Bates Unit B
5-1

Kansas Cores

PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

1026 NORTH LIGHTNER
WICHITA, KANSAS 67208

Feb. 18, 1967

Re: CORE ANALYSIS REPORT
Beardmore Drilling Co.
Riner #1
Sumner County
Kansas

Beardmore Drlg. Co.
One-Twenty Bldg.
Wichita, Kansas

Gentlemen:

The cores from your well, Riner #1, Sumner County, Kansas have been analysed for permeability, peresity, and residual saturation of oil and water. The data will be found tabulated on the following pages and indicated on the ceregraph. 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.

3736' to 3743' - Oil Productive

This section in the Mississippian was composed of a tight light grey crystalline limestone at the top, slightly dolomitic, becoming more dolomitic at the bottom. The oil and water percentages are average for the field, but the permeabilities and peresities are considerably lower. The zone is considered to be oil productive, and with the added pay expected below, a commercial well can be expected.

Yours very truly,

KANSAS CORES

Ivan L. Stuber

Ivan L. Stuber

Attachments
cc: 12 copies to Beardmore Drlg. Co., Wichita, Kansas

Re: CORE DESCRIPTION
Beardmore Drlg. Co.
Riner #1
Sumner County
Kansas

CORE #1 3728' to 3743' Cut 15' Rec. 15'

3728--36 Hard coarsely crystalline light grey limestone, few stylolytes in part, slightly dolomitic bottom 2': Very spotted staining in part

3736--41 Soft finely crystalline light brown limey dolomite, slightly sucrosic in part, becoming more dolomitic downward: Good stain and oder

3741--42 Soft brown finely crystalline dolomite: Good stain and oder

3742--43 Hard dark brown very finely sucrosic to trace dense dolomite, few grey-blue chert inclusions: Good stain and oder

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WICHITA, KANSAS 67208

WELL Riner #1 COUNTY Sumner STATE Kansas

COMPANY Beardmore Drilling DATE 2-18-67 FILE No. 8-718

FIELD TYPE CORES Diamond ANALYST IS

ANALYSIS DATA AND INTERPRETATIONS

SAMPLE No.	DEPTH	PERMEABILITY MILLIDARCYS HORIZONTAL	PERMEABILITY MILLIDARCYS VERTICAL	POROSITY %	SATURATION WATER % PORE SPACE	SATURATION OIL % PORE SPACE	PROBABLE PRODUCTION	REMARKS
1	3728 29	0.0	0.0	4.2	49.8	0.0	No Perm	
2	3729 30	0.0	0.0	6.5	43.0	0.0	No Perm	
3	3730 31	0.0	0.0	5.8	47.3	0.3	No Perm	
4	3731 32	0.0	0.0	5.5	51.4	0.4	No Perm	
5	3732 33	0.0	0.0	5.6	47.1	0.0	No Perm	
6	3733 34	0.0	0.0	5.4	36.4	0.0	No Perm	
7	3734 35	0.0	0.0	4.6	50.8	1.1	No Perm	
8	3735 36	0.0	0.0	4.8	49.3	1.0	No Perm	
9	3736 37	4.3	0.8	11.7	34.4	6.7	Oil	Gl/oil 9
10	3737 38	4.6	0.2	13.3	31.9	10.1	Oil	
11	3738 39	5.6	3.8	11.4	32.8	9.6	Oil	
12	3739 40	4.8	4.4	11.6	41.7	15.2	Oil	3739 1308 2431
13	3740 41	6.9	4.3	11.9	40.3	12.9	Oil	
14	3741 42	12.6	5.1	13.8	38.3	13.8	Oil	
15	3742 43	8.1	6.2	14.5	35.7	10.6	Oil	

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WICHITA, KANSAS

DATA AVERAGES AND OIL RECOVERY FIGURES

DEPTH	3736'-3743'			
FEET OF PRODUCTION FORMATION OF SECTION ANALYZED	7			
AVERAGE PERMEABILITY IN MILLIDARCYS	6.7			
AVERAGE POROSITY, PER CENT	12.6			
AVERAGE TOTAL WATER % OF PORE SPACE	36.4			
AVERAGE RESIDUAL OIL % OF PORE SPACE	11.3			
AVERAGE CONNATE WATER CALCULATED % OF PORE SPACE	29.1			
ESTIMATED FORMATION VOLUME FACTOR — USED IN CALCULATING RECOVERABLE OIL	1.24			
PRODUCTIVE CAPACITY — PRODUCTIVE FEET X AVERAGE PERMEABILITY IN MILLIDARCYS	46.9			
RECOVERABLE OIL BY WATER DRIVE — BBLS. PER ACRE FOOT	252*			
RECOVERABLE OIL BY GAS EXPANSION — BBLS. PER ACRE FOOT	140**			

* 45% of the oil in place

** 25% of the oil in place

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.

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PETROLEUM RESERVOIR ENGINEERING

WICHITA, KANSAS

COMPANY Beardmore Drilling DATE 2-18-67

WELL Riner #1 ANALYST IS

FIELD

COUNTY Sumner STATE Kansas

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PERMEABILITY MILLIDARCYS O—O

40 30 20 10 0

POROSITY—% X—X

20 10 0

CONNATE WATER % SATURATION

0 70 60 50 40

OIL % PORE SATURATION X—X

0 10 20

