

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

March 17, 1981

L & L Oil Company
P. O. Box 13
Benedict, Kansas 66714

Gentlemen:

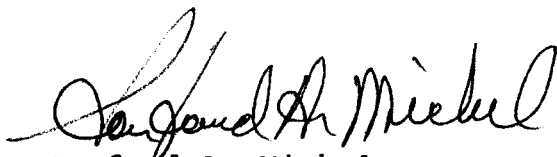
Enclosed herewith are the results of tests run on the rotary core taken from the Morton Lease, Well No. 13-A, located in Wilson County, Kansas.

The core was sampled and sealed in plastic by a representative of the client and was submitted to our laboratory on March 11, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/kas

5 c to Benedict, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

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GENERAL INFORMATION & SUMMARY

Company L & L Oil Company Lease Morton Well No. 13-A
 Location
 Section 13 Twp. 28S Rgc. 15E County Wilson State Kansas

Elevation, Feet

Name of Sand..... Bartlesville

Top of Core 1014.0

Bottom of Core 1020.0

Top of Sand 1014.0

Bottom of Sand 1020.0

Total Feet of Permeable Sand 6.0

Distribution of Permeable Sand:

Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 1	3.0	3.0
1 - 3	3.0	6.0

Average Permeability, Millidarcys 1.3

Average Percent Porosity 13.7

Average Percent Oil Saturation 38.3

Average Percent Water Saturation 33.8

Average Oil Content, Bbls./A. Ft. 414.

Total Oil Content, Bbls./Acre 2,486.

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LOG

Name L & L Oil Company Lease Morton Well No. 13-A

Depth Interval, <u>Feet</u>	<u>Description</u>
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1014.0 - 1020.0	Grayish light brown shaly sandstone.
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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company L & L Oil Company Lease Morton Well No. 13-A

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	1014.5	15.2	48	35	83	566	2.8	1.0	1.0	566	2.80
2	1015.6	14.0	26	33	59	282	0.80	1.0	2.0	282	0.80
3	1016.5	13.8	39	26	65	418	1.4	1.0	3.0	418	1.40
4	1017.5	14.6	43	30	73	487	1.7	1.0	4.0	487	1.70
5	1018.5	15.0	44	28	72	512	0.92	1.0	5.0	512	0.92
6	1019.5	9.5	30	51	81	221	0.20	1.0	6.0	221	0.20

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SUMMARY OF PERMEABILITY & SATURATION TESTS

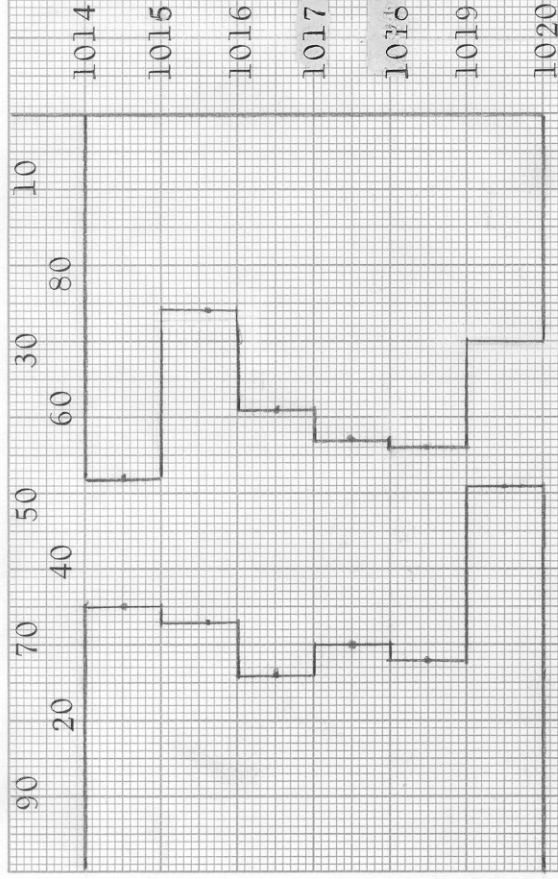
TABLE III

Company	L & L Oil Company	Lease	Morton	Well No.	13-A
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	
	1014.0 - 1020.0	6.0	1.3	7.82	
	Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Water Saturation	Total Oil Content Bbls./Acre
	1014.0 - 1020.0	6.0	13.7	38.3	2,486

WATER SAT.,
PERCENT —————>

OIL SAT.,
PERCENT —————<

———— PERMEABILITY, IN MILLIDARCYs



KEY:

SHALY SANDSTONE



L & L OIL COMPANY

MORTON LEASE

WELL NO. 13-A

WILSON COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYs
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1014.0 - 1020.0	6.0	13.7	38.3	33.8	1.3
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CHANUTE, KANSAS
MARCH, 1981