

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

B. TYPE OF WELL
 OIL WELL GAS WELL OTHER Geothermal SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Sunoco Energy Development Co.

3. ADDRESS OF OPERATOR
 12700 Park Central Place, Suite 1500, Dallas, Texas 75251

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 2,400 FEL and 400 FSL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 15 miles to Detroit, Oregon

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 400'

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH 9,000+

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

22. APPROX. DATE WORK WILL START* June 15, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	94#	300'	1,000 cubic feet
17 1/2"	13 3/8"	61#	2,700'	3,080 cubic feet
12 1/2"	9 5/8"	40#	9,000'	3,070 cubic feet, approx.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED John F. Williams TITLE Environmental Coordinator DATE 2-11-81

(This space for Federal or State office use)

PERMIT NO. GDP-153 APPROVAL DATE _____

APPROVED BY William F. Isherwood TITLE Acting DCM, Geothermal DATE JUN 08 1981

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
SUBJECT TO THE ATTACHED CONDITIONS