RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF CONSERVATION

To: DOGGER (2) copies

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

API Well No. 097-90849

WELL SUMMARY	REPORT —	GEOTHERMAL	Cc:	5. L	-C.
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Operator Geysers Po	wer Compa	ıny, LLC				Well D&V - 26						
Field Geysers						County Sonoma	,		Sec. 34	T. 11N	R. 8W	B.&M. ₩. D.
			property or sect			enter line.)	· ,	, w	Elevatio 1809'	n of ground	d above/bei	ow sea level
Latitude/Lon	gitude (if kn	own)	Latitud	le: 38. <u>7</u> 7	0675	Longitud	e: -122.7319	51				
Was the well 274' North a			☐ Yes ☐ ace location pr	No ojection	lf yes, sh (surveys	iow coordinates attached)	at total dept	h.			_	
Commenced dr 10/01/2011	rilling (date)		Total de	oth T	rue Vertical Depth	Plugged Depth		asurements to k Floor			Kelly Bu	shing
Completed drilli 11/11/2011	ing (date)		4294		4280'	N/A	Which is	12		feet abov	e ground	l
Commenced pr Injection pend			(5) 4-3/4	" drill co	ilars. Left		GEOLOG Refer to	ICAL MARKE _itho-log	RS		DEPTH	
Name of pro Fransiscan		ction zone(s)	(4137').	ran 4-1/	2" liner on	top of fish						
							Formation Jurassic	and age at to	otal depth		Base of	fresh water
		CTEST				PRODI	UCTION TES	T DATA				
DATE	, · · · ·	vell head)	01.0		otal mass flov	1	Tamanahun	Sfc Pressure	Se Tempera	parator da	ita team Rate	Water Rate
		sure sig)	Sfc Pressure (psi)	Orifice (Inches)		Enthalpy (Btu/lb)	Temperature (°F)	(psi)	(°F)		(lbs/hr)	(lbs/hr)
Olar of Ora	(ABI)	Tan of Oasi				ITING RECORD	Present Ho		ber of Saci	ke or	Toni	s) of Cement
Size of Cas (inch		Top of Casir (feet)	g Depth of Sr (feet)	ioe	Weight of Casing (lbs/ft)	Grade and Type of Casing	Drilled (inches)	-	Feet of Co			Annulus (feet)
9-5/8"		surface	499'	4	7#	K-55 BTC	12.25"	160 sx			surfac	ce
7"		surface	3378'	20	6#	K-55 and L-80 BTC	8-1/2"				surfa	ce
4-1/2"		1766'	4137'	1:	5.1#	L-80 Hyd-511	6-1/8"	N/A			N/A	
PERFORAT 4-1/2" 15.1# 8 slots per	¥ H-511 L-8	G LINER (Si: 0 liner, slott	ze, top, bottom, ted from 4137 -	perforate 3397, bl	ed intervals, lank from 3	, size and spacii 1397 - 1766', slo	ng of perfora ots are from	tions, and me 4' below box	thod.) to 4' abo	ove pin (1-4" X 2	' X 4 slots
Logs/survey	/s run?	☐ Yes	⊠ No If y	es, list ty	ype(s) and o	depth(s).						
In complian	ce with Sec the well and	. 3215, Divis d all work do	ion 3, of the Pul	olic Reso ar as cal	ources Code n be determ	e, the information	n given here ailable recor	ds.	lete and	correct re	ecord of t	he present
Name Paul Graha	am							Title Agent				
Address 10350 Soci	rates Mine	Road					2	City/State Middletown,	CA			Zip Code 95461
Telephone 707 431-60	94				Signatur	TC	2			Date /	1/2/	1001
E-Mail grahampai	ul@calpine	.com			Fax 707-431	-6148						
OGG100 (4/0	08)											

	SCHEMATIC	DESCRIPTION	REMEDIAL WORK
12-1/4"	Hole 499'	9-5/8" 40# BTC casing, cemented.	Perforated casing for remedial cement job.
8-1/2"	Hole	Top of 4-1/2" liner @ 1766' 3/4" holes perforated @ 1885', 1879' & 1875'.	
	3378'	7" 26# BTC casing, cemented. K-55 3378'-865' I-80 865'-Surface	FISH Fish from 4294'-4137' (1) 6-1/8" bit, (1) near bit stab, (5) 4-3/4" drill collars MISCELLANEOUS
6-	1/8" Hole	4-1/2" 15.1#, H511 slotted liner, set on Fish @ 4137'.	API #: 097-90849 Sec. 34, T11N, R8W Sonoma County, CA Lat/Long: 402932.8, 1791630.8
		-Fish left in hole, 6-1/8" bit, NBS, (5) DC's -4294' T.D.	Rig: Nabors-472
CALPINE CALPINE	GROUND ELEVA	ATION : 3363' SPUD DATE :	10/01/11 T. M. DEPTH : 4294'
DV-26 INJECTOR	KELLY BUSHING		11/11/11 T. V. DEPTH : 4280'



Operations Activity Detail Well ID: SLRI-DV 26 Field: Geysers

Calpine Corp Well Name; DV - 26 SLRI Sect: 34 Town: 11N Rng: BW County: Sonoma State: CA

Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code	Activity Description	Non- Prod
2	28-Sep-11	00:00	00:00	24		RIGD	Rigged down and scoped in derrick on BEF 87-28.	
3	29-Sep-11	00:00	06:00	6		OTHER	Rig idle waited on daylight.	
		06:00	18:00	12		MOVE	Loaded out rig from BEF 87-28.Set camp and engines on DV-26.Loaded misc. loads from BEF 87-28.	
		18:00	00:00	6		OTHER	Rig idle waited on daylight.	
4	30-Sep-11	00:00	07:00	7		OTHER	Rig idle waited on daylight.	
	·	07:00	19:00	12		MOVE	Set rig onto DV-26.Cleared all equipment from BEF 87-28.Installed and tested derrick raising rams.	
		19:00	00:00	5		OTHER	Rig idle waited on daylight.	
5	01-Oct-11	00:00	07:00	7		OTHER	Rig idle,waited on daylight.	
		07:00	17:00	10		MOVE	Set in pits and solids equipment.Raised derrick.Set in stairs and walks.Set in connex and change room.Unloaded equipment on lower pad.	
		17:00	00:00	7		RIGU	Rigged up.Scoped out derrick.Rigged up floor.	
6	02-Oct-11	00:00	06:00	6		RIGU	Rigged up floor, Picked up kelly.	
		06:00	21:00	15		BOPNU	Fabricated conductor.Mixed spud mud.Installed conductor and flow line.Refabbed mousehole.Rig on payroll @ 06:00 on 10/2/11.	
		21:00	22:00	1		BHAOP	Picked up bit and monel.	
		22:00	00:00	2		DRIL	Drilled 12 1/4" hole from 42' to 67'.	
7	03-Oct-11	00:00	02:00	2		DRIL	Drilled 12 1/4" hole from 67' to 76'.	
		02:00	04:00	2		CIRC	Cleaned out packed off flow line.	
		04:00	00:00	20		DRIL	Drilled from 76' to 200'.	
8	04-Oct-11	00:00	01:00	1		DRIL	Drilled 12 1/4" hole from 200' to 206'.	
-		01:00	02:00	1		SURV	Circulated and surveyed at 161'.	
		02:00	10:00	8		DRIL	Orilled 12 1/4" hole from 206' to 251' and lost mud returns at 251'.	
		10:00	11:30	1.5		TRPO	Pulled out of the hole to 40'.	
		11:30	12:00	0.5		SERV	Serviced the rig.	
		12:00	15:00	3		OTHER	Built mud volume and added lost circulation material.	
		15:00	17:00	2		TRPI	Ran in the hole and spotted a 150 Bbls LCM pill at 251'.	
		17:00	18:00	1		TRPO	Pulled out of the hole.	
		18:00	21.30	3.5		OTHER	Built mud volume and added lost circulation material.	
		21:30	22:30	1		TRPI	Ran in the hole to 251'.	
		22:30	23:30	1		DRIL	Drilled from 251' to 259 with no returns.	
		23:30	00:00	0.5		OTHER	Built mud volume and a Hydro Plug pill.	
9	05-Oct-11		02:30	2.5		OTHER	Mixed and pumped the Hydro LCM Plug and spotted at 259'.	
		02:30	03:00	0.5		TRPO	Pulled out of the hole to 40'.	
		03:00	10:00	7		OTHER	Waited on the Hydro Plug to set.	
		10:00	10:30	0.5		OTHER	Attempted to fill the hole with no returns.	
		10:30	12:00	1.5		TRPO	Pulled out of the hole and laid down the bottom hole stab and bit.	
		12:00	12:30	0.5		TRPI	Ran in the hole picking up drill pipe to 150'.	
		12:30	17:30	5		WOE	Waited on cement and cementers.	Х
		17:30	18:30	1		CMTPL	Rigged up the cementers and set a 150 lin. ft cement plug at 150'.	
		18:30	00:00	5.5		WOC	Waited on the cement to harden.	
10	06-Oct-11	00:00	02:30	2.5		WOC	Waited on the cement to harden and filled the hole with 50 bbls.	
		02:30	04:00	1.5		TRPI	Ran in the hole with the 12 1/4' drilling assembly and	



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Operations Activity Detail Well ID: SLRI-DV 26 Field: Geysers

Calpine Corp Well Name: DV -, 28 SLRI Sect: 34 Town: 11N Rng: 8W County: Sonoma State: CA

Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code	Activity Description	Non- Prod
110.		11110			1710		tagged cement at 159'.	
		04:00	05:00	1		C/OCMT	Cleaned out cement from 159' to 259' and lost returns.	Х
		05:00	06:00	1		DRIL	Drilled 12 1/4" hole from 259' to 265' with no returns.	
		06:00	07:30	1.5		TRPO	Pulled out of the hole to set a cement plug.	
		07:30	08:00	0.5		SERV	Serviced the rig.	
		08:00	10:00	2		TRPI	Ran in the hole with open ended drill pipe and washed down to 262'.	
		10:00	11:00	1		CMTPL	Rigged up the cementers and set 120 lin. ft cement plug # 2 at 262'.	
		11:00	11:30	0.5		TRPO	Pulled out of the hole	
		11:30	18:00	6.5		WOC	Waited on the cement to harden and built mud volume.	
		18:00	21:00	3		TRPI	Ran in the hole with the 12 1/4' drilling assembly and tagged cement at 239'.	
		21:00	22:00	1		C/OCMT	Cleaned out cement from 239' to 265'.	X
		22:00	00:00	2		DRIL	Drilled 12 1/4" hole from 265' to 272' with no mud loss.	
11	07-Oct-11		00:00	24		DRIL	Drilled 12 1/4" hole from 272' to 388'.	
12	08-Oct-11	00:00	15:00	15		DRIL	Drilled 12 1/4" hole from 388' to 510' 9 5/8" casing point.	
		15:00	15:30	0.5		CIRC	Circulated the hole clean at 510'.	
		15:30	16:00	0.5		SURV	Ran a wire line directional survey at 469'.	
		16:00	19:30	3.5		WIPE	Ran a wiper trip from 510' to surface measuring out of the hole.	
		19:30	20:30	1		CIRC	Circulated the hole clean at 510'.	·
		20:30	23:30	3		TRPO	Pulled out of the hole to run casing and laid down the 12 1/4" tools and 8" monel.	
		23:30	00:00	0.5		WOE	Waited on the casing equipment due to their truck breaking down.	Х
13	09-Oct-11	00:00	04:00	4		WOE	Waited on the casing equipment due to their truck breaking down.	Х
		04:00	07:30	3.5		CASE	Ran 9 5/8" casing to 499'.	
		07:30	09:00	1.5		TRPI	Ran in the casing with the stab in and drill pipe and stabbed into the casing float collar at 459'.	
		09:00	10:30	1.5		CIRC	Rigged up the cementing equipment and circulated the hole clean.	
		10:30	11:30	1		CMTP	Cemented the casing with good returns to surface.	
		11:30	12:30	1		TRPO	Pulled out of the casing and laid down the stab in tool.	
		12:30	21:00	8.5		WOC	Waited on the cement to harden.	
		21:00	00:00	3		OTHER	Cut off the conductor and the 9 5/8" casing to install the well head.	
14	10-Oct-11	1 00:00	03:00	3		WELD	Welded on the well head flange and tested to 500 psi.	
		03:00	19:30	16.5		BOPNU	Nippled up the blow out preventers and tested with D.O.G. to 500psi. The casing would only test to 300 psi.	
		19:30	23:30	4		REPR	Attempted to change out the kelly swivel but when they picked up the new swivel the threads had been cut wrong. Picked back up the old swivel.	>
		23:30	00:00	0.5		BHAOP	Started picking up the 8 1/2" drilling assembly.	
15	11-Oct-1	1 00:00	07:00	7		BHAOP	Installed mousehole picked up bha.	
		07:00	08:00	1		BOPT	Tested pipe rams Test approved by DOG.	
		08:00	12:30	4.5		C/OCMT	Tripped in hole tagged float collar @ 459'. Cleaned out float collar. Washed to shoe @ 498'. Cleaned out wiper and shoe Washed to 510'.	t) r



Operations Activity Detail. Well ID: SLRI-DV 26 Field: Geysers Se

Ealpine Corp Well Name DV ≟28 SERI Sect: 34 Town: 11N Rng: 8W County: Sonoma State €CA

		Field: Ge	ysers	W.		The land the second second second second	± 34 Town: 11N Rng: 8W County: Sonoma State	
Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code		Non- Prod.
		12:30	00:00	11.5		DRIL	Drilled 8 1/2" hole from 510' to 692' with no mud losses.	
16	12-Oct-11	00:00	13:30	13.5		DRIL	Drilled 8 1/2" hole from 692' to 945' with no mud loss. Lost returns @ 945'.	
		13:30	14:00	0.5		DRIL	Drilled with no returns from 945' to 952'.	
		14:00	16:30	2.5		CIRC	Tripped out of hole to 488' Built volume and mixed lcm. Tripped in hole to 952'.	
		16:30	21:00	4.5		DRIL	Drilled with no returns from 952' to 960'.Regained full returns.Drilled from 960' to 1023' with no mud loss.	
		21:00	22:00	1		SURV	Circulated and surveyed @ 954'.	
		22:00	00:00	2		DRIL	Drilled from 1023' to 1086' with no mud loss.	
17	13-Oct-11	00:00	00:00	24		DRIL	Drilled 8 1/2" hole from 1086' to 1534' with no mud loss.	
18	14-Oct-11	00:00	01:30	1.5		DRIL	Drilled 8 1/2" hole from 1534' to 1561' with no mud loss.	
		01:30	02:00	0.5		SURV	Surveyed @ 1502'.	
		02:00	00:00	22		DRIL	Drilled from 1561' to 1955' with no mud loss.Lost returns @ 1956'.Drilled with no circulation from 1956' to 1965'.	
19	15-Oct-11	00:00	01:00	1		TRPO	Tripped out of hole to 480'.	
		01:00	02:30	1.5		CIRC	Built volume, mixed lcm.	
		02:30	03:30	1		TRPI	Tripped in hole to 1965'	
		03:30	04:30	1		DRIL	Drilled 8 1/2" hole from 1965' to 1976' with partial to no returns.	
		04:30	09:00	4.5		TRPO	Tripped out of hale.	
		09:00	12:00	3		TRPI	Tripped in hole with open ended drill pipe to 1890'.	
		12:00	13:30	1.5		CMTPL	Rigged up Thermasource Cementers and set plug #3 200 LF CIP 13:15.	
		13:30	17:00	3.5		WOC	Tripped out of hole to 480'. Waited on cement.	
		17:00	20:00	3		TRPI	Pumped 140 bbls, with no returns. Tripped in hole and tagged cement @ 1972'. Tripped out of hole to 1890'.	
		20:00	21:00	1		CMTPL	Set cement plug #4 200 LF CIP 20:45.	
		21:00	22:00	1		TRPO	Tripped out of hole.	
		22:00	22:30	0.5		OTHER	Rigged up float onto survey machine and checked fluid level @ 1970'.	
		22:30	23:00	0.5		TRPI	Tripped in hole with open ended drill pipe to 480'.	
		23:00	00:00	1		WOC	Waited on cement.	
20	16-Oct-1		01:00	1		WOC	Waited on cement.	
20	,0 000-1	01:00	02:00	1		TRPI	Tripped in hole tagged cement @ 1955'.	
		02:00	03:00	1		CIRC	Mixed spotted and displaced. Icm pill. Pulled up to 1890.	
		03:00	03:30	0.5		CMTPL	Set plug #5 235 LF CIP 03:30.	
		03:30	07:30	4		TRPO	Tripped out of hole to 480'. Waited on cement.	
		07:30	09:00	1.5		TRPI	Tripped in hole tagged cement @ 1697'.Circulated @ 1697' with full returns.	
		09:00	10:30	1.5		TRPO	Tripped out of hole.	
		10:30	13:30	3		TRPI	Made up bha and tripped in hole to 1651'.	
		13:30	17:00	3.5		C/OCMT	Cleaned out cement from 1651' to 1910'. Washed from 1910' to 1976'.	Х
		17:00	23:30	6.5		DRIL	Drilled 8 1/2" hole from 1976' to 2073'.Lost 10-20 bph.	
		23:30	00:00	0.5		SURV	Surveyed @ 2008'.	
21	17-Oct-1		12:30	12.5		DRIL	Drilled 8 1/2" hole from 2073' to 2193' lost 20-50 bph.	
		12:30	14:30	2		CIRC	Spotted cottonseed pellet pill. Tripped out of hole to	

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RIMBase

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Operations Activity Detail

Well ID: SURI- DV 26

Field: Geysers

Calpine Corp

Well Name: DV - 26 SURI

Sect: 34 Town; 11N Rng: 8W County: Soroma State: CA

		Field: Ge	Control of the		<u> </u>		134 TOWN: 11N Ring: 844 County. Surjoina State	
Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code	Activity Description	Non- Prod.
							1875' Waited on pill Tripped in hole to 2193'.	
		14:30	17:30	3		DRIL	Drilled from 2193' to 2220' lost 15-90 bph.	
		17:30	20:30	3		TRPO	Tripped out of hole for cement plug.	
		20:30	23:30	3		TRPI	Tripped in hole with open ended drill pipe to 2145'.	
		23:30	00:00	0.5		CMTPL	Rigged up Thermasource cementers.	
22	18-Oct-11	00:00	00:30	0.5		PLUG	Set cement plug #6 300 LF set @ 2142 CIP 00:30.	-
		00:30	01:30	1		TRPO	Pulled out of the hole to the shoe at 499'.	
		01:30	04:30	3		WOC	Attempted to fill hole with 70 bbls with no returns.	
		04:30	06:00	1.5		TRPI	Tripped in hole and tagged cement @ 1962'.Filled the hole with 42 bbls.Circulated lost 60 bph.	
		06:00	07:00	1		PLUG	Set 200 lin. ft cement plug # 7 at1962'.	ì
		07:00	07:30	0.5		TRPO	Pulled out of the hole to the shoe at 499'.	
		07:30	11:00	3.5		WOC	Waited on cement to harden and filled the hole with 25 bbls.	
		11:00	12:00	1		TRPI	Ran in the hole and tagged the cement at 1899'.	ł
		12:00	12:30	0.5		CIRC	Circulated the hole clean at 1899' with no mud losses.	
		12:30	13:30	1		TRPO	Pulled out of the hole to get the drilling assembly.	
		13:30	16:30	3		TRPI	Ran in the hole with the 8 1/2" drilling assembly to 1880'.	
		16:30	21:00	4.5		C/OCMT	Cleaned out cement from 1899' to 2220'.	Х
		21:00	00:00	3		DRIL	Drilled 8 1/2" hole from 2220' to 2260' with mud losses from 10 to 35 bbls per hour.	
23	19-Oct-11	00:00	00:00	24		DRIL	Drilled 8 1/2" hole from 2260' to 2476' with 40 to 60 bbls per hour mud loss.	
24	20-Oct-11	00:00	06:30	6.5		DRIL	Drilled 8 1/2" hole from 2476' to 2549' with mud losses from 80 to 90 bbls per hour.	
		06:30	07:30	1		SURV	Circulated and ran a directional wire line survey at 2493'.	
		07:30	10:30	3		TRPO	Pulled out of the hole to set a cement plug.	
		10:30	12:00	1.5		TRPI	Ran in the hole with open ended drill pipe to 500'.	
		12:00	13:00	1		WOE	Waited on the cementers.	Х
1		13:00	14:30	1.5		TRPI	Ran in the hole to 2530'.	
		14:30	15:30	1		PLUG	Circulated with no returns and set a 200 lin. ft lost circulation cement plug # 8 at 2530'.	
		15:30	20:00	4 .5		woc	Pulled out of the hole to 500' and waited on the cement to harden.	
		20:00	21:00	1		TRPI	Ran in the hole and tagged cement at 2340'.	
		21:00	22:30	1.5		PLUG	Pumped 60 bbls away and set 300 lin ft cement plug # 9 at 2314'.	:
		22:30	00:00	1.5		WOC	Pulled out of the hole and waited on the cement to harden.	
25	21-Oct-1	1 00:00	04:00	4		woc	Waited on the cement to harden and cleaned the muctanks.	
		04:00	06:00	2		TRPI	Ran in the hole and tagged the cement at 2007' and attempted to fill the hole with no returns.	
		06:00	07:30	1.5		PLUG	Set 335 lin ft cement plug #10 at 1970'.	
		07:30	13:30	6		WOC	Pulled out of the hole to 500' and waited on the cement to harden.	
		13:30	14:30	1		TRPI	Ran in the hole and tagged the cement at 1823'.	
		14:30	15:00	0.5		CIRC	Circulated the hole at 1823' with no mud losses.	
		15:00	16:00	1		TRPO	Pulled out of the hole with open ended drill pipe.	
		16:00	18:00	2		TRPI	Ran in the hole with the 8 1/2" drilling assembly to 1823'.	



Operations Activity Detail

Well ID: SLRI- DV 26

Field: Geysers

Galpine Corp

Well Name, DV: 26 SLRIField: Geysers

Sect 34 Town: 11N Rng: 8W County: Sonoma State: CA

-		Field: Ge	ysers	og an	V		t 34 Town; 11N Rng: 8W County: Sonoma Stat	et see
Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code	Activity Description	Non- Prod
		18:00	00:00	6		C/OCMT	Cleaned out cement from 1823' to 2390' started lossing 10 to 35 bbls per hour of mud at 2290'.	Х
26	22-Oct-11	00:00	02:00	2		C/OCMT	Cleaned out cement from 2390' to 2549' with mud losses from 10 - 35 bbls per hour.	Х
		02:00	06:00	4		DRIL	Drilled 8 1/2" hole from 2549' to 2591' with mud losses up to 90 bbls an hour.	
		06:00	08:00	2		OTHER	Cleaned LCM out of the mud pumps and build volume.	
		08:00	10:30	2.5		DRIL	Drilled 8 1/2" hole from 2591' to 2617' and lost returns at 2610'.	
		10:30	11:00	0.5		OTHER	Pumped a high content LCM pill and spotted it at 2617'.	
		11:00	13:30	2.5		TRPO	Pulled out of the hole and cleaned the LCM out of the float.	
		13:30	14:00	0.5		OTHER	Ran a wire line fluid check with the fluid at 700'. Pumped 50 bbls and filled the hole.	
		14:00	16:30	2.5		TRPI	Ran in the hole with the 8 1/2" drilling assembly to 2617'.	
		16:30	17:00	0.5		DRIL	Drilled 8 1/2" hole from 2617 to 2621 with very little returns.	
		17:00	17:30	0.5		OTHER	Built mud volume and add LCM.	
		17:30	18:00	0.5		DRIL	Drilled 8 1/2" hole from 2621' to 2626 with mud losses up to 90 bbls per hour.	
		18:00	20:00	2		OTHER	Worked the drill string and built mud volume.	
		20:00	00:00	4		DRIL	Drilled 8 1/2" hole from 2626' to 2671' with no mud loss.	
27	23-Oct-11	00:00	11:30	11.5		DRIL	Drilled 8 1/2" hole from 2671' to 2754'.	
		11:30	12:00	0.5		CIRC	Circulated and spotted a 60 bbls LCM pill at 2754'.	
		12:00	14:00	2		TRPO	Pulled out of the hole.	
		14:00	17:00	3		TRPI	Ran in the hole with a new 8 1/2" bit # 4.	
		17:00	00:00	7		DRIL	Drilled 8 1/2" hole from 2754' to 2832' with no mud loss.	
28	24-Oct-11	1 00:00	14:30	14.5		DRIL	Drilled 8 1/2" hole from 2832' to 3002'.	
		14:30	15:00	0.5		SERV	Serviced the rig and tightened the swivel packing.	
		15:00	22:30	7.5		DRIL	Drilled 8 1/2" hole from 3002' to 3120'. Lost 140 bbls at 3002'.	
		22:30	23:30	1		SURV	Circulated and surveyed at 3064'	
		23:30	00:00	0.5		DRIL	Drilled 8 1/2" hole from 3120' to 3128' with no losses.	
29	25-Oct-1	1 00:00	15:30	15.5		DRIL	Drilled 8 1/2" hole from 3128' to 3310' lost 0-60 bph.	
		15:30	17:00	1.5		DRIL	Lost returns 3310' Drilled blind from 3310' to 3323'.	
		17:00	19:30	2.5		CIRC	Spotted 2 lcm pills. Tripped out of hole to 3178' and worked pipe. Tripped in hole to 3323'.	
		19:30	20:00	0.5		DRIL	Drilled blind from 3323' to 3328'.	
		20:00	22:00	2		CIRC	Worked pipe to mix and spot lcm pill. While spotting lcm pill bit plugged. Attempted to clear bit. Tripped out of hole to 2760' and attempted to clear bit.	
		22:00	00:00	2		TRPO	Tripped out of hole wet with plugged bit.	
30	26-Oct-1			3.5		TRPO	Tripped out of hole with plugged bit. Cleaned out sawdust above float and bit had 2 plugged jets.	
		03:30	05:00	1.5		OTHER	Checked fluid level @ 1190'.Pumped 70 bbls.Checker fluid level @ 1139'.	ed
		05:00	06:00	1		TRPI	Tripped in hole with open ended drill pipe to 480'.	
		06:00		0.5		SERV	Serviced rig.	



Operations Activity Detail Well ID: SERI-DV 26 Field: Geysers Sect.:

Calpine Corp

Well Name DV - 26 SLRI

Sect: 34 Town: 11N Rng: 8W County: Sonoma State: CA

Rpt. No.	Date	Time	То	Нгѕ	End MD	Ops Code	Activity Description	Non- Prod
		06:30	10:00	3.5		WOE	Waited on cementers.	Х
		10:00	12:00	2		TRPI	Tripped in hole to 3290'.	
		12:00	12:30	0.5		CMTPL	Rigged up Thermasource cementers and pumped plug #11 200 LF CIP 12:30.	
		12:30	16:00	3.5		woc	Tripped out of hole to 480'. Waited on cement. Cleaned out sand trap and settling pit.	
		16:00	17:00	1		TRPI	Tripped in hole and tagged cement @ 2999'.	
		17:00	18:30	1.5		CIRC	Pumped 120 bbls.Had temporary returns,lost returns and pump pressure.	
		18:30	19:00	0.5		TRPO	Tripped out of hole to 1970'.	
		19:00	20:00	1		CMTPL	Set cement plug #12 300 LF CIP 20:00.	
		20:00	21:00	1		TRPO	Tripped out of hole and function tested bop.	
		21:00	00:00	3		WOC	Checked fluid level @ 630' Waited on cement. Checked fluid level @ 23:00 710'. Filled hole with 48 bbls. Circulated with no loss.	
31	27-Oct-11	00:00	03:00	3		TRPI	Made up 8 1/2" bha and tripped in hole.Tagged cement @ 2197'.	
		03:00	08:30	5.5		C/OCMT	Cleaned out cement with no mud loss from 2197' to 2709'.	Х
		08:30	18:30	10		STUK	Pipe became wall stuck bit depth @2699' while making connection. Stuck point estimated @ 2090'. Worked stuck pipe while for XLR-Rate pipe lubricant. Lost returns @ 14:00 Mixed lcm and regained full returns @ 18:30.	Х
		18:30	00:00	5.5		STUK	Pumped 65 bbls of 5% XLR-Rate pipe lubricant mud. Worked stuck pipe while pumping 1 bbl. 5% XLR-Rate pipe lubricant mud every 1/2 hour.	X
32	28-Oct-11	1 00:00	04:00	4		STUK	Worked stuck pipe and pumped 1 bbl. 5% XLR-Rate pipe lubricant mud every 1/2 hour.Pipe came free @ 04:00.	Х
		04:00	05:30	1.5		TRPO	Tripped out of hole to shoe.	
		05:30	06:30	1		CIRC	Circulated and conditioned mud.	
		06:30	08:00	1.5		TRPI	Tripped in hole to 2709'.	
		08:00	14:30	6.5		C/OCMT	Cleaned out cement from 2709' to 3210'.Lost returns.	Х
		14:30	15:30	1		TRPO	Tripped out of hole to 1491'.	
		15:30	17:30	2		CIRC	Worked pipe @ 1491'.Mixed and pumped lcm.Regained full circulation.	
		17:30	18:00	0.5		TRPI	Tripped in hole to 3210'.	
		18:00	20:00	2		C/OCMT	Cleaned out cement from 3210' to 3295' Washed from 3295' to 3328' Lost 50 bph.	ìΧ
		20:00	00:00	4		DRIL	Drilled 8 1/2" hole from 3328 to 3367'. With no mud loss.	
33	29-Oct-1	1 00:00	03:00	3		DRIL	Drilled 8 1/2" hole from 3367' to 3397' with no mud loss.	
		03:00	04:00	1		CIRC	Circulated bottoms up.	
		04:00	09:00	5		TRPO	Tripped out of hole to install casing rams.Laid down 6-6" drill collars.	
		09:00	11:00	2		OTHER	Installed 7" casing rams.	
		11:00	15:00	4		TRPI	Made up bha and tripped in hole to 3250' Broke circulation and held bop drill @ 1500'.	
		15:00	16:00	1		WASH	Washed down from 3250' to 3397". Dehydrated thick mud.	
		16:00	17:00	1		CIRC	Circulated @ 3397'.	
		17:00	17:30	0.5		SURV	Surveyed @ 3332'.	

Printed: 09:15 17-Nov-11

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Operations Activity Detail Calpine Corp.

Well ID: SERI-DV 26 Well Name DV 26 SERI

Field: Geysers Sect: 34 Town: 11N Rng: 8W County: Soloma State: CA

		rieia: Ge	730.3	A. P. C.	ř		CO4 TOWN THE KING OVE COUNTY CONTINUES	
Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code	Activity Description	Non- Prod
		17:30	18:30	1		CIRC	Circulated @ 3397'.	
		18:30	23:00	4 .5		TRPO	Tripped out of hole, laid down 3-drill collars, jars, and monel. Changed out kelly.	
		23:00	00:00	1		CASE	Rigged up casing crew.	
34	30-Oct-11	00:00	08:30	8.5		CASE	Ran 7" casing bottom @ 3377'.Installed circulating swedge and attempted to circulate.	
		08:30	16:30	8		STUK	Casing stuck and packed off.Worked stuck casing with 1500-2500 psi	X
		16:30	18:00	1.5		CIRC	Pumped 30 bbls of 5% XLR-Rate pipe lubricant mud thru kill line Displaced with 15 bbls. mud.	
		18:00	00:00	6	٠	STUK	Worked stuck casing moving 5% XLR-Rate pipe lubricant mud downhole with 1 bbl./hour.	Χ
35	31-Oct-11	00:00	08:00	8		STUK	Worked stuck casing moving 5% XLR-Rate pipe lubricant mud downhole with 1 bbl./hour.	X
		08:00	12:30	4.5		STUK	Rigged up Cogco wireline and ran freepoint.Casing stuck @ 1950'.	X
		12:30	14:00	1.5		OTHER	Rigged down wireline.Rigged up floor to run drill pipe inside casing.	
		14:00	20:00	6		TRPI	Tripped in hole to 3140' Broke circulation and tightened kelly @ 1850'.	
		20:00	22:00	2		WASH	Washed from 3140' to 3377' inside 7" casing.	
		22:00	23:00	1		CIRC	Circulated @ 3377' inside 7" casing.	
		23:00	00:00	1		TRPO	Tripped out of hole with drill pipe.	
36	01-Nov-11		01:00	1		TRPO	Pulled out of the hole with the drill pipe.	
•	01110111	01:00	08:00	7		OTHER	Attempted to circulate casing.Pumped 200 bbls. lcm mud down casing.Worked stuck 7" casing.	
		08:00	23:30	15.5		WÖE	Waited on 7" packer. Held a safety stand down and installed a raised floor for running the 7" packer.	X
		23:30	00:00	0.5		TRPI	Made up the 7" packer and started running in the hole.	
37	02-Nov-11		03:30	3.5		TRPI	Ran in the hole with the 7" Fast Drill packer to 3314'.	
σ,	32,101	03:30	08:30	5		RIGD	Rig on down time due to not being able to move the forklift out of the way to bring in the cement trucks. Pulled out of the hole to 2314' to keep the packer cool.	
		08:30	14:00	5.5		OTHER	Moved the forklift with a hydro crane and backed in the cementers then ran in the hole to 3314' and set the packer then cemented the 7" casing.	
		14:00	17:00	3		TRPO	Pulled out of the hole and laid down the packer setting tools.)
		17:00	19:00	2		PERF	Rigged up the wire line truck and ran in the hole and shot 2 - 3/4" holes at 1885'.	
		19:00	20:00	1		WELD	Had to redress the 7" casing collar with the welder and install the circulating sub.	
		20:00	20:30	0.5		CIRC	Circulated threw the holes in the casing at 1885' with no mud losses.	
		20:30	21:00	0.5		PERF	Ran in the hole with the second set of perforating guns and shot 2 holes at 1879' and 2 more holes at 1875' and rigged down the wire line truck.	
		21:00	23:30	2.5		CIRC	Circulated the casing threw thew the perf holes conventionaly and also reversed circulated while rigging up the cementers.	
		23:30	00:00	0.5		CMTP	Reversed cemented the 7" casing from surface to 1885'.	
38	03-Nov-1	1 00:00	01:00	1		CMTP	Reversed cemented the 7" casing from surface to 1885.	



Operations Activity Detail Well ID: SERI-DV 26 Field: Geysers

etail Calpine Corp Well Name: DV - 26 SLRI Sect: 34 Town: 11N Rng: 8W County: Sonoma State: CA

		Field: Ge	ysers		<u>. i </u>	Sec	E 34 Town: 11N Rng: 8VV County: Sonoma Stat	V.3
Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code	Activity Description	Non- Prod.
		01:00	11:00	10		WOC	Waited on the cement to harden.	
		11:00	15:00	4		BOPND	Nippled down and lifted blow out preventer and cut off the 7" casing and laid down the cut off.	
		15:00	18:00	3		WHE	Welded on the 10", 400 series hubbed well head flange and tested to 500 psi.	
		18:00	20:00	2		OTHER	Allowed the well head to cool and changed the 7" casing rams to blind rams.	
		20:00	22:00	2		CMTS	Mixed and pumped a 2 bbls cement top job on the 7" casing.	
		22:00	00:00	2		BOPNU	Nippled up the blow out preventer.	
39	04-Nov-11	00:00	06:00	6		BOPNU	Nippled up the B.O.P. and tested to 500 psi.	
		06:00	08:00	2		TRPI	Ran in the hole and laid down 14 joints of plugged drill pipe.	
		08:00	09:00	1		BHAOP	Pick up 6 1/8" bottom hole assembly.	
		09:00	10:30	1.5		BOPT	Tested the blow out preventer with the D.O.G.G.E.R. TO 500 psi.	
		10:30	14:00	3.5		TRPI	Picked up the 6 1/8" drilling assembly and ran in the hole and tagged cement at 1797".	
		14:00	16:00	2		C/OCMT	Cleaned out cement from 1797' to 1891'.	Х
		16:00	16:30	0.5		TRPI	Ran in the hole and tagged cement at 3191'.	
		16:30	17:30	1		BOPT	Circulated the hole clean and tested the pipe rams and casing to 500 psi.	
		17:30	20:00	2.5		TRPO	Laid down working drill pipe out of the derrick.	
		20:00	00:00	4		C/OCMT	Cleaned out cement from 3191' to 3397' with the packer at 3314' and the shoe at 3378'.	X
40	05-Nov-1	1 00:00	06:30	6.5		DRIL	Drilled 6 1/8" hole from 3397' to 3484' losing 40 to 100 bbls per hour.	İ
		06:30	07:30	1		OTHER	Worked on mud pumps cleared LCM out of valves and primed the pumps.	
		07:30	18:00	10.5		DRIL	Drilled 6 1/8" hole from 3484' to 3607' losing 100 to 200 bbls per hour.	
		18:00	18:30	0.5		SERV	Serviced the rig.	
		18.30	00:00	5.5		DRIL	Drilled 6 1/8" hole from 3607' to 3640' losing 160 to 200 bbls per hour.	
41	06-Nov-1	1 00:00	09:00	9		DRIL	Drilled 6 1/8" hole from 3640' to 3699' losing 200 bbls per hour and lost complete returns at 3690'.	
		09:00	10:00	1		SURV	Circulated and ran a wire line directional survey at 3660'.	
		10:00	12:30	2.5		TRPO	Pulled out of the hole to lay down the Monel collar and string stabilizers with all the stabilizers and bit in gauge.	1
		12:30	14:30	2		TRPI	Ran in the hole with a new bit #6 to 3300'.	
		14:30	16:30	2		SLIPCT	Slipped and cut the drilling line.	
		16:30	17:00	0.5		TRPI	Ran in the hole to 3648'.	
		17:00	18.00	1		REAM	Circulated and reamed from 3654' to 3699'.	
		18:00	19:00	1		CIRC	Circulated and built mud volume.	
		19:00	00:00	5		DRIL	Drilled 6 1/8" hole from 3699' to 3740' with losses from 200 bbls to total loss.	n
42	9 07-Nov-1	1 00:00	18:00	18		DRIL	Drilled 6 1/8" hole from 3740 to TD at 3900' with losses from 200 bbls to total loss.	
		18:00	20:30	2.5		CIRC	Circulated and pumped a high viscosity pill and unloaded casing.	
		20:30	00:00	3.5		TRPO	Pull out of the hole.	
43	8 08-Nov-	11 00:00	01:00	1		TRPO	Tripped out of hole.	

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Operations Activity Detail Calpine Corp

Well ID: SLRI-DV 26 Well Name: DV - 26 SLRIField: Geysers Sect: 34 Town: 11N Rng: 8W County: Sonoma State: CA

		Field. Ge		102	***	and the court by Make	The state of the s	
Rpt. No.	Date	Time	То	Hrs	End MD	Ops Code	Activity Description	Non- Prod
		01:00	02:00	1		OTHER	Installed 4 1/2" casing rams at blind rams.	
		02:00	09:00	7		TEST	Monitored well wellhead psi.	X
		09:00	11:30	2.5		LOG	Ran temp log to 3900' (198 deg temp.511 psi.).	
		11:30	15:00	3.5		TRPI	Made up bha and tripped in hole to 3900'. Filled pipe @ 3300'.	
		15:00	00:00	9		DRIL	Drilled 6 1/8" hole with no returns from 3900' to 3977' with losses from 200 bbls an hour to total loss.	
44	09-Nov-11	00:00	12:00	12		DRIL	Drilled 6 1/8" hole from 3977' to 4073' with losses from 200 bbls an hour to total loss.	
		12:00	15:00	3		CIRC	Pumped 2 Drispac sweeps and tripped out of hole.	
		15:00	16:00	1		EVAL	Shut in well and monitored wellhead psi.	
		16:00	19:00	3		LOG	Rigged up and ran temperature and pressure logs (first log 582 psi,194 deg.second log 572 psi,252 deg).	
		19:00	20:00	1		EVAL	Shut in well and monitored wellhead psi.	
		20:00	23:00	3		TRPI	Made up bha and tripped in hole to 4073'.Filled pipe @ 3300'.	
		23:00	00:00	1		DRIL	Drilled 6 1/8" hole from 4073' to 4085' with no returns	
45	10-Nov-11	00:00	14:30	14.5		DRIL	Drilled 6 1/2" hole from 4085' to 4294' with no returns.	
		14:30	20:00	5.5		STUK	Pipe stuck while working pipe for connection. Worked stuck pipe.	Х
		20:00	00:00	4		STUK	Removed gooseneck from kelly swivel.Rigged up and ran freepoint.Ran back off shot and backed off @ 4140'.	X
46	11-Nov-11	00:00	04:30	4 .5		TRPO	Rigged down wireline crew.Tripped out of hole.Laid down 2 joints drill pipe,and 1 drill collar. Fish left in hole 5 drill collars,near bit stabalizer,and bit.	
		04:30	07:00	2.5		OTHER	Shut in and monitored well.installed goose neck onto kelly swivel.	
		07:00	11:00	4		TRPI	Made up bha and tripped in hole to 3300'.Made up kelly hose to gooseneck and filled pipe @ 3300'.	
		11:00	12:30	1.5		TRPI	Tripped in hole and tagged top of fish @ 4137'.Filled pipe and pumped 2 Drispac sweeps.	
		12:30	15:30	3		TRPO	Tripped out of hole for liner.Cleared floor.	
		15:30	21:00	5.5		CASE	Rigged up Team Casing and ran 4 1/2" liner.Made up landing collar and rigged down Team Casing.	
		21:00	22:30	1.5		CASE	Ran in hole with liner and drill pipe Landed liner bottom @ 4137' top @ 1766'.	
		22:30	00:00	1.5		TRPO	Laid down drill pipe.	
47	12-Nov-11		13:00	13		TRPO	Laid down drill pipe and bha.	
-,		13:00	18:00	5		BOPND	Nippled down bop and cleaned pits Rig released @ 18:00 11/12/2011.	
		18:00	00:00	6		RIGD	Rigged down floor pumps, and pits.	



Directional Survey Report
Well ID: SLRI-DV 26
Field: Geysers

Calpine Corp Well Name: DV - 26 SERI Sect: 34 Town: 11N Rng: 8W County: Sonoma State: CA

Survey Type	Meas. Depth	Inc. /	Azimuth	TVD	Coordin N-S	ates E-W	Closure	Vertical Section	Dog Leg Severity
Well Bore:	Original	Well Bore)	Plane of Vert	ical Section:	0			
** TieIn	0.0	0.00	0	0.0	0.0	0.0		0.0	
DIGITA	161.0	0.50	336.1	161.0	0.6	-0.3	0.7	0.6	0.311
DIGITA	469.0	0.70	56.2	469.0	2.9	0.7	3.0	2.9	0.256
DIGITA	955.0	1.90	43.6	954.9	10.4	8.8	13.6	10.4	0.252
DIGITA	1,502.0	2.50	11	1,501.5	28.7	17.3	33.5	28.7	0.249
DIGITA	2,008.0	3.00	18	2,006.9	52.1	23.5	57.2	52.1	0.119
DIGITA	2,493.0	4.40	18.4	2,490.9	81.8	33.3	88.3	81.8	0.289
DIGITA	3,064.0	4.50	359.7	3,060.2	125.0	40.1	131.3	125.0	0.254
DIGITA	3,332.0	5.60	345	3,327.1	148.2	36.6	152.6	148.2	0.631
DIGITA	3,397.0	5.60	345	3,391.8	154.3	35.0	158.2	154.3	0.000
DIGITA	3,660.0	8.10	355	3,652.9	185.2	30.1	187.6	185.2	1.050
DIGITA	4,294.0	8.10	355	4,280.6	274.1	22.3	275.0	274.1	0.000

Calculations using Minimum Curvature Method



Bit Summary Report Well ID SLRI-DV.26 Field Geysers

Calpine Corp Well Name: DV - 26'SLRI

Well Name: DV - 26`SLRI -Sect: 34∛Town.∤11N∜Rng.8W.₄County::Sonoma: State: CA

Ru	in o Dia	am	Manuf.	Model	Serial No	Nozzles - 1/	/32 in	e, revi MSK +	TFA	Date/Tir	me In	Depth	- ft Out	Hole Made	Hrs	ROP	WOB	RPM	Flow	MWt	In Out Major	Loc I	Brg G	ge Otl	h Pull
			RI- DV 2			Well Name:		26 S		-						· ·				• • •		,		_	
				GF3513 OD\	PN4779	32 32 32 18				02-Oct-11	21:00	42	510	468	76.0	6.2	22000	65	502	8.60	2 2 WT	Α	Ė	1 NC	OT C
			Used bit fr	om spool yard	d .			_		^	D-4-	00 0-4		25	2.0	12.5	5	65	408	8.50	Jet Vel:	50.3	P. D	lron:	19.2
								Repor		6 7	Date:	02-Oct-11 03-Oct-11		133		6.6	5 15	65	439	8.50	Jet Vel:	54.1	P. D	•	22,2
								Repor		8	Date: Date:	03-Oct-1		59	10.0		20000	65	490	8.40	Jet Vel:	60.4		•	27.4
					•			Repor Repor		9	Date:	05-Oct-1		0	10.0	Ų. ·	20000	•••		00	Jet Vel:	•••	P. D		
								Repor		10	Date:	06-Oct-1		13	3.0	6.2	15000	65:	430	8.50	Jet Vel:	53			21.3
								Repor		11	Date:	07-Oct-1		116	24.0	5.7	22000	65	502	8.50	Jet Vel:	61.8	P. D	rop:	29.1
								Repor		12	Date:	08-Oct-1	1	122	15.0	6.2	22000	65	502	8.50	Jet Vel:	61,8	P. D	rop:	29.1
								Repor		13	Date:	09-Oct-1	1.	0	0.0						Jet Vel:		P. D	rop:	
2	1 8	3.500	S.INT.	GF20DPS	MZ0352	24 24 24		Ť	1.325	5 11-Oct-11	00:00	510	2220	1710	102.5	16.7	20	60	345	8.40	2 4 WT	S	Ε	4	PR
-								Repor	rt No:	15	Date:	11-Oct-1	1	182	11.0	16.5	20	65	345	8.70	Jet Vel:	83.5		•	54.3
								Repor	rt No:	16	Date:	12-Oct-1	1	394	20.0	18.6	25	65	345		Jet Vel:	83.5		-	53.7
								Repor	rt No:	17	Date:	13-Oct-1	1	448			20	65	345		Jet Vel:	83.5			54.9
								Repor	rt No:	18	Date:	14-Oct-1		431			20	60	345		Jet Vel:	83.5		•	55.5
								Repor		19	Date:	15-Oct-1		11			20	65	220	8.40	Jet Vel:	53.3		•	21.3
								Repor		20	Date:	16-Oct-1		97	6.0		20	65	345	8.60	Jet Vel:	83.5 83.5		•	53.7 52.4
						4		Repor		21	Date:	17-Oct-1		127 534	15.0		25 30000	65 65	345 336	8.40 8.40	Jet Vel: 4 7 RG	63.5 S	F. D	лор. 0	PR
3	1 8	8.500	S.INT. Used to c	FH45OD lean out alot o	PL4298 of cement.	22 22 22			1.114	4 18-Oct-11	1 90:00	2220	2754												
								Repo	rt No:	22	Date:	18-Oct-1		40			25000	65	336		Jet Vel:	96.8		•	70.4
								Repo		23	Date:	19-Oct-1		216			30000		346		Jet Vel:	99.7)rop:	74.7
								Repor		24	Date:	20-Oct-1		73 0	6.5	9.8	30000	65	346	8.40	Jet Vel: Jet Vel:	99.7		лор: Эгор:	74.7
								Repo		25	Date:	21-Oct-1 22-Oct-1		122	11.5	10.0	30000	65	346	8.40	Jet Vel:	99.7		лор. Эгор:	74.7
								Repor		26 27	Date: Date:	23-Oct-1		83			30000		336		Jet Vel:	96.8		Orop:	70.4
			DIA DIT	0V 00DV0	5402202	24 24 24		Kebo		5:23-Oct-1		2754	3397	643			25		311		4 5 BT	A		4 W	
4	1 8	8.500	BKK-BII	GX-28DX0	5183292	24:24 24		Repo		27	Date:	23-Oct-1		78		11.1	30000	65	333	8.50	Jet Vel:	80.6	P. C	Эгор:	49.4
								Repo		28	Date:	24-Oct-1	1	296	22.5	12.7	30000	65	333	8.50	Jet Vel:	80.6	Р. [Эгор:	49.4
								Repo		29	Date:	25-Oct-1	1	200	16.0	12.6	30	65	333	8.40	Jet Vel:	80.6	P. f	Orop:	48.8
								Repo		30	Date:	26-Oct-1	1								Jet Vel:		P. F	Эгор:	
								Repo		32	Date:	28-Oct-1	1	39	4.0	12.4	28	65	310	8.40	Jet Vel:	75	P. F	Orop:	42.3
								-	ort No:	33	Date:	29-Oct-1	11	30	3.0	12.2	25	65	310	8.50	Jet Vel:	75	P. 0	Drop:	42.8
								, copo												_				Da	_

Printed: 09:09 17-Nov-11

RIMBase

Page: 1 of 2



Bit Summary Report Well ID: StRi-DV26 Field: Geysers

Calpine Corp .Well Name .DV - 26 SLRI Sect 34 Town 11N Rig 8W County Sonoma State CA

!	Run	A			1.5			Wileland	I Desir	Dept	h-ft	Hole		ألازاوي	N Augusta					Grading			
No		Diam	Manuf.	Model	Serial No	Nozzles - 1/32 in	TFA	Date/T	ime In	ln	Out	Made	Hrs	ROP	WOB	RPM	Flow	MWt	In Out Majo	rLoc B	rg Gge	Oth	Pull
-	1	6.125	S,INT.	XPI 35 OD	PT 2960	20 20 20	0.92	0 04-Nov-	1 00:00	3397	3699	302	31.5	9.6	20000	65	279	8.40	4 4 LT	A I	E (BT	BHA
			Lost 3 con	plete inserts.																			ļ
							Report No:	39	Date:	04-Nov-	11								Jet Vel:		P. Drop		ļ
							Report No:	40	Date:	05-Nov-	11	243	22.5	10.8	20000	65	279	8.40	Jet Vel:	97.3	P. Drop	. 7	71.1
							Report No:	41	Date:	06-Nov-	11	59	10.0	9.3	20000	65	279	8.40	Jet Vel:	97.3	P. Drop		71.1
l e	. 1	6.125	BKR-BIT	GX-28DXO	5183292	20 20 20	0.92	0 06-Nov-	11 00:00	3699	4073	374	44.0	8.5	20	65	263	8.40	4 5 WT	M I	E (BT	HR
							Report No:	41	Date:	06-Nov-	11	41	5.0	8.2	20000	65	279	8.40	Jet Vel:	97.3	P. Drop	: 1	71.1
							Report No:	42	Date:	07-Nov-	11	160	18.0	8.7	20000	65	279	8.40	Jet Vel:	97.3	P. Drop.	: 1	71.1
							Report No:	43	Date:	08-Nov-	11	77	9.0	8.7	20	65	264	8.40	Jet Vel:	92	P. Drop	. 6	63.6
							Report No:	44	Date:	09-Nov-	11	96	12.0	8.5	20	65	264	8.40	Jet Vel:	92	P. Drop	. 6	63.6
7	1	6.125		XRi28	P\$2078	20 20 20	0.92	0 09-Nov-	11 20:00	4073	4294	221	15.5	14.3									
			left in hole				Report No:	44	Date:	09-Nov-	11	12	1.0	12.0	20	65	264	8.40	Jet Vel:	92	P. Drop:	: 6	63.6
							Report No:	45	Date:	10-Nov-	11	209	14.5	14.3	20	65	264	8.40	Jet Vel:	92	P. Drop	: 6	63.6



Casing Information Report

Well ID: SLRI- DV 26

Field: Geysers

Calpine Corp

Well Name: DV - 26 SLRI

Sect 34 Town: 11N Rng: 8W County: Sonoma State: CA

CASING INFORMATION

Run Date/Time:

09-Oct-11 00:00

Well Section:

SURF

String Type:

FULL

String Top MD (ft):

0.00

String Top TVD (ft):

Casing Shoe MD (ft):

499.21 9.625 Casing Shoe TVD (ft): String Nominal ID (ins):

8.681

String Nominal OD (ins): Bit Diameter (ins):

12.625

Avg. Open Hole Diam. (ins):

12.625

Centralizers: No:

Manufacturer/Type:

HQT

Depths:

Hanger Type:

Manufacturer:

Comments:

Ran 13 joints of 9 5/8" 47# L-80 Buttress casing from surface to 499' with the float shoe at 459'.

STRING COMPONENT DETAILS

Joints	 ì	Item	Length (ft)	O.D.(ins)	1.D. (ins)	Weight (lbs)	Grade	Connection	Torque
	1	FLSHO	1.20	9.625	8.681	47.0	L-80	BUTT	
	1	JOINT	38.21	9.625	8.681	4 7.0	L-80	BUTT	
	1	FLOAT	2.17	9.625	8.681	4 7.0	L-80	BUTT	
	12	JOINT	459.63	9.625	8.681	4 7.0	L-80	BUTT	
Totals:	15		501.21						



Cementing Report
Well ID: SLRI-DV 26

Calpine Corp Well Name: DV 28 SLRI

	Field: Geys	ers		Se	ct: 34 Tow	n: 11	IN Rng: 8W County: \$	Sonoma State CA
			CEM	ENT JOB	INFORMA	TIOI	N .	
Start Date/Ti	me:	C	9-Oct-11 1	0:30	Well Bore:		(Original Well Bore
Job Type:			PRIMA	ARY S	String OD (ins):		9.625
Well Section:	:		SI	JRF :	String Type	::		FULL
Cementing C	o:		THEF	RMA : (Cementing	Engir	neer:	Thomas Costa
			PRI	MARY JO	B DETAIL			
		Volu	me (bbls)	Pu	mp Time		Rate (bbls/min)	Pressure (psi)
Conditioning	Data:				30	0	5.2	200
Cement Data:	:		59.0)	1:	3	4.5	227
Displacemen	t Data:		1.0)		1	3.5	380
Calc. Displac	ement Vol:		1.0)	***			
		✓ Bato		Bump	Plug?		Bump Pressure:	
Returns to S	urface:		FULL	Reciprocate Pipe? ✓Cement at			✓ Cement at Surface?	?
Calc Top of C	Cement (ft):		0	Excess (%	6) : 50.00	0 %	Avg. Hole Size (ins):	12.250
			SLU	RRY INFO	RMATION			
Type	Density	Yield	Sacks	Volume	Rate		Additives	
LEAD	13.00	· · ·	70	31.0	4.5	MS- SLU TSF	_ PREMIUM/30%SF-200/3 -500/10LBS-SK JRRYLITE/10LB-SKGYPS -L-180	SUM/.5%
TAIL	15.00		90	28.0	4.5		_ PREMIUM/30%SF-20 0/ : -500/.5% TSFL-180	2%CACL2/10%
		18	POS	TJOB INF	ORMATIO	N.		
Liner Top Tes	st (lbs/gal):				Job Succes	s?		Yes
Shoe Test (Ib	is/gal):				CBL Bond (Quali	ty:	
Actual Top of	f Cmt (ft):							
Misc. Comme	ents:							



Casing Information Report

Well ID: SLRI- DV 26

Calpine Corp

6.276

Well Name: DV - 26 SLRI

Field: Geysers

Sect: 34 Town: 11N Rng: 8W County: Sonoma State: CA

CASING INFORMATION

Run Date/Time: 30-Oct-11 08:30

Well Section: INT1 String Type: FULL

String Top MD (ft):0.00String Top TVD (ft):Casing Shoe MD (ft):3,378.34Casing Shoe TVD (ft):

String Nominal OD (ins): 7.000 String Nominal ID (ins):

Bit Diameter (ins): 8.500 Avg. Open Hole Diam. (ins): 8.500

Centralizers: No: 25 Manufacturer/Type:

Depths:

Hanger Type: Manufacturer:

Comments: Transferred from Casing Tally Detail on 31-Oct-11 06:01

STRING COMPONENT DETAILS

Joints	item	Length (ft)	O.D.(ins)	I.D. (ins)	Weight (lbs)	Grade	Connection	Torque
1	SHOE	1.01	7.000	6.276	26.0	K-55	BUTT	
56	JOINT	2,512.45	7.000	6.276	26.0	K-55	BUTT	
22	JOINT	864.88	7.000	6.276	26.0	L-80	BUTT	
Totals: 79		3,378.34						



Cementing Report Well ID: SLRI-DV 26

Calpine Corp Well Name: DV - 26 SLRI

	Field: Geyse	ers		Sec	t: 34 Tow	n; 11N Rng: 8W County	Sonoma State: CA
			CEM	ENT JOB	INFORMA	TION	
Start Date/Tin	ne:	0:	2-Nov-11 23	3:30 V	Vell Bore:		Original Well Bore
Job Type:			PRIMA	ARY S	String OD (i	ns):	7.000
Well Section:			. II	NT1 S	String Type	•	FULL
Cementing C	0:		THER	RMA C	Cementing 6	Engineer	Chris Shroeder
14. F			PRI	MARY JOI	B DETAIL		
		Volu	me (bbls)	Pur	np Time	Rate (bbls/min)	Pressure (psi)
Conditioning	Data:				15		370
Cement Data:			55.0]	17	3.3	100
Displacement							
Calc. Displac	ement Vol:			<u> </u>	- 1 -6	B B	
			h Mix?	Bump	_	Bump Pressure:	
Returns to Si		Not E	Defin e d		rocate Pipe	_	
Calc Top of C	ement (ft):		0	Excess (%		Avg. Hole Size (ins)	8.500
·		. · · · ·			RMATION		
Туре	Density	Yield	Sacks	Volume	Rate	Additiv	es
PREFLSH	8.38			25.0	3.3	Water	
PREFLSH	8.40			20.0	3.3	Mud Flush	
PREFLSH	8.38			5.0	3.3	Water	CE 200 100/
LEAD	13.50	2.14	330	55.0	3.3	Cal Premium cement,30% MS-500,10 lb/sk Slurrylite, TSFL-180	
-			POS	TJOB INF	ORMATIO	N	
Liner Top Tes	st (lbs/gal):		***		lob Succes	s?	Yes
Shoe Test (lb	s/gal):				CBL Bond C	Quality:	
Actual Top of	f Cmt (ft):						
Misc. Comme	ents:	7" casir	ng stage #2				



Cementing Report

Well ID: SLRI- DV 26

Calpine Corp Well Name: DV - 26 SLRI

Sect. 34 Town: 11N Rng: 8W County: Sonoma State CA Field: Geysers **CEMENT JOB INFORMATION** Original Well Bore 02-Nov-11 12:00 Well Bore: Start Date/Time: String OD (ins): 7.000 **PRIMARY** Job Type: **FULL** Well Section: INT1 String Type: Chris Schroeder Cementing Engineer: Cementing Co: **THERMA** PRIMARY JOB DETAIL Pressure (psi) Volume (bbis) **Pump Time** Rate (bbls/min) 230 3.0 Conditioning Data: 15 400 13 3.0 40.5 Cement Data: 3.0 1,100 22.0 7 Displacement Data: Calc. Displacement Vol: 22.0 Bump Plug? Bump Pressure: ☐Batch Mix? NONE Reciprocate Pipe? Cement at Surface? Returns to Surface: 8.500 Excess (%): Avg. Hole Size (ins): Calc Top of Cement (ft): 1,800 **SLURRY INFORMATION** Additives Volume Rate Density Yield Sacks Type 3.0 Water **PREFLSH** 15.0 8.38 Mud Clean **PREFLSH** 8.40 20.0 3.0 3.0 **PREFLSH** 8.38 10.0 Cal Premium Cement,30% SF-200,10% TAIL 15.00 1.75 228 40.5 MS-500,.5% TSFL-180 22.0 3.0 Water DISPLACE POSTJOB INFORMATION Yes Job Success? Liner Top Test (lbs/gal): **CBL** Bond Quality: Shoe Test (lbs/gal): Actual Top of Cmt (ft): 3,191 Misc. Comments: 7" casing stage #1



Casing Information Report

Well ID: SERI- DV 26

Calpine Corp

Well Name: DV -26 SLRI

Field: Geysers

Sect 34 Town: 11N Rng: 8W County: Sonoma State: CA

CASING INFORMATION

Run Date/Time:

11-Nov-11 22:30

Well Section:

String Type:

LINER

String Top MD (ft):

1,766.08

String Top TVD (ft):

Casing Shoe MD (ft):

4,137.00 4.500 Casing Shoe TVD (ft): String Nominal ID (ins):

3.830

String Nominal OD (ins): Bit Diameter (ins):

Avg. Open Hole Diam. (ins):

Centralizers: No:

6.125

Manufacturer/Type:

6.125

Depths:

Hanger Type:

Manufacturer:

Comments:

Transferred from Casing Tally Detail on 12-Nov-11 06:32

STRING COMPONENT DETAILS

									1.1
Joints	S	Item	Length (ft)	O.D.(ins)	I.D. (ins)	Weight (lbs)	Grade	Connection	Torque
	51	JOINT	2,368.12	4.500	3.826	15.1	L-80	HYD511	
	1	LAND	2.80	4.500	3.826	15.1	L-80	HYD511	
Totals:	52		2,370.92						