**COMPANY** LEE PHILLIPS OIL & ADAIR OIL

**WELL** LADD #7

**LOCATION** NE NE NW 19-25-9E

**COUNTY** GREENWOOD

**STATE** KANSAS

KANSAS CORES

PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

# Kansas Cores

## PETROLEUM RESERVOIR ENGINEERING

WICHITA, KANSAS

COMPANY Lee Phillips & Adair Oil DATE 7-13-65

WELL Ladd #7 ANALYST IS

FIELD Teichgraber

COUNTY Greenwood STATE Kansas



PERMEABILITY MILLIDARCYS O—O

200 150 100 50 0

POROSITY—% X—X

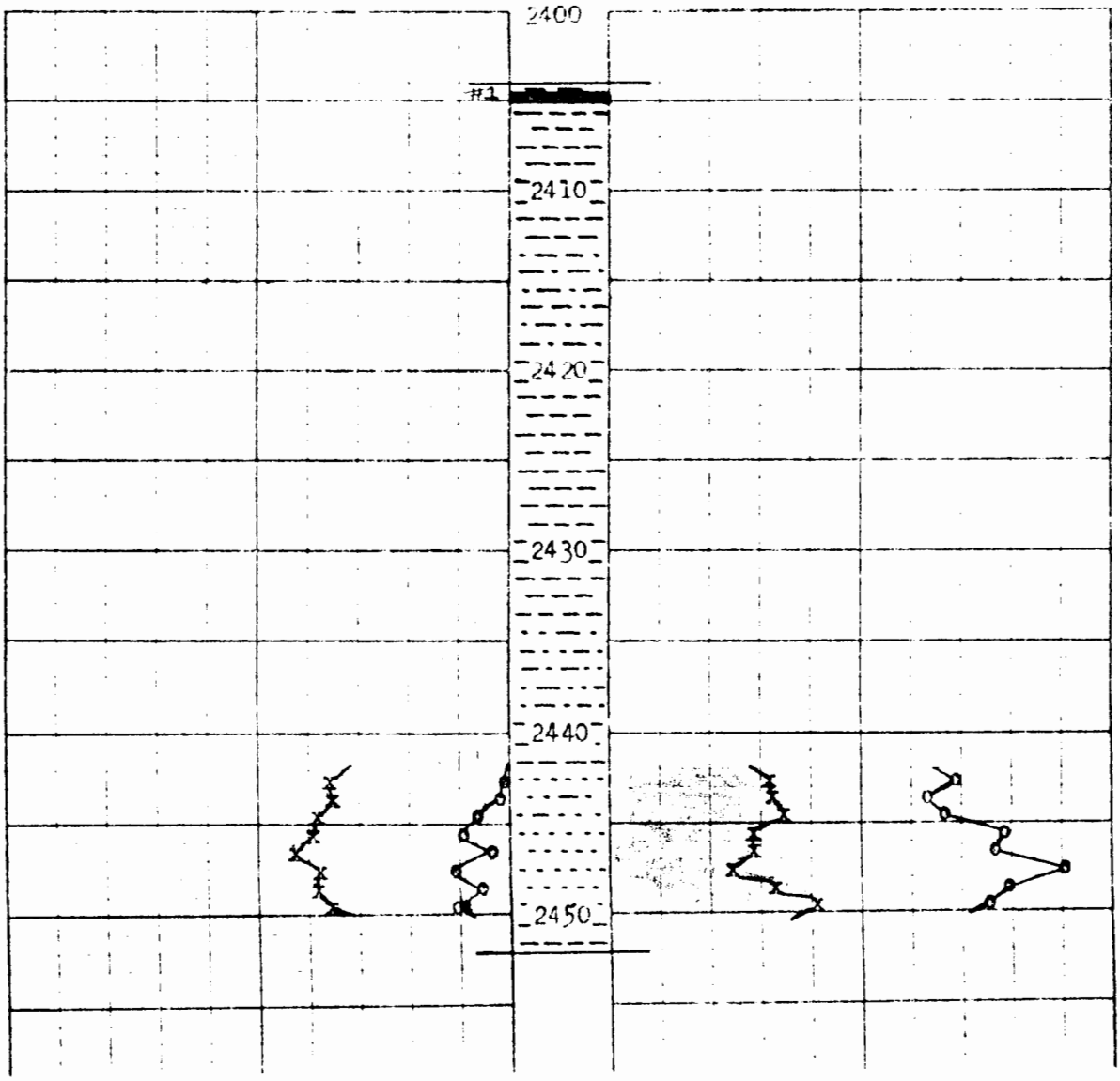
20 10 0

CONNATE WATER % SATURATION

0 70 60 50 40 O—O

OIL % PORE SATURATION X—X

0 10 20



# Kansas Cores

PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

1026 NORTH LIGHTNER
WICHITA, KANSAS 67208

July 11, 1965

Re: CORE ANALYSIS REPORT
Lee Phillips Oil & Adair Oil
Ladd #7
Greenwood County
Kansas

Lee Phillips Oil Co.
Wichita Plaza Bldg.
Wichita, Kansas

Gentlemen:

The cores from your well, Ladd #7, Greenwood County, Kansas have been analysed for permeability, porosity, and residual saturation of oil and water. The data will be found tabulated on the following pages and indicated on the coregraph. The data averages and recovery figures will be found at the end of this report.

The following is a short discussion of the section cored and analysed.

2442' to 2450' - Oil Productive

The Bartlesville encountered at this depth was composed of a very fine grained tight sand at the top with a few thin shale streaks, grading downward to a fine grained friable clean sand. Good oil saturation and low water percentages were measured throughout. The permeabilities were slightly lower than average, but good porosities were noted. A commercial, water free completion can be expected from this zone.

Yours very truly,

KANSAS CORES

Ivan L. Stuber

Attachments
cc: 3 copies to Lee Phillips Oil Co., Wichita, Ks.
3 copies to Adair Oil Co., Wichita, Ks.

Re: CORE DESCRIPTION
Lee Phillips & Adair Oil
Ladd #7
Greenwood County, Kansas

CORE #1

2404' to 2452' Cut 48' Rec. 48'

1' Black shale and lignite

5' Hard grey silty shale

3' Grey shale

6' Silty and slightly sandy shale

7' Waxy grey to green shale

2' Rotten dark grey to black shale
6' Hard grey-green shale
5' Hard light grey quartzitic to silty shaley sand: No show

3' Banded grey shale and tight silty sand: No show

1' Soft fine grained tight grey-green sand: Good stain and odor

2' Same sand as above with few thin hard grey shale streaks: Good stain and odor

5' Soft fine grained slightly friable greenish-brown sand: Good stain and odor

2' Hard grey to black shale

# Kansas Cores

PETROLEUM RESERVOIR ENGINEERING
WICHITA, KANSAS 67208

WELL Ladd #7 COUNTY Greenwood STATE Kansas

COMPANY Lee Phillips & Adair Oil DATE 7-11-65 FILE No. S-613

FIELD Teichgraber TYPE CORES Diamond ANALYST IS

ANALYSIS DATA AND INTERPRETATIONS

| SAMPLE No. | DEPTH | PERMEABILITY MILLIDARCYS | | POROSITY % | SATURATION WATER % PORE SPACE | SATURATION OIL % PORE SPACE | PROBABLE PRODUCTION | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | | HORIZONTAL | VERTICAL | | | | | |
| 1 | 2442<br>43 | 1.8 | 0.8 | 18.7 | 45.6 | 15.8 | Oil | |
| 2 | 2443<br>44 | 4.0 | 3.8 | 18.2 | 48.9 | 16.0 | Oil | |
| 3 | 2444<br>45 | 18.6 | 7.2 | 19.4 | 46.7 | 17.1 | Oil | |
| 4 | 2445<br>46 | 24.3 | 18.7 | 19.6 | 40.4 | 14.2 | Oil | |
| 5 | 2446<br>47 | 11.6 | 7.2 | 21.5 | 41.2 | 14.4 | Oil | |
| 6 | 2447<br>48 | 26.5 | 25.9 | 19.1 | 34.8 | 11.7 | Oil | |
| 7 | 2448<br>49 | 16.9 | 10.0 | 19.3 | 40.3 | 16.1 | Oil | |
| 8 | 2449<br>50 | 26.8 | 24.2 | 18.2 | 42.7 | 20.6 | Oil | |

PETROLEUM RESERVOIR ENGINEERING
WICHITA, KANSAS

Ladd #7
19-25S-9E

## DATA AVERAGES AND OIL RECOVERY FIGURES

| | | | | |
|---|---|---|---|---|
| DEPTH | 2442'-2450' | | | |
| FEET OF PRODUCTION FORMATION OF SECTION ANALYZED | 8 | | | |
| AVERAGE PERMEABILITY IN MILLIDARCYS | 16.3 | | | |
| AVERAGE POROSITY, PER CENT | 19.2 | | | |
| AVERAGE TOTAL WATER % OF PORE SPACE | 42.6 | | | |
| AVERAGE RESIDUAL OIL % OF PORE SPACE | 15.0 | | | |
| AVERAGE CONNATE WATER CALCULATED % OF PORE SPACE | 34.1 | | | |
| ESTIMATED FORMATION VOLUME FACTOR — USED IN CALCULATING RECOVERABLE OIL | 1.18 | | | |
| PRODUCTIVE CAPACITY — PRODUCTIVE FEET X AVERAGE PERMEABILITY IN MILLIDARCYS | 131 | | | |
| RECOVERABLE OIL BY WATER DRIVE — BBLS. PER ACRE FOOT | 597 | | | |
| RECOVERABLE OIL BY GAS EXPANSION — BBLS. PER ACRE FOOT | 348* | | | |

*From original bottom hole pressure to zero