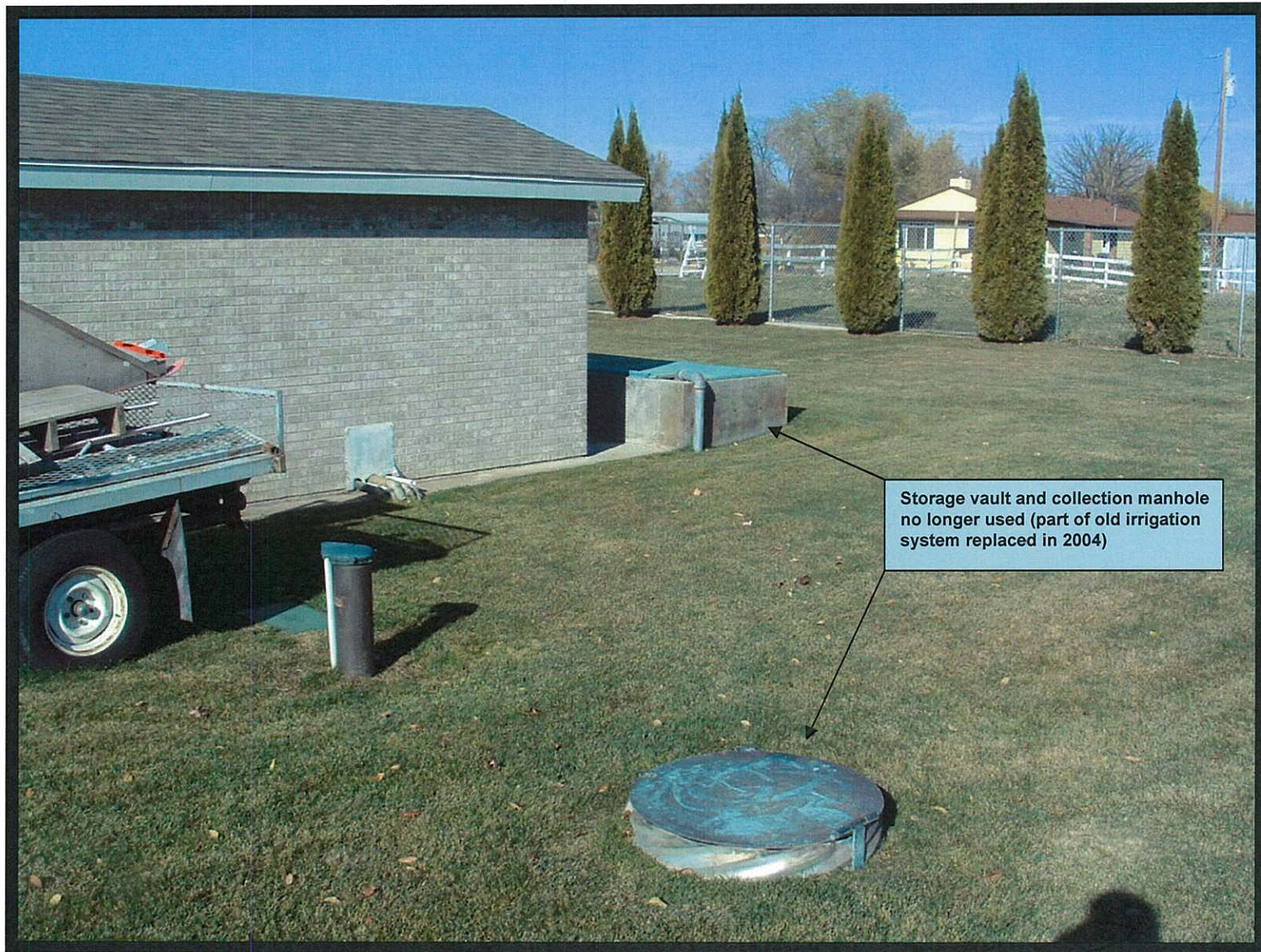
-  Point of Diversion
-  Place of Use

Permit 63-31890



ATTACHMENT D

PHOTOS



6-inch Well and Pump House



Pump Controlling Works and Pressure Tank



Sprinkler Valve Box



Place of Use



Place of Use