

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

1005 State Office Building Portland, Oregon 97201

APPLICATION FOR PERMIT TO DRILL A GEOTHERMAL WELL

(To be accompanied by a \$100.00 permit fee for new wells only and a surety bond conditioned as provided by law.)

DATE January 8, 1987

In compliance with rules and regulations pursuant to ORS 522 (Chapter 552 0L 1975) application is hereby made

for permit to drill a geothermal well: GEO-NEWBERRY CRATER, INC., NEWBERRY FLANK UNIT
(company or operator) (lease)

Well No. N-4 in NE 1/4 of sec. 35, T. 21S, R. 13E W.B.&M.,
NEWBERRY CRATER Field, DESCHUTES County.

Survey Coordinates 2750' south and 2188' west of the northeast corner

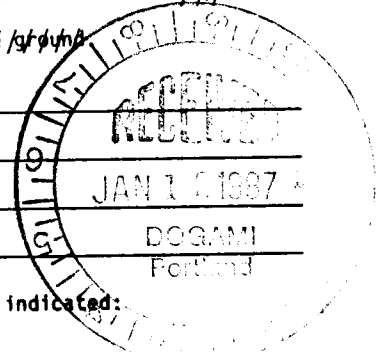
Elevation of ground above sea level is 6280 feet. All depth measurements are taken from top
of ground level, which is above ground

Lessee GEO-NEWBERRY CRATER, INC.

Address 61419 South Hwy 97, #A, Bend, OR 97702

Lessor Department of the Interior, Bureau of Land Management

Address 825 N.E. Multnomah St., Portland, OR 97208



We propose to use the following strings of casing and to land or cement them as herein indicated:

Size of hole	Size of casing	Weight in pounds per foot	Grade and type	New or second hand	Depth	Landed or cemented No. sacks cement
7-7/8"	4-1/2"	10.7	A-53	New	Surf to 500'	114 Cu Ft
3-25/32"	1-1/2"	2.9	J-55	New	Surf to 5000'	320 Cu Ft
						Sure-Gel or comparable grade product

Proposed Depth 5000' Objectives Core samples and geo-physical logs

Approved February 12, 1987
except as follows:
The June 1986 stipulations approved by the State Geologist are conditions of this permit. Notify DOGAMI to witness BOP test.
DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES
By Dennis J. Olmstead
Petroleum Engineer
Dennis Olmstead

GEO-OPERATOR CORPORATION
company or operator
By Michael J. Cale Sr. Env. Coordinator
position
Send communications regarding well to:
Name MICHAEL J. CALE
Address 1330 NORTH DUTTON AVENUE, SUITE A
SANTA ROSA, CA 95401

NOTE: This permit expires 180 days from date of issue. Land use approval must be obtained from the county or city in which the drilling takes place. Issuance of this permit is not a finding of compliance with the Statewide Planning Goals or the acknowledged comprehensive plan.