



**COMPANY** Calpine Corporation  
**WELL NAME** Wildhorse State 36  
**FIELD** The Geysers  
**COUNTY** Sonoma  
**STATE** California  
**WELL HEAD COORDINATES** 1832.3' N, 2945.5' E of SW Corner of Sec 3, T11N, R9W  
**ELEVATION** 2753.7'  
**IN - DAY DATE START DATE** 10/19/2009  
**TO DATE** 1/27/2010  
**TOTAL DEPTH** 12340'  
**TRUE VERTICAL DEPTH** 11259'  
**LOG SCALE** 3151.4' S and 1468.0' E of  
**Wellhead**  
**Drilling Contractor** Thermasource  
**COMPANY REPRESENTATIVES** Logan, Silva  
**DATE LOGGED** 10/19/09 TO 1/7/10  
**DEPTH LOGGED** 64' TO 12340'  
**MUD DRILLING** 3188' TO 3188'  
**AIR DRILLING** 64' TO 12340'  
**LOGS W/O** 1:720  
**JOINT NO.** C23  
**LOGGING GEOLOGISTS**  
 Dick Dunlap (DD), Patrick Broderick (PB), Andrew Schefflin (AS), Eric ter Weele (ET), Charley Wahl (CW), Matt Lamont (ML), Jon Pollard (JP), Dan Bida (DB)

HOLE		CASING	
26°	TO 606'	20"	FROM 0 TO 602'
17.5°	TO 3188'	13.375"	FROM 0 TO 3177'
10.625°	TO 10123'	7"	FROM 0 TO 2984'
8.5°	TO 12340'	8.625"	FROM 0 TO 2987'
		7"	FROM 0 TO 12336'

ABBREVIATIONS		SYMBOLS	
NB	New Bit	BHT	Bottom Hole Temp
RB	Re-run Bit	C	Carbide Test
CB	Core Bit	N	No Returns
WB	Weight on Bit	LA	Logged After Trip
SPM	Strokes per Minute	CFM	Cubic Feet per Min
PP	Pump Pressure	BTM	Bottoms Up Temp
PPM	Revolutions per Min		

LITHOLOGY		STEAM ENTRIES		WATER ENTRIES	
[Symbol]	Argillite	[Symbol]	Siliceous Graywacke	3#	0.01
[Symbol]	Chert	[Symbol]	Metamorphic Ultramafic	20#	13#
[Symbol]	Siltstone	[Symbol]	Weak Foliation	6588'	4#
[Symbol]	Siltstone	[Symbol]	Metak Quartz	8258'	2#
[Symbol]	Greenstone	[Symbol]	Strong Foliation	9285'	14#
[Symbol]	Serpentine	[Symbol]	Marginal Alteration	9311'	0#
[Symbol]	Blueschist	[Symbol]	Pervasive Alteration	9336'	8#
[Symbol]	Felsite	[Symbol]	Strongly Hornfelsic	9483'	26#
[Symbol]	Lithic Graywacke	[Symbol]	Argillaceous Graywacke	10783'	1#
[Symbol]		[Symbol]		10970'	0#
[Symbol]		[Symbol]		11967'	4#

SECONDARY MINERALS	
Q = Quartz	R = Rare
C = Calcite	Ms = Muscovite
E = Epidote	Ch = Chlorite
F = Ferrous Oxide	Ms = Muscovite
H = Hematite	Ms = Muscovite
X = Xanthophyllite	Ms = Muscovite
A = Actinolite	Ms = Muscovite
T = Tourmaline	Ms = Muscovite



