

T. 27 R. 20W SEC. 28

## Kansas Cores

PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

Feb. 25, 1965

1026 NORTH LIGHTNER  
WICHITA, KANSAS

Re: CORE ANALYSIS REPORT  
Mull Drlg. & Walters Drlg.  
Bissitt #1  
Kiowa County  
Kansas

Mull Drilling Co.  
Wichita Plaza Bldg.  
Wichita, Kansas

Gentlemen:

The cores from your well, Bissitt #1, Kiowa 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.

### 4871' to 4893' - Oil Productive

The upper 5' of this Mississippian section consisted of a slightly dolomitic limestone with fair permeabilities and low porosities. Below this section the zone became more dolomitic and the bottom 10' was a very soft sucrosic dolomite. Good saturation was measured throughout, along with very low water percentages. The calculated reserves are higher for this well than any heretofore drilled. A very good, long lasting well can be expected from this zone.

Yours very truly,

KANSAS CORES

*Ivan L. Stuber*  
Ivan L. Stuber

#### Attachments

cc: 6 copies to Mull Drilling Co., Wichita, Kansas  
1 copy to KANSAS CORES, Wichita, Kansas

# Kansas Cores

PETROLEUM RESERVOIR ENGINEERING  
WICHITA, KANSAS

WELL Bissitt #1 COUNTY Kiowa STATE Kansas  
Mull Drlg. & Walters Drlg. 2-25-65 S-589  
 COMPANY \_\_\_\_\_ DATE \_\_\_\_\_ FILE NO. \_\_\_\_\_  
 FIELD \_\_\_\_\_ 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	4869 70	0.0	0.0	4.4	58.2	10.6	No Perm	2312' LB
2	4871-2559' 72	27.8	18.9	11.9	21.4	17.5	Oil	No Gas
3	4872 73	9.5	4.8	10.8	26.9	12.1	Oil	
4	4873 74	13.6	13.0	13.3	22.7	17.4	Oil	
5	4874 75	340	84.7	19.8	23.8	17.6	Oil	
	4875 76	6.1	2.3	9.7	24.1	17.0	Oil	
<del>7</del>	<del>4876 77</del>	<del>0.0</del>	<del>0.0</del>	<del>4.1</del>	<del>69.2</del>	<del>0.0</del>	<del>No Perm</del>	
<del>8</del>	<del>4877 78</del>	<del>2.0</del>	<del>0.0</del>	<del>6.6</del>	<del>65.1</del>	<del>14.6</del>	<del>No Perm</del>	
9	4878 79	58.3	48.6	15.5	30.7	15.1	Oil	
10	4879 80	33.7	28.5	12.6	26.0	10.5	Oil	
11	4880 81	140	120	16.2	26.0	16.8	Oil	
12	4881 82	70.3	70.0	15.8	29.8	16.3	Oil	
13	4882 83	89.2	86.0	15.9	38.4	17.9	Oil	
14	4883 84	140	130	17.2	35.7	19.7	Oil	
15	4884 85	190	190	19.3	42.6	18.6	Oil	
16	4885 86	135	140	19.1	32.7	18.5	Oil	
17	4886 87	290	280	21.2	33.2	21.8	Oil	
18	4887 88	465	450	21.5	20.7	11.7	Oil	
	4888 89	320	340	21.3	34.4	11.2	Oil	
20	4889 90	870	870	24.2	23.6	12.6	Oil	
21	4890 91	720	620	22.6	25.8	14.6	Oil	
22	4891	110 <sup>to 418.5</sup>	100 <sup>to 319.8</sup>	19.1 <sup>to 34.1</sup>	36.6 <sup>to 58.8</sup>	18.7 <sup>to 32.7</sup>	Oil	

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PETROLEUM RESERVOIR ENGINEERING  
WICHITA, KANSAS

## DATA AVERAGES AND OIL RECOVERY FIGURES

DEPTH	4871'-4893'			
FEET OF PRODUCTION FORMATION OF SECTION ANALYZED	20			
AVERAGE PERMEABILITY IN MILLIDARCYS	207			
AVERAGE POROSITY, PER CENT	17.2	✓		
AVERAGE TOTAL WATER % OF PORE SPACE	29.8			
AVERAGE RESIDUAL OIL % OF PORE SPACE	16.2	✓		
AVERAGE CONNATE WATER CALCULATED % OF PORE SPACE	23.8			
ESTIMATED FORMATION VOLUME FACTOR - USED IN CALCULATING RECOVERABLE OIL	1.30			
PRODUCTIVE CAPACITY - PRODUCTIVE FEET X AVERAGE PERMEABILITY IN MILLIDARCYS	4,149			
RECOVERABLE OIL BY WATER DRIVE - BBLs. PER ACRE FOOT	566	45 OIP		
RECOVERABLE OIL BY GAS EXPANSION - BBLs. PER ACRE FOOT	340*	259, 0 IP		

\*From original bottom hole pressure to zero

Re: CORE DESCRIPTION  
Mull Drlg. & Walters Drlg.  
Bissitt #1  
Kiowa County  
Kansas

CORE #1

4865' to 4893'

Cut 28'

Rec. 28'

- 4' Hard dark grey-black shale with some inclusions of white to grey coarsely crystalline limestone: No show
- 1' Hard coarsely crystalline white limestone, trace vertical fractures: Fair stain & odor, some bleeding oil
- 1' Hard grey shale
- 3' Hard coarsely crystalline slightly dolomitic limestone, few fossils: Good stain and odor
- 1' Dark grey finely crystalline dolomite: Good stain & odor
- 1' Coarsely crystalline slightly dolomitic limestone: Good stain and odor
- 1' Coarsely crystalline white limestone, some soft green shale bottom: No show
- 1' Same limestone: Good stain and odor
- 5' Soft crystalline dolomitic limestone, trace fossils: Good stain and odor
- 8' Soft finely crystalline dolomite, slightly vugular in part: Good stain and odor
- 2' Soft light brown fossiliferous slightly crystalline dolomite, slightly more limey toward bottom: Good stain and odor

# Kansas Cores

## PETROLEUM RESERVOIR ENGINEERING WICHITA, KANSAS

COMPANY Mull Drlg. & Walters Drlg.

DATE 2-25-65

WELL Bisitt #1

ANALYST IS

FIELD \_\_\_\_\_

COUNTY Kiowa STATE Kansas

The analyses and interpretations are based on material brought to Kansas Cores by the client, and such data and interpretations are accessible only to that company which the client represents. Kansas Cores makes no warranty and makes no guarantee for the interpretations and opinions of the data. Our opinions of an analysis are placed at the discretion of the operator.

PERMEABILITY MILLIDARCYS  $\circ\text{---}\circ$

400 300 200 100 0

POROSITY-%  $X\text{---}X$

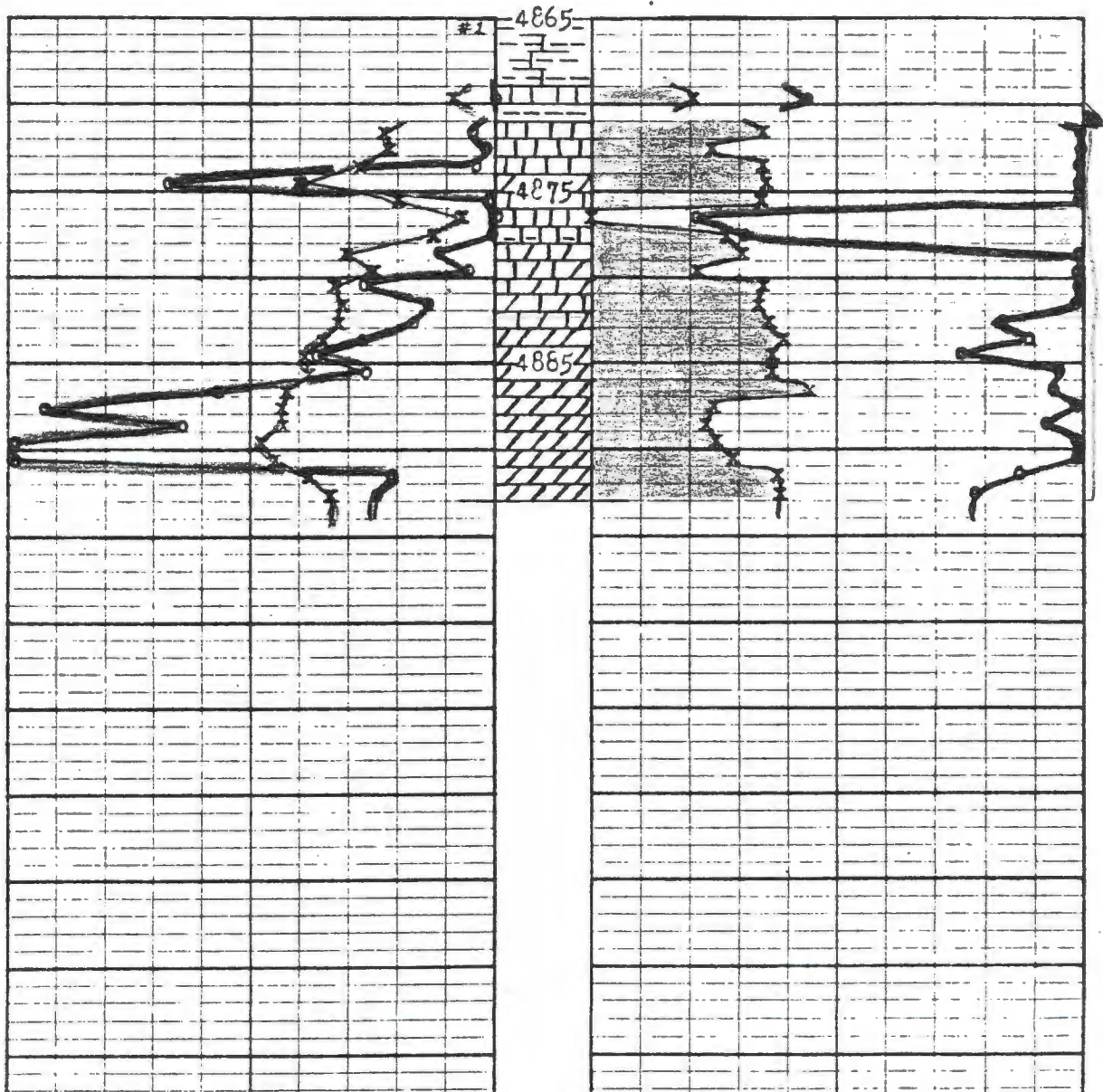
20 10 0

CONNATE WATER % SATURATION

0 70 60 50 40  $\text{---}\circ$

OIL % PORE SATURATION  $X\text{---}X$

0 10 20



4893  
2312