Approved: Jacob

МЕМО

To:	Kristopher Byrd, Well Construction Manager
From:	Tommy Laird, Well Construction Program Coordinator
Subject:	Review of Water Right Application G-19043
Date:	January 21, 2025

The attached application was forwarded to the Well Construction Section by the Groundwater Section. Darrick E. Boschmann reviewed the application. Please see Darrick's Groundwater Review and the Well Reports.

Applicant's Well #1" (LAKE 1627/LAKE 4448): Based on a review of the Well Reports, Applicant's Well #1 does not appear to comply with current minimum well construction standards (See OAR 690 Division 210). The problem is that according to the Water Supply Well Report, the well was not sealed to the proper depth. Also, the Well Report indicates that the well head is flush with land surface. In order to meet minimum well construction standards, the well head must be extended so that it is at least one-foot above land surface and the well must be resealed with an approved grout to a minimum depth of 302 feet below land surface.

My recommendation is that the Department not issue a permit for Applicant's Well #1 unless it is brought into compliance with current minimum well construction standards or information is provided showing that it is in compliance with current minimum well construction standards.

Bringing Applicant's Well #1 into compliance may not prevent hydraulic connection issues.

Applicant's Well # "Little Hot" (LAKE 1628/LAKE 1626/LAKE 52582): Based on a review of the Well Report, Little Hot does not appear to comply with current minimum well construction standards (See OAR 690 Division 210). The problem is that according to the Water Supply Well Report, the well is not sealed to the proper depth. In order to meet minimum construction standards, the well must be resealed to a minimum depth of 311 feet bgs.

My recommendation is that the Department not issue a permit for Little Hot unless it is brought into compliance with current minimum well construction standards or information is provided showing that it is in compliance with current minimum well construction standards.

Bringing applicant's well "Little Hot" into compliance may not prevent hydraulic connection issues.

Applicant's Well SVE #1 (LAKE 52530/52866): Based on a review of the Well Report, Applicant's Well SVE #1 seems to protect the groundwater resource.

The construction of Applicant's Well SVE #1 may not satisfy hydraulic connection issues.

Applicant's Well "SVE #2" (LAKE 52529/LAKE 52865): Based on a review of the Well Report, Applicant's Well SVE #2 seems to protect the groundwater resource.

The construction of Applicant's Well SVE #2 may not satisfy hydraulic connection issues.

NOTICE TO WATER WELL CONTRACTOR The original and first copy of this port are to be filed with the factor of the second	LEPORT - Per WWG ->	33	· · · · · /
WATER RESOURCES DEPARTMENT. OT 0 4 1980 STATE OF	OREGON 11182 State Well No.	355/18E	-25 ('b
watter RESOURCES DEPARTMENT. SALEM, OREGON 97310 OCT 2 4 1980 (Please type within 30 days from the date	e or print)		765
of well completion WATER RESOURCES (no hot write al	bove this line) State Permit N	<u>o1 Q /</u>	
(1) OWNER:	(10) LOCATION OF WELL:		
Name Post Colabor (M 160)	County Lake Driller's well no	umber 174	
Address Bod 87 Perio Date			
guistic for the starting of the	Mu) 1/4 Stul 1/4 Section 23 T. 355		W.M.
(2) TYPE OF WORK (check):	Bearing and distance from section or subdivisi	on corner	
	·	·····	<u> </u>
New Well [] Deepening [] Reconditioning [] Abandon [] If abandonment, describe material and procedure in Item 12.		·	
	(11) WATER LEVEL: Completed w	ell.	
(3) TYPE OF WELL: (4) PROPOSED USE (check):	Depth at which water was first found 60 9	el at 178	ft.
Rotary Image: Driven Image: Distance Image: Domestic Image: Distance Image: Distance Image: Distance Image: Distance	Static level /27 ft. below land s	surface. Date 🖉 🤇	
D Bored D Irrigation D Test Well D Other	Artesian pressure lbs. per squar		
CASING INSTALLED: Threaded Welded	(12) WELL LOG: Diameter of well b	pelow casing /5	220
16. " Diam. from 0 ft. to 22 ft. Gage 1252	Depth drilled 983 ft. Depth of compl		
" Diam. from ft. to ft. Gage	Formation: Describe color, texture, grain size a		<u> </u>
	and show thickness and nature of each stratu	m and aquifer pe	enetrated.
PERFORATIONS: Perforated? [] Ves	with at least one entry for each change of format position of Static Water Level and indicate prin	tion. Report each (change in
		r i - 1	ig strata.
Type of perforator used	MATERIAL	From To	SWL
Size of perforations in. by in.	- Comenting soil	<u>c_</u>	
ft. to ft.	Booken Beself Libra Change	2 108	_ _
ft. to ft.	Broken Hongellin, Jockel	108 18/	`
ft. to ft. to	10 w/p seem		
(7) SCREENS: Well screen installed? Ves VerNo	- Brown Clay	181 210	
Manufacturer's Name	- Bring Charles	210 251	
Type	- Ble Clay	25/ 286	
Diam	- med half alle	286 291	
Diam Slot size Set from ft. to ft.	- max du the chile and the	291 297	
	- armin shere	330 720	
(8) WELL TESTS: Drawdown is amount water level is lowered below static level	720 Hat water	3.50 700-	<u> </u>
a pump test made? 🗆 Yes 📴 No If yes, by whom?	shale	120 775	
d: gal./min. with ft. drawdown after hrs.	Hand Quest	175 800	
" " "	bland shele	800 983	
test 800 gal./min.) with ft. drawdown after / hrs.			
			<u> </u>
esian flow g.p.m.		L L L	
pperature of water 210 Depth artesian flow encountered ft.	Work started Jept / 1980 Complete	a D A 22	1980
(9) CONSTRUCTION:		0 CP 22	1950
Well seal-Material used Coment	Drilling Machine Operator's Certification:		
Well sealed from land surface to 31	This well was constructed under my	direct super	vision.
20	Materials used and information reported best knowledge and belief.		
Diameter of well bore to bottom of seal $\frac{5}{34}$ in. Diameter of well bore below seal $\frac{5}{34}$ $\frac{1}{34}$ $\frac{10}{34}$ $$	best knowledge and bellet.	Date OAD	3.20
Number of sacks of cement used in well seal	(Drilling Machine Operator)		N19.24
How was cement grout placed?	Drilling Machine Operator's License No	1.502	
	Water Well Contractor's Certification:		
	This well was drilled under my jurisdi		eport is
Was a drive shoe used? 🗌 Yes 🔽 No Plugs Size: location ft,	true to the best of my knowledge and beli	le1.	
Did any strata contain unusable water? 🗌 Yes 🗗 No	(Person, firm or corporation)	(Type or prin	it)
Type of water? depth of strata	Address Rt. 1 Box 499 Hills	Pero Cine .	77123
Method of sealing strata off	TEGA	,	
Was well gravel packed? 🗌 Yes 🗹 No 🛛 Size of gravel:	[Signed]	actor)	
Gravel placed from ft. to ft.	Contractor's License No. 67.0 Date .0	ct 23	. 19 80
		···· 1	.,

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

RECEIVED BY OWRD



Oregon Water Resources Department 725 Summer Street NE, Suite A Salem Oregon 97301 (503) 986-0900

www.wrd.state.or.us

AUG 1 0 2015

Application for Well ID Number

SALEM, OR

Do not complete if the well already has a Well Identification Number.

I. <u>OWNER INFORMATION</u>

Current Owner Name (please print): Colahan Enterprises	
Mailing Address: PO Box 300	
City, State, Zip: Paisley, Oregon 97636	
Mail Well ID Tag to: SAME AS ABOVE In Care Of (C/O)	
Name & Address: Attn: Lynn Culp, Surprise Valley Electrification Corp. (SVEC); 516 US Highway 395 E.	
City, State, Zip: Alturas, CA, 96101	

II. <u>WELL LOCATION INFORMATION</u> (Please fill out as completely as possible)

Township: 33S	(North / South) Range: 18E	(East / West)	Section: 23	
Tax Lot: 1300	County Lake	NW	1/4_ of the SW	1/4
or b coordinatos.	Iready assigned OWRD well log numbers:	LAKE 1627/4448 - but no IE	D #	
Street Address of Wel	I, City: > 42.69393 -12	0.568195		
			• • • •	

If the property had a different street address in the past:

III. GENERAL WELL INFORMATION (Please fill out as completely as possible)

Use of Well (domestic, irrigation, commercial, industrial, monitoring):				
Date Well Constructed (or property built): Sept 1980 Total Well Depth: 983' Casing Diameter: 16"				
Owner at time the well was constructed (if known): Ross Colahan				
Other Information: Well name: Hot Well				

SUBMITTED BY (please print):	.ynn Culp / Surprise Valley Electric Corp.
PHONE: (530) 233-3511	EMAIL &/or FAX:

Send application to: Oregon Water Resources Department 725 Summer St NE, Suite A, Salem, Oregon 97301; or fax to (503) 986-0902. Applications are processed in the order they are received, and Well ID Numbers are mailed within 4-5 business days.

For Official Use Only by the Oregon Water Resources Department:				
Received Date: 8-10-15	Well Log Number: LAKE 1627 (or G.)	Well Identification #: L-119827		
	LAKE 4448 (ALT.)			

NOTICE TO WATER WELL CONTRACTOR	AAAB 1 falle Country
The original and first copy of this report are to be	OREGON CEIVEN Well No. 335/18E-23C
filed with the STATE OF	OREGON State Well No. 235/18E-230
STATE ENGINEER, SALEM, OREGON 97319 (Please type within 30 days from the date	
of well completion. (Do not write a	bove this line RESOURCES DEPT Landowick,
	WATER RESOURCES DEPT Landowing
(1) OWNER:	(10) LOCATION OF WELL: Record
Name ROSS Colahan	County Driller's well number
Address Boxgg Paisley one	5 E 1/4 560 1/4 Section Z 3 T. 33 5 R. 18 E W.N
	Bearing and distance from section or subdivision corner
(2) TYPE OF WORK (check):	
New Well 🔲 Deepening 🗇 Reconditioning 🜠 Abandon 🗅	
If abandonment, describe material and procedure in Item 12.	(11) WATER LEVEL: Completed well.
(3) TYPE OF WELL: (4) PROPOSED USE (check):	
Rotary D Driven D	
Cable Jetted D Domestic D Industrial Municipal	Static level 145 ft. below land surface. Date 9-22-
E Bored I Irrigation Test Well X Other	Artesian pressure lbs. per square inch. Date
CASING INSTALLED: Threaded Welded	(12) WELL LOG: Diameter of well below casing $\frac{N}{A}$
C" Diam. from	
	Depth drilled ϕ ft. Depth of completed well 770 ft
	Formation: Describe color, texture, grain size and structure of materials and show thickness and nature of each stratum and aquifer penetrated
· ·	with at least one entry for each change of formation. Report each change in
PERFORATIONS: Perforated? X Yes D No.	position of Static Water Level and indicate principal water-bearing strate
- JPJ of perforator used FACTORY 1/8" X 4"	MATERIAL From To SWL
Size of perforations 1/8 in. by 4 in.	INSTalled Liner anty
1.6.5.6 perforations from	178 1/4" X8" Liner
1840 perforations from 669 ft. to 7.58 ft.	Ellom 592'TO 770'
<u>1584</u> perforations from <u>570</u> ft. to <u>669</u> ft.	24' ,375 wall X12" From
(7) SCREENS.	616 70 640
(7) SCREENS: Well screen installed? Yes X No	-+1' TO 616 FT 1/4"x
Manufacturer's Name	12" Liner
Type	_ BOTh 12" E 8"
Diam. Slot size Set from ft. to ft. Diam. Slot size Set from ft. to ft.	Liver has a drive
	shoe.
(8) WELL TESTS: Drawdown is amount water level is lowered below static level	
Was a pump test made? 🔀 Yes 🔲 No If yes, by whom?	
Contraction of the second second	
и и и и	
Bailer test gal./min. with ft. drawdown after hrs.	
tian flow N/A g.p.m.	
perature of water 212 Depth artesian flow encountered	Work started 7 17 1 19 8/ Completed 9-29 19 8
	Date well drilling machine moved off of well $9 - 28$ 19 8
(9) CONSTRUCTION:	
Well seal-Material used NOT PISTUrbed	Drilling Machine Operator's Certification: This well was constructed under my direct supervision
Well sealed from land surface to ft.	Materials used and information reported above are true to my
Diameter of well bore to bottom of seal in.	best knowledge and belief.
Diameter of well bore below seal in.	[Signed], 19
Number of sacks of cement used in well seal	Drilling Machine Operator's License No.
Number of sacks of bentonite used in well seal sacks	
Brand name of bentonite	Water Well Contractor's Certification:
Number of pounds of bentonite per 100 gallons	This well was drilled under my jurisdiction and this report i
of water	true to the best of my knowledge and belief.
Was a drive shoe used? 🗌 Yes 🗋 No Plugs Size: location ft.	Name Landowsk Board # BED 221 9815
Did any strata contain unusable water? 🗌 Yes 🗌 No	(Person, firm or corporation) (Type or print)
Type of water? depth of strata	Address BOX 89 Paislag goo
Method of sealing strata off	[Signed] MASS Colchan
Was well gravel packed? 🗌 Yes 🗋 No Size of gravel:	(Water Well Contractor)
Gravel placed from ft. to ft.	Contractor's License No Date

(USE ADDITIONAL SHEETS IF NECESSARY)

9-29-8/ SP+45658-119

RECEIVED BY OWRD



Oregon Water Resources Department 725 Summer Street NE, Suite A

AUG 1 0 2015

Application for Well ID Number

SALEM, OR

Do not complete if the well already has a Well Identification Number.

I. <u>OWNER INFORMATION</u>

Salem Oregon 97301

(503) 986-0900 www.wrd.state.or.us

Current Owner Name (please print): Colahan Enterprises	
Mailing Address: PO Box 300	
City, State, Zip: Paisley, Oregon 97636	
Mail Well ID Tag to: SAME AS ABOVE 🖌 In Care Of (C/O)	
Name & Address: Attn: Lynn Culp, Surprise Valley Electrification Corp. (SVEC); 516 US Highway 395 E.	
City, State, Zip: Alturas, CA, 96101	

II. <u>WELL LOCATION INFORMATION</u> (Please fill out as completely as possible)

Township: 33S	_(North / South) Range:	18E	(East / West)	Section: 23	
Tax Lot: 1300	County Lake		NW	1/4_ of the S\	N1/4
	ssigned OWRD well log ni	umbers: LAKE 1627	7/4448 - but no	ID#	
Street Address of Well, City:	* 42.69393	-120.56819	5		
If the property had a different s					
III. <u>GENERAL WELL I</u>	NFORMATION (Please fil	l out as completely as	possible)		
Use of Well (domestic, irrigatio	on, commercial, industrial, m	nonitoring): irrigation	n		
Date Well Constructed (or prop	perty built): Sept 1980	Total Well Dept	_{.h:} _983'	Casing Diameter:	16"
Owner at time the well was cor	nstructed (if known): Ross C	Colahan			
Other Information: Well name					

SUBMITTED BY (please print):	ynn Culp / Surprise Valley Electric Corp.	
PHONE: (530) 233-3511	EMAIL &/or FAX: lynnsvec@frontier.com	

Send application to: Oregon Water Resources Department 725 Summer St NE, Suite A, Salem, Oregon 97301; or fax to (503) 986-0902. Applications are processed in the order they are received, and Well ID Numbers are mailed within 4-5 business days.

For Offi	cial Use Only by the Oregon Water Resources Departmen	it:
Received Date: 8-10-15	Well Log Number: LAKE 1627 (orig.)	Well Identification #: L-119827
	LAKE 4448 (ALT.)	

	LAKE 1	$(0, K^{\ell})$		
NOTICE TO WATER WELL CONTRACTOR	FRIMER	101-18/		
The original and first copy of this report are to be filed with the		LL REPORT	2/10	-23G
STATE ENGINEER, SALEM 10, OREGON	APR 7 196 STATE OI	F OREGON State Well No.	5/18	-230
within 30 days from the date of well completion. STA	ATE ENGINEER	State Permit No.		
(1) OWNER: S_1	ALEM, DREGON	(11) WELL TESTS: Drawdown is amount	water leve	
Name Ross Colohan		Was a pump test made? X Yes [] No If yes, by who	evel	ractor
Address Paisley. Oregon		Vield: 150 gal./min. with 83 ft. drawdow		7
		<u> </u>	<u></u> urtor	.,
		10 10 10		21
(2) LOCATION OF WELL: County Lake Driller's wel	l nembou	Bailer test gal./min. with ft. drawdow	vn after	hrs.
	33S R. 18 E W.M.	Artesian flow g.p.m. Date		<u>.</u>
Bearing and distance from section or subdivisi		Temperature of water 104 Was a chemical analysis a	nade? 🔲 🗋	Yes 📕 No
$1\frac{1}{2}$ miles NW of Paisley		(12) WELL LOG: Diameter of well below c	asing {	3
		Depth drilled 315 ft. Depth of completed w		5 ft.
		Formation: Describe by color, character, size of materic	il and stru	cture, and
No		Formation: Describe by color, character, size of materic show thickness of aquifers and the kind and nature of stratum penetrated, with at least one entry for each o	the materi hange of	ial in each formation.
	· · · · · · · · · · · · · · · · · · ·	MATERIAL	FROM	то
(3) TYPE OF WORK (check):		soil zone. gravelly	0	3
77	litioning 🗌 🛛 Abandon 🗖	loose gravel and sand, med.	.3	11
pandonment, describe material and procedu	ure in Item 12.	clav&sand. brown	11	35
		volcanic gravel & clay, bru	35	92
(4) PROPOSED USE (check):	(5) TYPE OF WELL:	gravel, med. seepage of wat	i	94
Domestic 🗌 Industrial 📋 Municipal 🔲	Rotary 🗌 Driven 🔲 Cable 🖾 Jetted 🗌	gravel & clay, brn.	94	110
Irrigation 🔀 Test Well 🗆 Other 🛛 🗍	Dug 🛛 Bored 🗍	med gravel & brn.	110	112
		hard-packed sand and clay,	112	118
(6) CASING INSTALLED: Thr 16	eaded Welded	soft sandy clay, brown	118	121
	•	sticky clay & gravel, brn.	121	124
ft. to		loose gravel, fine waterbe	124	125
	ft. Gage	boulders & clay, gray	125	159
(7) PERFORATIONS: Perf	forated? 🗶 Yes 📋 No	sandy clay, brown	159	176
Type of perforator used Mills		fine gravel, waterbearing	176	182
	4 in.	sticky clay & gravel, grav	182	194
1400 perforations from 100		fine sand, white, waterbe	194	199
		<u>clay & gravel, brn.</u>	199	220
perforations from	ft. to ft.	fine sand, wht. & pink, wat	220	225
perforations from	ft. to ft.	<u>sandy clay & gravel, fine</u>	225	230
perforations from	ft. to ft.	medgravel, waterbearing	230	234
		_sticky_clay, brn	234	298
	talled 🗌 Yes 🍎 No	<u>_basalt_rock w/ clay string-</u>	·	
۰۰ufacturer's Name		ers, brown	298	315
Dana			/	
Diam,		Work started 3/7/64 19 . Completed 4/	<u>5/</u>	<u>1964</u>
		Date well drilling machine moved off of well 4/	4	1964
(9) CONSTRUCTION:		(13) PUMP:		
Well seal-Material used in seal		Manufacturer's Name		
Depth of seal	cker used?	Type: 1	I.P	
Diameter of well bore to bottom of seal2.	2 in.			.
Were any loose strata cemented off? 🗋 Yes 🌋] No Depth	Water Well Contractor's Certification:		
Was a drive shoe used 🛣 Yes 📋 No		This well was drilled under my jurisdiction true to the best of my knowledge and belief.	and this	report is
Was well gravel packed? Yes X No Size				
Gravel placed from ft. to		NAME Jack Stooksberry, Jr (Person, firm or corporation) (1		
Did any strata contain unusable water?		(Person, firm or corporation) (1 Address <u>Route 2, Box 47 Lakevi</u>		
Type of water? Depth of s	trata	Aduress AND HE 6. UVA 74 Lakevi	. <u></u>	<u>45 e</u>
Method of sealing strate off		Drilling Machine Operator's License No	5	
(10) WATER LEVELS:		reiman uch Stand for non	0.7.	
Static level 83 ft. below land	surface Date $4/3/64$	[Signed] Juck Stoohberry (Water Well Contractor)		
Artesian pressure lbs. per squa	re inch Date	Contractor's License No. 211 Date 4/3		

(USE ADDITIONAL SHEETS IF NECESSARY)

L



Oregon Water Resources Departmente CEIVED BY OWRD

725 Summer Street NE, Suite A Salem Oregon 97301 (503) 986-0900 www.wrd.state.or.us

Application for Well ID Number AUG 1 0 2015

SALEM, OR

Do not complete if the well already has a Well Identification Number.

I. **OWNER INFORMATION**

Current Owner Name (please print): Colahan Enterprises	
Mailing Address: PO Box 300	
City, State, Zip: Paisley, Oregon 97636	
Mail Well ID Tag to: SAME AS ABOVE In Care Of (C/O)	
Name & Address: Attn: Lynn Culp, Surprise Valley Electrification Corp. (SVEC); 516 US Highway 395 E.	
City, State, Zip: Alturas, CA, 96101	

II. WELL LOCATION INFORMATION (Please fill out as completely as possible)

Township: 33S	(North / South) Ra	ange: <u>18</u> E	(East / West)	Section: 2	23	
Tax Lot: 1300	County Lake		SW		of the NW	1/4
GPS Coordinates:alrea	ady assigned OWRD well lo	og numbers: LAK	E 1628/1626/52582 -	but no ID #		
Street Address of Well, C	ity: > 42.697274	- 120.5	5813 .			

If the property had a different street address in the past:

GENERAL WELL INFORMATION (Please fill out as completely as possible) ш.

Use of Well (domestic, irrigation, commercial, industrial, monitoring): irrigation; application pending for industrial							
	Total Well Depth: current 270'	Casing Diameter:	16"				
Owner at time the well was constructed (if known): Ross Colahan							
Other Information: Well name: Little Hot Well							

SUBMITTED BY (please print):	Lynn Culp / Surprise Valley Electric Corp.	
PHONE: (530) 233-3511	EMAIL &/or FAX: /// lynnsvec@frontier.com	

Send application to: Oregon Water Resources Department 725 Summer St NE, Suite A, Salem, Oregon 97301; or fax to (503) 986-0902. Applications are processed in the order they are received, and Well ID Numbers are mailed within 4-5 business days.

For Offic	ial Use Only by the Oregon Water Resources Department	
Received Date:	Well Log Number:	Well Identification #:
8-10-15	LAKE 1628 (ORIG.)	L-119826
	LAKE 1626 (DEEP.)	
	LAKE 52582 (ALT.)	
Last Update: 4/30/14	Well I.D. Number/2	WCC

Last Update: 4/30/14

WATE		REGON L REPO RS 537.765					7 198)		6 fake	26	33	5/18 eer	<u>E-</u>)	<u>23ac</u>
(1) OWN NameRoss Address P.	NER: Coloha		0	wner's We	ll Numb	er:		(9)	County Lake	N OF WELL by	y legal de	/ escript	tion:	i 11
_{City} Pais	ely		- 5	_{State} 0re	g.	_{Zip} 97	636		•	<u> </u>	-		_ E or w,	W M.
(2) TYP	_	_] Recondi	tion	🗆 Aba	undon			Tax Lot	Lot B Well (or nearest addres	lock	Subdi		
(3) DRII	_	HOD: Rotary Mud	Ca	able	🗌 Othe	۶r		(10	<u>120</u>	WATER LEVE . ft. below land surface.	L:	Date	Mar.	18-87
(4) PRO	DOGED	USF.					-		Artesian pressu	-				
omestic	Cor	mmunity	Industr		l Irrigati	ion	`) WELL LO	DG: Ground elev	vation unk	nown	1	<u> </u>
Thermal	🗌 Inj		Other_							aterial	From	То	WB?	SWL
) BOR	E HOLI	E CONS'	TRUC] h of Comple	CION:		415	0		<u>ard Grey B</u> ild Brown		306	<u>329</u> 331		
-			n of Comple ial Standare						<u>ard Grey B</u>		329	337		
HO	LE	apeci	SEAL	is uate of a	арргочал	Amount			ild Brown		337	339		
neter F	rom To	Material	From	То	sac	ks or pou		В	roken Lava	, W/B	339	353	WB-	
B" 3	06 430	xxx	not di	sturl	ed			H	ard Basalt		353	360		
			102 41	<u></u>	/.u		,		<u>hite Clays</u>		360	<u>375</u>		
									rown & Blu		375	430		<u> </u>
How was seal	placed? Met	hod 🗆 A	□в		рП	Е		_ <u>B</u>	<u>rown & Blu</u>	<u>ie Clays</u>	430	432		<u> </u>
Other														
Backfill placed	d from	ft. to	ft. ՝	Materia	11									<u> </u>
Gravel placed				Size of g	ravel									h
(6) CAS	ING/LII	NER:												
	meter Fro	m To	Gauge S		astic V		hreaded							
Casing:	<u> 8" +2</u>	300	.188			X								
Liner:														
numu location	of shoe(s)													
		IONS/S	CREEN	JS.										<u> </u>
		-			one						_			<u> </u>
	orations	Method												<u>├</u>
	ens Slo			M Tele/	laterial _ pipe									<u> </u>
rom '	To siz		r Diamet			Casing	Liner						İ	
										· · · · · · · · · · · · · · · · · · ·				
	··· · • • • • • • • • • • • • • • • • •		_ 	-										
									,					<u> </u>
													<u> </u>	
								Date	started <u>Ma</u>	ar9=87(Completed	ar]	18=87	
(8) WEL	L TESI	'S: Mini	mum tee	ting ti	me is 1	l hour		(un	bonded) Water	Well Constructor	Certificati	on:		
		Bailer	X A		_	Flowing Artesian			I constructed t	this well in compli-	ance with ()regon v	well con	struction
Yield gal/m		ping level		ır İstem at	L	Time	•	stan	dards. Materials wledge and belief	used and informati	on reported	above ar	e true to	my best
r teta Ban/m	rum;	PINE ICAGI		orem at	1	¹ / ₂ hr			11.4	11 11.1.			17	
50			41	5		1 hr		Sign	ed <u>IAI j</u>	<u>1. 414/2/</u>		Date	Mar.	22- 87
								(bo	nded) Water W	ell Constructor Ce	rtification	:		
									I accept respon	sibility for construc	tion of this	well an	d its co	mpliance
Temperature o	of water	175	Dep	th Artesia		ound			all Oregon wat	er well standards. J	his report i	s true to	o the be	st of my
Was a water a	•		•						wieuge anopener	incled	0		o	
Did any strata						little		Sigr	ed	if the	Know D	ate	-9-87	
□ Salty □	•				110				Orvsi 1	Buckner Well	1 Drill.	no '	Tno	
Depth of strat	ta:						_	Con	pany	Buckner Wel	<u>- </u>	5. 55 6 N	9.116.	



Oregon Water Resources Departmenter CEIVED BY OWRD 725 Summer Street NE, Suite A Salem Oregon 97301

Application for Well ID Number AUG 1 0 2015

SALEM, OR

Do not complete if the well already has a Well Identification Number.

I. **OWNER INFORMATION**

(503) 986-0900 www.wrd.state.or.us

Current Owner Name (please print): Colahan Enterprises	
Mailing Address: PO Box 300	
City, State, Zip: Paisley, Oregon 97636	
Mail Well ID Tag to: SAME AS ABOVE In Care Of (C/O)	-
Name & Address: Attn: Lynn Culp, Surprise Valley Electrification Corp. (SVEC); 516 US Highway 395 E.	
City, State, Zip: Alturas, CA, 96101	

II. WELL LOCATION INFORMATION (Please fill out as completely as possible)

Township: 33S	(North / South) R	ange: <u>18E</u>	(East / West)	Section: 2	3	
Tax Lot: 1300	County Lake		SW		of the NW	1/4
GPS Coordinates:already a	assigned OWRD well lo	og numbers: LAKE	1628/1626/52582 -	but no ID #		
Street Address of Well, City:	> 42.697274	- 120.5	5813			
To the many anter had a different	stuggt addungs in the past			_		

If the property had a different street address in the past:

ш. **GENERAL WELL INFORMATION** (Please fill out as completely as possible)

Use of Well (domestic, irrigation, commercial, industrial, monit	oring): irrigation; application pendi	ng for industrial				
		Casing Diameter: 16"				
Owner at time the well was constructed (if known): Ross Colahan						
Other Information: Well name: Little Hot Well						
	· · ·	<u> </u>				

SUBMITTED BY (please print):	n Culp / Surprise Valley Electric Corp.	
PHONE: (530) 233-3511	EMAIL &/or FAX: lynnsvec@frontier.com	

Send application to: Oregon Water Resources Department 725 Summer St NE, Suite A, Salem, Oregon 97301; or fax to (503) 986-0902. Applications are processed in the order they are received, and Well ID Numbers are mailed within 4-5 business days.

For Off	icial Use Only by the Oregon Water Resources Department	•
Received Date:	Well Log Number:	Well Identification #:
8-10-15	LAKE 1628 (ORIG.)	L-119826
	LAKE 1626 (DEEP.)	
	LAKE 52582 (ALT.)	
Last Update: 4/30/14	Weil I.D. Number/2	WCC

Last Update: 4/30/14

WCC

STATE OF OREGON WATER SUPPLY WELL REPORT

(as required by ORS 537.765 & OAR 690-205-0210)



LAKE 52582



WELL LABEL # L

START CARD # 209512

(1) LAND OWNER	Owner Well I.D. 33/18-23G	
First Name Ross	Last Name Colhan	- (9) LOCATION OF WELL (legal description) County LAKE Twp 33 S N/S Range 18 E EAW WA
Company	Contait	$ \begin{array}{c c} \hline County \\ \underline{LAKE} \\ Sec \\ \hline 33 \\ SW \\ \hline 1/4 \text{ of the } NE \\ \hline 1/4 $
Address 38650 HWY 31		Tax Map Number Lot
City Paisley	State Or Zip 97636	Lat ° ' '' or DMS or DD
(2) TYPE OF WORK	New Well Deepening Conversion	Long' or DMS or DD
Alteration (repair/recondition)		C Street address of well C Nearest address
(3) DRILL METHOD		1-1/2 miles NW of Paisely, Oregon
Rotary Air Rotary Mud	Auger Cable Mud	
Reverse Rotary Other		(10) STATIC WATER LEVEL Date SWL(psi) + SWL(ft)
(4) PROPOSED USE Do	omestic Community	Existing Well / Predeepening
	vestock Dewatering	Completed Well
	her	Flowing Artesian? Dry Hole?
(5) BORE HOLE CONST	RUCTION Special Standard Attach co	WATER BEARING ZONES Depth water was first found
Depth of Completed Well	ft.	(py) SWL Date From To Est Flow SWL(psi) + SWL(ft)
BORE HOLE	SEAL sack	
Dia From To	Material From To Amt Ibs	S
W	rat curit 0 23 3	5
		(11) WELL LOG Ground Elevation
How was seal placed: Method		Material From To
Other		Remare Original Duddier
Backfill placed from ft. to		
Filter pack from ft. to	ft. Material Size	Clay seal with overshot -
Explosives used: Yes Type	Amount	replace with 24" coment
(6) CASING/LINER		
Casing Liner Dia + H	From To Gauge Stl Plstc Wld Thr	d Sent to 23'
Shoe Inside Outside	Other Location of shoe(s)	
Temp casing Yes Dia	From To	
(7) PERFORATIONS/SCR		
Perforations Me		
Screens Ty	pe Material	
Perf/S Casing/ Screen	Scrn/slot Slot # of Tele/	Date Started O 20 14 Completed O 3 0 14
creen Liner Dia From	To width length slots pipe size	
		(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. Materials used and information reported above are true to
		the best of my knowledge and belief.
(8) WELL TESTS: Minimun	a testing time is 1 hour	License Number Date
Pump Dailer	Air Flowing Artesian	Password : (if filing electronically)
Yield gal/min Drawdown	Drill stem/Pump depth Duration (hr)	Signed
		(bonded) Water Well Constructor Certification
		I accept responsibility for the construction, deepening, alteration, or abandonment
Temperature °F Lab anal		work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well
Water quality concerns? Yes	(describe below)	construction standards. This report is true to the best of my knowledge and belief.
From To	Description V 18 2014 Units	License Number 1946 Date 11-12-14
		Password : (if filing electronically) Signed 002
		Contact Info (optional)
	SALEM, OR	
THIS REPORT MUST BE SUBMITT	ORIGINAL - WATER RESOURCES ED TO THE WATER RESOURCES DEPART	DEPARTMENT MENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version: 0.96

WATER SUPPLY WELL REPORT continuation page





START CARD # 209512

(5) BORE HOLE CONSTRUCTION

	ORE HO	LE	CONST			SEAL			sacks/
Dia	From	To	<u> </u>	Materia	<u>l</u>	From	То	Amt	lbs
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	FILTER	R PAC							
F	rom	То	Material		Size	_			
ļ_									

(6) CASING/LINER

_
-
-

(7) PERFORATIONS/SCREENS

Perf/S creen	Screen Dia	From	То	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
	 			<u> </u>			
				<u>├───</u>			f
\vdash	 						
L	 						

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
<u> </u>			

Water Quality Concerns

<u>To</u>	Description	Amount	Units
	RECEIVED BY OV	VRD	+
	NOV 1 8 2014		
	To	RECEIVED BY OV	RECEIVED BY OWRD

(10) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	То	Est Flow	SWL(psi)	+ SWL(ft)
	<u> </u>				
		+			
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	<u>+</u>	<u> </u>			<u> </u>
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	L	1			

(11) WELL LOG

Material	From	<u>To</u>
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Comments/Remarks



Oregon Water Resources Department CEIVED BY OWRD

725 Summer Street NE, Suite A Salem Oregon 97301 (503) 986-0900

www.wrd.state.or.us

Application for Well ID Number AUG 1 0 2015

SALEM, OR

Do not complete if the well already has a Well Identification Number.

I. **OWNER INFORMATION**

Current Owner Name (please print): Colahan Enterprises	
Mailing Address: PO Box 300	
City, State, Zip: Paisley, Oregon 97636	
Mail Well ID Tag to: SAME AS ABOVE In Care Of (C/O)	_
Name & Address: Attn: Lynn Culp, Surprise Valley Electrification Corp. (SVEC); 516 US Highway 395 E.	
City, State, Zip: Alturas, CA, 96101	

WELL LOCATION INFORMATION (Please fill out as completely as possible) II,

Township: 33S	(North / South)	Range: 18E	(East / West)	Section: 2	23	
Tax Lot: 1300	County La	ake	SW		of the NW	1/4
GPS Coordinates:alrea	ady assigned OWRD we	ll log numbers: LAK	E 1628/1626/52582 -	but no ID #		
Street Address of Well, C	ity: > 42.69727	4 -120.5	5813			

If the property had a different street address in the past: _

ш. GENERAL WELL INFORMATION (Please fill out as completely as possible)

Use of Well (domestic, irrigation, commercial, industrial, monitoring):						
Date Well Constructed (or property built): April 1964	Total Well Depth: current 270'	Casing Diameter: 16"				
Owner at time the well was constructed (if known): Ross Colahan						
Other Information: Well name: Little Hot Well						

SUBMITTED BY (please print): <u>L</u>	ynn Culp / Surprise Valley Electric Corp.	
PHONE: (530) 233-3511	EMAIL &/or FAX: lynnsvec@frontier.com	~

Send application to: Oregon Water Resources Department 725 Summer St NE, Suite A, Salem, Oregon 97301; or fax to (503) 986-0902. Applications are processed in the order they are received, and Well ID Numbers are mailed within 4-5 business days.

For Off	icial Use Only by the Oregon Water Resources Department:	
Received Date:	Well Log Number:	Well Identification #:
8-10-15	LAKE 1628 (ORIG.) LAKE 1626 (DEEP.)	L-119826
· · · · · · · · · · · · · · · · · · ·	LAKE 1626 (DEEP.)	
	LAKE 52582 (ALT.)	
Last Update: 4/30/14	Well I.D. Number/2	WCC

Last Update: 4/30/14

WELL I.D. # L___

(I) LAND OWNER Well Number SVE #1	(9) LOCATION OF WELL by legal description:
Name Colaban Enterprises	County_LAKE_LatitudeLongitude
Address P. O. Box 300 City Packley State OR Zip 97636	Township 33 S Nor Range 18E Er W. WM.
	Section 1/4 1/4
(2) TYPE OF WORK	Tax Lot Block Subdivision
New Well Deepening Alteration (repair/recondition) Abandonment	Street Address of Well (or nearest address) 2,050 ft N & 1,370 ft 6
(3) DRILL METHOD:	from SW corner of section 23
Cable Auger Rotary Air Rotary Mud Cable Auger	(10) STATIC WATER LEVEL:
Other	ft. below land surface. Date
(4) PROPOSED USE:	Artesian pressure lb. per square inch Date
Domestic Community Industrial Irrigation	(11) WATER BEARING ZONES:
(5) BORE HOLE CONSTRUCTION:	Depth at which water was first found
Special Construction approval Yes No Depth of Completed Well 360_ft.	
Explosives used Yes No TypeAmount	From To Estimated Flow Rate SWL
HOLE SEAL	
Dismeter From To Material From To Sacks or pounds	
0 1360 0 900	
0 1360 0 900	
How was seal placed: Method A B C D E	(12) WELL LOG: Ground Elevation
Backfill placed fromft. toft. Material	Material From To SWL
Gravel placed fromft. toft. Size of gravel	
(6) CASING/LINER:	
Diameter From To Gauge Steel Plastic Weided Threaded	
Casing:	
	See attached
Drive Shoe used [] Inside [] Outside [] None	
Final location of shoe(s)	
(7) PERFORATIONS/SCREENS:	
Perforations Method	
Screens TypeMaterial	I
Slot Tele/pipe From To size Number Diameter size Casing Liner	
From To size Number Diameter size Casing Liner	
(8) WELL TESTS: Minimum testing time is 1 hour Flowing	Date started Completed
Pump Bailer Air Artesian	
Yield gal/min Drawdown Drill stem at Time	SOURCE OF DATA/INFO
i hr.	
~1,000	File T-11860
	<u>File LL- 1450</u>
Terrentum of water Depth Arterian Daw Brund	
Temperature of water Depth Artesian Flow Found Was a water analysis done?	
Did any strata contain water not suitable for intended use?	COMPILED BY: Gerald Grandin
Saity Muddy Odor Oclored Other	OWRD Groundwater Section
Depth of strata:	
	DATE: 22 July 2014

WELL INFORMATION REPORT

11/16/2000

LITHOGRAPHIC DESCRIPTION OF OIL OR GAS WELL (Not required if a mud log is submitted) 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

(2) Well 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	lynnsvec@frontier.com
Prepared by	Lynn Culp, Silvio Pezzopane, Roy Mink, Kyle Makovsky

Well No. SVE #1

DOGAMI ID No. 36-037-90009 Lake 448

General Manager

5/29/2012

Signature

Title

Date

(3) Well Cuttings

De	pth	Description
From	То	
0	40	Brown clay soil and gravelly sand
40	75	Brownish-grey rounded mixed volcanic (basalt, rhyolite, andesite, tuff, pumice) gravel, qtz-rich sand
75	105	Grey quartz-rich sand, with thin brown and grey clay beds, Water Bearing (WB)
105	150	Greyish-brown mixed volcanic gravel, qtz-sand, and clay, WB
150	165	Brown mixed volcanic (basalt, rhyolite, andesite) gravel, rounded sand and clay
165	175	Brown clayey sand and mixed gravels
175	225	Blackish grey basalt gravel, w/ sand and clay beds, WB
225	240	Blackish grey to brown basalt and andesite gravel, and sand
240	305	Varicolored mixed volcanic (basalt, rhyolite, andesite, tuff) gravel and sand, w/ brown clay beds
305	360	Brown gravelly sand and brown clay beds
360	390	Varicolored (grey, brown, black, red, green) basalt, rhyolite, andesite gravel, sand, and brown clay, WB
390	415	Brownish grey and red volcanic gravel, sand, and clay, WB
415	435	Varicolored mixed volcanic gravel (basalt, rhyolite, andesite, tuff), rounded, reddish brown sand and clay
435	490	Varicolored coarse volcanic gravel, rounded, red to brown sand, brown sticky clay beds
490	530	Varicolored volcanic pebble gravel, rounded, w/ sand and reddish brown sticky clay
530	540	White calcite, black and grey basalt andesite, red rhyolite, red and grey tuff w/ brownish red sticky clay
540	575	Red sticky clay ash, vesicular and fiberous pumice clasts, minor sand, grey pebbles
575	640	Red and grey tuffs w/ altered vesicles, minor grey to greenish to black basalt, andesite, rhyolite, WB?
640	675	Red rhyolite tuff and grey andesite w/ altered vesicles, greenish basalt, blades of calcite
675	715	Light grey basalt, reddish brown and green alteration stains, altered vesicles, pyrite, euhedral calcite and quartz
715	715	Light greyish green rhyolite, reddish brown to dark purple basalt?, altered vesicles, pyrite, calcite and quartz
715	795	Dark greenish grey andesite?, dark purplish brown basalt, minor light red and white tuff, rare euhedral quartz
795	870	Dark grey to brown basalt w/ white pumice chunks, rare red and white tuff cinders, rare euhedral quartz
870	905	Dark greenish grey to dark purplish brown basalt, few pumice, rare euhedral and calcite quartz
005	020	Grey to white calcite flakes, possible fracture zone?
905	920	no rock data - lost circulation, samples floated up during trip out
920	950	Brown sticky slick clay ash, large (<2 cm dia.) euhedral calcite chunks, red cinders and pumice, dries hard
950	1000	Purple, grey, and brown lithic tuff, poorly-welded?, soft waxy, sticky ashy clay, small calcite and quartz crystals
1000	1050	Green, grey, and brown andesite, alteration stains, red lithic tuff, cinders?, large euhedral calcite and quartz crystals
1050	1080	Dark greenish grey andesite, reddish purple stains, hard, fine-grained, large euhedral calcite flakes (fractures?)
1080	1100	no data - no returns
1100	1100	Red, grey, white, and brown lithic tuff or volcaniclastic sediment (depth uncertain, samples floated up during cleaning)
1100	1120	no data ~ no returns ~ lost circulation
1120	1120	Dark greenish grey andesite, reddish purple clay? stains, hard, fine-grained, red lithic tuff w/ euhedral quartz crystals,
1120	1120	(depth uncertain, sample picked out of the drill collar)
1120	1133	no data - no returns
1133	1133	Reddish brown, lithic tuff, poorly-welded?, sticky clay, dries hard, small calcite and quartz crystals (depth uncertain,
		sample stuck to the drill bit face)
1133	1235	no data - no returns
1235	1315	Dark greenish grey andesite, red lithic tuff, euhedral quartz crystals, (depth uncertain, sample stuck to the bailer)
1315	1360	no data - no returns
	1360	- Total Depth

T_11860_COLAHAN_PAISLEY_WELL_SVE1_LITHOLOGY REV. 08/05/03



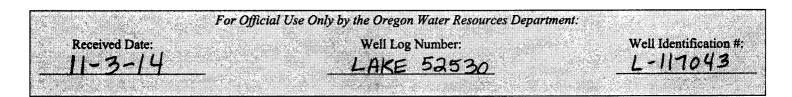
Oregon Water Resources Department 725 Summer Street NE, Suite A Salem Oregon 97301 (503) 986-0900 www.wrd.state.or.us

Application for Well ID Number

RECEIVED BY OWRD

Do not complete if the well already has a Well Identification Number.	NOV 032014
I. <u>OWNER INFORMATION</u> Current Owner Name (please print): Suprise Valley Electrification Corp. (SVEC); Attn:	SALEM, OF
Mailing Address: 516 US Highway 395 E	
City, State, Zip: Alturas, CA, 96101	
Mail Well ID Tag to: SAME AS ABOVE In Care Of (C/O)	
Name & Address:	
City, State, Zip:	
Township: 33S (North / South) Range: 18E (East / W) Tax Lot: 1300 County Lake NE	$_{1/4}$ of the SW $_{1/4}$
GPS Coordinates: already assigned a OWRD well Log number: LAKE 52530 - but of	
Street Address of Well, City:	
If the property had a different street address in the past:	
III. <u>GENERAL WELL INFORMATION</u> (Please fill out as completely as possible) Use of Well (domestic, irrigation, commercial, industrial, monitoring): industrial/geother	
Date Well Constructed (or property built): <u>August 2012</u> Total Well Depth: <u>1360</u>	Cosing Diamater: 13 3/8 "
Owner at time the well was constructed (if known): SVEC is well owner - Colahan's ow	n the property
Owner at time the well was constructed (if known): ov is then extreme constructed (if known): Other Information:	
SUBMITTED BY (please print). Lynn Culp	
PHONE: (530) 233-3511 EMAIL &/or FAX: /// lynnsvec@frontie	r.com

Send application to: Oregon Water Resources Department 725 Summer St NE, Suite A, Salem, Oregon 97301; or fax to (503) 986-0902. Applications are processed in the order they are received, and Well ID Numbers are mailed within 4-5 business days.



STATE OF OREGON WATER SUPPLY WELL REPORT (as required by ORS 537.765 & OAR 690-205-0210)

WELL I.D. LABEL# I	117043	
START CARD #	1041359	
ORIGINAL LOG #	LAKE	52530

(1) LAND OWNER Owner Well I.D. SVE #1	
First Name Last Name	
Company Surprise Valley Electric	(9) LOCATION OF WELL (legal description)
Address P. O. Box 691	County LAKE Twp 33 S N/S Range 18 E E/W WM
City Alturas State CA Zip 96010	Sec 23 NW 1/4 of the SW 1/4 Tax Lot 1300
(2) TYPE OF WORK New Well Deepening Conversion	Tax Map Number Lot
Alteration (complete 2a & 10) Abandonment(complete 5a)	Lat ' ' or DMS or DD
(2a) PRE-ALTERATION	Long ' or DMS or DD
Dia + From To Gauge Stl Plstc Wld Thrd	○ Street address of well ● Nearest address
Material From To Amt sacks/lbs	2090' N & 1275' E from SW corner of Section 23 Paisley, OR
Seal:	
(3) DRILL METHOD	(10) STATIC WATER LEVEL
Rotary Air Rotary Mud Cable Auger Cable Mud	Date SWL(psi) + SWL(ft)
Reverse Rotary Other	Existing Well / Pre-Alteration
	Completed Well 10-04-2011 145
(4) PROPOSED USE Domestic Irrigation Community	Flowing Artesian? Dry Hole?
Industrial/Commercial Livestock Dewatering	WATER BEARING ZONES Depth water was first found <u>900</u>
X Thermal Injection Other	SWL Date From To Est Flow SWL(psi) + SWL(ft)
(5) BORE HOLE CONSTRUCTION Special Standard (Attach copy)	
Depth of Completed Well <u>1,360</u> ft.	10-04-2011 900 1,360 1,000 145
PODE LIQUE	
Dia From To Material From To Amt Ibs	
24 0 40 Cement 0 40 S	
17.5 40 900 Calculated 28.96	
12.25 900 1,360 Cement 40 900 470 S	
Calculated 1,224	(11) WELL LOG Ground Elevation 4,473
How was seal placed: Method $X \land B \Box C \Box D \Box E$	Material From To
Other	see attached
Backfill placed from ft. to ft. Material CEMENT	
Filter pack from ft. to ft. Material Size	No Special Standards 3/25/19
	associated with this well
Explosives used: Yes Type Amount	associated with this wen
(5a) ABANDONMENT USING UNHYDRATED BENTONITE	
Proposed Amount Pounds Actual Amount Pounds	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd 20 X 4 40 .304 0 X X	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd \bigcirc 20 \times 4 40 .304 \bigcirc \times \times \bigcirc \times \times \bigcirc \times \times \bigcirc \times \times \times \bigcirc \times \times \times \times \longrightarrow \times	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd 20 X 4 40 .304 0 X X	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd \bigcirc 20 \times 4 40 .304 \bigcirc \times \times \bigcirc \times \times \bigcirc \times \times \bigcirc \times \times \times \bigcirc \times \times \times \times \longrightarrow \times	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd \bigcirc 20 \times 4 40 .304 \bigcirc \times \times \bigcirc 13.38 9.63 806 $1,310$.375 \bigcirc \times	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd \bigcirc 20 \times 4 40 .304 \bigcirc \times \times \bigcirc \times \times \bigcirc \times \times \bigcirc \times \times \times \bigcirc \times \times \times \times \longrightarrow \times	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd \bigcirc 20 \times 4 40 .304 \bigcirc 13.38 \times 900 .375 9.63 806 $1,310$.375 Shoe Inside Outside Other Location of shoe(s)	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd \bigcirc 20 X 4 40 .304 \bigcirc 13.38 X 4 900 .375 \bigcirc 9.63 806 1,310 .375 Shoe Inside Outside Other Location of shoe(s) Temp casing Yes Dia From + To	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd \bigcirc 20 \times 4 40 .304 \bigcirc 13.38 \times 900 .375 9.63 806 $1,310$.375 Shoe Inside Outside Other Location of shoe(s) Temp casing Yes Dia From + To (7) PERFORATIONS/SCREENS	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd \bigcirc 20 X 4 40 .304 \bigcirc 13.38 X 4 900 .375 \bigcirc 20 X 4 400 .304 \bigcirc \bigcirc X $$ X $$ X 4 900 .375 \bigcirc \bigcirc $$ X $$ X $$ X 4 900 .375 \bigcirc \bigcirc $$ X $$	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd 20 X 4 40 .304 0 13.38 X 4 900 .375 0 0 13.38 9.63 806 1,310 .375 Shoe Inside Outside Other Location of shoe(s) Temp casing Yes Dia From + To (7) PERFORATIONS/SCREENS Perforations Method Screens Type Material	Date Started_04-26-2011
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd Image: Stl	Date Started04-26-2011 Completed 10-04-2011 (unbonded) Water Well Constructor Certification
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd 20 X 4 40 .304 0 13.38 X 4 900 .375 9.63 806 1,310 .375 Shoe Inside Outside Other Location of shoe(s) Temp casing Yes Dia From + To (7) PERFORATIONS/SCREENS Perforations Method Screens Type Material Perf/S Casing/Screen Scrn/slot Slot # of Tele/	(unbonded) Water Well Constructor Certification
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd Image: Stl	(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
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd Image: Stl	(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. Materials used and information reported above are true to
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(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd 20 X 4 40 .304 0 13.38 X 4 900 .375 9.63 806 1,310 .375 Shoe Inside Outside Other Location of shoe(s) Temp casing Yes Dia From + To (7) PERFORATIONS/SCREENS Perforations Method Screens Type Material Perf/S Casing/Screen Screen Scrn/slot Slot # of Tele/ creen Liner Dia From To width length slots pipe size	(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. Materials used and information reported above are true to the best of my knowledge and belief.
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ORIGINAL - WATER RESOURCES DEPARTMENT THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version: 0.95 12/6/2018

Map of Hole

(1)

Ma

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.)

) Permittee	Information	(2) Well Information	on
Name	Surprise Valley Electrification Corp.	Well No.	SVE #1
Aailing Address	516 US HWY 395 E	DOGAMI ID No.	Lake 4448
City/State/Zip	Alturas, CA 96101	Drilling Commenced	April 26, 2011
Telephone	530.233.3511	Drilling Completed	October 4, 2011
Fax	530.233.2190	Date P & A	February 8, 2011
Email	lynnsvec@frontier.com	Total Depth	1360 ft
Prepared by	Lynn Culp	Redrill Depth	
		Logs Run	

General Manager

Title

Date

(3) Casing Record

Signature

Size of Hole	Size of Casing	Weight (pounds per foot)	Grade/Type	Depth	Type and Amoun Cement	t of
24"	20"	65	A53B	40ft	Type 2	
17.5"	13 3/8"	54	J55	900ft	Type G	470 sk
12.25"	9 5/8"	36	J55	1360ft		bbls
						bbls

(4) Plugs & Junk

Plugs / Junk	Plugs / Junk Geological Marker	

(5) Perforations or Liner

From	То	Shots /ft	Method of Perforating		Method of Perforating	
f Casing From To	Shots/It.	Jet	Bullet	Slotted Line		
806'	1310'				2.5" slots 6" centers	
-						
	From 806'	A Martine Constants		Jet	From To Shots/ft. Jet Bullet	

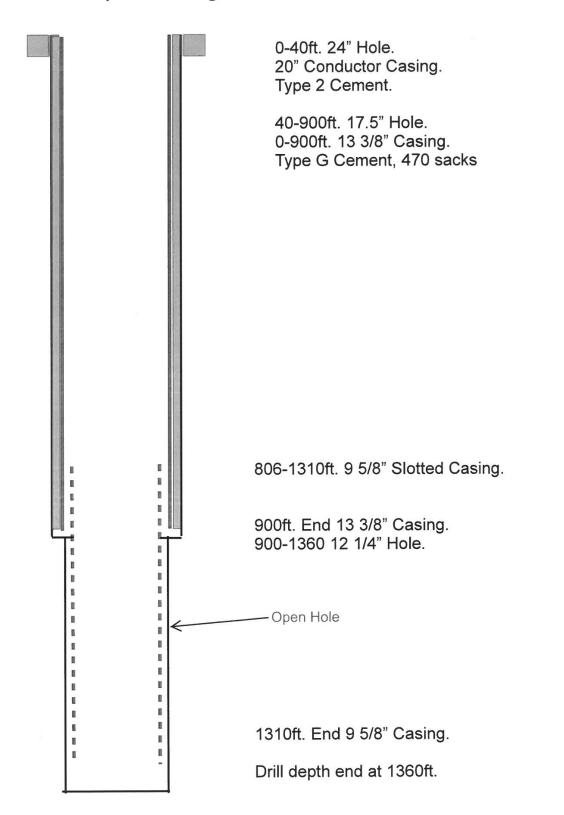
(6) Initial Production

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

12/6/2018

Map of Hole

Surprise Valley Electric Well #1 Completion Diagram



5/29/2012

Date

12/6/2018

Map of Hole

LAKE 52530

LITHOGRAPHIC DESCRIPTION OF OIL OR GAS WELL (Not required if a mud log is submitted) 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.)

) Permittee I	nformation	(2) Well Informa	tion
Name	Surprise Valley Electrification Corp.	Well No.	SVE #1
Mailing Address	516 US Hwy 395 E	DOGAMI ID No.	36-037-90009
City/State/Zip	Alturas, CA 96101		
Telephone	530.233.3511]	
Fax	530.233.2190]	
Email	lynnsvec@frontier.com	1	
Prepared by	Lynn Culp, Silvio Pezzopane, Roy Mink, Kyle Makovsky	1	

General Manager

Title

(3) Well Cuttings

Signature

	oth To	Description
From 0		Drawn clausail and erauth cand
	<u>40</u> 75	Brown clay soil and gravelly sand
40 75		Brownish-grey rounded mixed volcanic (basalt, rhyolite, andesite, tuff, pumice) gravel, qtz-rich sand
	105	Grey quartz-rich sand, with thin brown and grey clay beds, Water Bearing (WB)
105	150	Greyish-brown mixed volcanic gravel, qtz-sand, and clay, WB
150	165	Brown mixed volcanic (basalt, rhyolite, andesite) gravel, rounded sand and clay
165	175	Brown clayey sand and mixed gravels
175	225	Blackish grey basalt gravel, w/ sand and clay beds, WB
225	240	Blackish grey to brown basalt and andesite gravel, and sand
240	305	Varicolored mixed volcanic (basalt, rhyolite, andesite, tuff) gravel and sand, w/ brown clay beds
305	360	Brown gravelly sand and brown clay beds
360	390	Varicolored (grey, brown, black, red, green) basalt, rhyolite, andesite gravel, sand, and brown clay, WB
390	415	Brownish grey and red volcanic gravel, sand, and clay, WB
415	435	Varicolored mixed volcanic gravel (basalt, rhyolite, andesite, tuff), rounded, reddish brown sand and clay
435	490	Varicolored coarse volcanic gravel, rounded, red to brown sand, brown sticky clay beds
490	530	Varicolored volcanic pebble gravel, rounded, w/ sand and reddish brown sticky clay
530	540	White calcite, black and grey basalt andesite, red rhyolite, red and grey tuff w/ brownish red sticky clay
540	575	Red sticky clay ash, vesicular and fiberous pumice clasts, minor sand, grey pebbles
575	640	Red and grey tuffs w/ altered vesicles, minor grey to greenish to black basalt, andesite, rhyolite, WB?
640	675	Red rhyolite tuff and grey andesite w/ altered vesicles, greenish basalt, blades of calcite
675	715	Light grey basalt, reddish brown and green alteration stains, altered vesicles, pyrite, euhedral calcite and quartz
715	715	Light greyish green rhyolite, reddish brown to dark purple basalt?, altered vesicles, pyrite, calcite and quartz
715	795	Dark greenish grey andesite?, dark purplish brown basalt, minor light red and white tuff, rare euhedral quartz
795	870	Dark grey to brown basalt w/ white pumice chunks, rare red and white tuff cinders, rare euhedral quartz
870	905	Dark greenish grey to dark purplish brown basalt, few pumice, rare euhedral and calcite quartz
005	020	Grey to white calcite flakes, possible fracture zone?
905	920	no rock data - lost circulation, samples floated up during trip out
920	950	Brown sticky slick clay ash, large (<2 cm dia.) euhedral calcite chunks, red cinders and pumice, dries hard
950	1000	Purple, grey, and brown lithic tuff, poorly-welded?, soft waxy, sticky ashy clay, small calcite and guartz crystals
1000	1050	Green, grey, and brown andesite, alteration stains, red lithic tuff, cinders?, large euhedral calcite and quartz crystals
1050	1080	Dark greenish grey andesite, reddish purple stains, hard, fine-grained, large euhedral calcite flakes (fractures?)
1080	1100	no data - no returns
1100	1100	Red, grey, white, and brown lithic tuff or volcaniclastic sediment (depth uncertain, samples floated up during cleaning
1100	1120	no data - no returns - lost circulation
1120	1120	Dark greenish grey andesite, reddish purple clay? stains, hard, fine-grained, red lithic tuff w/ euhedral quartz crystals (depth uncertain, sample picked out of the drill collar)
1120	1133	no data - no returns
		Reddish brown, lithic tuff, poorly-welded?, sticky clay, dries hard, small calcite and guartz crystals (depth uncertain,
1133	1133	sample stuck to the drill bit face)
1133	1235	no data - no returns
1235	1315	Dark greenish grey andesite, red lithic tuff, euhedral quartz crystals, (depth uncertain, sample stuck to the bailer)
1315	1315	no data - no returns
	1300	In uara - in recurs

T_11860_COLAHAN_PAISLEY_WELL_SVE1_LITHOLOGY

REV. 08/05/03

Total maximum rate requested: 300 GPM (each well will be evaluated at the maximum rate unless you indicate well-specific rates and annual volumes in the table below)

The table below must be completed for each source to be evaluated or the application will be returned. If this is an existing well, the information may be found on the applicable well log. (<u>If a well log is available, please submit it in addition to completing the table</u>). If this is a proposed well, or well-modification, consider consulting with a licensed well driller, geologist, or certified water right examiner to obtain the necessary information. SEE ATTACHMENT E FOR COPY OF THE WELL LOGS

	ANNUAL VOLUME (ACRE-FEET)				
ISE	WELL- SPECIFIC RATE (GPM)				
PROPOSED USE	TOTAL WELL DEPTH	1360ft	1260ft		
PRC	SOURCE AQUIFER***	Basalt Lithic tuft. See Lithological Description in Well Log	145ft June 2014* Basalt Description in Well Log		
	MOST RECENT STATIC WATER LEVEL & DATE (IN FEET)	159ft June 2014*	145ft June 2014*		
	SEAL INTERVALS (IN FEET)	£0000			
	PERFORATED OR SCREENED INTERVALS (IN FEET)	900-1360ft 0-900ft	495-1260ft 0-495ft		
	CASING INTERVALS (IN FEET)	0-40ft 0-900ft	0-40ft 0-495ft		
	CASING DIAMETER	20" 13 3/8"	20" 13 3/8"		
	VETESIAN FLOWING				
	WELL ID (WELL TAG) NO.* OR WELL LOG ID**	L117043	L117044		
	EXISTING		\boxtimes		
	PROPOSED				
	OWNER'S WELL NAME OR NO.	SVE1	SVE2		

STATIC DEPTH ESTIMATE TRUE STATIC WITH NO PUMPING FROM WELLS SEVERAL MONTHS PRIOR

* Licensed drillers are required to attach a Department-supplied Well Tag, with a unique Well ID or Well Tag Number to all new or newly altered wells. Landowners can request a Well ID for existing wells that do not have one. The Well ID is intended to serve as a unique identification number for each well.

*** A well log ID (e.g. MARI 1234) is assigned by the Department to each log in the agency's well log database. A separate well log is required for each subsequent alteration of the well. **** Source aquifer examples: Troutdale Formation, gravel and sand, alluvium, basalt, bedrock, etc.

Revised 8/1/2017

Ground Water/5

LAKE 52866

Map of Hole

WELL I.D. # L_

						<u> </u>	. # .					
(1) LA	ND OW	NER	1		Well Nu	mber_SV6	and .	(9) LOCATION O	F WELL by legal	description:		
Name			UKUPUS	es			·		ELatitude			
	P.O.			State (7:- 9	7636	Township 30	SN or(S)Rang	e	E)or ₩.	WM.
City				State C	<u>K</u>	<u></u>	1636					
	PE OF			_					Lot Bloc			
New	Well	Deepen	ing 🗋 Alte	cration (repai	r/recondi	tion) 🗌 Aba	ndonment	Street Address of	Well (or nearest addres	s) <u>2,665 ft</u>	NSIT	25 Ft 6
(3) DR	ILL M	ethol	D:					trem	SE COLLES OF	section	2 3	
C Rotat	ry Air 🛛	Rotary	Mud 🔲 🤇	Cable 🔲 A	uger			(10) STATIC WAT	ER LEVEL:			
C Other	r								elow land surface.		Date	
(4) PR	OPOSE	D USE	:					Artesian pressure _	lb. per	square inch	Date	
Dom:	estic 🛛	Comm	unity 🔲 Inc	dustrial 🔲				(11) WATER BEAT	RING ZONES:			_
Then	nal 🛛	Injectio	n 🗆 Li	vestock	Other_							
(5) BO	RE HO	LE CC	NSTRUC	TION:				Depth at which water	was first found			_
						ompleted We		From	To	Estimated I	Flow Rate	SWL
Explosiv	ves used	🗆 Yes	🗌 № Туре	e	A	mount						
	HOLE			SEAL						1		1
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WELL INFORMATION REPORT

11/16/2000

LITHOGRAPHIC DESCRIPTION OF OIL OR GAS WELL (Not required if a mud log is submitted) 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

(2) Well Information

DOGAMI ID No.

Well No.

SVE #2

36-037-90027 Lake 1628

Surprise Valley Electrification Corp.
516 US Hwy 395 E.
Alturas, CA 96101
530.233.3511
530.233.2190
lynnsvec@frontier.com
Lynn Culp, Kyle Makovsky, Roy Mink, Silvio Pezzopane

5/29/2012

Signature

General Manager Title

Date

(3) Well Cuttings

De	pth	Description
From	То	
0	40	Brown clay soil and gravelly sand
40	60	Light brown ash fragments, reddish rhyolite, black basalt, minor calcite/quartz
60	80	Light brown/grey ash, red rhyolite, black basalt, cinders, rounded grains, black and red cuttings magnetic
80	105	Light grey/brown ash, red rhyolite, black basalt, rounded grains, chert and obsidian magnetic
105	125	Light grey/brown ash, red rhyolite, black basalt, rounded grains, purple, orange alteration, green stone
125	155	Grey/brown ash, red rhyolite, black basalt, rounded grains, black and grey chips magnetic, light tan pumice fragments
155	185	Grey/brown ash, red rhyolite, black basalt, magnetic, white/grey pumice green stone, minor alteration stains
185	210	Grey/brown rhyolite, red rhyolite with alteration, black basalt, white/grey pumice
210	245	Grey/brown rhyolite, red rhyolite, black basalt, light brown pumice
245	300	Grey/brown rhyolite, red and brown rhyolite, black basalt, pumice, rounded grains
300	340	Brown/grey rhyolite, rounded w/ some alteration, light grey tuff, black basalt/rhyolite; light grey tuff, feldspar chips
340	360	Grey/light brown rhyolite, dark grey/black rhyolite, light red/yellow altered rhyolite, some chips rounded
360	410	Grey/brown rhyolite, dark grey/black basalt, light red/yellow altered rhyolite, grey/white pumice, rounded pebbles
410	420	Black basalt, light brown rhyolite, some alteration
425	430	no data - no returns
435	460	Black basalt, light brown/grey rhyolite, red altered rhyolite
460	465	Fine sand of light brown/grey rhyolite, black basalt/rhyolite; light brown/red altered rhyolite
465	475	Light brown/grey rhyolite, black basalt/rhyolite, yellow/red altered rhyolite
475	490	Large amount fine sand, smaller cuttings are same as above with white alteration/pumice
490	510	Altered tuff, light grey to reddish brown to dark brown, waxy texture, amorphous silica present
510	530	no data - no returns
530	565	Dark to light gray basalt, andesite, white and green alteration minerals
565	620	Porphyritic basalt and andesite, pink/dark green/white alteration, opaline quartz, amorphous silica, calcite rhombs
620	695	Dark gray, green, purple, and red basalt, amorphous silica, euhedral quartz, and calcite in vesicles
695	710	Porphyritic andesite, opaline quartz
710	790	Gray green and red basalt, altered, fibrous banded white mineral, calcite rhombs, crystalline and opaline quartz
790	800	Olivine rich basalt, little alteration
800	815	Porphyritic andesite and basalt rock, highly altered, clear crystalline quartz, banded alteration
815	845	Amygdaloidal basalt, amygdules are green, white banded, botryoidal texture, calcite grains
845	890	Gray basalt, little to no alteration
890	905	Vesicular/amygdaloidal basalt, high amount of crystalline quartz filling vesicles
905	920	Basalt with pyrite mineralization
920	930	Gray basaltic andesite
930	960	Gray/red/purple basalt, calcite rhombs, some amygdaloidal calcite
960	1010	Dark gray and green basalt, calcite rhombs
1010	1070	Highly altered vesicular/amygdaloidal basalt, pyrite mineralization, dark green/white/pink alteration minerals
1070	1260	no data - no returns
	1260	- Total Depth



Oregon Water Resources Department 725 Summer Street NE, Suite A Salem Oregon 97301 (503) 986-0900 www.wrd.state.or.us

Application for Well ID Number

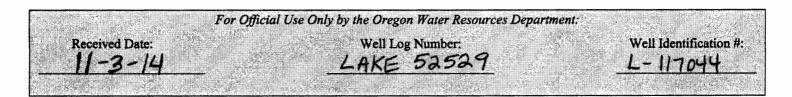
RECEIVED BY OWRD

NOV 03 2014

SALEM, OR

I. <u>OWNER INFORMA</u>	TION				
Current Owner Name (please p		rification Corp. (SV	EC); Attn: Lynn	Culp	
Mailing Address: 516 US Hig	nway 395 E				
City, State, Zip: Alturas, CA,	96101				
Mail Well ID Tag to:	SAME AS ABOVE	In Care Of (C/O)			
Name & Address:					
City, State, Zip:					
II. WELL LOCATION	INFORMATION (Please fi	ll out as completely a	is possible)		
Township: 33S				Section: 23	
Tax Lot: 1300				1/4 of the NE	1/4
GPS Coordinates: already as	signed a OWRD well Log	number: LAKE 525	529 - but does r		
Street Address of Well, City:					-
If the property had a different s				And and a second and	
if the property had a different s	reet address in the past.				
	NFORMATION (Please fill		-		
Use of Well (domestic, irrigatio	n, commercial, industrial, m	onitoring): industria	al/geothermal &	irrigation	
Date Well Constructed (or prop	erty built): Feb 2012	Total Well Dept	_{h:} 1260	Casing Diameter: 13	3 3/8 "
Owner at time the well was con	structed (if known): SVEC	is well owner - Cola	ahan's own the	property	
Other Information: Well Name					
	Luna Cula				
SUBMITTED BY (please prin	t):				
PHONE: (530) 233-3511	EMAIL &	/or FAX: lynnsve	c@frontier.com		

Send application to: Oregon Water Resources Department 725 Summer St NE, Suite A, Salem, Oregon 97301; or fax to (503) 986-0902. Applications are processed in the order they are received, and Well ID Numbers are mailed within 4-5 business days.



STATE OF OREGON	LAKE 52865 WELL I.D. LABEL# L 117044
WATER SUPPLY WELL REPORT	START CARD # 1041357
(as required by ORS 537.765 & OAR 690-205-0210)	12/6/2018 ORIGINAL LOG # LAKE 52529
I) LAND OWNER Owner Well I.D. SVE #2	
First Name Last Name	(9) LOCATION OF WELL (legal description)
Company SURPRISE VALLEY ELECTRIC	County LAKE Twp 33.00 S N/S Range 18.00 E E/W
Address P. O. BOX 691	See 22 SW $1/4$ of the NE $1/4$ Tay Lot 1300
City <u>ALTURAS</u> State <u>CA</u> Zip <u>96</u>	
) TYPE OF WORK New Well Deepening	Conversion Tax Map Number Lot Lat ' DMS or
Alteration (complete 2a & 10) Aband	donment(complete)a)
a) PRE-ALTERATION Dia + From To Gauge Stl Plstc W	
Casing: Casing	2665' N & 1725' W from SE corner of Section 23 Paisley, OR
Material From To Amt sacks/lbs	
Seal:	
) DRILL METHOD	(10) STATIC WATER LEVEL
Rotary Air 🗙 Rotary Mud Cable Auger C	Cable Mud Date SWL(psi) + SWL(ft)
Reverse Rotary Other	Existing Well / Pre-Alteration
	Completed Well 2/9/2012 145
) PROPOSED USE Domestic Irrigation	Community Flowing Artesian? Dry Hole?
Industrial/ Commericial Livestock Dewatering	WATER BEARING ZONES Depth water was first found 445.00
X Thermal Injection Other	SWL Date From To Est Flow SWL(psi) + SWL(ft
) BORE HOLE CONSTRUCTION Special Star	ndard \mathbf{X} (Attach copy) 2/9/2012 445 1.260 \mathbf{X}
Depth of Completed Well <u>1210.00</u> ft.	
BORE HOLE SEAL	sacks/
Dia From To Material From	To Amt lbs
24 0 40 Cement 0	40 40 S
12.25 495 1,260 Cement 40	495 240 S dculated 647.61 (11) WELL LOG Ground Elevation 4473.00
How was seal placed: Method \mathbf{X} A \mathbf{B} C	Ground Elevation 4475.00
Other	D E Material From To see attached 0 1,260
Backfill placed from 0 ft. to 495 ft. Material	
Filter pack from ft. to ft. Material	
Explosives used: Yes Type Amount	No Special Standards associated with this well
Explosives used: Yes Type Amount	No Special Standards associated with this well
Explosives used: Yes Type Amount	No Special Standards associated with this well
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ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:

WATER SUPPLY WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow **LAKE 52865**

12/6/2018

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	(2) Well Information	on	
Name	Surprise Valley Electrification Corp.	Well No.	SVE #2	
Mailing Address	516 US HWY 395 E	DOGAMI ID No.		
City/State/Zip	Alturas, CA 96101	Drilling Commenced	April 26, 2011	
Telephone	530.233.3511	Drilling Completed	February 9, 2012	
Fax	530.233.2190	Date P & A	May 2, 2011	
Email	lynnsvec@frontier.com	Total Depth	1260 ft	
Prepared by	Lynn Culp	Redrill Depth		
		Logs Run		

General Manager

Title

Date

(3) Casing Record

Signature

Size of Hole	Size of Casing	Weight (pounds per foot)	Grade/Type	Depth	Type and Amoun Cement	it of
24"	20"	65	A53B	40ft	Туре 2	
17.5"	13 3/8"	54	J55	495ft	Type G	240 sks
12.25"	9 5/8"	36	J55	1046ft		585
	7"	23	K55 LT&C	1210ft		bbl

(4) Plugs & Junk

Plugs / Junk	Geological Marker	Depth

(5) Perforations or Liner

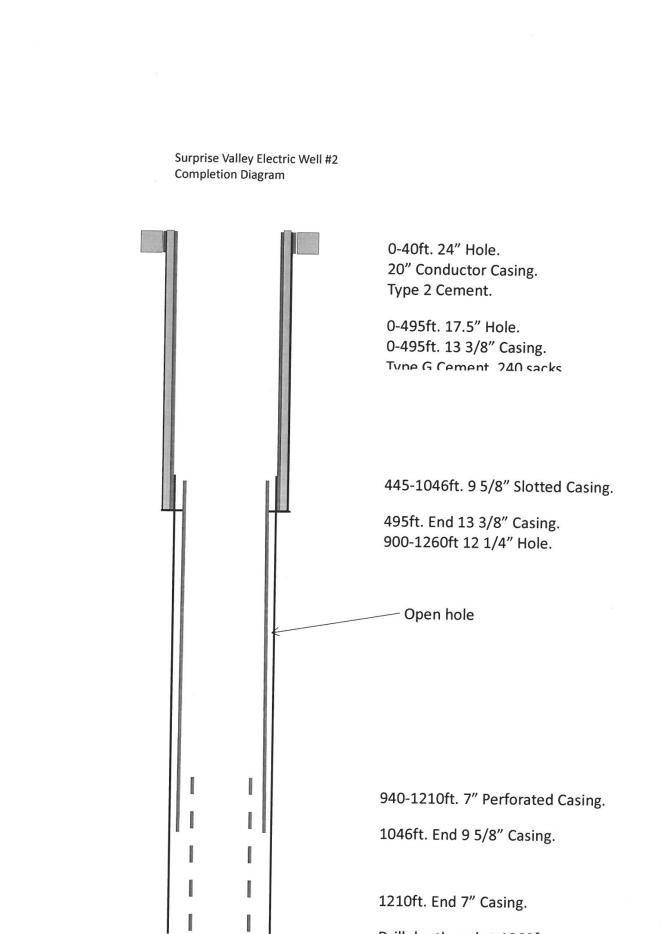
Size of Casing	From	То	Shots/ft.	Method of Perforating				
				Jet	Bullet	Slotted Line		
9 5/8"	445'	1046'				2.5" slots 6" centers		
7"	940	1210				.5" holes/40 holes per ft		

(6) Initial Production

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

12/6/2018

Map of Hole



12/6/2018

Map of Hole

LITHOGRAPHIC DESCRIPTION OF OIL OR GAS WELL (Not required if a mud log is submitted) STATE OF OREGON + DEPT OF GEOLOGY & MINERAL INDUSTRIES + 229 BROADALBIN ST SW + ALBANY OR 97321

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

(1) Permittee Information (2) Well Information Name Surprise Valley Electrification Corp. Well No. SVE #2 Mailing Address 516 US Hwy 395 E. DOGAMI ID No. 36-037-90027 Lake 1628 City/State/Zip Alturas, CA 96101 Telephone 530.233.3511 Fax 530.233.2190 lynnsvec@frontier.com Email Lynn Culp, Kyle Makovsky, Roy Mink, Prepared by Silvio Pezzopane

General Manager

Signature

Title

5/29/2012

Date

(3) Well Cuttings

Depth		Description				
From	То					
0	40	Brown clay soil and gravelly sand				
40	60	Light brown ash fragments, reddish rhyolite, black basalt, minor calcite/quartz				
60	80	Light brown/grey ash, red rhyolite, black basalt, cinders, rounded grains, black and red cuttings magnetic				
80	105	Light grey/brown ash, red rhyolite, black basalt, rounded grains, chert and obsidian magnetic				
105	125	Light grey/brown ash, red rhyolite, black basalt, rounded grains, purple, orange alteration, green stone				
125	155	Grey/brown ash, red rhyolite, black basalt, rounded grains, black and grey chips magnetic, light tan pumice fragment				
155	185	Grey/brown ash, red rhyolite, black basalt, magnetic, white/grey pumice green stone, minor alteration stains				
185	210	Grey/brown rhyolite, red rhyolite with alteration, black basalt, white/grey pumice				
210	245	Grey/brown rhyolite, red rhyolite, black basalt, light brown pumice				
245	300	Grey/brown rhyolite, red and brown rhyolite, black basalt, pumice, rounded grains				
300	340	Brown/grey rhyolite, rounded w/ some alteration, light grey tuff, black basalt/rhyolite; light grey tuff, feldspar chips				
340	360	Grey/light brown rhyolite, dark grey/black rhyolite, light red/yellow altered rhyolite, some chips rounded				
360	410	Grey/brown rhyolite, dark grey/black basalt, light red/yellow altered rhyolite, grey/white pumice, rounded pebbles				
410	420	Black basalt, light brown rhyolite, some alteration				
425	430	no data - no returns				
435	460	Black basalt, light brown/grey rhyolite, red altered rhyolite				
460	465	Fine sand of light brown/grey rhyolite, black basalt/rhyolite; light brown/red altered rhyolite				
465	475	Light brown/grey rhyolite, black basalt/rhyolite, yellow/red altered rhyolite				
475	490	Large amount fine sand, smaller cuttings are same as above with white alteration/pumice				
490	510	Altered tuff, light grey to reddish brown to dark brown, waxy texture, amorphous silica present				
510	530	no data ~ no returns				
530	565	Dark to light gray basalt, andesite, white and green alteration minerals				
565	620	Porphyritic basalt and andesite, pink/dark green/white alteration, opaline quartz, amorphous silica, calcite rhombs				
620	695	Dark gray, green, purple, and red basalt, amorphous silica, euhedral quartz, and calcite in vesicles				
695	710	Porphyritic andesite, opaline quartz				
710	790	Gray green and red basalt, altered, fibrous banded white mineral, calcite rhombs, crystalline and opaline quartz				
790	800	Olivine rich basalt, little alteration				
800	815	Porphyritic andesite and basalt rock, highly altered, clear crystalline quartz, banded alteration				
815	845	Amygdaloidal basalt, amygdules are green, white banded, botryoidal texture, calcite grains				
845	890	Gray basalt, little to no alteration				
890	905	Vesicular/amygdaloidal basalt, high amount of crystalline quartz filling vesicles				
905	920	Basalt with pyrite mineralization				
920	930	Gray basaltic andesite				
930	960	Gray/red/purple basalt, calcite rhombs, some amygdaloidal calcite				
960	1010	Dark gray and green basalt, calcite rhombs				
1010	1070	Highly altered vesicular/amygdaloidal basalt, pyrite mineralization, dark green/white/pink alteration minerals				
1070	1260	no data ~ no returns				
	1260	~ Total Depth				

SECTION 3: WELL DEVELOPMENT, CONTINUED

Total maximum rate requested: 300 GPM (each well will be evaluated at the maximum rate unless you indicate well-specific rates and annual volumes in the table below).

The table below must be completed for each source to be evaluated or the application will be returned. If this is an existing well, the information may be found on the applicable well log. (*If a well log is available, please submit it in addition to completing the table.*) If this is a proposed well, or well-modification, consider consulting with a licensed well driller, geologist, or certified water right examiner to obtain the necessary information. SEE ATTACHMENT E FOR COPY OF THE WELL LOGS

	ANNUAL VOLUME (ACRE-FEET)				
SE	WELL- SPECTFIC RATE (GPM)				
FRUPUSED USE	TOTAL WELL DEPTH	1360ft	1260ft		
PRO	SOURCE AQUIFER***	Basalt Lithic tuft. See Lithological Description in Well Log	Basalt See Lithological Description in Well Log		
	MOST RECENT STATIC WATER LEVEL & DATE (IN FEET)	159ft June 2014*	145ft June 2014*		
	SEAL INTERVALS (IN FEET)	Ĥ000-0	0-495ft		
	PERFORATED OR SCREENED INTERVALS (IN FEET)	900-1360ft	495-1260ft 0-495ft		
	CASING INTERVALS (IN FEET)	0-40ft 0-900ft	0-40ft 0-495ft		
	CASING DIAMETER	20" 13 3/8"	20" 13 3/8"		
	VETESIAN FLOWING				
	WELL TAG) NO.* OR WELL LOG ID**	L117043	L117044		
	ONILSIXE	\boxtimes			
	РКОРОЗЕД				
	OWNER'S WELL NAME OR NO.	SVE1	SVE2		

WITH NO PUMPING FROM WELLS SEVERAL MONTHS PRIOR 2 STATIC

** Licensed drillers are required to attach a Department-supplied Well Tag, with a unique Well TD or Well Tag Number to all new or newly altered wells. Landowners can request a Well ID for existing wells that do not have one. The Well ID is intended to serve as a unique identification number for each well.
** A well log ID (e.g., MARI 1234) is assigned by the Department to each log in the agency's well log database. A separate well log is required for each subsequent alteration of the well.

**** Source aquifer examples: Troutdale Formation, gravel and sand, alluvium, basalt, bedrock, etc.

Revised 8/1/2017

Ground Water/5

LAKE 52865

Map of Hole