

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 INFORMATIONPermit No. 63-33524

1. Owner United Reformed Church of Nampa Phone No. _____
Current address 12693 Orchard Rd, Nampa, ID 83651
2. Examiner's name Cody Parker EXAM DATE April 2, 2018
3. Accompanied by Al Sprik Email _____
Address Same
- Relationship to permit holder Board Member Phone No. _____
4. Source Groundwater tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use None, no surface water shares for irrigation
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
			NE	NW	24	03N	03W	Canyon	Well log, GPS, digital PLS

2. Place(s) of Use: Method of determination Aerial imagery, digital PLS

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	03W	24					2.0												2.0
							FP/D												

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
D0060154		75		Franklin	8"
D0060343		1			2"

*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:** _____

Domestic => 7 sinks, 5 toilets, 1 urinal, 2 drinking fountains

Irrigation => 20 sprinkler zones, Hunter MP rotators, max 40 gpm during development period

E. NARRATIVE/REMARKS/COMMENTS

This permit authorizes 3.37 cfs from groundwater for irrigation, domestic, and fire protection. Proof of beneficial use was submitted on July 31, 2014. I completed this field exam on April 2, 2018 with Al Sprik, a board member of the church.

One well provides water for the fire protection system for the church. The well has a metal tag with number D0060154 and is located at N 43 35'23.8" by W 116 38'49.7". A 75-hp, 8-inch, Franklin submersible pump diverts water from the well through an 8-inch line to a single fire hydrant located directly north. Water is also diverted through a separate 4-inch line to the internal sprinkler system. The 4-inch line has a 17 hp Aurora in-line booster pump. The capacity of the fire system is estimated at 4.62 cfs. The permit limits them to 3.33 cfs.

A second well provides water for all of the irrigation and domestic uses. The well has a tag no. D0060343 and is located at N 43 35'22.6" by W 116 38'46.1". A 1-hp VFD pump diverts water to the building and to a sprinkler system with 20 zones. The zones consist of minor drip irrigation and Hunter MP Rotator heads for watering the lawn. The capacity of the well is estimated at 0.04 cfs, which limits the diversion rate recommended for irrigation.

Domestic water use in the church consists of 5 toilets, 1 urinal, and 5 sinks. If all ran at once the required diversion rate would be 0.08 cfs. Information from the old field examiner's handbook suggests that the diversion rate required for churches is approximately 0.04 cfs. An operation manual for the well suggests that the pump system is designed to meet a maximum peak demand of 0.04 cfs.

All points of diversion and places of use are located in the NENW of Sec. 24, T03N, R03W, B.M. There are no overlapping water rights and no surface water shares used for irrigation.

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 attachedMeasured Method:
SEE ATTACHED**G. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.0 \text{ acres} \times 4.5 \text{ afa/acre} = 9.0 \text{ afa}$$

$$V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 0.04 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 20.6 \text{ afa}$$

$$V = \text{Smaller of } V_{I,R} \text{ and } V_{D,R} = 9.0 \text{ afa}$$

2. Volume Calculations for Other Uses:

$$\text{Domestic} = 0.04 \text{ cfs} \times 52 \text{ sundays} \times 3 \text{ hrs/day} \times 3600 \text{ sec/hr} / 43,560 = 0.52 \text{ afa (lower estimate)}$$

$$0.04 \text{ cfs} \times 52 \text{ sundays} \times 5 \text{ hrs/day} \times 3600 \text{ sec/hr} / 43,560 = 0.86 \text{ afa (upper estimate)}$$

Recommend 0.6 afa

No volume required for Fire Protection

H. RECOMMENDATIONS

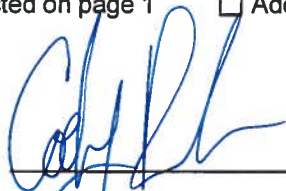
1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	03/01	11/15	0.04 cfs	9.0 afa
Domestic	01/01	12/31	0.04 cfs	0.6 afa
Fire Protection	01/01	12/31	3.33 cfs	
Totals:			3.37 cfs	9.6 afa

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



Date

4-10-18

Reviewer



Date

4/10/18

SEAL

STATE OF IDAHO
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Section F. FLOW CALCULATIONS

Well Capacity:

$$Q = \frac{\text{Well No. D0060154}}{100 \text{ ft} + 2.31 \times 0 \text{ psi}} = 4.62 \text{ cfs} \quad \left| \quad Q = \frac{\text{Well No. D0060343}}{15 \text{ ft} + 2.31 \times 55 \text{ psi}} = 0.04 \text{ cfs}$$

Domestic:

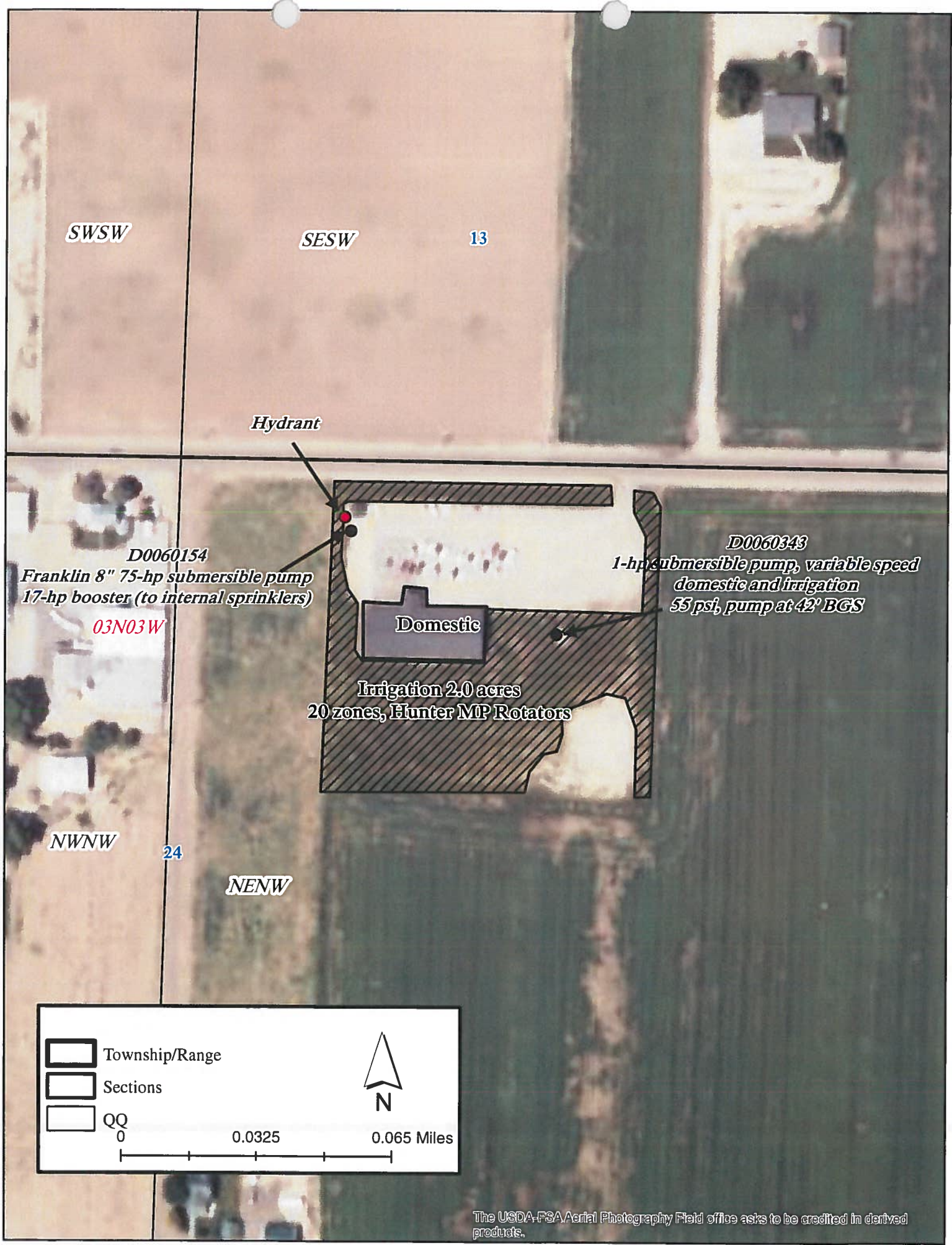
- 5 toilets @ 4 gpm/toilet + 1 urinals @ 3 gpm/urinal + 5 sinks @ 3 gpm/sink = 38 gpm = 0.08 cfs
- 20 gpm estimated use for churches = 0.04 cfs (Hydraulic Handbook, Colt Industries 1979)
- SPF Well Operation Manual shows anticipated peak domestic demand = 16 gpm = 0.04 cfs
- **Recommend 0.04 cfs (permitted rate)**

Irrigation:

- 2.0 acres x 0.03 cfs/acre = 0.06 cfs (BU Standard for irrigation <= 5 acres)
- The irrigation company says the original irrigation system was set up with Hunter PGP Ultra sprinkler heads and the max diversion rate of the sprinkler system during the development period was 40 gpm (0.09 cfs). They have since changed to Hunter MP Rotator heads and split the irrigation into more zones to reduce the overall diversion rate. I am guessing they changed to more zones because the 1-hp pump could not provide enough water for the sprinkler system. The calculation for well D0060343 shows that the well is capable of producing 0.04 cfs rather than the 0.09 cfs that the original sprinkler system was set up for.
- **Recommend 0.04 cfs (pumping system limit shown above)**

Fire Protection:

Recommend 3.33 cfs (from permit) – the full estimated capacity of the fire protection well is 4.62 cfs. The right is recommended for the permitted amount, but the owners do not need a right to divert water from the source to fight an existing fire. They could theoretically divert the full rate from the well without needing additional authorization from a separate permit/license.



SWSW

SESW

13

Hydrant

D0060154

Franklin 8" 75-hp submersible pump
17-hp booster (to internal sprinklers)

03N03W

D0060343

1-hp submersible pump, variable speed
domestic and irrigation
55 psi, pump at 42' BGS

Domestic

Irrigation 2.0 acres
20 zones, Hunter MP Rotators

NWNW

24

NENW



Township/Range



Sections



QQ



0 0.0325 0.065 Miles

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FIRE PROTECTION

03W



0 0.035 0.07 0.14 Miles

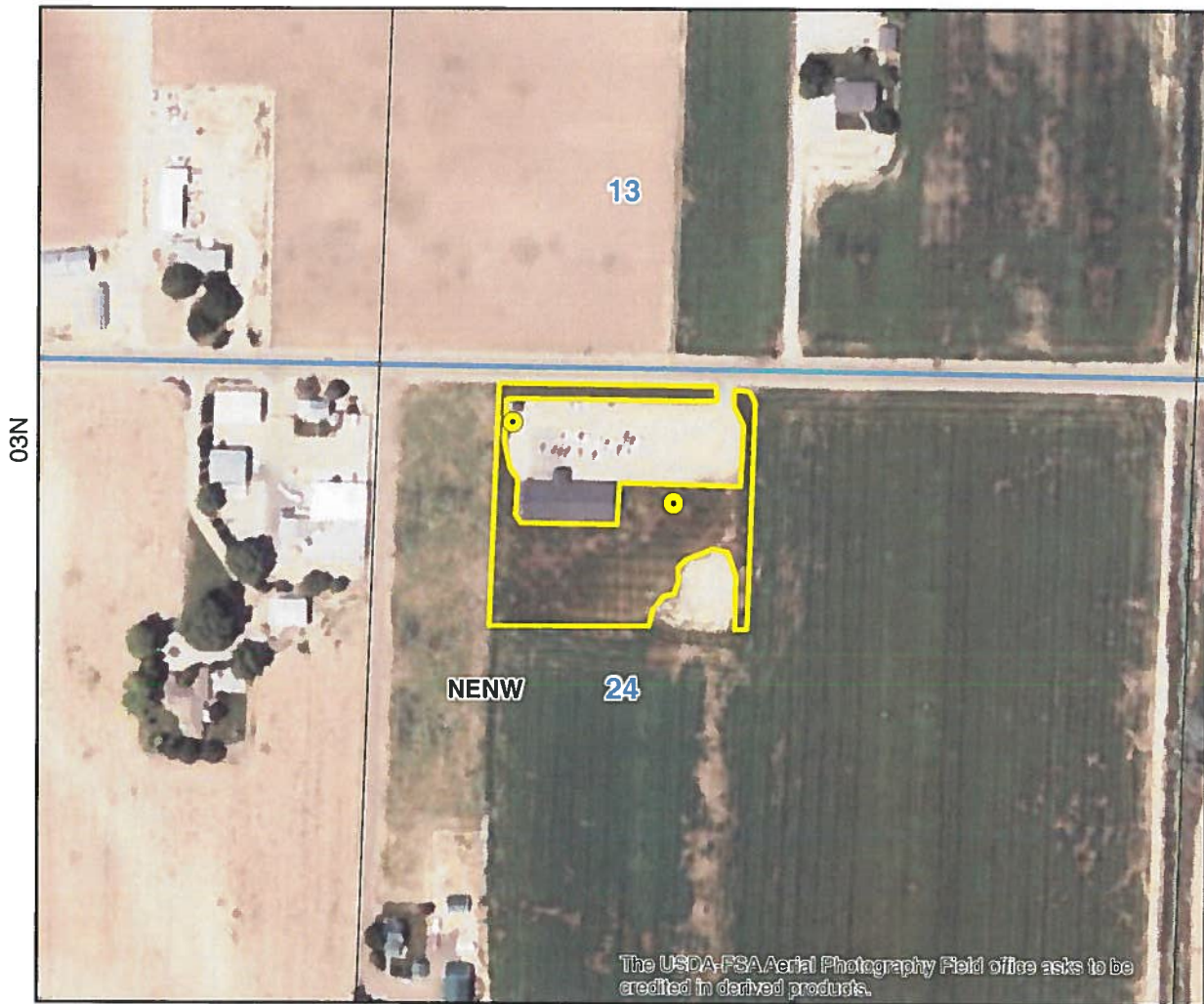
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections



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IRRIGATION

03W



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

0 0.035 0.07 0.14 Miles



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DOMESTIC

03W



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

0 0.035 0.07 0.14 Miles



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Picture Attachment



Figure 1 This fire protection well has a 75-hp pump with a 17-hp booster. It supplies water to both a fire hydrant, and to the internal sprinkler system for the church.



Figure 2 The metal tag for the fire protection well.

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Picture Attachment



Figure 3 The information for the booster pump.



Figure 4 The domestic and irrigation well. A 1-hp pump diverts water to 20 sprinkler zones and to the church building for restrooms and sinks.

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Picture Attachment



Figure 5 A pressure gauge showing a system pressure of 55 psi for the irrigation and domestic system.



Figure 6 The metal tag for the domestic well.

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Picture Attachment



Figure 7 The internal
sprinkler system
controls.

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03N03W24

Basin/Sequ Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
63-10211 CITY OF GROUND MUNICIPAL						X									X			X	
63-11227 MYERS, P GROUND IRRIGATION							12.3												12.3
63-11228 ADAMS, I GROUND COMMERCIAL							X												
63-11240 LITTLE, F GROUND IRRIGATION																			
63-136 BARKER BOISE R I IRRIGATION																			26
63-137B BARKER BOISE R I IRRIGATION																			
63-161BU JOHNSON BOISE R I IRRIGATION																			
63-19802 TERADA, GROUND DOMESTIC																			
63-198AJ DAVIS, TI BOISE R I IRRIGATION																			
63-198AJ DAVIS, TIMORES C IRRIGATION																			
63-199B DAVIS, TI BOISE R I IRRIGATION																			
63-199B DAVIS, TIMORES C IRRIGATION																			
63-200A BARKER BOISE R I IRRIGATION																			
63-200B DAVIS, TI BOISE R I IRRIGATION																			
63-200B DAVIS, TIMORES C IRRIGATION																			
63-2106 UNITED S FIVEMILE IRRIGATION																			
63-2107S HELLWEK GROUND DOMESTIC																			
63-2107S HELLWEK GROUND STOCKWATER																			
63-2109 UNITED S MASON C IRRIGATION																			
63-2114 APPERSO INDIAN C IRRIGATION																			
63-21173 J & H LAP GROUND DOMESTIC																			
63-21173 J & H LAP GROUND STOCKWATER																			
63-21201 MARTEN, GROUND DOMESTIC																			
63-21201 MARTEN, GROUND STOCKWATER																			
63-2134 HAUGRU SPRINGS IRRIGATION																			
63-21706 PIONEER BOISE R I IRRIGATION																			
63-21713 PIONEER PIPE GUL IRRIGATION																			
63-21731 PIONEER FIVEMILE IRRIGATION																			
63-21739 PIONEER ELIJAH D IRRIGATION																			
63-224 PIONEER BOISE R I IRRIGATION																			
63-225 PIONEER BOISE R I IRRIGATION																			
63-2275 PIONEER WILSON IRRIGATION																			
63-2276 PIONEER MASON C IRRIGATION																			
63-2294 PIONEER FIVEMILE IRRIGATION																			
63-23366 DEWEY, I GROUND DOMESTIC																			
63-23366 DEWEY, I GROUND STOCKWATER																			
63-233K AMERICA BOISE R I IRRIGATION																			
63-23601 HOSKINS GROUND DOMESTIC																			
63-23601 HOSKINS GROUND STOCKWATER																			
63-2388A UNITED S BOISE R I IRRIGATION																			
63-2392B DRAINAC WASTE W IRRIGATION																			
63-2392F BOISE PR WASTE W IRRIGATION																			
63-251A UNITED S BOISE R I IRRIGATION																			
63-2529A PIONEER GROUND IRRIGATION																			
63-2529B PIONEER INDIAN C IRRIGATION																			
63-25835 BLECHA, GROUND DOMESTIC																			
63-25835 BLECHA, GROUND STOCKWATER																			
63-25849 BLECHA, GROUND DOMESTIC																			
63-25849 BLECHA, GROUND STOCKWATER																			
63-27349 LANE, G A GROUND DOMESTIC																			
63-27350 LANE, G A GROUND DOMESTIC																			
63-27350 LANE, G A GROUND STOCKWATER																			
63-27998 ESKELIN, GROUND DOMESTIC																			
63-28185 EBBERS, GROUND DOMESTIC																			

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Basin/Sequ	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	Total Acres
63-28268	HEREDIA	GROUND	DOMESTIC													X		X		
63-28295	LONE ST/	GROUND	DOMESTIC																	
63-2891	PIONEER	WILSON	IRRIGATION	X	X	X	X	X	X	X	X	X	X					X		
63-294	PIONEER	BOISE R/	IRRIGATION	X	X	X	X	X	X	X	X	X	X						X	
63-295	PIONEER	BOISE R/	IRRIGATION	X	X	X	X	X	X	X	X	X	X						X	
63-2968	FARWEST	GROUND	IRRIGATION											X	X					
63-30181	DAVIS, T/	BOISE R/	IRRIGATION											X	X					
63-30181	DAVIS, T/	MORES C	IRRIGATION											X	X					
63-301A	UNITED S	BOISE R/	IRRIGATION											X	X					
63-302A	UNITED S	BOISE R/	IRRIGATION											X	X					
63-32514	PIONEER	FIVE MIL	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-32515	PIONEER	MASON C	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-32584	PIONEER	INDIAN C	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-32695A	NAMPA &	GROUND	IRRIGATION											X	X					
63-32695B	NAMPA &	GROUND	IRRIGATION											X	X					
63-33251	BOISE PR	INDIAN C	IRRIGATION											X	X					
63-33253	BOISE PR	TENMILE	IRRIGATION											X	X					
63-33524	UNITED	GROUND	DOMESTIC																	
63-33524	UNITED	GROUND	FIRE PROTECTION																	
63-33524	UNITED	GROUND	IRRIGATION																	2
63-33525	TERADA,	GROUND	IRRIGATION																	35
63-33601	HOWELL,	GROUND	IRRIGATION																	9
63-33602	HOWELL,	GROUND	IRRIGATION																	41
63-33739	NAMPA &	SPRINGS	IRRIGATION											X	X					
63-33892	CORESOM	GROUND	IRRIGATION																	27
63-371	PIONEER	BOISE R/	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-373A	UNITED S	BOISE R/	IRRIGATION											X	X					
63-4136	IRWIN, A/	GROUND	DOMESTIC																	
63-5199	PIONEER	GROUND	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-5200	PIONEER	GROUND	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-5219	PIONEER	INDIAN C	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-5237	PIONEER	INDIAN C	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-5255	PIONEER	INDIAN C	IRRIGATION	X	X	X	X	X	X	X	X	X	X							
63-8461	EBBERS,	GROUND	IRRIGATION																	12
63-8539	CITY OF	GROUND	IRRIGATION																	45
63-8891	LONE ST/	GROUND	IRRIGATION																	35
63-9109	PIONEER	GROUND	IRRIGATION	X	X	X	X	X	X	X	X	X	X							

 Irrigation district rights, no overlap

DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

03N03W24

Basin/Sequ Owner Source

	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE
63-11227 MYERS, I GROUND WATER						X										
63-11228 ADAMS, I GROUND WATER						X										
63-19802 TERADA, GROUND WATER																
63-21075 HELL WEC GROUND WATER										X						X
63-21173 J & H LAN GROUND WATER	X															
63-21201 MARTEN, GROUND WATER										X						
63-23366 DEWEY, I GROUND WATER							X									
63-23601 HOSKINS GROUND WATER												X				
63-25835 BLECHA, GROUND WATER			X													
63-25849 BLECHA, GROUND WATER			X													
63-27349 LANE, GAGROUND WATER															X	
63-27350 LANE, GAGROUND WATER															X	
63-27998 ESKELIN, GROUND WATER													X			
63-28185 EBBERS, GROUND WATER							X						X			
63-28268 HEREDIA GROUND WATER													X			
63-28295 LONE ST, GROUND WATER															X	
63-33524 UNITED I GROUND WATER					X											
63-33601 HOWELL, GROUND WATER																
63-33602 HOWELL, GROUND WATER										X						
63-33892 CORESON GROUND WATER							X			X						
63-4136 IRWIN, AI GROUND WATER																
63-8461 EBBERS, GROUND WATER				X												
63-8539 CITY OF I GROUND WATER							X						X			
63-8891 LONE ST, GROUND WATER															X	

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

862898

1. WELL TAG NO. D 0060343

Drilling Permit No. 914265-862898

Water right or injection well # 03-33524

2. OWNER: United Reformed Church of Nampa

Name _____

Address 55 S. Midland Blvd.

City Nampa State ID Zip 83651

3. WELL LOCATION:

Twp. 3 North ☒ or South ☐ Rge. 3 East ☐ or West ☒
Sec. 24 1/4 NE 1/4 NW 1/4

Gov't Lot _____ County Canyon

Lat. 43 ° 35.384 (Deg. and Decimal minutes)

Long. 116 ° 38.767 (Deg. and Decimal minutes)

Address of Well Site 12693 Orchard Rd.

(Give at least name of road + distance to road or landmark) City Nampa

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

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

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☒ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
cement grout	16'	156'	151 ft ³	Pressure Grout

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	Welded
6"	+2	176'	.280	Steel	☒	☐	☒

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

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☒ Y ☐ N Type Johnson

Method of Installation Overbore

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
176'	196'	.030		6"	SS	

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
8-12 Sand	156'	196'	39 bags	Tremie

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 7' Static water level (ft) 7'

Water temp. (°F) 52 Bottom hole temp. (°F) _____

Describe access port Well Cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
18'	75 GPM	6 hours	☒	☐	☐	☐
34'	120 GPM	1 hour	☒	☐	☐	☐

Test method:

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
12'	0'	14'	Topsoil		
12'	14'	34'	Sandy Clay	X	
12'	34'	39'	Gravel	X	
12'	39'	44'	Pea Gravel	X	
12'	44'	136'	Gravel / Large Rocks	X	
12'	136'	141'	Brown Sand with Clay	X	
12'	141'	188'	Brown Medium Sand	X	
12'	188'	192'	Brown Sand	X	
12'	192'	215'	Brown Medium Sand	X	
12'	215'	223'	Brown Sandy Clay	X	

SCANNED RECEIVED

MAR 15 2012

MAR 15 2012

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 196'

Date Started: 2/10/12

Date Completed: 3/5/12

14. DRILLER'S CERTIFICATION:

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

Company Name Adamson Pump & Drilling Co. No. 457

*Principal Driller Dave Adamson Date 3-13-12

*Driller Mark Steffen Date 3-13-12

*Operator II _____ Date _____

Operator I _____ Date _____

*Signature of Principal Driller and rig operator are required.