

[illegible]

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

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
16-inch well	US Electric	150	J09R0030097-61-01	Peerless 14MCF 3 stage	10-inch; 220-foot setting depth; SN 673464-A

*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
none						

2. Measurements: None

E. NARRATIVE/REMARKS/COMMENTS

A 150-hp vertical turbine pump supplies groundwater for fire protection at The Church of Jesus Christ of Latter Day Saints' Caldwell Stake Center on Farmway Road. The well is 16-inch diameter with a completed depth of 503 feet. The vertical turbine pump is set at a depth of 220 feet with 10-inch column pipe. The well, pump, and mechanical piping are located within a brick well house along with discharge piping for domestic water system. A connection (with backflow preventer and 1.5 hp jockey pump) to the domestic water system is used to maintain fire system pressure. The discharge piping from the fire system extends to fire hydrants and fire sprinkler systems.

A separate well, pump, and distribution piping provides water for the church's domestic uses under water right permit 63-31933 and landscape irrigation under licenses 63-32046, 63-32094, and 63-32100.

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 photo.

Attachment D are photos of the place of use, point of diversion, and mechanical piping in the well house.

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

F. FLOW CALCULATIONS

Y Additional Computation Sheets Attached
Pump Curve (Attachment B)

Measured Method:

Pump Curve: 1500 gpm (3.34 cfs) at 280 feet TDH

Static Water Level = 48 feet

Specific Capacity = 15.4 gpm/ft

Drawdown at 1500 gpm = 97 feet

Pumping water level at 1500 gpm = 145 feet

Friction loss (220 feet of 10-inch column, discharge head, miscellaneous valves and fittings) = 20 feet

Discharge pressure = $280' - 145' - 20' = 115' = 50$ psi

Minimum discharge pressure for fire protection should be 20 psi. Therefore, pump capacity is greater than the 3.34 cfs permit limit.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

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

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

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

2. Volume Calculations for Other Uses:

n/a

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use From To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
Fire Protection	1/1 12/31	3.34 cfs	

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X 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 June 25, 2009

Field Examiner's Signature 

Reviewer _____ Date _____

SEAL





ATTACHMENT A

PERMIT RECORD AND PROOF OF BENEFICIAL USE

[Close]

IDAHO DEPARTMENT OF WATER RESOURCES
Water Permit Report

6/19/2009

WATER RIGHT NO. 63-31932

Owner Type	Name and Address
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	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

Priority Date: 04/20/2004
Status: Active

Source	Tributary
GROUND WATER	

Beneficial Use	From	To	Diversion Rate	Volume
FIRE PROTECTION	01/01	12/31	3.34 CFS	
Total Diversion			3.34 CFS	

Location of Point(s) of Diversion:

GROUND WATER|NWNW|Sec. 16|Township 03N|Range 03W|CANYON County

Place(s) of use:

Place of Use Legal Description: FIRE PROTECTION CANYON County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
03N	03W	16		NWNW										

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.
- 3.077 Water shall not be diverted for fire protection use under this right except to fight or repel an existing fire.
- 4.01M 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.

Dates:

Proof Due Date: 07/01/2009
 Proof Made Date:
 Approved Date: 07/08/2004
 Moratorium Expiration Date:
 Enlargement Use Priority Date:
 Enlargement Statute Priority Date:
 Application Received Date: 04/20/2004
 Protest Deadline Date: 06/21/2004
 Number of Protests: 0
 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:
 Generic Max Volume per Acre:
 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.

- Permit No. 63-31932 Telephone No. 801-240-4074
- Name of Permit Holder(s): The Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter Day Saints
- Mailing Address: 50 E. N. Temple St. 12th Fl East COB City Salt Lake City
State UT Zip 84150 Email: johnsondw@lds church. org
- Source of Water: Ground Water If **GROUND WATER** (well), Date Drilled: mo. May / yr. 2005
Well Driller: _____ Drilling Permit Number: 832115
- 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): _____ Other: Fire Protection
- Total rate of diversion or storage volume for which proof is submitted: 3.34 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.)

NA Completed? Yes ☐ or No ☐
NA Completed? Yes ☐ or No ☐

8. Fee Enclosed: \$ NA (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: Darrin Heaps Telephone Number: (208) 467-2421
Mailing Address: 142 Smith Ave Ste B City Nampa
State ID Zip 83651 Email: Heaps WD @ lds church. org

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:

Tracy F. Radd AUTHORIZED AGENT
(Include your title, if on behalf of company or organization)

Date:

7-6-09

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

832115

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

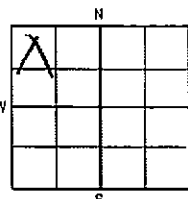
1. WELL TAG NO. D 0038982
DRILLING PERMIT NO. 887150-832115
Other IDWR No. 63-31932

2. OWNER:

Name CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS
Address 50 E NORTH TEMPLE STREET
City SALT LAKE CITY State UT Zip 84150-6331

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.



Twp. 3 North ☒ or South ☐
Rge. 3 East ☐ or West ☒
Sec. 16 1/4 NW 1/4 NW 1/4
Gov't Lot _____ 10 acres _____ 40 acres _____ 160 acres
County CANYON
Lat: _____ Long: _____

Address of Well Site FARMWAY ROAD1/8 MILE SOUTH OF KARCHER ROAD City CALDWELL
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☒ Other FIRE PROTECTION

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☒ Other REVERSE

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
5/8" BENTONITE	0	250	30,000	DRY POUR
#8-12 SAND	250	385	24,000	DRY POUR
5/8" BENTONITE	385	405	2,500	DRY POUR

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

8. CASING/LINER: REDUCER 16" x 10" @ 275' to 376'

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16"	+2	275	.375	STEEL	☒	☐	☒	☐
10"	306	337	.365	STEEL	☒	☐	☒	☐
10"	357	362	.365	STEEL	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe 2'

9. PERFORATIONS/SCREENS

Perforations

Method

ScreensScreen Type JOHNSON WIREWRAP

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
276	306	.030		10"	S.S.	☒	☐
337	357	.030		10"	S.S.	☒	☐
362	382	.030		10"	S.S.	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

48 ft. below ground Artesian pressure _____ lb.Depth flow encountered _____ ft. Describe access port or control devices: 1 1/2" pipe

11. WELL TESTS:

☒ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>2200 gpm</u>	<u>143'</u>	<u>191'</u>	<u>1 hr</u>

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

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

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
24"	0	4	TOP SOIL		
4"	4	16	CLEANED CLAY		
16"	16	56	COARSE SAND w/ COBBLES		
56"	56	67	BRN CLAY		
67"	67	72	FINE-MED SAND		
72"	72	98	BRN CLAY w/ SAND MIX		
98"	98	106	SAND, SOME SANDSTONE		
106"	106	154	BRN CLAY		
154"	154	185	COARSE SAND		
185"	185	253	BRN CLAY		
253"	253	258	COARSE SAND		
258"	258	276	BRN CLAY w/ SAND STREAK		
276"	276	306	COARSE-FINE SAND		
306"	306	337	BRN CLAY w/ SAND STREAK		
337"	337	357	FINE SAND		
357"	357	365	BRN CLAY		
365"	365	380	FINE SAND		
380"	380	393	BRN CLAY		
393"	393	396	FINE-MED SAND		
396"	396	503	BRN + BLUE CLAY		

RECEIVED

MAY 25 2005

WATER RESOURCES
WESTERN REGION

Completed Depth 384' (Measurable)
Date: Started 4-11-05 Completed 5-20-05

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 RIVERSIDE INC Firm No. 333Firm Official [Signature] Date 5-23-05

and

Driller or Operator Jeff Hersh Date 5-23-05

(Sign once if Firm Official & Operator)



HYDRAULIC PERFORMANCE WARRANTY
GUARANTEED AT DESIGNED POINT ONLY AND IS
CONTINGENT ON:
1. PROPER NPSH OR SUBMERGENCE AVAILABLE.
2. PROPER AND ADEQUATE FLOW TO PUMP SUCTION.
3. FLUID FREE OF GAS, AIR, AND ABRASIVE MATTER.
4. IMPELLER WITH PROPER LATERAL ADJUSTMENT
(VERTICAL PUMP ONLY).

BOWL PERFORMANCE TEST

CUSTOMER: Viking Automatic Sprinkler
Project: Farmway Los Heritage Building
Motor Driven Fire Pump

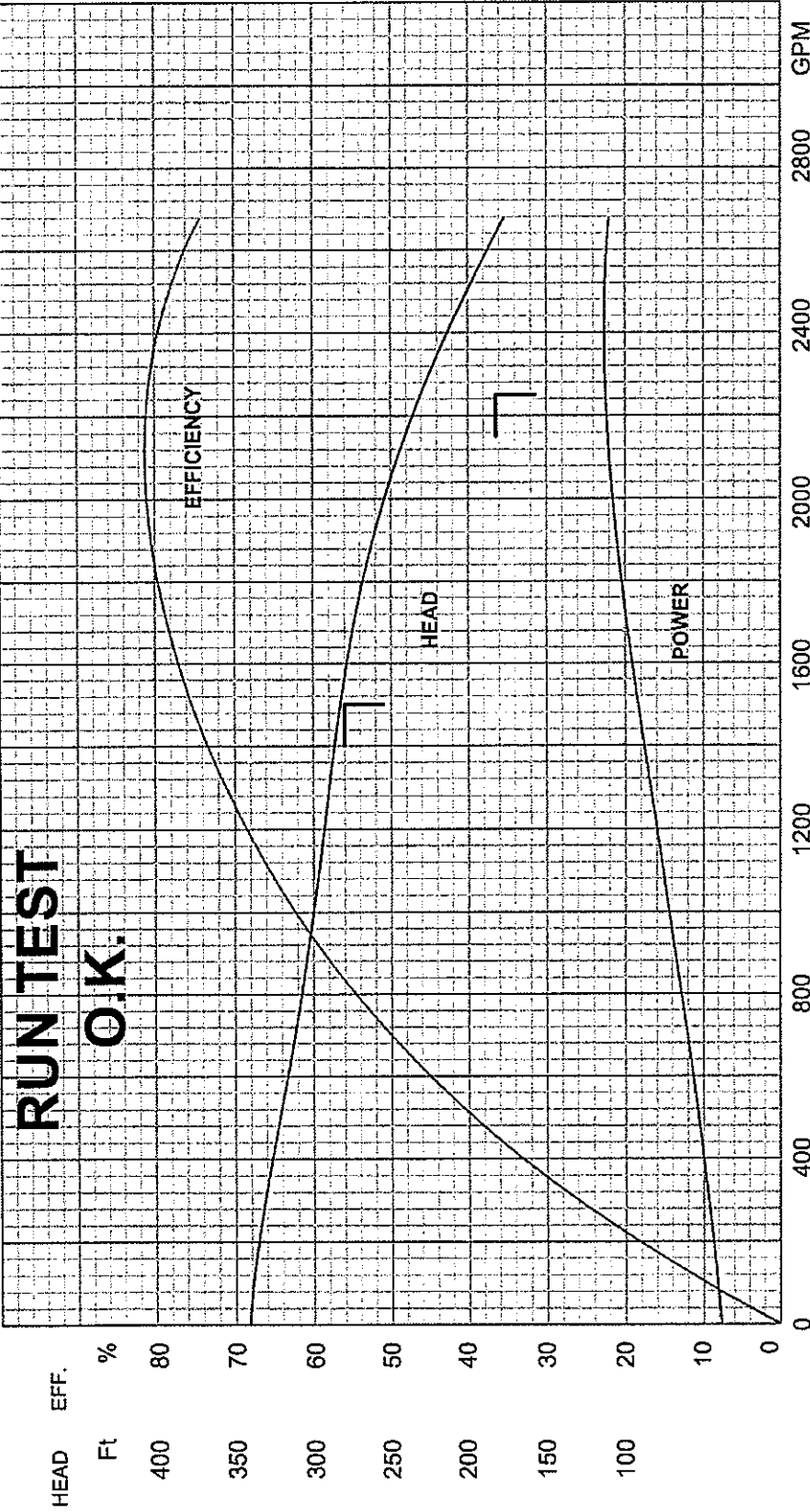
BY: A. Michael Exley

DATE: 9/22/2005

CURVE NO.: C214922w

PUMP: 14 MCF
STAGES: 3
I NO. 1: 2626083-023
M NO. 2: 2626083-023
P NO. 3: N
E DIA. 1: (2) @ 10.25x10.88
L DIA. 2: (1) @ 9.75x10.44
R DIA. 3: N

TEST NO.: 214922w
SHOP ORDER: 673464 VFM
Rated Flow: 1500.00 GPM
Rated Head: 280.00 Ft
Rated Speed: 1770 RPM
Spec. Gravity: 1.000
Serial No.: 673464-A



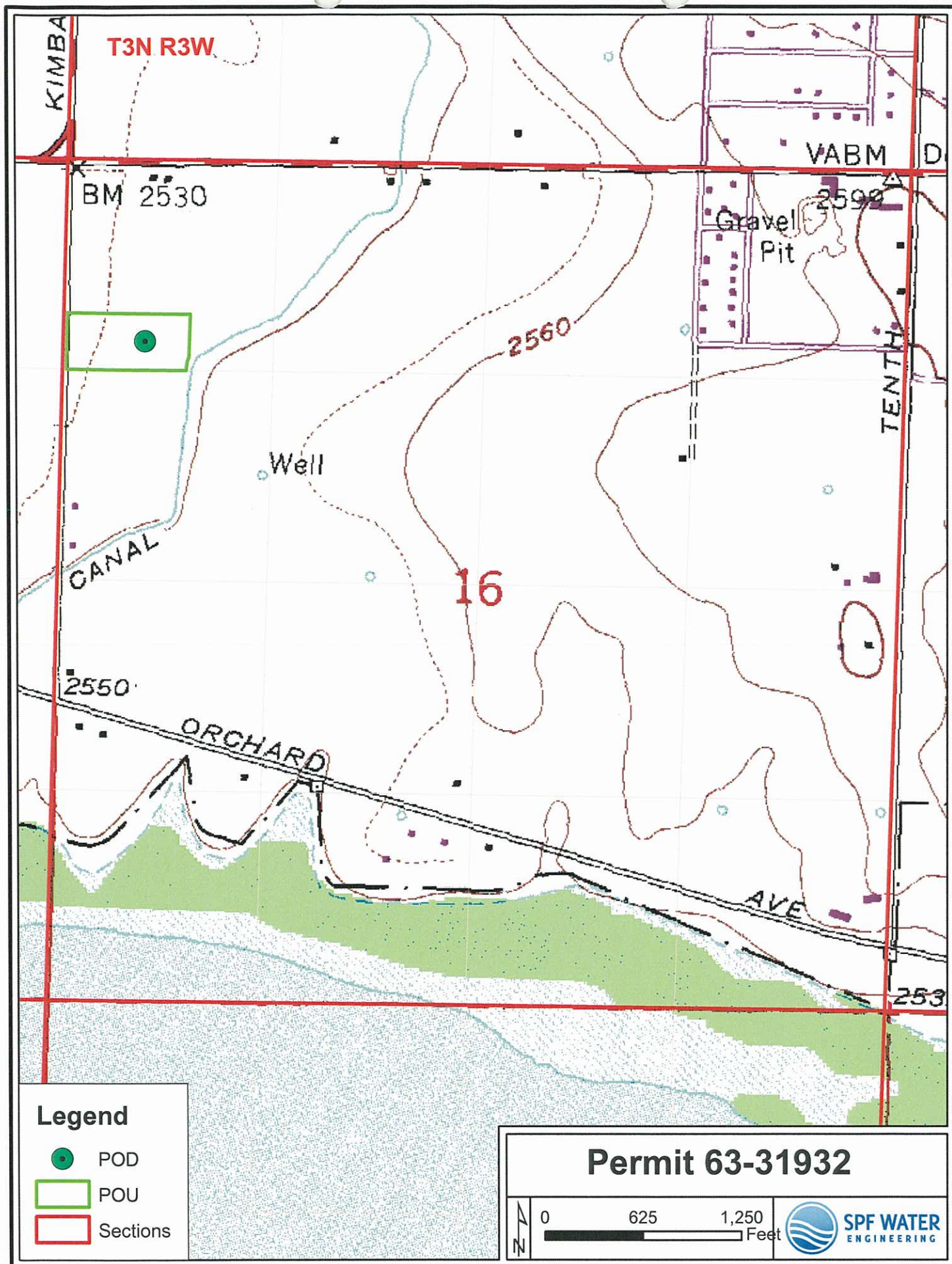
CERTIFIED TEST

Witness Signature: _____

C

C

ATTACHMENT C
TOPO MAP AND 2006 AERIAL PHOTO



T3N R3W

8

9

10

17

16

15

21

22

Legend

● POD

□ POU

□ Sections

Permit 63-31932



0

625

1,250

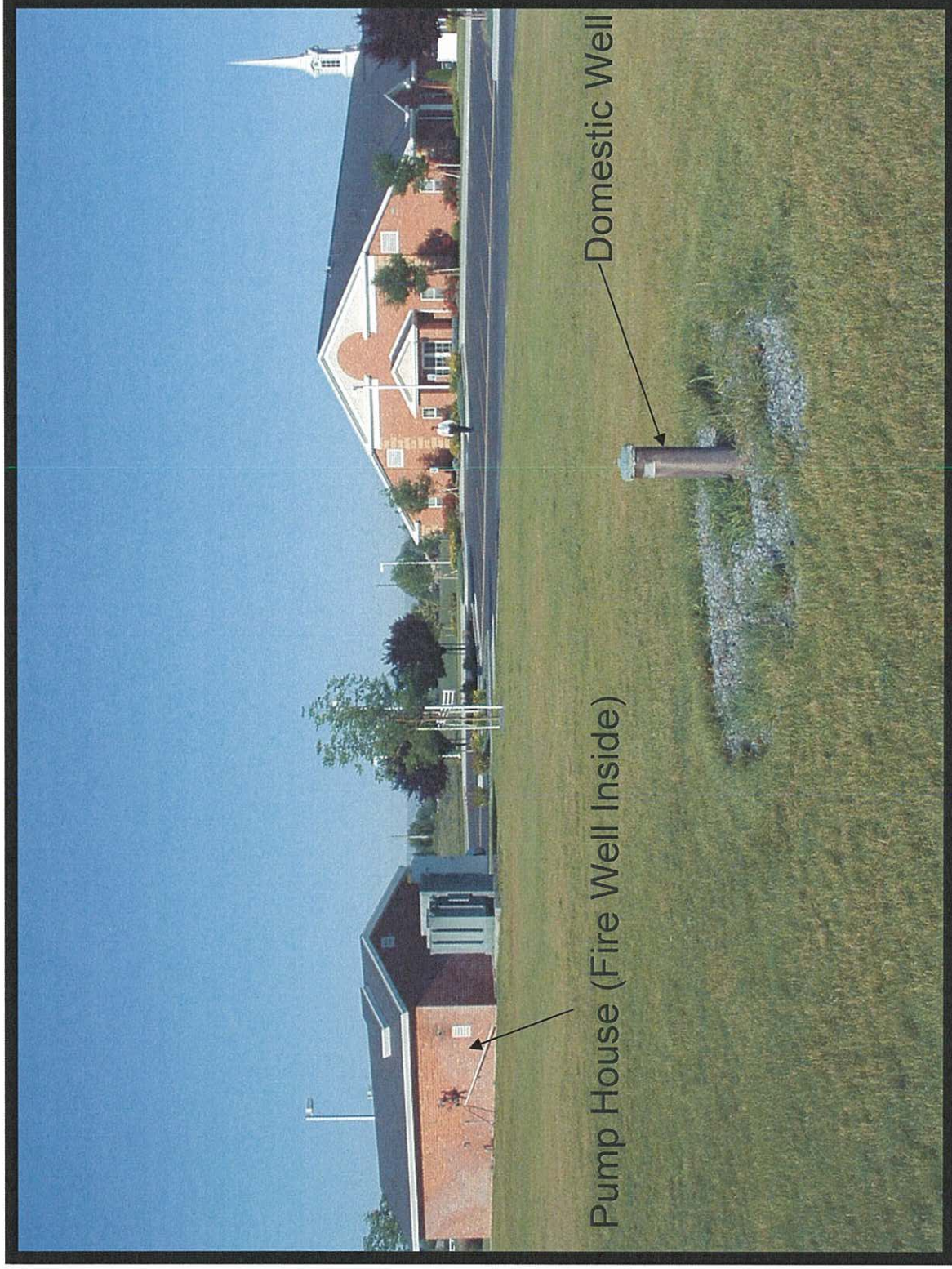
Feet



SPF WATER
ENGINEERING

ATTACHMENT D

PHOTOS



Place of Use and Point of Diversion



Well, Pump and Back-Up Generator



System Plumbing