

Kansas Cores

PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

July 23, 1974

1026 NORTH LIGHTNER
WICHITA, KANSAS 67208

Re: CORE ANALYSIS REPORT
Maurice L. Brown
Maune #6
Finney County, Kansas

Maurice L. Brown
Vickers-KSET Bldg.
Wichita, Kansas

Gentlemen:

The cores from your well, Maune #6, Finney 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.

4633' to 4640' - Non Productive

This upper section in the Mississippian consisted for the most part of a hard crystalline limestone with few thin ($\frac{1}{4}$ ") bands of tight very finely oolitic limestone. Some staining was noted in the bands, but the lack of permeability indicates no production could be expected from this zone.

4648' to 4656' - Non Productive

Some sand was found here, interspersed with a hard limestone. Fair saturation was noted in the sand, but again no permeabilities were measured.

4719' to 4726' - Oil Productive

The oolitic zone found here was well saturated with oil, and the waters are well in line for water free production. Some streaked good permeability was measured, and the porosities in part were good. A commercial well can be expected from this zone.

Yours very truly,

KANSAS CORES

Ivan L. Stuber
Ivan L. Stuber

Attachments

cc: 6 copies to Maurice L. Brown, Wichita, Kansas

8. M.L. Brown

C SE NW 31-21S-33W

#6 A. Maune

Mississippian 4633-4659; 4695-4745

Core Available In: 22 Three-Foot Boxes

Condition: Whole Core

Coverage: Incomplete

Available Footage (By Box):

4633-37	Incomplete	4695-97½
4637-41	Incomplete	4697½-4700½
4641-45	Incomplete	4700½-03½
4645-49	Incomplete	4703½-06½
4649-54	Incomplete	4706-09½
4654-57		4709½-12
4657-59		4712-15
		4715-19 Incomplete
		4719-24 Incomplete
		4724-28 Incomplete
		4728-29 Missing
		4729-31
		4731-32 Missing
		4732-35
		4735-38
		4738-42 Incomplete
		4742-45

NOTES: 22 samples (for Ø, k, Srw, Sro) taken from 4633'-4659'; 22 samples taken from 4695'-4745'; samples probably account for part of missing intervals.

Re: CORE DESCRIPTION
Maurice L. Brown
Maune #6
Finney Co., Kans.

<u>CORE #1</u>	<u>4633' to 3659'</u>	<u>Cut 26'</u>	<u>Rec. 26'</u>
4633--40	Very hard light grey fine crystalline to very finely oolitic limestone, mostly barren with few thin streaks of the oolitic limestone with fair staining: Very streaked stain		
4640--44	Mostly crystalline & dense grey limestone, traces closed fractures & traces oolitic laminations: No show except traces in fractures		
4644--48	Very fine crystalline very hard light grey-tan limestone with pyrite inclusions: No show		
4648--52	Mainly grey crystalline limestone with few inclusions & bands of very fine grained tight brown sand: Very streaked stain in sand		
4652--56	Streaked sand as above and dense to crystalline limestone, more sand than above: Fair streaked stain		
4656--57	Hard quartzitic slightly greenish glauconitic fine grained well cemented sand: No show		
4657--59	Very hard dense grey limestone with numerous dark blue-grey chert bands & inclusions: Traces bleeding oil around chert (Erase)		

<u>CORE #2</u>	<u>4695' to 4716'</u>	<u>Cut 21'</u>	<u>Rec. 21'</u>
4695--4714	Very hard dense to fine crystalline grey-tan limestone: No show		
4714--16	Same limestone with bands & inclusions of fresh blue-grey chert: Bleeding some oil from around chert		

<u>CORE #3</u>	<u>4716' to 4745'</u>	<u>Cut 29'</u>	<u>Rec. 29'</u>
4716--20	Very hard very fine crystalline to very finely oolitic limestone with inclusions & bands of fresh blue-grey chert: Good streaked bleeding oil		
4720--25	Soft fine to medium sized oolitic limestone, traces fine crystalline throughout: Good stain and odor, traces bleeding salt water"		
4725--28	Streaked dense to fine crystalline limestone & very finely oolitic limestone, hard & tight: Some bleeding oil, streaked		
4728--39	Very hard dense to some lithographic dark tan-grey limestone: No show		
4739--43	Hard medium crystalline limestone with some finely oolitic light buff limestone: Streaked stain top 3', bleeding oil 41-42'		
4743--45	Very hard medium grey dense to crystalline limestone: No show		

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WELL **Maune #6** COUNTY **Finney** STATE **Kansas**
COMPANY **Maurice L. Brown** DATE **7-23-74** FILE NO **S-1218**
FIELD **Damme** 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	4633	0.0	0.0	6.1	20.8	6.2	No Perm	
2	4634	0.4	0.0	6.0	39.0	2.2	No Perm	
3	4635	0.0	0.0	5.3	34.9	0.0	No Perm	
4	4636	0.2	0.0	7.6	30.5	23.7	No Perm	
5	4637	0.0	0.0	6.1	35.1	13.1	No Perm	
6	4638	0.0	0.0	6.9	40.7	18.6	No Perm	
7	4639	0.0	0.0	5.8	36.7	4.7	No Perm	
8	4640	0.0	0.0	4.2	57.4	0.0	No Perm	
9	4641	1.0	0.0	4.8	38.8	2.7	No Perm	
10	4642	0.0	0.0	5.1	52.2	0.0	No Perm	
11	4643	0.0	0.0	4.8	26.7	0.0	No Perm	
12	4644	0.0	0.0	4.4	65.0	0.0	No Perm	
13	4647	0.0	0.0	6.3	49.8	0.0	No Perm	
14	4648	0.0	0.0	6.5	39.4	12.3	No Perm	
15	4649	0.0	0.0	6.9	37.5	3.8	No Perm	
16	4650	0.0	0.0	6.9	41.3	3.8	No Perm	
17	4651	0.0	0.0	5.8	44.7	0.0	No Perm	
18	4652	2.1	1.0	11.4	48.9	10.6	Low Perm	
19	4653	0.0	0.0	6.9	55.8	14.9	No Perm	
20	4654	2.0	0.8	10.4	46.3	13.9	No Perm	
21	4655	0.0	0.0	6.7	48.8	13.1	No Perm	
22	4656	0.0	0.0	6.8	59.1	0.0	No Perm	
23	4700	0.0	0.0	3.9	29.8	0.0	No Perm	
24	4701	0.0	0.0	2.5	21.6	0.0	No Perm	
25	4713	0.0	0.0	2.7	23.7	0.0	No Perm	

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WELL _____ COUNTY _____ STATE _____
COMPANY _____ DATE _____ FILE NO. _____
FIELD _____ TYPE CORES _____ ANALYST _____

ANALYSIS DATA AND INTERPRETATIONS

SAMPLE NO.	DEPTH	PERMEABILITY MILLIDARCYS		POROSITY %	SATURATION WATER % PORE SPACE	SATURATION OIL % PORE SPACE	PROBABLE PRODUCTION	REMARKS
		HORIZONTAL	VERTICAL					
26	4716	0.0	0.0	11.6	35.3	14.6	No Perm	
	17							
27	4717	0.0	0.0	7.9	25.7	11.3	No Perm	
	18							
28	4718	0.2	0.0	9.7	12.6	11.2	No Perm	
	19							
29	4719	3.1	0.0	9.4	20.9	23.5	Oil	
	20							
30	4720	24.2	23.0	10.2	35.9	19.1	Oil	
	21							
31	4721	32.1	21.8	9.1	34.8	21.4	Oil	
	22							
32	4722	165	145	13.8	29.1	20.6	Oil	
	23							
33	4723	170	170	13.2	37.4	24.9	Oil	
	24							
34	4724	285	310	14.4	35.6	19.4	Oil	
	25							
35	4725	7.8	21.6	7.9	62.0	29.4	Oil	
	26							
36	4726	0.0	0.0	7.0	47.4	7.3	No Perm	
	27							
37	4727	0.0	0.0	7.3	16.7	16.4	No Perm	
	28							
38	4728	0.0	0.0	3.4	48.8	0.0	No Perm	
	29							
39	4733	0.0	0.0	3.2	25.3	0.0	No Perm	
	34							
40	4739	0.0	0.0	8.5	57.6	6.2	No Perm	
	40							
41	4740	4.2	5.7	8.9	21.6	23.0	No Perm	
	41							
42	4741	0.0	0.0	5.3	49.4	0.2	No Perm	
	42							
43	4742	0.0	0.0	7.3	39.5	0.0	No Perm	
	43							
44	4743	0.0	0.0	3.3	24.2	0.0	No Perm	
	44							

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DATA AVERAGES AND OIL RECOVERY FIGURES

DEPTH	4719'-4726'		
FEET OF PRODUCTION FORMATION OF SECTION ANALYZED	7		
AVERAGE PERMEABILITY IN MILLIDARCYS	98.2		
AVERAGE POROSITY, PER CENT	11.1		
AVERAGE TOTAL WATER % OF PORE SPACE	36.5		
AVERAGE RESIDUAL OIL % OF PORE SPACE	22.6		
AVERAGE CONNATE WATER CALCULATED % OF PORE SPACE	29.2		
ESTIMATED FORMATION VOLUME FACTOR - USED IN CALCULATING RECOVERABLE OIL	1.20		
PRODUCTIVE CAPACITY - PRODUCTIVE FEET X AVERAGE PERMEABILITY IN MILLIDARCYS	687		
RECOVERABLE OIL BY WATER DRIVE - BBLS. PER ACRE FOOT	229 *		
RECOVERABLE OIL BY GAS EXPANSION - BBLS. PER ACRE FOOT	127 **		

* 45% of the oil in place

** 25% of the oil in place

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WICHITA KANSAS

COMPANY Maurice L. Brown

DATE 7-23-74

WELL Maune #6 C6ENW 31-21-33W

ANALYST IS

FIELD Danne

COUNTY Finney

STATE Kansas

Elevation Gr. 2896'

The analysis 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 firm. Your signature as an analyst is placed at the discretion of the operator.

PERMEABILITY MILLIDARCY'S 0 — 200

CONNATE WATER % SATURATION 0 — 100

POROSITY % 0 — 20

OIL % PORE SATURATION 0 — 100

CORING TIME

20 10

10 20 30

MIN/FT

