

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

TRANSFER OF WATER RIGHT
TRANSFER NO. 79168

This is to certify that: CITY OF MERIDIAN
33 E BROADWAY AVE
MERIDIAN, ID 83642

has requested a change to the water right(s) listed below. This change in water right(s) is authorized pursuant to the provisions of Section 42-222, Idaho Code. A summary of the changes is also listed below. The authorized change for each affected water right, including conditions of approval, is shown on the following pages of this document.

Summary of Water Rights Before the Proposed Changes

<u>Water Right</u>	<u>Origin/Basis</u>	<u>Priority Date</u>	<u>Diversion Rate</u>	<u>Diversion Volume</u>	<u>Acre Limit</u>	<u>Total Acres</u>	<u>Source</u>
63-33318	WR/LICENSE	2/28/1992	0.780 cfs	N/A	N/A	75.0	GROUND WATER

Purpose of Transfer (Changes Proposed)

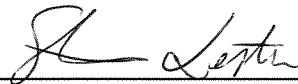
<u>Current Number</u>	<u>Split</u>	<u>POD</u>	<u>POU</u>	<u>Add POD</u>	<u>Period of Use</u>	<u>Nature of Use</u>
63-33318	NO	NO	NO	YES	NO	NO

Summary Of Water Rights After the Approved Change

<u>Existing Right</u>	<u>New No. (Changed Portion)</u>	<u>Transfer Rate</u>	<u>Transfer Volume</u>	<u>Acre Limit</u>	<u>Total Acres</u>	<u>New No. (remaining portion)</u>	<u>Remaining Rate</u>	<u>Remaining Volume</u>	<u>Remaining Acre Limit</u>	<u>Remaining Total Acres</u>
63-33318	63-33318	0.780 cfs	N/A	N/A	75.0	N/A	N/A	N/A	N/A	N/A
COMBINED TOTALS		0.780 cfs	N/A	N/A	75.0		N/A	N/A	N/A	N/A

This water right(s) is subject to all prior water rights and shall be administered in accordance with Idaho law and applicable rules of the Department of Water Resources. Detailed Water Right Description(s) attached.

Dated this 17th day of June, 2014.



for Western Regional Manager

WATER RIGHT NO. 63-33318
As Modified by Transfer No. 79168

In accordance with the approval of Transfer No. 79168, Water Right No. 63-33318 is now described as follows:

Right Holder: CITY OF MERIDIAN
33 E BROADWAY AVE
MERIDIAN, ID 83642

Priority Date: 2/28/1992

Source: GROUND WATER

<u>BENEFICIAL USE</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>
IRRIGATION	03/01	to 11/15	0.780 cfs 0.780 cfs

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	L2 (NWNE)	Sec 5 Twp 02N Rge 01E ADA County
GROUND WATER	L3 (NENW)	Sec 5 Twp 02N Rge 01E ADA County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				Totals
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	01E	5					36.0			39.0									75.0
							L 3												

POU Total Acres: 75.0

CONDITIONS OF APPROVAL

1. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
2. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor exceed a combined annual maximum diversion volume of 464.0 af at the field headgate for the lands above.
3. The right holder shall make full beneficial use of all surface water rights available to the right holder for irrigation of the lands authorized to be irrigated under this right. The right holder shall limit the diversion of ground water under this right to those times when the surface water supply is not available or the surface water supply is not reasonably sufficient to irrigate the place of use authorized under this right.
4. If the surface water right(s) appurtenant to the place of use is sold, transferred, leased or used on any other place of use, this right to divert groundwater shall not be used without an approved transfer pursuant to Section 42-222, Idaho Code, or approval of the Department if a transfer is not required.

Transfer No. 79168

WATER RIGHT NO. 63-33318
As Modified by Transfer No. 79168

CONDITIONS OF APPROVAL

5. This right when combined with all other rights shall provide no more than 4.5 afa per acre at the field headgate for irrigation of the lands above.
6. 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.
7. The right holder shall accomplish the change authorized by this transfer within one year of the date of this approval.
8. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

June 20, 2014

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

CITY OF MERIDIAN
33 E BROADWAY AVE
MERIDIAN ID 83642

Re: Transfer No. 79168
Water Right No. 63-33318

Transfer Approval Notice

Dear Water Right Holders:

The Department of Water Resources has issued the enclosed approved Transfer of Water Right(s). Please be sure to thoroughly review the conditions of approval and remarks listed on the approval document.

The Transfer of Water Right(s) is a PRELIMINARY ORDER issued by the Department pursuant to section 67-5243, Idaho Code. It can and will become a final order without further action by the Department unless the APPLICANT petitions for reconsideration or files an exception and/or brief within fourteen (14) days of the service date as described in the enclosed information sheet.

ANY PERSON aggrieved by any decision, determination, order or action of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Department and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

If the transfer approval includes a condition requiring measuring and recording devices, such devices shall comply with specifications established by the Department. Detailed specifications are available on the Department's home page on the Internet, or you can request a copy by contacting any office of the Department. Please be sure to thoroughly review the specifications to avoid unnecessary costs for reinstallation or modification due to non-conforming or improperly installed devices.

Please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Failure to report these changes could result in a \$100 late filing fee. Contact any office of the Department or visit the Department's homepage on the Internet to obtain the proper forms and instructions.

If you have any questions, please contact me at (208)334-2190.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Sommer".

Rachel Sommer
Administrative Assistant

Enclosures

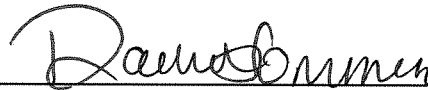
CERTIFICATE OF SERVICE

I hereby certify that on June 20, 2014 I mailed a true and correct copy, postage prepaid, of the foregoing TRANSFER APPROVAL to the person(s) listed below:

**Re: Transfer No. 79168
Water Right No. 63-33318**

**CITY OF MERIDIAN
33 E BROADWAY AVE
MERIDIAN ID 83642**

**SPF WATER ENGINEERING LLC
C/O LORI GRAVES
300 E MALLARD DR STE 350
BOISE ID 83706**

A handwritten signature in black ink, reading "Rachel Sommer", is written over a horizontal line.

**Rachel Sommer
Administrative Assistant**

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was not held.)

(Required by Rule of Procedure 739.02)

A preliminary order of the Department of Water Resources ("Department") is issued by the Department pursuant to section 67-5243, Idaho Code. It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. Note: the petition must be received by the department within this fourteen (14) day period. The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01.302 and 37.01.01.303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

- (a) The petition for reconsideration is disposed of; or
- (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

- i. A hearing was held;
- ii. The final agency action was taken;
- iii. The party seeking review of the order resides; or
- iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

LEGAL PROOF OF PUBLICATION

Account #	Ad Number	Identification	PO	Amount	Cols	Lines
263978	0001016877	LEGAL NOTICE Proposed Change of Water	Sandstone Farms	\$199.28	2	63

Attention: RACHEL SOMMER

IDAHO DEPT WATER RESOURCE/ WEST
2735 AIRPORT WAY
BOISE, ID 837055082

LEGAL NOTICE Proposed Change of Water Right

The following applications have been filed to appropriate the public waters of the State of Idaho.

63-33857
SANDSTONE FARMS LLC
1888 E. RODEO LN
KUNA, ID 83634
Point of Diversion NWSW S18 T02N R01E ADA County Source GROUND WATER
Use: IRRIGATION 06/01 to 10/01 0.03 CFS
Total Diversion: 0.03 CFS
Date Filed: 9/27/2013
Place of Use: IRRIGATION
T02N R01E S18 NWSW
Total Acres: 5
Water bearing zone to be appropriated is from 193 feet to 203 feet.

✓ 63-33919
JAY CURTRIGHT
SHARON CURTRIGHT
7130 W BEACON LIGHT RD
EAGLE, ID 83616
Point of Diversion SWSE S34 T05N R01W ADA County Source GROUND WATER
Use: DOMESTIC 01/01 to 12/31 0.04 CFS
Use: IRRIGATION 03/15 to 11/15 0.15 CFS
Total Diversion: 0.19 CFS
Date Filed: 2/21/2014
Place of Use: IRRIGATION, DOMESTIC
T05N R01W S34 SWSE
Total Acres: 5
Water bearing zone to be appropriated is from 200 to 250 feet.

✓ **PROPOSED CHANGE OF WATER RIGHT**
The City of Meridian of 33 E. Broadway Ave., Meridian, ID, 83642, filed Application No. 79168 to transfer one water right with a 1992 priority date from a ground water source totaling 0.78 cfs. The purpose of the transfer is to add a point of diversion for irrigation purposes. Water will be used at the current place of use on the east side of Locust Grove Road, south side of Lake Hazel Road, north side of Gollop Road and about 1.5 miles east of South Cloverdale Drive.

Permits will be subject to all prior water rights. For additional information concerning the property location, contact Western Region office at (208) 334-2190; or for a full description of the rights &/or proposed transfer, please see www.idwr.idaho.gov/apps/ExtSearch/Wtfling.asp. Protests may be submitted based on the criteria of Sec 42-222 and 42-203A, Idaho Code. Any protest against the approval of this application(s) must be filed with the Director, Dept. of Water Resources, Western Region, 2735 Airport Way, Boise, ID 83705 together with a protest fee of \$25.00 for each application on or before 5/19/2014. The protestant must also send a copy of the protest to the applicant.
GARY SPACKMAN, Director

Pub: May 1, 8, 2014

0001016877-01

JANICE HILDRETH, being duly sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein, and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto: that said notice was published in The Idaho Statesman, in conformity with Section 60-108, Idaho Code, as amended, for:

2 Insertions

Beginning issue of: 05/01/2014

Ending issue of: 05/08/2014

Janice Hildreth
(Legals Clerk)

STATE OF IDAHO)
 ,SS

COUNTY OF ADA)

On this 12th day of May in the year of 2014 before me, a Notary Public, personally appeared before me Janice Hildreth known or identified to me to be the person whose name subscribed to the within instrument, and being by first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

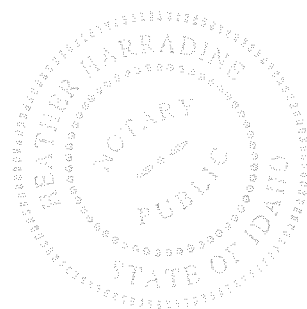
Heather Harradine
Notary Public FOR Idaho
Residing at: Boise, Idaho

My Commission expires: 2/11/2020

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MAY 14 2014

WATER RESOURCES
WESTERN REGION





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MAY 07 2014

WATER RESOURCES
WESTERN REGION

May 5, 2014

Kay Walker
Senior Water Resources Agent
Idaho Department of Water Resources
2735 Airport Way
Boise, ID 83705-5082

Subject: Response to information requests regarding Application for Transfer No. 79168

Dear Kay:

In response to your letter to the City of Meridian dated April 14, 2014, this letter provides additional information related to sufficiency of groundwater in the vicinity of the additional point of diversion proposed for license 63-33318.

Your letter requested information concerning any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights and wells within a $\frac{1}{4}$ -mile radius of the proposed well.

In response, SPF conducted a search of the Idaho Department of Water Resources (IDWR) database to identify nearby water right and well records. As specified in your letter, the search area covered $\frac{1}{4}$ mile north, south and west of the proposed well. The water right records are summarized in Attachment A and the well records are summarized in Attachment B. Description of the license 63-33318 is provided to help quantify the anticipated amount of ground water to be diverted and consumed. Finally, a brief analysis of the design, construction, or operation techniques that will be employed to reduce impacts on other water rights applicable to the proposed wells is provided.

The existing and proposed well sites are shown on Figure 1, with $\frac{1}{4}$ -mile radii around each site. Also shown on Figure 1 is the Blackrock HOA irrigation well, located slightly less than $\frac{1}{2}$ mile north of the proposed well site. SPF conducted a recent pumping test of the Blackrock well, which provides an estimate of anticipated aquifer transmissivity for the proposed well site.

Recorded Water Rights. Within $\frac{1}{4}$ mile north, south and west of the proposed point of diversion, 2 water rights for domestic/stock uses and City of Meridian's permit 63-33320 for irrigation use were found.

Recorded Well Driller's Reports. A Well Driller's Report for 1 domestic well, 224 feet deep, was found within the section quarter-quarters of the search area.

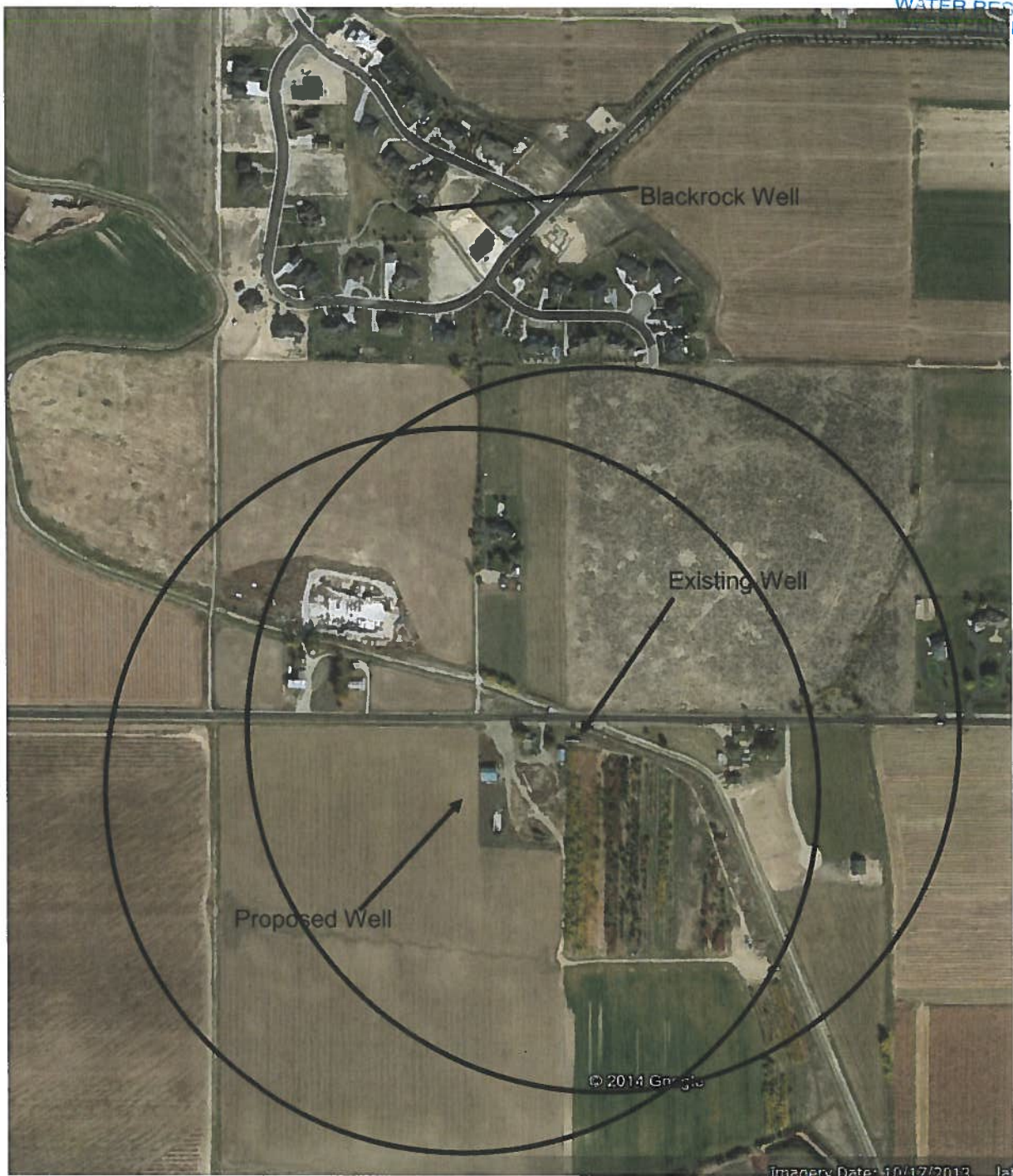


Figure 1. Proposed and existing wells, with 1/4-mile radii.

Water Requirements. License 63-33318 allows diversion of 0.78 cfs from a well in the NWNE, Lot 2, Section 5, T2N, R1E; located approximately 500 feet northeast of the proposed well. The authorized flow rate allows diversion of 0.01 cfs per acre for supplemental irrigation of 75 acres. Surface water from New York Irrigation District is used as the primary source for irrigation. The ground water diverted under 63-33318 is currently used in a gravity ditch irrigation system.

Design, Construction, or Operation Techniques to Reduce Impacts on Other Water Rights. The existing well currently authorized for irrigation under water right 63-33318 is 449 feet deep with a well screen placed between 362 and 442 feet. The proposed depth for the new well is 500 feet with a water-bearing zone between 200 and 500 feet. Based on review of static water levels and strata penetrated by the water right's existing well and the nearby recorded domestic well, the proposed well can be constructed in productive water-bearing zones that are sufficient to meet the flow rate authorized under license 63-33318. Because no additional diversion rate or volume is being proposed, other than what is currently authorized, potential well interference will be minimal.

Review of Figure 1 shows that the proposed well will be farther from homes (which each likely has a domestic well) than the existing well, except for a home (2160 East Lake Hazel Road) on the north side of Lake Hazel Road, approximately 600 feet northwest of the proposed well. This home is approximately 1000 feet from the existing well site. Due to the proposed transfer, the impact of pumping the new well will be greater at 2160 East Lake Hazel Road than prior to the transfer. The impact at other wells within the near vicinity will be less as a result of the transfer.

Determination of the additional impact at 2160 East Lake Hazel Road can be determined using a Theis Analysis. Assumptions inherent to the Theis method are that the aquifer is homogeneous and isotropic, uniform in thickness and areal extent, the aquifer receives no recharge, the pumping well penetrates the full aquifer thickness, water removed by discharge is removed instantaneously, the pumping well is 100 percent efficient, laminar flow exists throughout the aquifer, and that the water table or potentiometric surface has no slope. These assumptions are rarely completely satisfied under field conditions, but this method is nonetheless commonly used for evaluating aquifer impact and considered adequate for this purpose.

The amount of drawdown at a specific radii created by pumping a well depends on discharge rate, aquifer transmissivity, aquifer storativity, and duration of pumping. In this instance, discharge rate is 0.78 cfs (350 gpm), transmissivity is approximately 47,000 gpd/ft (calculated from testing of the nearby Blackrock HOA irrigation well), and storativity is estimated at 0.001 (typical for a confined to semi-confined aquifer). Figure 2 provides the results of a Theis analysis for various radii and pumping durations using the parameters listed above.

Theis Worksheet

Project: City of Meridian (63-33318)
 Project Number: 790.0310

Assumed Parameter Values

Q=	350	(gpm)
T=	47,000	(gpd/ft)
S=	0.001	(dimensionless)

Time (days)	Time (minutes)	Radius (ft)						
		100	300	600	1,000	1,320	2,000	2,640
1.0	1440	6.19	4.32	3.14	2.29	1.64	1.21	0.82
2.0	2880	6.78	4.91	3.73	2.87	2.41	1.73	1.31
7.0	10080	7.65	5.97	4.79	3.92	3.46	2.76	2.30
15.0	21600	8.50	6.83	5.44	4.57	4.10	3.40	2.93
30.0	43200	9.09	7.22	6.03	5.16	4.69	3.98	3.51
60.0	86400	9.68	7.81	6.63	5.75	5.28	4.57	4.10
120.0	172800	10.27	8.40	7.22	6.34	5.87	5.16	4.69

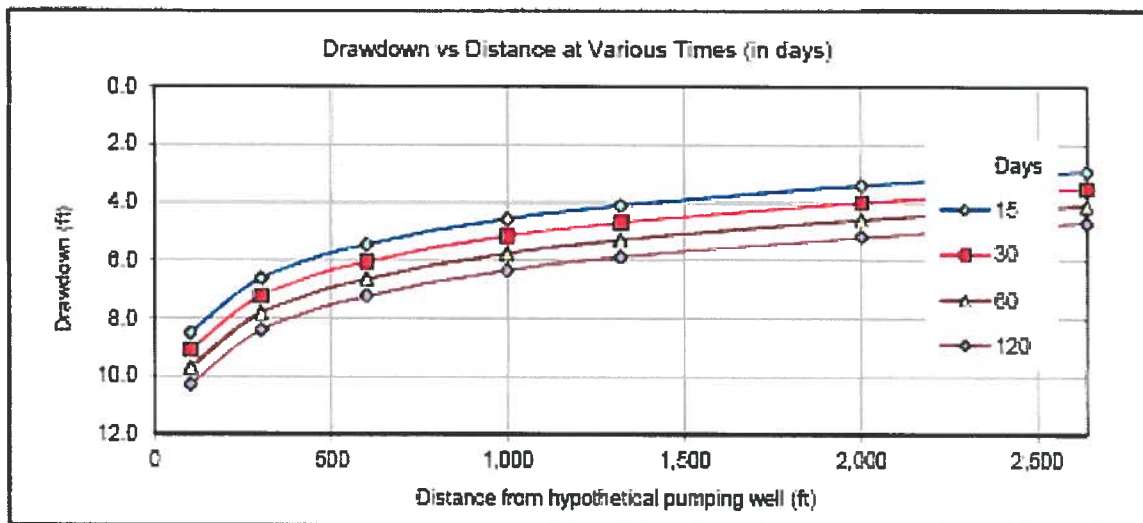


Figure 2 – Theis Analysis

For supplemental irrigation purposes, pumping durations are typically less than 30 days. However, Figure 2 provides for durations of up to 120 days to show a worst-case scenario.

The additional drawdown impact at 2160 East Lake Hazel Road caused by moving the point of diversion can be determined by adding the "new well drawdown" and subtracting the "old well drawdown". In this instance, the new well drawdown is the drawdown at 600-foot radius

and the old well drawdown is the drawdown at a 1000-foot radius. Inspection of Figure 2 shows that for a pumping duration of 120 days, the new well drawdown is 7.22 feet and the old well drawdown is 6.34 feet. The net effect at 2160 East Lake Hazel Road would be an increased drawdown of 0.88 feet (i.e., $7.22 - 6.34 = 0.88$). This amount of drawdown is almost negligible, and is not expected to cause injury.

In summary, the proposed well can be constructed to yield sufficient quantities of water to meet the demand currently authorized under license 63-33318, and the impacts from the proposed pumping are anticipated to be minimal and non-injurious.

Please contact us with any questions. Thanks Kay.

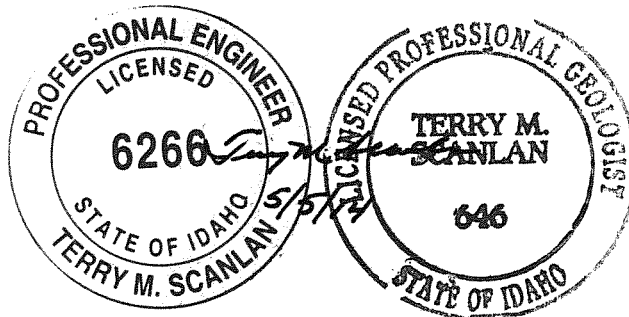
Sincerely,



Lori Graves
Water Right Specialist



Terry M. Scanlan, P.E., P.G.
Principal Engineer/Hydrogeologist



Cc: Mike Barton – Meridian Parks and Recreation Department

File: 790.0310

Attachment A – Summary of Recorded Water Right Records

Attachment B – Summary of Recorded Well Records

RECEIVED

MAY 07 2014

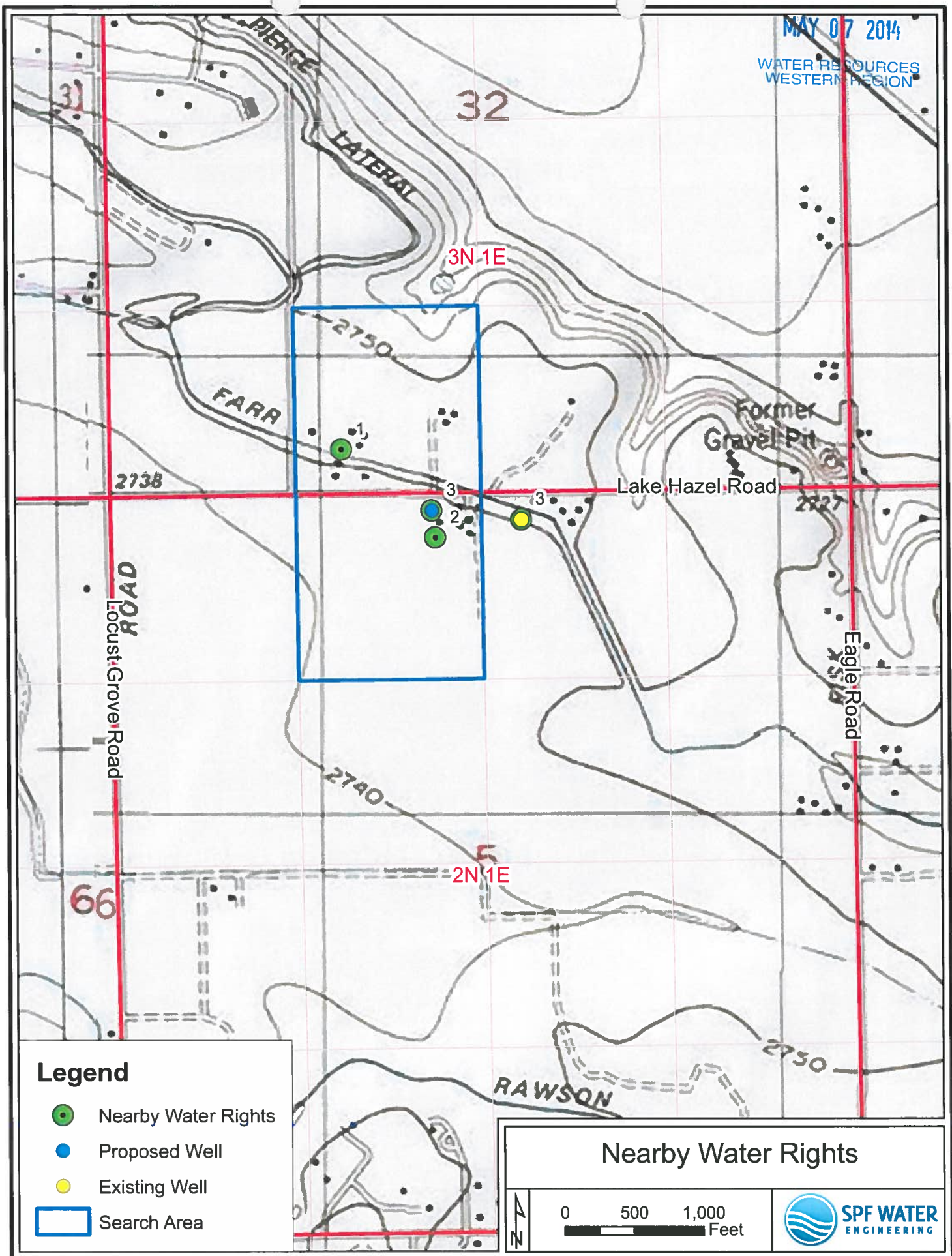
WATER RESOURCES
WESTERN REGION

ATTACHMENT A
NEARBY WATER RIGHTS

Nearby Water Rights

Water Right	Basis	Priority Date	Source	Div. Rate (cfs)	Uses	Owner	Map No.
63-16056	Decreed	7/1/1956	GROUND WATER	2.05	Stock, Domestic	WILDA K CLAYTON	1
63-26170	Decreed	6/1/1934	GROUND WATER	0.17	Stock, Domestic	PEARL I RADLER	2
63-33320	Permit	12/30/2009	GROUND WATER	0.76	Irrigation	CITY OF MERIDIAN	3

MAY 07 2014
WATER RESOURCES
WESTERN REGION

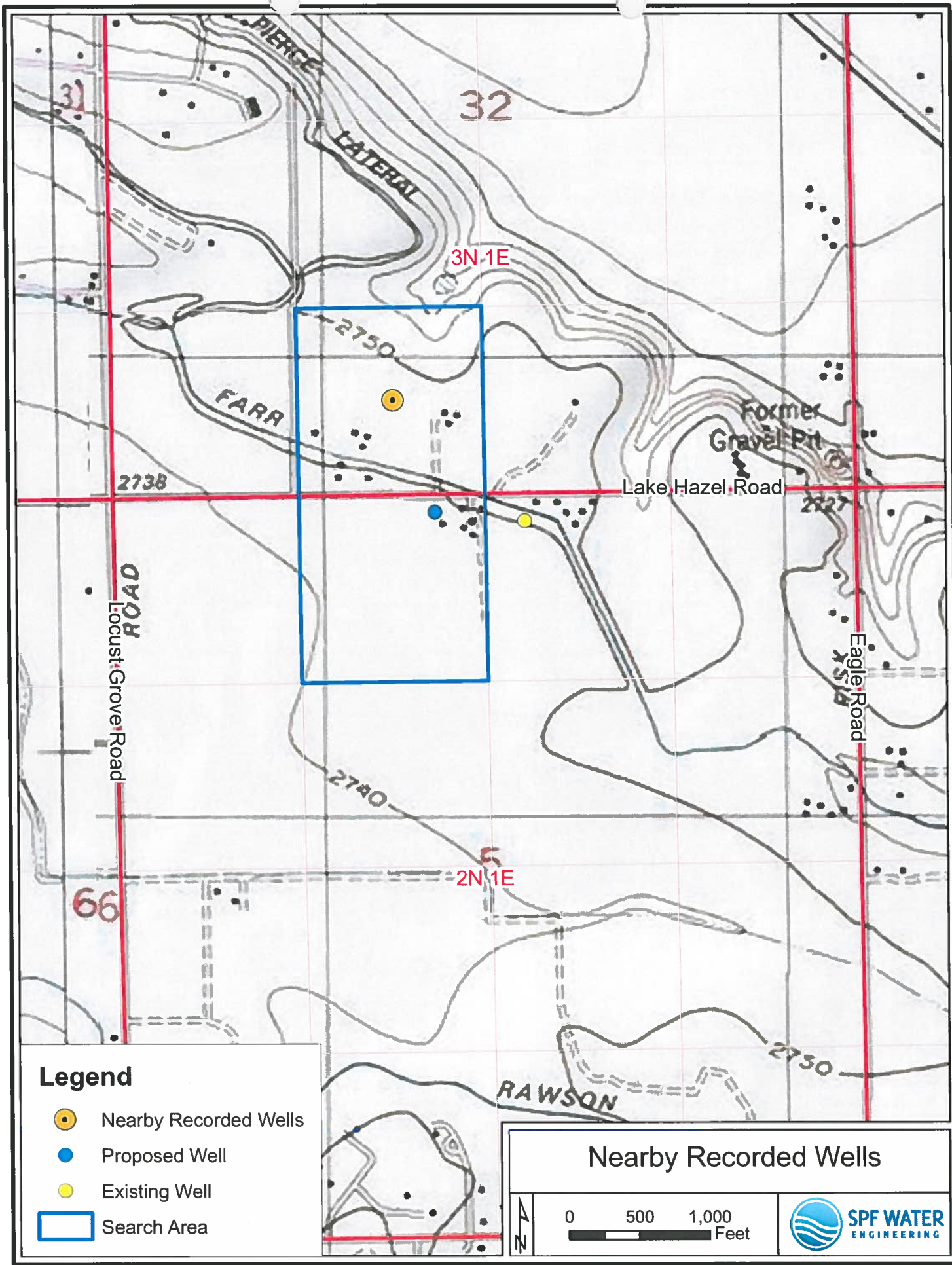


RECEIVED

MAY 07 2014

WATER RESOURCES
WESTERN REGION

ATTACHMENT B
NEARBY WELL RECORDS



Nearby Recorded Wells

<u>Contact</u>	<u>D-Tag</u>	<u>Const. Date</u>	<u>Total Depth</u>	<u>Address</u>	<u>Drilling Co.</u>	<u>Twp</u>	<u>Rng</u>	<u>Sec</u>	<u>Tract</u>	<u>Use</u>	<u>Csg. Dia.</u>	<u>GPM</u>	<u>Static Water Level</u>
DONALD BAUMGARTNER	D0042061	10/21/2005	224	2310 E LAKE HAZEL RD	SOS WELL DRILLING	03N	01E	32	SESW	Domestic	6	50	130

MAY 07 2014

WATER RESOURCES
- WESTERN REGION**IDAHO DEPARTMENT OF WATER RESOURCES**
WELL DRILLER'S REPORT

847199

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

Other IDWR No. D0048145 13-0703

Name Greg Johnson - Spring Hill LLC

Address P O Box 344

City Meridian State ID Zip 83680

Sketch map location must agree with written location

N

W  E

Twp. 2 North ☒ or South ☐
 Rge. 1 East ☒ or West ☐
 Sec. 5 NW 1/4 ☐ NW 1/4 ☐ NE 1/4 ☐
10 acres 40 acres 160 acres

Gov't lot 2 County Ada

Lat:43:32:768 Long:116:21:826

Address of Well Site 2385 E Lake Hazel ~ 1st Property

E of approx 100 yds. City Meridian

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

Li. _____ Blk. _____ Sub. Name _____

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

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

☐ New Well ☐ Modify ☐ Abandonment ☒ Other replacement☐ Air Rotary ☐ Cable ☒ Mud Rotary ☐ Other _____

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
sand	330'	442'	7000 lbs	rummed
neo grout	40'	330'	80 sacks	rummed
40' - ~~benmark~~	0'	40'	40 sacks	poured

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 39

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

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
10"	+2'	39'	250	steel	☒	☐	☒	☐
10"	39'	362'	332	PVC	☒	☐	☐	☐
10"	362'	442'	250	stst	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

☐ Perforations Method set in
☒ Screens Screen Type johnson

From	To	Slot Size	Number	Diameter	Material	Casing	Line
362'	442'	.030		10"	stsl	☒	☐
						☐	☐

Depth flow encountered _____ ft. Artesian Pressure _____ lb

Describe access port or control devices: _____

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
500			1 HR +

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments:

Depth first Water Encountered 140-148'

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks:Lithology, Water Quality & Temp.	Water Y/N
16"	0'	2'	top soil	
16"	2'	6'	clay & sand	
16"	6'	15'	sand & gravel	
16"	15'	48'	sand, gravel & boulders	
16"	48'	65'	brown clay w/sand	
16"	65'	140'	coarse sand w/clay strips	
16"	140'	148'	sand	
16"	148'	158'	brown clay w/sand strips	X
16"	158'	185'	sand	X
16"	185'	206'	caly (brown)	X
16"	206'	304'	sand w/clay strips	X
16"	304'	318'	grey clay w/sand & tan clay strips	X
16"	318'	338'	sand	X
16"	338'	345'	blue-brown clay strips	X
16"	345'	442'	sand & gravel	X
16"	442'	449'	blue clay	X
			#8 Casing/Liner (continued)	
			16" 0' 59" .250 Steel	
			RECEIVED	
			AUG 15 2007	
			WATER RESOURCES WESTERN REGION	

Completed Depth: 442 (Measurable)
Date: Started 6-12-07 Completed 6-28-07

Completed Depth: 442 (Measurable)

Date: Started 6-12-07 Completed 6-28-07

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 James K. Kinn Date 8-8-01

Supervisor or Operator *[Signature]* Date

(Sign once if not Official & Operator)

Date: 8/7/2007 Time: 10:32 AM

8-8-07

Date: 10/25/2005 Time: 11:56 AM