

GEOTHERMAL DRILLING PERMIT

The U.S. Geological Survey requires this form or other Supervisor approved form to be prepared and filed in triplicate with requisite attachments with the Supervisor. The Supervisor must approve this permit prior to any lease operation.

1a. TYPE OF WORK: DRILL NEW WELL ( ) REDRILL ( ) DEEPEN ( ) PLUG BACK ( ) DIRECTIONALLY DRILL ( ) OTHER (X)  
Drill/Core Temperature Gradient Core Hole

1b. WELL TYPE: PRODUCTION ( ) INJECTION ( ) HEAT EXCHANGE ( ) OBSERVATION (X) WATER SUPPLY ( ) OTHER (X)  
Temperature Gradient Core Hole

1c. WELL STATUS:  
 2. NAME OF LESSEE/OPERATOR  
CALIFORNIA ENERGY COMPANY, INC., OPERATOR (707)-526-1000

3. ADDRESS OF LESSEE/OPERATOR  
3333 Mendocino Avenue, Suite 100, Santa Rosa, CA 95401

15. LOCATION OF WELL  
 At surface Approx. 500' E and 2050' S of NW corner of Sec. 16.  
 At proposed prod. zone NA

16. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE  
Approx. 500'

17. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE  
Unknown

4. LEASE SERIAL NO.  
OR 12668

5. SURFACE MANAGER: BLM ( ) FS (X)  
Deschutes National Forest

6. UNIT AGREEMENT NAME  
NA

7. WELL NO. 14-16 8. PERMIT NO.  
(CE-NB-3)

9. FIELD OR AREA  
NA

10. SEC. T., R., S. & M.  
Sec. 16, T22S, R13E

11. COUNTY  
Deschutes

12. STATE  
Oregon

13. APPROX. STARTING DATE  
Summer 1985

14. ACRES ASSIGNED (WELL SPACING)  
NA

18. DRILLING MEDIA AND CHARACTERISTICS: AIR ( ) WATER ( ) MUD (X) FOAM ( ) Other ( )

19. PROPOSED DEPTH MEASURED: 4000'  
 TRUE VERTICAL:

20. ELEVATIONS: ESTIMATED ( ) FINAL ( ) 6420'  
 REFERENCE DATUM: GR (X) MAT ( ) DP ( ) FB ( ) RT ( ) CASINGHEAD FLANGE ( ) OTHER ( )

21. EXISTING AND/OR PROPOSED CASING AND CEMENTING PROGRAM (List existing program first, followed by proposed program, and separate by a sufficient space to clearly distinguish the two programs)

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	COUPLING (Collars & Threads)	GRADE	SETTING DEPTH		QUANTITY OF CEMENT	
					Top	Bottom		
	Set 6-7'		of 8-5/8" conductor pipe (optional)		Surf.	6-7'	To Surface	
	7-7/8"	14#	5-1/2"	8RD ST&C	K55	Surf.	400'+	To Surface
Drill out cement plug and resume drilling with 4.872" OD wireline coring system.								
Reduce core size as mandated by drilling conditions.								

22. PROPOSED WORK SUMMARY  
See Attached Drilling Program

NOTE: This permit is valid only if land use approval is obtained from the county or city in which the drilling takes place, and provided these authorities make a determination of compliance with statewide goals. Issuance of this permit is not a finding of compliance with the Statewide Planning Goals or the acknowledged comprehensive plan. The January 1984 stipulations approved by the State Geologist are conditions of this permit. Permit expires 180 days from date of issue.

23. James L. Moore (Use additional space on reverse side of form)  
 Vice President Exploration June 2, 1986  
 SIGNED: James L. Moore TITLE: DATE

(This space for Federal use)  
 APPROVED BY: Dennis L. Olmstead TITLE: Petroleum Engineer (DOGAMI) DATE: July 8, 1984  
 CONDITIONS OF APPROVAL, IF ANY:

This permit is required by law (30 U.S.C. 1023); regulations: 30 CFR 270.71; Federal Geothermal Lease Terms and Stipulations and other regulatory requirements. The United States Criminal Code (18 U.S.C. 1001) makes it a criminal offense to make a willfully false statement or representation to any Department or Agency of the United States as to any matter within its jurisdiction.