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.)

Santa Rosa, CA May 12, 1981

In compliance with rules and regulations pursuant to ORS 522 (Chapter 552 OL 1975) application is hereby made for permit to drill a geothermal well:

UNION OIL COMPANY OF CALIFORNIA

Well No. 47-10 in NE/SE/SW of sec. 10 T. 19 S., R. 45 E. W. B. & M., (Vale Prospect) Field, Malheur County.

Survey Coordinates: 800' from South line and 2500' from West line of section.

Elevation of ground above sea level is 2785 feet. All depth measurements are taken from top of Kelly Bushing, which is five feet above ground.

Lessee: UNION OIL COMPANY OF CALIFORNIA

Address: P. O. Box 6854, Santa Rosa, CA 95406

Lessor: United States Government - B.L.M.

Address: 729 N. E. Oregon Street, Portland OR 97208

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

<table>
<thead>
<tr>
<th>Size of hole</th>
<th>Size of casing</th>
<th>Weight in pounds per foot</th>
<th>Grade and type</th>
<th>New or second hand</th>
<th>Depth</th>
<th>Landed or cemented No.</th>
<th>Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 1/2&quot;</td>
<td>13 3/8&quot;</td>
<td>61</td>
<td>K-55</td>
<td>New</td>
<td>20'</td>
<td>To surface</td>
<td></td>
</tr>
<tr>
<td>12 1/4&quot;</td>
<td>9 5/8&quot;</td>
<td>40</td>
<td>K-55</td>
<td>New</td>
<td>120'</td>
<td>To surface</td>
<td></td>
</tr>
<tr>
<td>8 3/4&quot;</td>
<td>7&quot;</td>
<td>26</td>
<td>K-55</td>
<td>New</td>
<td>1000'</td>
<td>To surface</td>
<td></td>
</tr>
<tr>
<td>6 1/8&quot;</td>
<td>2 7/8&quot;</td>
<td>6.5</td>
<td>J-55</td>
<td>New</td>
<td>4000'</td>
<td>Not CMT'D</td>
<td></td>
</tr>
</tbody>
</table>

Proposed Depth: 4000'

Objectives: Temperature Gradient Observation

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 units.