

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

1. Owner: (no change) LDS Church Permit No. 63-11807
 Current Address: (no change) 50 E. North Temple St., SLC, UT 84150 Phone No. (801) 240-4074
 2. Accompanied by: Steve Bair EXAM DATE: 9/29/2009
 Address: 19491 Apricot Ln, Caldwell, ID Phone No. (209) 513-6400
 Relationship to Permit Holder: Manager
 3. Source: Ground water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Wilder Irrigation District shares
 2. Other water rights with the same point of diversion: none

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion: no change.

Ident No.	Gov't Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
Well			SW	NE	23	3N	4W	Canyon	apical, GTS: 43'35.042 116.46.899

* 2. Place(s) of Use:

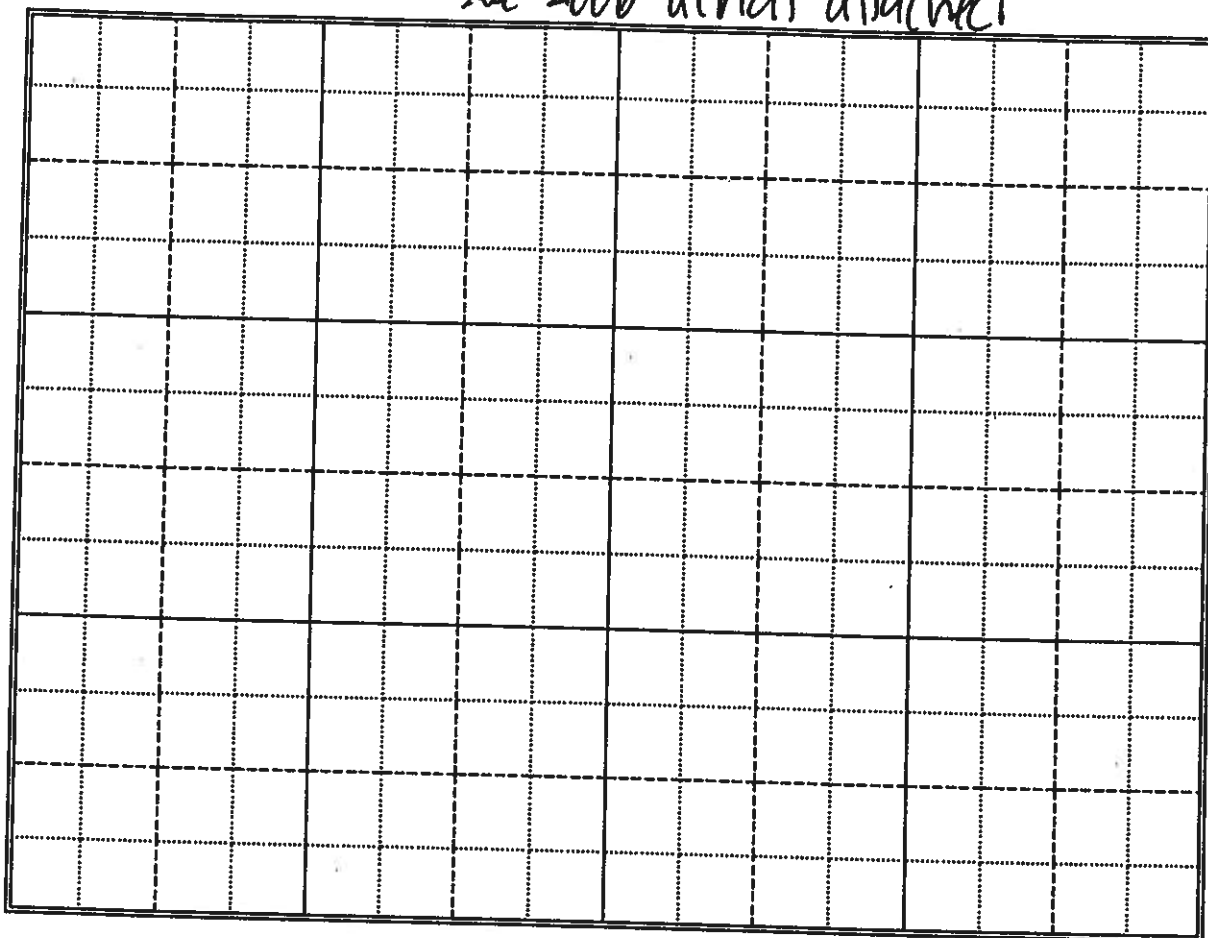
Indicate Method of Determination

TWP	RGE	SEC	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
3N	4W	23			7					36									43

* irrigation is limited to 30 acres in the poa.

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

See 2006 aerial 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
Well		15		Franklin	n/a
Irrigation box				(GPS)	43' 34.904
booster pump		10		GE	110' 46.004
					model # 5K4254X1Y1
					SN RRJ319045

*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 taken. Ground water used to supplement surface water and has not been used this irrigation season.

- Power meter for submersible pump: SN 01565509
meter # TEG01565509 A

E. NARRATIVE/REMARKS/COMMENTS

The point of diversion is a well drilled in 1992. Well is 12" diameter with a 15 hp Franklin submersible pump set a 300' below ground surface. Steve Bair, orchard manager for 29 years, provided a pump curve for the pump. No access point on well to take static water level. Well 100 say SWL = 50'. Steve says drawdown = 15'.

There is about 400' of buried 6"-8" plastic pipe from well to irrigation box & pump house. Pump house - 2 separate delivery systems for the surface water & the ground water - no combining. There is a 10 hp GE pump (model # 5K4254X41Y1, SN RRTJ319045) to pressurize the lines. 6" plastic pipe from pump house to the fields that are irrigated. Fields are all located west of the well. The 6" pipe goes under the canal. From the 6" pipe, 3" handlines are used, or there are solid sets of 2.5 bpm sprinkler heads. Steve B. says the most that operates at any time is 80-100 heads.

Applicant wants to use ground water to supplement surface water on all 40 acres in the SWNW and also the acres in the SWE, west of the well. The distribution system is set up to irrigate all of these acres.

The well has not been needed this irrigation season and so was not operating during the exam. The last time the well was needed was in about 2000.

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

* Have met conditions if we assume it is okay to replace 066 and 067 with the more appropriate DIM condition. This seems justified because there is no current or anticipated need for the owner to gather data about this sporadic use of the well.

☒ Additional Computation Sheets Attached

see attached sheet to justify .60 flow rate.

1. Volume Calculations for Irrigation:

$$V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (30)(4.5) = 135 \text{ afy}$$

$$V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = (60)(260)(1.9835) = 309.4 \text{ afy}$$

$$V = \text{Smaller of } V_{I,R} \text{ and } V_{D,R} = 135 \text{ afy}$$

2. Volume Calculations for Other Uses: no other uses

1. Recommended Amounts

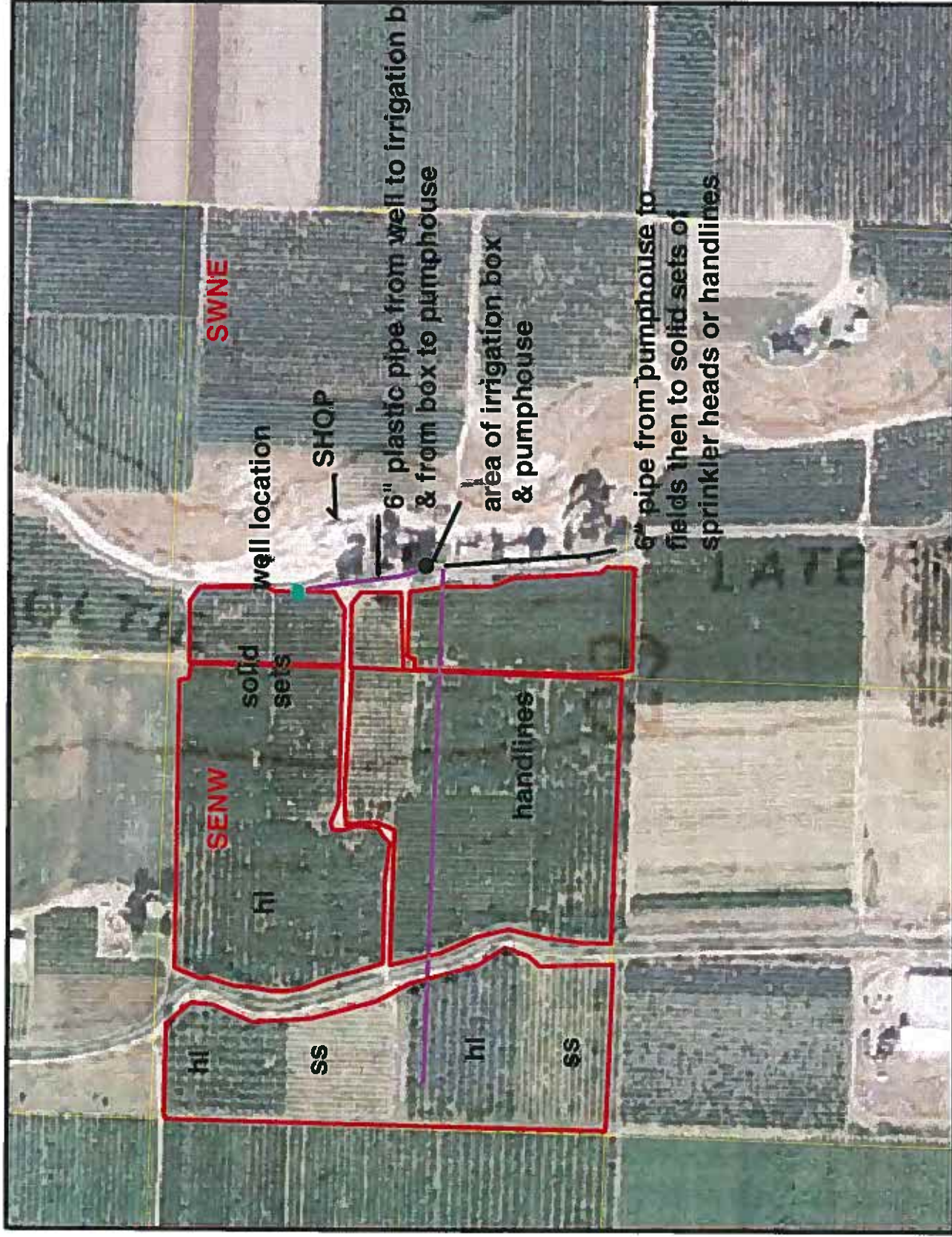
Beneficial Use	Period of Use		Rate of Diversion	Annual Volume
	From	To	Q (cfs)	V (afa)
Irrigation	3/1	11/15	.60	135
Totals:			.60	135

☐ 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

Field Examiner's Name Wick V. Moll Date 10/1/2009

Reviewer _____ Date _____

SEAL



Application for permit 63-11807 field exam attachment - map of place of use, point of diversion and delivery system. T4N R3W Section 23. Acres capable of being irrigated from well delivery system shown in red.

Attachment to Beneficial Use Field Exam Form

F. Flow Calculations

1- Steve Bair stated that 80-100 sprinkler heads at 2.5 gpm was the most that operated at one time.

$$(100)(2.5) = \frac{250 \text{ gpm}}{449.5} = .56 \text{ cfs}$$

2- HP Theoretical

(a) SWL = 50' bgs per well 106, pressure = 40 psi per Steve B.
Pump = 15 hp.

$$Q = \frac{(8.8)(15)(.7)}{50 + (2.31)(40)} = \frac{92.4}{142.4} = .65 \text{ cfs}$$

(b) Steve B. said drawdown = 15'

$$\frac{(8.8)(15)(.7)}{65 + (92.4)} = \frac{92.4}{151.4} = .58 \text{ cfs}$$

3- Pump Curve - chose 160 TDH based on 1 & 2(b)

$$\text{TDH} = 160 = \frac{280 \text{ gpm}}{449.5} = .62 \text{ cfs}$$

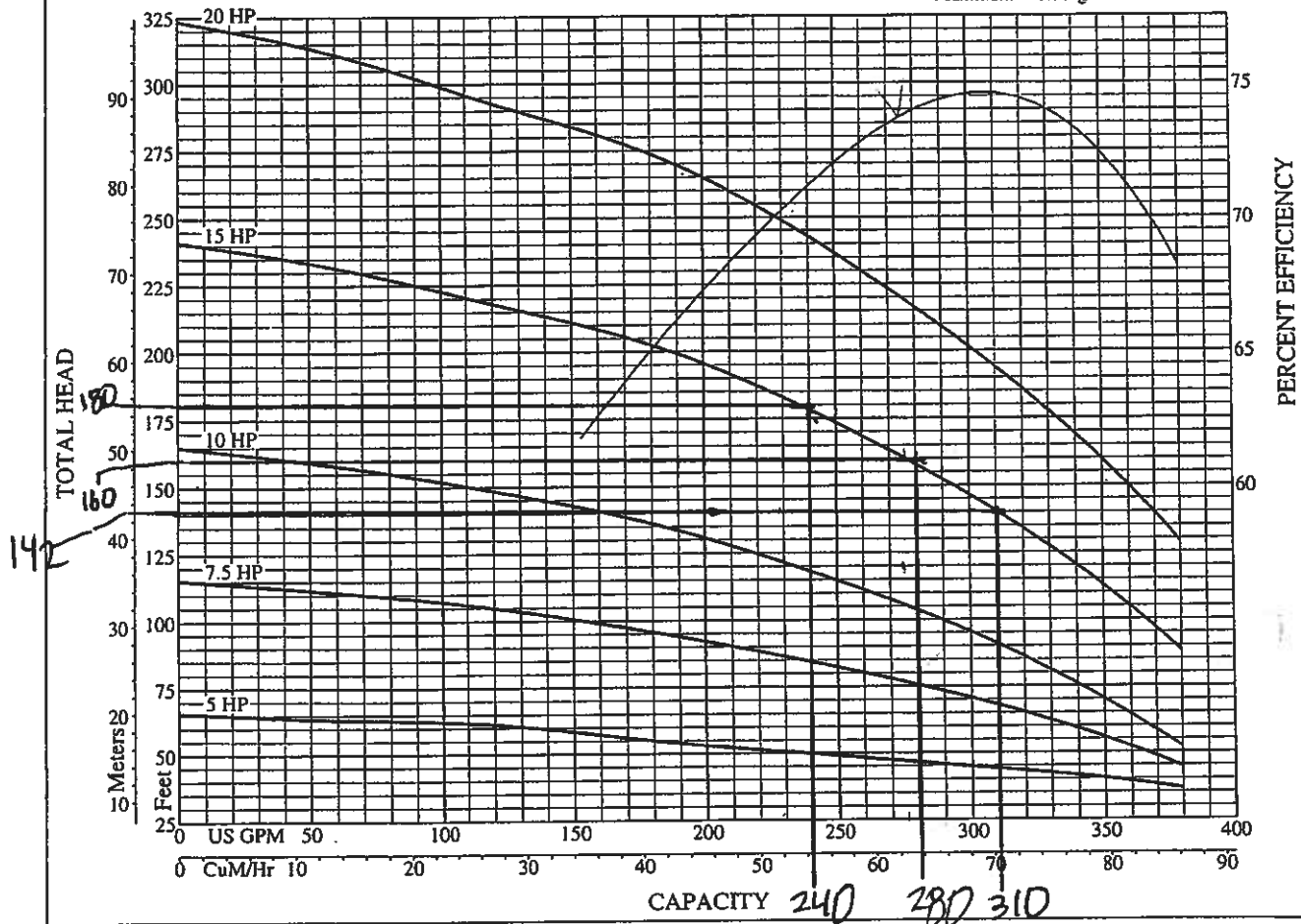
* based on the above, the applied for diversion rate of 0.60 cfs is reasonable



SUBMERSIBLE TURBINE

6T-275

Nominal RPM: 3450
Based on Fresh Water @ 68° F.
Maximum Working Pressure: 580 PSI



OUTLINE DIMENSIONS / WEIGHTS

HP	stages	Motor size	P length	M* length	MD* dia.	Mtr. wt.	Pump wt.
5	1	6"	18.98	25.44	5.38	105	56
7.5	2	6"	23.98	28.00	5.38	120	75
10	3	6"	28.98	30.56	5.38	135	95
15	4	6"	33.98	33.13	5.38	146	114
20	5	6"	38.98	30.56	5.38	135	133

Note: dimensions = inches; weight = U.S. lbs.

M* Maximum length (Franklin Electric Motor)

MD* Motor diameter (Franklin Electric Motor)

SPECIFICATIONS

Minimum Well I.D.	6.0 Inches
Minimum Submergence @ BEP (above inlet)	10.0 Feet
Capacity Range	125 - 380 GPM
Discharge	4" F NPT
See manufacturer's data for motor cooling requirements	

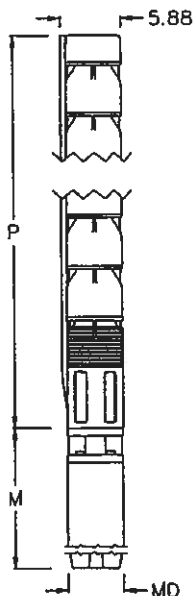
SUPERSEDES

All Previous

Date 04/15/96

Section **ST**

Page 15.01



IDAHO DEPARTMENT OF WATER RESOURCES

WELL INSPECTION FORM

1. DRILLING PERMIT NO: 63-92-W-621 OTHER APPLICABLE NO: 63-11807
2. OWNER: Corp of the Presiding Bishop
Church of Jesus Christ of Latter Day Saints Phone: (801) 240-4074
Address: 50 E N Temple St, SLC, UT 84150
3. WELL LOCATION: Twp 3N, Rge. 4W, Sec. 23, SW 1/4 NE 1/4
County CANYON (Provide sketch map and photo on reverse.)
4. DRILLER: PRTE COPE Drill Inc Lic. No. 213
When Drilled? 8/18/1992
5. WELL CONSTRUCTION:
Casing Diameter 12 inches Water tight cap? ☒ Yes ☐ No Access Port: ☐ Yes ☒ No
Casing $\geq$ 12 inches above ground? ☐ Yes ☒ No - Describe $\approx 6-9'$
Depth of Casing 443 ft. Method Drilled reverse rotary
Condition of Well Casing: ☒ Good ☐ Fair ☐ Poor Describe _____
Control Valve? ☒ Yes ☐ No Pressure Gauge: ☐ Yes ☒ No
Condition of Piping and Valving good
Auger to a depth of n/a ft. Evidence of Annular Seal ☐ Yes ☒ No
Are there obvious construction problems that may be a source for contamination or waste of water?
☐ Yes ☒ No (Describe in Remarks and Attach Photo - On Reverse)
6. HYDROLOGIC INFORMATION:
Depth to Static Water 50 ft. Water Temperature n/a °F
Flowing Artesian ☐ Yes ☒ No Pressure: n/a (psi)
Water Sample Taken? ☐ Yes ☒ No If yes, describe purpose _____
Water Quality Measurements/Observations (Describe) n/a
7. WELL USE:
☐ Domestic ☒ Irrigation ☐ Stock
☐ Test ☐ Municipal ☐ Industrial
☐ Abandoned ☐ Waste Disposal/Injection ☐ Not Used
☐ Other: _____

8. **POSSIBLE CONTAMINATION SOURCES:**

Is there evidence of Chemigation? ☐ Yes ☒ No

If yes, is there a check-valve present? ☐ Yes ☐ No

Is there a possible source of contamination nearby? ☐ Yes ☒ No

If yes, what Type? _____

How far away from the well is this source? _____

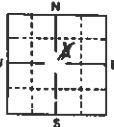
9. **REMARKS:** _____

U. J. U. C. , Sr. Water Resource Agent
Signature of Dept. Representative & Title

9/29/2009
Inspection Date

PHOTOS, DRAWINGS, OTHER ATTACHMENTS:

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORTUSE TYPEWRITER OR
BALLPOINT PENState law requires that this report be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

1. WELL OWNER Name <u>CALDWELL RIVERVIEW ORCHARD</u> Address <u>19491 APRICOT CALDWELL 83605</u> <u>63-92-W-621</u> Drilling Permit No. _____ Water Right Permit No. <u>M63-11807</u>		7. WATER LEVEL Static water level <u>50</u> feet below land surface. Flowing? ☐ Yes ☐ No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature _____ °F. Quality _____ <i>Describe artesian or temperature zones below.</i>																																																																																																																																																																																			
2. NATURE OF WORK <u>NEW WELL</u> ☐ New well ☐ Deepened ☐ Replacement ☐ Well diameter increase ☐ Modification ☐ Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)		8. WELL TEST DATA <u>NOT AVAILABLE</u> ☐ Pump ☐ Baller ☐ Air ☐ Other _____																																																																																																																																																																																			
3. PROPOSED USE <u>IRRIGATION</u> ☐ Domestic ☐ Irrigation ☐ Monitor ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)		<table border="1"><thead><tr><th colspan="2">Discharge G.P.M.</th><th>Pumping Level</th><th>Hours Pumped</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>		Discharge G.P.M.		Pumping Level	Hours Pumped																																																																																																																																																																														
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4. METHOD DRILLED <u>REVERSE ROTARY</u> ☐ Rotary ☐ Air ☐ Auger ☐ Reverse rotary ☐ Cable ☐ Mud ☐ Other _____ (backhoe, hydraulic, etc.)		9. LITHOLOGIC LOG <table border="1"><thead><tr><th rowspan="2">Bore Diam.</th><th colspan="2">Depth</th><th rowspan="2">Material</th><th colspan="2">Water</th></tr><tr><th>From</th><th>To</th><th>Yes</th><th>No</th></tr></thead><tbody><tr><td>4</td><td>0</td><td>15</td><td>TOPSOIL</td><td> </td><td>X</td></tr><tr><td> </td><td>15</td><td>21</td><td>HARDBAN</td><td> </td><td>X</td></tr><tr><td> </td><td>21</td><td>30</td><td>BRN CLAY W/ GRAVEL</td><td> </td><td>X</td></tr><tr><td> </td><td>30</td><td>56</td><td>BRN SANDY CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>56</td><td>58</td><td>BRN SANDSTONE</td><td> </td><td>X</td></tr><tr><td> </td><td>58</td><td>70</td><td>BRN CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>70</td><td>100</td><td>BRN SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>100</td><td>105</td><td>CRSE SAND & GRAVEL</td><td> </td><td>X</td></tr><tr><td> </td><td>105</td><td>116</td><td>BRN CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>116</td><td>120</td><td>ROUNDED SANDSTONE</td><td> </td><td>X</td></tr><tr><td> </td><td>120</td><td>131</td><td>MED BRN SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>131</td><td>160</td><td>BRN CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>160</td><td>170</td><td>BLUE CLAY W/ BRN LENSES</td><td> </td><td>X</td></tr><tr><td> </td><td>170</td><td>200</td><td>SANDY BRN CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>200</td><td>205</td><td>FINE GREY SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>205</td><td>223</td><td>SANDY BLUE CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>223</td><td>234</td><td>FINE GREY SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>234</td><td>245</td><td>SANDY BLUE CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>245</td><td>297</td><td>FINE BLUE SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>297</td><td>310</td><td>BLUE CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>310</td><td>315</td><td>FINE BLUE SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>315</td><td>323</td><td>BLUE CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>323</td><td>330</td><td>SOFT SANDSTONE & SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>330</td><td>377</td><td>BLUE CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>377</td><td>38</td><td>FINE BLUE SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>381</td><td>425</td><td>BLUE CLAY</td><td> </td><td>X</td></tr><tr><td> </td><td>425</td><td>43</td><td>FINE BLUE SAND</td><td> </td><td>X</td></tr><tr><td> </td><td>431</td><td>468</td><td>BLUE CLAY</td><td> </td><td>X</td></tr></tbody></table>		Bore Diam.	Depth		Material	Water		From	To	Yes	No	4	0	15	TOPSOIL		X		15	21	HARDBAN		X		21	30	BRN CLAY W/ GRAVEL		X		30	56	BRN SANDY CLAY		X		56	58	BRN SANDSTONE		X		58	70	BRN CLAY		X		70	100	BRN SAND		X		100	105	CRSE SAND & GRAVEL		X		105	116	BRN CLAY		X		116	120	ROUNDED SANDSTONE		X		120	131	MED BRN SAND		X		131	160	BRN CLAY		X		160	170	BLUE CLAY W/ BRN LENSES		X		170	200	SANDY BRN CLAY		X		200	205	FINE GREY SAND		X		205	223	SANDY BLUE CLAY		X		223	234	FINE GREY SAND		X		234	245	SANDY BLUE CLAY		X		245	297	FINE BLUE SAND		X		297	310	BLUE CLAY		X		310	315	FINE BLUE SAND		X		315	323	BLUE CLAY		X		323	330	SOFT SANDSTONE & SAND		X		330	377	BLUE CLAY		X		377	38	FINE BLUE SAND		X		381	425	BLUE CLAY		X		425	43	FINE BLUE SAND		X		431	468	BLUE CLAY		X
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5. WELL CONSTRUCTION <u>SEE ATTACHED</u> Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ Thickness _____ Diameter _____ From _____ To _____ _____ inches _____ inches + _____ feet _____ feet _____ inches _____ inches _____ feet _____ feet _____ inches _____ inches _____ feet _____ feet Was casing drive shoe used? ☐ Yes ☒ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun Size of perforation? _____ inches by _____ inches Number _____ From _____ To _____ _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet Well screen installed? ☒ Yes ☐ No Manufacturer <u>ROSCOE MOSS</u> Type <u>VEE WIRE</u> Top Packer or Headpipe _____ Bottom of Tailpipe _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☒ Yes ☐ No ☐ Size of gravel <u>3/8</u> Placed from <u>45 ft</u> feet to <u>70</u> feet Surface seal depth <u>7</u> Material used in seal: ☐ Cement grout ☒ Bentonite ☒ Puddling clay ☐ _____ Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata Describe access port <u>2" PIPE</u>		11. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>PETE CUPE DRILLING</u> Firm No. <u>213</u> Address <u>6505 W CHINDEN</u> Date <u>8/31/92</u> Signed by Drilling Supervisor <u>[Signature]</u> and <u>[Signature]</u> (Operator) <u>[Signature]</u> (If different than the Drilling Supervisor)																																																																																																																																																																																			
6. LOCATION OF WELL Sketch map location must agree with written location.  Subdivision Name _____ Lot No. _____ Block No. _____ County <u>CANYON</u> Address of Well Site <u>19491 APRICOT LN</u> (give at least name or road) T. <u>34</u> N ☐ or S ☐ SW <u>1/4</u> NE <u>1/4</u> Sec. <u>23</u> R. <u>4W</u> E ☐ or W ☐		Department of Water Resources Western Regional Office Work started <u>8/8/92</u> finished <u>8/18/92</u>																																																																																																																																																																																			

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

C RC

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RECEIVED
SEP 2 1992

CALDWELL RIVERVIEW ORCHARD
19491 APRICOT
CALDWELL ID 83605
Permit# 63-92-W-621

Department of Water Resources
Bozeman, Montana Office

3N 4W Sec 23

"12" casing record .250 wall welded

1	-	145	146
155	-	200	45
210	-	225	15
235	-	288	53
298	-	418	120
438	-	442	4

383 total casing

12" Screen record .40 slot Roscoe Moss Continuous wire.

145	-	155	10
418	-	438	20

30 total screen

12" Screen Record 1/8" slot Roscoe Moss Full Flow.

200	-	210	10
225	-	235	10
288	-	298	10

30 total screen

443 total screen+casing

RECEIVED
DEC 04 1992

Application for Permit 63-11807
Field exam 9/28/2009 - photographs



Point of diversion – 12" diameter well located by shop. Section 23 SWNE



6" pipe from well into irrigation box located south of shop and well.

Application for Permit 63-11807
Field exam 9/28/2009 - photographs



Diversion/delivery system - Interior of pump station that is located north of shop and irrigation box. Purpose is to pressurize the line from the well. 10 hp GE pump.



Looking northwest – shop where well is located is seen center. Orchard where ground water is used is seen to the north and west of the shop in the SWNE and SENW S 23. Ground water is not used in orchards to the east on this high point.