

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

APPLICATION OF HUMBLE OIL & REFINING  
COMPANY FOR AN ORDER APPROVING THE  
EXPANSION OF ITS MANY ROCKS-GALLUP  
PRESSURE MAINTENANCE PROJECT, SAN  
JUAN COUNTY, NEW MEXICO, BY EXPANDING  
THE PROJECT AREA AND BY CONVERTING  
TWO ADDITIONAL PRODUCING WELLS TO  
WATER INJECTION SERVICE.

Case No. \_\_\_\_\_

Order No. \_\_\_\_\_

TO: THE HONORABLE OIL CONSERVATION COMMISSION, STATE OF NEW MEXICO  
AND THE SECRETARY-DIRECTOR THEREOF:

COMES NOW, the Applicant herein, Humble Oil & Refining Company, a Delaware corporation, authorized to do business in the State of New Mexico, as owner and operator of the Many Rocks-Gallup Pressure Maintenance Project and hereby makes application to the New Mexico Oil Conservation Commission and the Secretary-Director thereof for an order authorizing the expansion of the project area of the Many Rocks-Gallup Pressure Maintenance Project and the conversion of two additional producing wells to water injection service. This application is made pursuant to Rule 11 of the said Rules and Regulations relating to the Many Rocks-Gallup Pressure Maintenance Project as promulgated in Order No. R-2541 of the Commission. In support hereof, Applicant respectfully alleges and states:

I.

On August 7, 1963, this Commission entered its Order No. R-2541 in this case, which said order authorized Applicant to institute a Pressure Maintenance Project in the Many Rocks-Gallup Pool, San Juan County, New Mexico, by injecting water into the Gallup formation in certain wells described in said order in accord with the Special Rules and Regulations governing the operation of said project, all as set forth in Rules 1 through 11, inclusive, promulgated in said order.

II.

Rule 11 of said order provides that conversion of additional producing wells to water injection service and the expansion of the project area shall be accomplished only after approval thereof by the Secretary-

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Director of the Commission, such permission to be obtained according to the procedure prescribed in said Rule 11 and according to Rule 701-B of the General Rules of this Commission.

III.

Applicant requests that the project area established by Order No. R-2541 be expanded to include the area described as follows:

Township 31 North, Range 16 West

Section 2: NE $\frac{1}{2}$ NW $\frac{1}{2}$

IV.

Applicant further requests authority to convert into water injection and to operate as water injection wells, those certain wells now producing from the Gallup formation as follows:

| <u>Well</u>                       | <u>Location</u>   |
|-----------------------------------|---|
| Humble Navajo Tribe Well No. G-15 | NW $\frac{1}{2}$ NE $\frac{1}{2}$ of Section 2-31N-16W  |
| Humble Navajo Tribe Well No. G-17 | SE $\frac{1}{2}$ NE $\frac{1}{2}$ of Section 12-31N-16W |

Both of said wells are owned and operated by Applicant and lie within the presently existing project area.

V.

In support of this application, Applicant attaches hereto as Exhibit "A" a plat showing:

1. The present project area of the Many Rocks-Gallup Pressure Maintenance Project and the proposed expansion of said project area.
2. The location of the proposed wells more particularly described above in Section IV which it is proposed to convert to water injection wells.
3. All wells completed in the Gallup formation located within the project area and the proposed expansion thereof, and all wells within two miles of the proposed injection wells.
4. All offsetting operators within two miles of the proposed injection wells.

VI.

Further in support of this application, Applicant attaches hereto as Exhibits "B" and "C" schematic diagrams of Humble's Navajo Tribe Well No. G-15 and Humble's Navajo Tribe Well No. G-17, which said diagrams

describe fully the cementing, casing, tubing, perforated intervals, and depth of said wells and further showing that the injection of water will be confined to the Gallup formation in said wells.

VII.

Further in support of this application, Applicant attaches hereto as Exhibits "D" and "E" formation density logs of Humble's Navajo Tribe Well No. G-15 and Humble's Navajo Tribe Well No. G-17.

VIII.

Applicant attaches hereto as Exhibit "F" proof of service of a complete copy of this application, on all operators of oil and gas leasehold estates within a two mile radius of the proposed injection wells.

IX.

Applicant attaches hereto as Exhibit "G" a table indicating, with respect to the proposed injection wells, the zones into which water will be injected into said wells, the kind of fluid to be injected into said wells, the anticipated daily amounts of water that will be injected into said wells, and the source of said water.

X.

Applicant attaches hereto as Exhibit "H" a table summarizing the status of water injection at the Many Rocks-Gallup Pressure Maintenance Project, including accumulated injection per well and average daily rates of injection per well.

XI.

Applicant attaches hereto as Exhibit "I" a table summarizing completion and production data on all wells within the Many Rocks-Gallup Pressure Maintenance Project area and the proposed expansion thereof.

XII.

Applicant believes and states that it will be in the interest of conservation and the prevention of waste to expand the project area of the Many Rocks-Gallup Pressure Maintenance Project to include the lands more particularly described in Section III hereof and to convert the wells more particularly described in Section IV hereof to water injection service and to operate said wells as water injection wells as herein requested.

Expansion of said project area and conversion of said wells is necessary to obtain the greatest ultimate recovery of oil and gas from the Gallup formation within the area.

WHEREFORE, Applicant respectfully requests that the Secretary-Director of the Commission administratively approve and enter an order expanding the Many Rocks-Gallup Pressure Maintenance Project area as herein requested and granting Applicant authority to convert the above-described wells to water injection service and operate the entire Pressure Maintenance Project, as expanded, and the wells located therein as heretofore authorized by this Commission in Order No. R-2541, and according to all of the terms and provisions set forth in the Special Rules and Regulations governing the operation of said project as contained in said order.

Dated this 17<sup>th</sup> day of March, 1964.

Respectfully submitted,

HUMBLE OIL & REFINING COMPANY

William G. Odell  
Humble Oil & Refining Company  
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Denver, Colorado 80201  
Telephone: 534-1251

By

William G. Odell  
Its Attorney

Howard C. Bratton  
Hinkle, Bondurant, Bratton & Christy  
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LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

SCHMATIC DIAGRAM

HUMBLE NAVAJO TRIBE OF INDIANS G-15

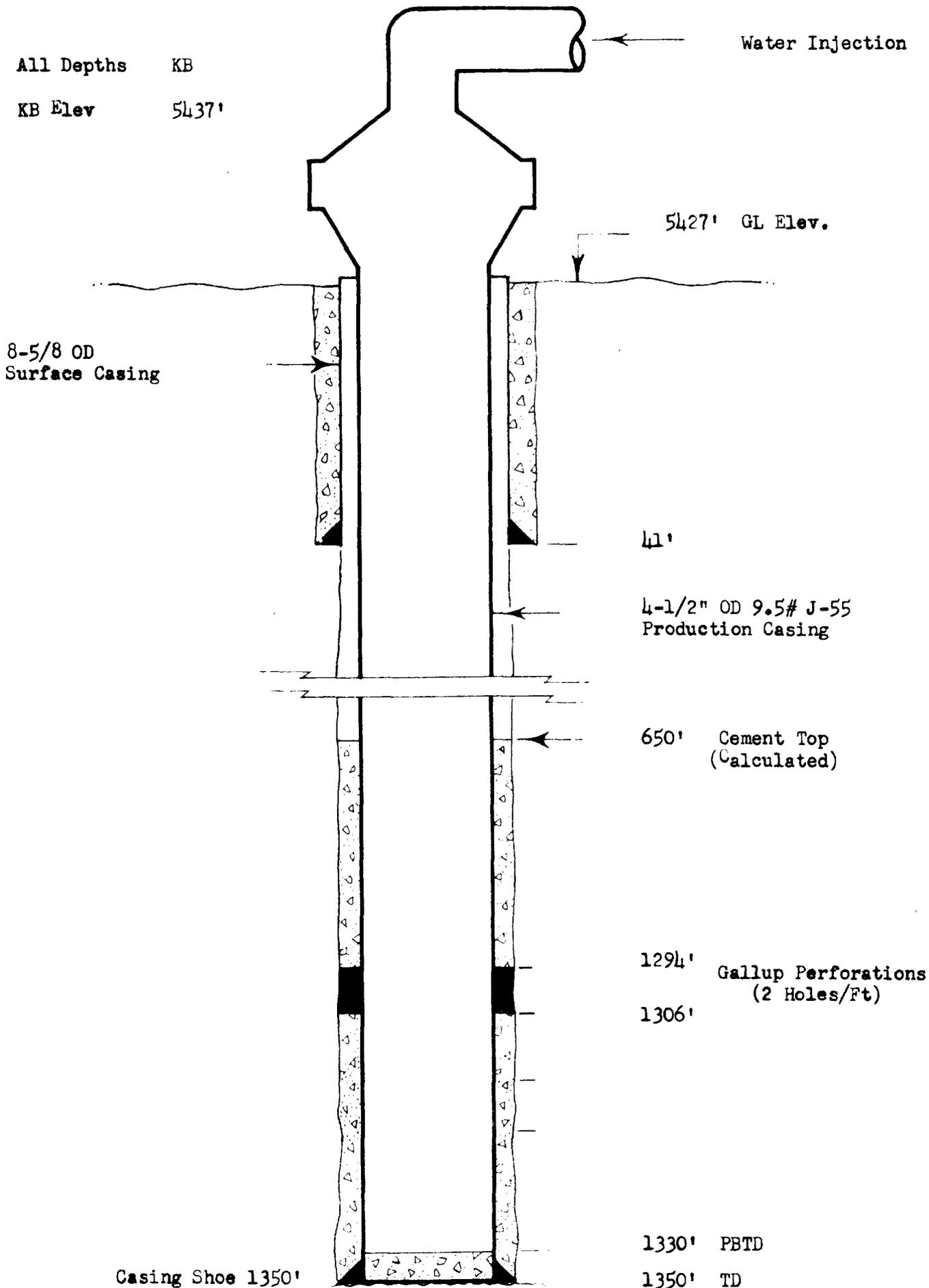


EXHIBIT "B"

To Application of Humble Oil & Refining Company  
for  
Approval of Expansion of Many Rocks-Gallup Pressure Maintenance Project No. 1  
Many Rocks Pool,  
San Juan County, New Mexico

SCHEMATIC DIAGRAM

HUMBLE NAVAJO TRIBE OF INDIANS G-17

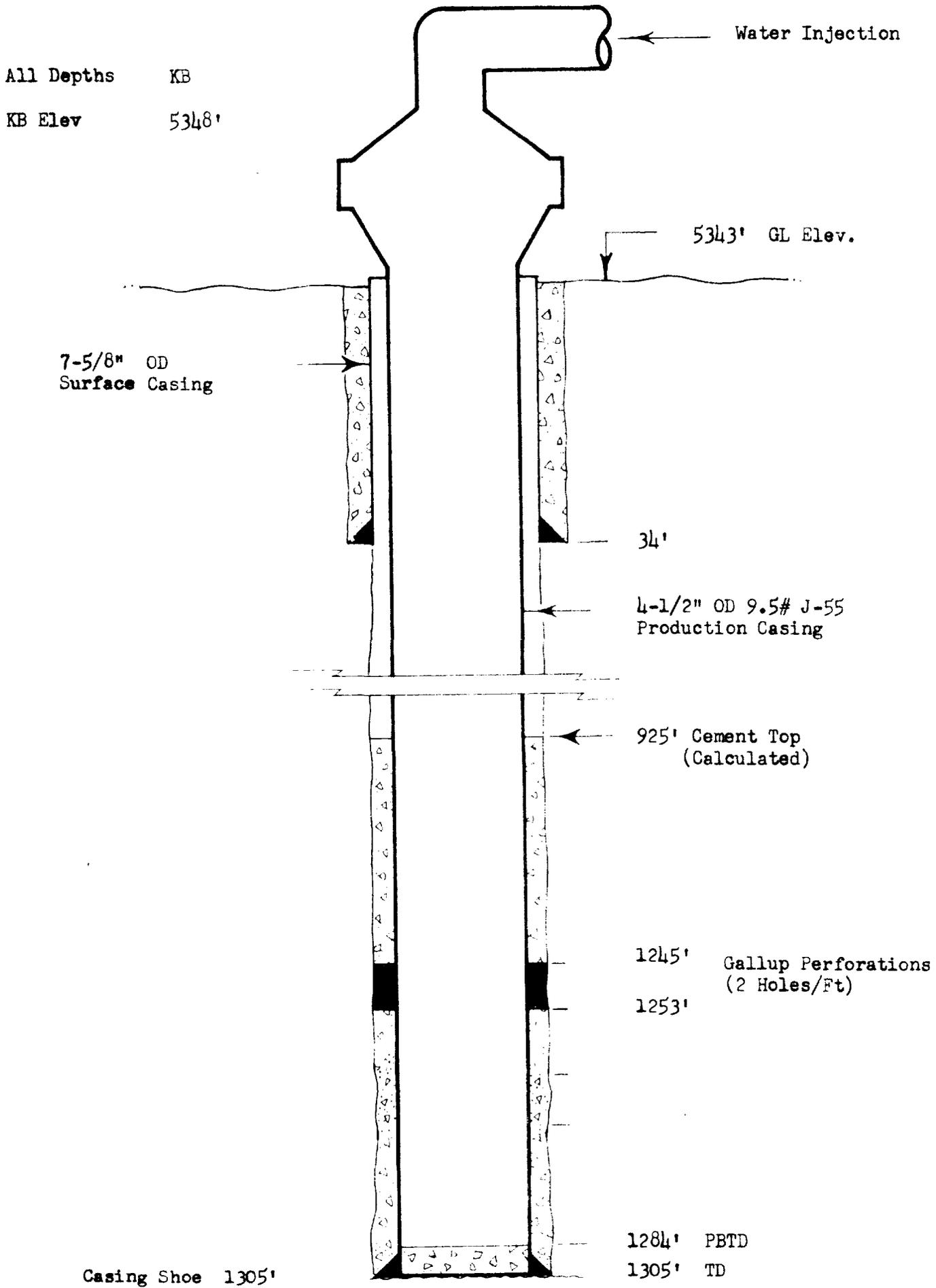


EXHIBIT "C"

To Application of Humble Oil & Refining Company  
for  
Approval of Expansion of Many Rocks-Gallup Pressure Maintenance Project No. 1  
Many Rocks Pool,  
San Juan County, New Mexico



Densilog®

A DIVISION OF DRESSER INDUSTRIES, INC.

|          |                                   |                |
|----------|-----------------------------------|----------------|
| FILE NO. | COMPANY HUMBLE OIL & REFINING CO. |                |
|          | WELL NAVAGO TRIBE OF INDIANS G-15 |                |
|          | FIELD UNDESIGNATED                |                |
|          | COUNTY SAN JUAN STATE NEW MEXICO  |                |
|          | LOCATION: 805' FNL & 1940' FEL    | Other Services |
|          | SEC 2 TWP 31N RGE 17W             |                |

|                        |              |                           |             |
|------------------------|--------------|---------------------------|-------------|
| Permanent Datum        | G. L.        | Elev. 5427                | Elevations: |
| Log Measured from      | K. B. OR. IO | Ft. Above Permanent Datum | KB 5437     |
| Drilling Measured from | K. B.        |                           | DF          |
|                        |              |                           | GL 5427     |

|                        |           |
|------------------------|-----------|
| Date                   | 6-18-63   |
| Run No.                | ONE       |
| Type Log               | G/R D/L   |
| Depth-Driller          | 1350      |
| Depth-Logger           | 1350      |
| Bottom Logged Interval | 1347      |
| Top Logged Interval    | S. CSG.   |
| Type Fluid in Hole     | MUD       |
| Salinity Ppm Cl.       | -         |
| Density Lb./Gal.       | 9.0       |
| Level                  | FULL      |
| Max. Rec. Temp. Deg. F | 91°       |
| Opr. Rig Time          | 6 HRS.    |
| Recorded By            | MALONE    |
| Witnessed By           | MR. SLADE |

| Run No. | Bore Hole Record |         |       | Casing Record |      |      |    |
|---------|------------------|---------|-------|---------------|------|------|----|
|         | Bit              | From    | To    | Size          | Wgt. | From | To |
| 1       | 7 7/8            | S. CSG. | T. D. |               |      |      |    |
|         |                  |         |       |               |      |      |    |
|         |                  |         |       |               |      |      |    |
|         |                  |         |       |               |      |      |    |

Exhibit *12*

To Application of Humble Oil & Refining Company  
 for  
 Seal of Expansion of Many Rocks-Gallup Pressure Maintenance Project No. 1  
 Many Rocks Pool, San Juan County, New Mexico

**SCHLUMBERGER****FORMATION DENSITY LOG**

Gamma-Gamma

SCHLUMBERGER WELL SURVEYING CORPORATION

Houston, Texas

COUNTY SAN JUAN, NEW MEX.  
 FIELD or LOCATION UNDESIGNATED  
 WELL NAVAJO TRIBE G-17  
 COMPANY HUMBLE OIL & REFINING COMPANY

COMPANY HUMBLE OIL & REFINING COMPANYWELL NAVAJO TRIBE OF INDIANS G-17FIELD UNDESIGNATEDCOUNTY SAN JUAN STATE NEW MEXICOLocation: 1820' FNL & 600' FEL

Other Services:

NONESec. 12 Twp. 31N Rge. 17W

Permanent Datum: GL; Elev.: 5343'  
 Log Measured From GL, - Ft. Above Perm. Datum  
 Drilling Measured From GL

Elev.: K.B. 5348  
 D.F. --  
 G.L. 5343

|                        |                  |  |
|------------------------|------------------|--|
| Date                   | <u>7-1-63</u>    |  |
| Run No.                | <u>ONE</u>       |  |
| Type Log               | <u>FDL-G</u>     |  |
| Depth—Driller          | <u>1305</u>      |  |
| Depth—Logger           | <u>1304</u>      |  |
| Bottom logged interval | <u>1303</u>      |  |
| Top logged interval    | <u>100</u>       |  |
| Type fluid in hole     | <u>OIL EMUL.</u> |  |
| Salinity, PPM Cl.      | <u>9.5</u>       |  |
| Density                | <u>39</u>        |  |
| Level                  | <u>FULL</u>      |  |
| Max rec. temp., deg F. | <u>-</u>         |  |
| Operating rig time     | <u>2½ HOURS</u>  |  |
| Recorded by            | <u>DILLI</u>     |  |
| Witnessed by           | <u>MR. SLADE</u> |  |

| RUN No. | BORE-HOLE RECORD |      |    | CASING RECORD |      |      |     |
|---------|------------------|------|----|---------------|------|------|-----|
|         | Bit              | From | To | Size          | Wgt. | From | To  |
| 1       | 6 1/4            | CSG  | TD | 7"            | -    | SURF | 33' |
|         |                  |      |    |               |      |      |     |
|         |                  |      |    |               |      |      |     |
|         |                  |      |    |               |      |      |     |
|         |                  |      |    |               |      |      |     |

EXHIBIT "E"

To Application of Humble Oil & Refining Company  
 for

of Expansion of Many Rocks-Gallup Pressure Maintenance Project No  
 Many Rocks Pool, San Juan County, New Mexico