

# OILFIELD RESEARCH LABORATORIES

REGISTERED ENGINEERS

700 NORTH MISSION  
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April 21, 1962

Mendenhall Drilling Company  
Box 650  
Emporia, Kansas

Gentlemen:

Attached hereto are the results of tests run on the Rotary core taken from the Leedy Lease, Well No. 2, Chautauqua County, Kansas, and submitted to our laboratory on April 18, 1962.

This core was sampled after being received in the laboratory.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

*Benjamin R. Pearman*  
Benjamin R. Pearman

BRP:rf

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## **Oilfield Research Laboratories**

## **GENERAL INFORMATION & SUMMARY**

Company Mendenhall Drilling Co. Lease Leedy Well No. 2

**Location SW NE NW**

Section 10 Twp 34S Rge 8E County Chautauqua State Kansas

**Distribution of Permeable Sand:** **Permeability Range** **Millidarcys** **Feet** **Cum. Ft.**

|              |     |     |
|--------------|-----|-----|
| 0 - 100      | 2.0 | 2.0 |
| 100 - 1000   | 2.9 | 4.9 |
| 1000 & above | 1.9 | 6.8 |

**Average Percent Oil Recovery by Laboratory Flooding Tests** - - - - - - - -

**Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. - - - - -**

**Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre** - - - - - - - -

**OILFIELD RESEARCH LABORATORIES**

LOG

Company Mendenhall Drilling Co. Lease Leedy Well No. 2

Depth Interval,      Description  
Feet      \_\_\_\_\_

1305.0 - 1306.0 - Light brown, slightly calcareous sandstone.

1306.0 - 1308.5 - Gray, laminated, shaly sandstone.

1308.5 - 1309.2 - Gray limestone.

1309.2 - 1312.5 - Gray sandstone.

## RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Mendenhall Drilling Company      Lease Leedy      Well No. 2

| Sample No. | Depth, Feet | Effective Porosity Percent | Percent Saturation |       |       | Oil Content Bbls. / A Ft. | Perm., Mill. | Perm., Ft. X md. | Total Oil Content | Feet of Sand |
|------------|-------------|----------------------------|--------------------|-------|-------|---------------------------|--------------|------------------|-------------------|--------------|
|            |             |                            | Oil                | Water | Total |                           |              |                  |                   |              |
| 1          | 1305.1      | 20.0                       | 37                 | 29    | 66    | 574                       | 930.         | 1.0              | 574               | 574          |
| 2          | 1306.1      | 12.3                       | 13                 | 80    | 93    | 124                       | 111.         | 1.6              | 74                | 6.60         |
| 3          | 1307.1      | 7.7                        | 23                 | 50    | 73    | 137                       | 191.         | 2.6              | 137               | 191.00       |
| 4          | 1308.1      | 19.4                       | 4                  | 77    | 81    | 126.                      | 126.         | 0.9              | 54                | 113.40       |
| 5          | 1309.1      | 8.3                        | 25                 | 57    | 82    | Imp.                      | Imp.         | 0.7              | 113               | 0.00         |
| 6          | 1310.1      | 19.2                       | 8                  | 68    | 76    | 29.                       | 29.          | 1.4              | 167               | 40.60        |
| 7          | 1311.1      | 21.1                       | 11                 | 60    | 71    | 1,390.                    | 1,390.       | 1.9              | 342               | 2640.00      |
|            |             |                            |                    |       |       |                           | Total        |                  |                   | 1,461        |

Official Research Laboratories

SUMMARY OF RESEARCH & SURVEY WORKS

TABLE 38

| Company                 | Mendenhall Drilling Co.  | Lease                                   | Leedy                                  | Well No.                              | 2                                 |
|-------------------------|--------------------------|---|--|---------------------------------------|-----------------------------------|
| Depth Interval,<br>Feet | Feet of Core<br>Analyzed | Average<br>Permeability.<br>Millidarcys | Permeability<br>Capacity<br>Ft. x Ft.  |                                       |                                   |
| 1305.0 - 1312.5         | 6.8                      | 576.9                                   | 3921.60                                |                                       |                                   |
| Depth Interval,<br>Feet | Feet of Core<br>Analyzed | Average<br>Percent<br>Porosity          | Average<br>Percent Water<br>Saturation | Average<br>Oil Content<br>Bbl./A. Ft. | Total Oil<br>Content<br>Bbl./Acre |
| 1305.0 - 1312.5         | 7.5                      | 16.7                                    | 59.5                                   | 195                                   | 1,461                             |