

12/7/2018

(1) LAND OWNER Owner Well I.D. SVE #3 First Name Last Name Company SURPRISE VALLEY ELECTRIC Address P. O. BOX 691 City ALTURAS State CA Zip 96101

(2) TYPE OF WORK [ ] New Well [ ] Deepening [x] Conversion [ ] Alteration (complete 2a & 10) [ ] Abandonment (complete 5a)

(2a) PRE-ALTERATION Dia + From To Gauge Stl Plstc Wld Thrld Casing: Seal:

(3) DRILL METHOD [ ] Rotary Air [x] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud [ ] Reverse Rotary [ ] Other

(4) PROPOSED USE [ ] Domestic [ ] Irrigation [ ] Community [ ] Industrial/ Commercial [ ] Livestock [ ] Dewatering [x] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION Special Standard [x] (Attach copy) Depth of Completed Well 2705.00 ft.

Table with columns: Dia, From, To, Material, From, To, Amt, lbs, sacks/

How was seal placed: Method [x] A [ ] B [ ] C [ ] D [ ] E [ ] Other

Backfill placed from ft. to ft. Material

Filter pack from ft. to ft. Material Size

Explosives used: [ ] Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE Proposed Amount Actual Amount

(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrld Shoe [ ] Inside [ ] Outside [ ] Other Location of shoe(s) 2580 Temp casing [ ] Yes Dia From + 2580 To 2705

(7) PERFORATIONS/SCREENS Perf/ Screen Casing/ Liner Dia From To Scrn/slot width length Slot length # of slots Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour [x] Pump [ ] Bailer [ ] Air [ ] Flowing Artesian

Table with columns: Yield gal/min, Drawdown, Drill stem/Pump depth, Duration (hr)

Temperature 270 °F Lab analysis [ ] Yes By Water quality concerns? [ ] Yes (describe below) TDS amount 1100 mg/L

(9) LOCATION OF WELL (legal description) County LAKE Twp 33.00 S N/S Range 18.00 E E/W WM Sec 24 SW 1/4 of the NW 1/4 Tax Lot 1300

(10) STATIC WATER LEVEL Existing Well / Pre-Alteration Completed Well Date 8/17/2012 SWL(psi) SWL(ft) 106

Table with columns: SWL Date, From, To, Est Flow, SWL(psi), + SWL(ft)

(11) WELL LOG Material From To see attached 0 2705 No Special Standards associated with this well 3/25/2019

Date Started 7/25/2012 Completed 8/17/2012

(unbonded) Water Well Constructor Certification I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards.

(bonded) Water Well Constructor Certification I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above.

WATER SUPPLY WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

**LAKE 52867**

12/7/2018

**Map of Hole**

**SUMMARY REPORT - OIL OR GAS WELL**  
**STATE OF OREGON • DEPT OF GEOLOGY & MINERAL INDUSTRIES • 229 BROADALBIN ST SW • ALBANY OR 97321**

(In compliance with rules and regulations pursuant to ORS 520.)

**(1) Permittee Information**

Name	Surprise Valley Electrification Corp.
Mailing Address	516 US Hwy 395 E
City/State/Zip	Alturas, CA. 96101
Telephone	530.233.3511
Fax	530.233.2190
Email	lynnsvect@frontier.com
Prepared by	Lynn Culp/George Scheid

**(2) Well Information**

Well No.	SVE Well #3
DOGAMI ID No.	36-037-90032
Drilling Commenced	July 25, 2012
Drilling Completed	August 17, 2012
Date P & A	July 9, 2012
Total Depth	2705ft
Redrill Depth	
Logs Run	

Signed E. Lynn Culp

Member Service Manager

November 9, 2012

Signature

Title

Date

**(3) Casing Record**

Size of Hole	Size of Casing	Weight (pounds per foot)	Grade/Type	Depth	Type and Amount of Cement	
26"	20"	104.05	30XS	40'	Type II	159 sx
17 1/2"	13 3/8"	68#	K-55	602'	89.1	bbls.
12 1/4"	9 5/8"	40#	K-55	2580'	N/A	bbls.
						bbls.

**(4) Plugs & Junk**

Plugs / Junk	Geological Marker	Depth

**(5) Perforations or Liner**

Size of Casing	From	To	Shots/ft.	Method of Perforating		
				Jet	Bullet	Slotted Liner
9 5/8"	490'	2580'				

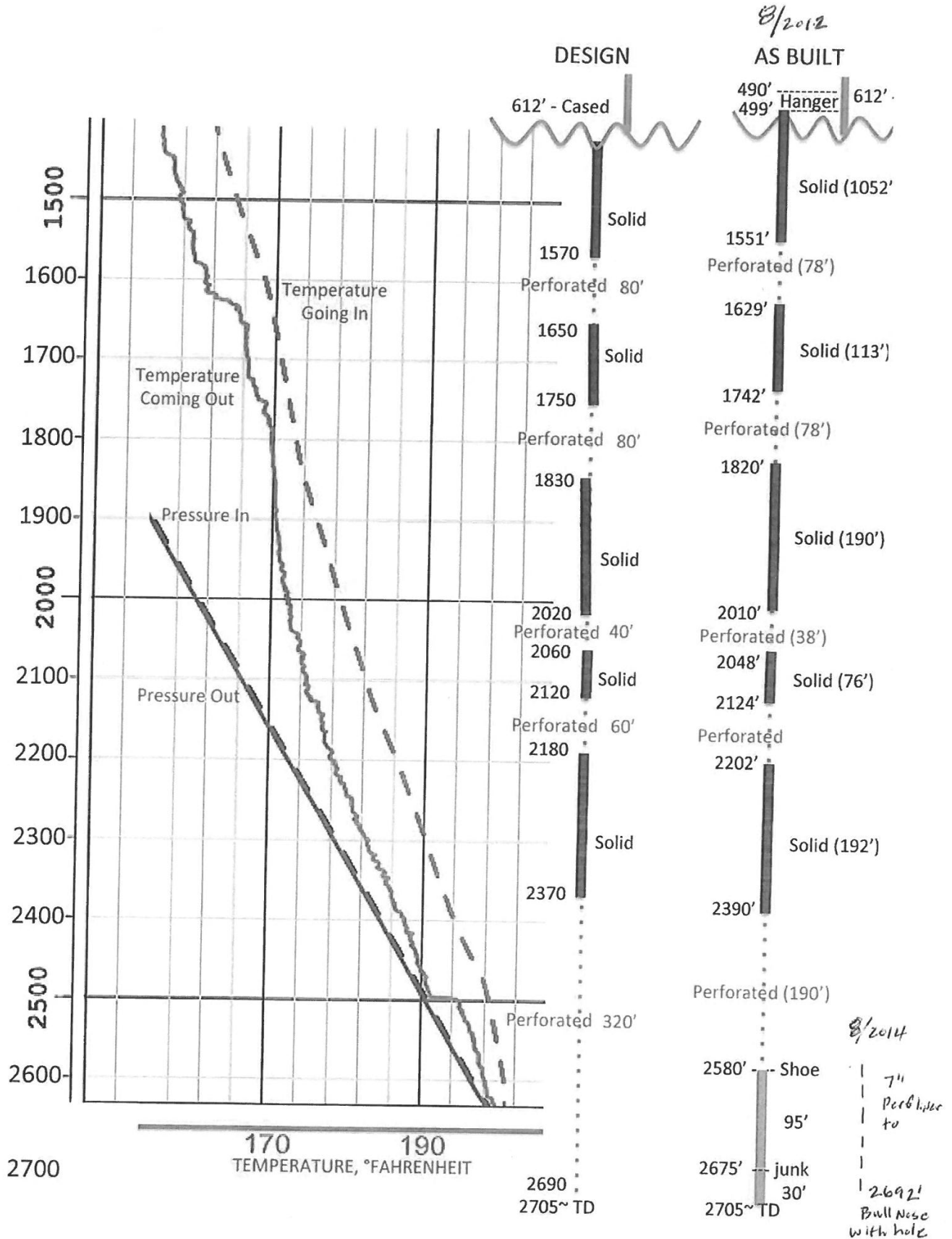
**(6) Initial Production**

Date	Clean Oil (bbl/day)	Gravity	Percent Water	FTP	FCP	SITP	SICP

# LAKE 52867

12/7/2018

## Map of Hole



12/7/2018

## Map of Hole

## LITHOGRAPHIC DESCRIPTION OF OIL OR GAS WELL

*(Not required if a mud log is submitted)*

STATE OF OREGON • DEPT OF GEOLOGY &amp; MINERAL INDUSTRIES • 229 BROADALBIN ST SW • ALBANY OR 97321

(In compliance with rules and regulations pursuant to ORS 520.)

**(1) Permittee Information**

Name	Surprise Valley Electric
Mailing Address	516 U.S. Hwy. 395E
City/State/Zip	Alturas, California 96101
Telephone	866-843-2667 530-233-3511
Fax	
Email	
Prepared by	Lynn Culp, Roy Mink, Silvio Pezzopane

**(2) Well Information**

Well No.	SVE-3
DOGAMI ID No.	

Signature

Title

Date

**(3) Well Cuttings**

Depth		Description
From	To	
0	10	Brown sandy soil and gravelly sand; mix of volcanic lithologies (basalt, rhyolite, andesite, tuff, pumice)
10	40	Brownish-gray rounded fine gravel; mixed volcanic (basalt, rhyolite, andesite, obsidian, tuff, pumice), qtz-rich sand
40	100	Brownish-gray rounded medium to coarse (cobble) gravel; mixed volcanic (as above)
100	180	Dark brownish-gray rounded sand and gravel; mixed volcanic (as above)
180	230	Light-dark brownish-gray rounded medium (pebble) gravel; mixed volcanic (as above)
230	310	Brownish-gray rounded sand and coarse gravel; mixed volcanic (as above), qtz and detrital sand, brown silt and clay
310	440	Dark brownish gray rounded basalt gravel; olivine? phenocrysts rusty yellowish green, minor varicolored tuff and cinders
440	460	Brownish-gray rounded sand and medium gravel; mixed volcanic (as above), qtz and detrital sand, brown clay
460	490	Light-dark brownish gray rounded basalt gravel; phenocrysts rusty yellowish green, minor varicolored tuff and cinders
490	560	Brownish-gray rounded medium (pebble) gravel; mixed volcanic lithologies (as above), sand, brown clay
560	600	Brown sticky clay ash; dark brownish gray basalt gravel; weakly cemented qtz sand and ash fragments
600	660	Brownish-gray rounded pebble gravel; mixed volcanic lithologies, sand, brown clay
660	720	Reddish brown sticky clay ash; lithics of varicolored tuff; rounded pebble gravel, white, red, and black cinders, qtz sand
720	820	Grayish brown clay ash; soft red, olive gray to brown tuff; rounded basalt pebble gravel, w/pumicite and obsidian
820	860	Light olive brown clay ash; chunks soft red and brown non-welded tuff; rounded basalt pebble gravel
860	880	Reddish brown clay ash; chunks olive, red, and brown non-welded tuff; rounded pebble gravel, olive green clay coatings
880	920	Light olive to grayish brown clay ash; waxy red, white, and brown tuff and ash fragments; rounded basalt pebble gravel
920	970	Reddish brown clay ash; waxy olive, red, and brown tuff; weakly cemented qtz sand and ash fragments
970	1040	Brown clay ash; white pumicite, qtz sand, rounded olive and red welded tuff granules, cinders and ash fragments
1040	1140	Reddish brown clay ash; chunks of waxy olive, red, and light gray tuff; weakly cemented qtz sand and ash fragments
1140	1240	Red sticky clay ash; lithics of cinders and qtz ash fragments; whitish, red and gray tuff, rounded obsidian/basalt pebbles
1240	1290	Dark olive brown clay ash; red and olive gray non-welded tuff; rounded qtz, obsidian grains
1290	1350	Dark gray clay and ash; red and gray tuff; rounded basalt pebbles; calcite/qtz (chalcedony?) coatings/fillings
1350	1490	Dark olive gray to black, partially-welded vitric lithic tuff; red and gray tuff; clay, calcite/qtz fillings/cement?
1490	1540	Dark olive gray to black, moderately-welded vitric tuff; varicolored tuff lithics; calcite/qtz fillings/cement
1540	1630	Black partially-welded lithic tuff (50%); brown clay ash (20%), varicolored tuff (30%); calcite/qtz blades/fillings/cement
1630	1730	Reddish brown clay ash (60%); black to olive and varicolored tuffs (40%); calcite/qtz euhedral, blades/coatings
1730	1840	Black to dark olive partially-welded lithic tuff (60%); brown and gray tuff (40%); calcite/qtz in blades/fillings/cement
1840	1910	Black to dark olive partially-welded lithic tuff (50%); brown and gray tuff (50%); calcite/qtz in blades/fillings/cement
1910	1920	Reddish brown clay ash (60%); olive to black, and varicolored tuff (30%); calcite/qtz blades, rounded pebbles
1920	1990	Dark gray to black partially-welded tuff (60%); brown and gray ash tuff (40%); calcite/qtz fillings/cement
1990	2090	Olive gray to black moderately-welded vitric tuff (80%); white, red and gray ash tuff (<20%); chalcedony, FeO stains?
2090	2210	Light gray to white ash tuff (90-20%); black to olive gray tuff (20-70%), brown, red, and gray tuff (2-15%); qtz
2210	2370	Dark reddish brown lithic non-welded (ash) tuff (70-90%); red, white, black, and olive gray tuff (10-30%); calcite/qtz
2370	2410	Light bluish to greenish gray ash tuff (90-20%); brown, red, black, white, olive tuff (20-70%); calcite/euhedral qtz
2410	2430	Dark reddish brown lithic ash tuff (50-70%); greenish gray tuff (20-30%), red, gray, and black tuff (10-20%); calcite/qtz
2430	2460	Light bluish to greenish gray ash tuff (90-20%); brown, black, and red lithic tuff (20-70%); euhedral calcite blades/qtz
2460	2580	Dark reddish brown lithic ash tuff (40-50%); greenish gray ash tuff (20-30%), varicolored tuff (10-30%); calcite
2580	2610	Reddish brown tuff (30-40%); olive gray moderately-welded tuff (20-30%); varicolored lithics (20-30%), calcite blades
2610	2630	Reddish brown tuff (30-40%); olive gray densely-welded tuff (20-30%); varicolored lithics (20-30%), calcite blades
2630	2660	Reddish brown tuff (40-50%); olive gray partially-welded tuff (20-30%); varicolored lithics (10-20%), calcite/qtz crystals
2660	2705	no returns - no data
	2705	- Total Vertical Depth (before cleaning)