

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS - PHONE HE1-2650

700 NORTH MISSION - OKMULGEE, OKLAHOMA - PHONE SK6-4444

Chanute, Kansas

May 26, 1965

Fred E. Wood & Associates
Suite 204, 200 Sixteenth Street
Denver, Colorado

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Wolfe Lease, Well No. 46-EE, Wilson County, Kansas, and submitted to our laboratory on May 23, 1965.

This core was sampled and the samples sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

John L. Pate
John L. Pate

JLP:rf

4 c. - Denver, Colorado
1 c. - A.W. Bailey

33-30-16E

WOLFE 46-EE

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Fred E. Wood & Associates Lease Wolfe Well No. 46-EE

Location NE $\frac{1}{4}$

Section 33 Twp. 30S Rge. 16E County Wilson State Kansas

Name of Sand - - - - - Bartlesville

Top of Core - - - - - 758.0

Bottom of Core - - - - - 780.5

Top of Sand - - - - - 758.0

Bottom of Sand - - - - - 778.3

Total Feet of Permeable Sand - - - - - 14.0

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 10	11.4	11.4
10 - 20	1.6	13.0
20 & above	1.0	14.0

Average Permeability Millidarcys - - - - - 7.0

Average Percent Porosity - - - - - 13.8

Average Percent Oil Saturation - - - - - 33.7

Average Percent Water Saturation - - - - - 41.7

Average Oil Content, Bbls./A. Ft. - - - - - 371.

Total Oil Content, Bbls./Acre - - - - - 7,540.

Average Percent Oil Recovery by Laboratory Flooding Tests - - - - -

Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. - - - - -

Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre - - - - -

Total Calculated Oil Recovery, Bbls./Acre - - - - -

Packer Setting, Feet - - - - -

Viscosity, Centipoises @ - - - - -

A. P. I. Gravity, degrees @ 60 °F - - - - - 40.

Elevation, Feet - - - - -

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-LOG-

Company Fred E. Wood & Associates Lease Wolfe Well No. 46-EE

Depth Interval, Description
Feet

758.0 - 775.0 - Brown, laminated, slightly shaly sandstone.

775.0 - 778.3 - Grayish light brown, shaly sandstone.

778.3 - 780.5 - Brown to black shale

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Fred E. Wood & Associates Lease Wolfe Well No. 46-EE

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation		Oil Content Bbbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Penn. Capacity Ft. X md.
			Oil	Water			Ft.	Cum. Ft.		
1	758.1	15.3	33	40	391	13.7	0.6	0.6	234	7.80
2	759.1	16.6	23	41	296	6.7	1.0	1.6	296	6.70
3	760.1	13.1	27	49	274	1.4	1.0	2.6	274	1.40
4	761.1	17.6	22	42	300	34.	1.0	3.6	300	34.00
5	762.1	14.5	24	46	270	Imp.	1.0	4.6	270	0.00
6	763.1	7.6	17	79	100	Imp.	1.0	5.6	100	0.00
7	764.1	14.0	29	36	315	6.2	1.0	6.6	315	6.20
8	765.1	14.6	27	35	306	2.6	1.0	7.6	306	2.60
9	766.1	13.0	37	36	373	Imp.	1.0	8.6	373	0.00
10	767.1	14.0	34	33	369	1.6	1.0	9.6	369	1.60
11	768.1	14.8	31	35	355	3.6	1.0	10.6	355	3.60
12	769.1	13.1	51	35	517	14.	1.0	11.6	517	14.00
13	770.1	13.4	42	33	436	7.5	1.0	12.6	436	7.50
14	771.1	15.6	46	25	556	2.0	1.0	13.6	556	2.00
15	772.1	14.4	50	31	558	5.7	1.0	14.6	558	5.70
16	773.1	16.3	50	26	631	3.1	1.0	15.6	631	3.10
17	774.1	15.4	50	34	596	1.7	1.4	17.0	835	2.38
18	775.1	7.4	13	82	75	Imp.	0.6	17.6	45	0.00
19	776.1	13.8	35	41	375	Imp.	1.0	18.6	375	0.00
20	777.1	9.1	22	72	155	Imp.	1.0	19.6	155	0.00
21	778.1	15.2	29	45	342	Imp.	0.7	20.3	240	0.00
							Total		7,540	

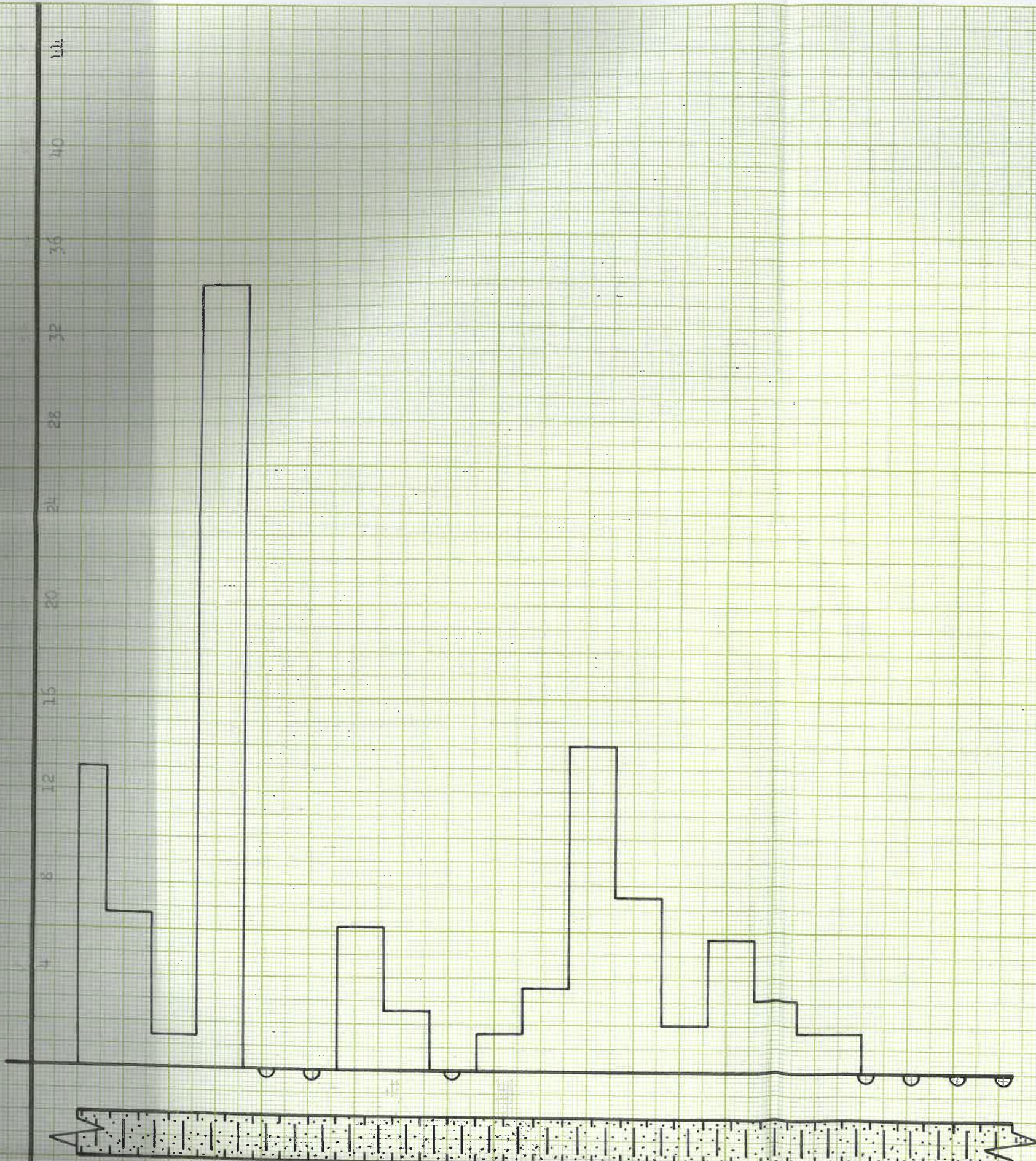
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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Fred E. Wood & Associates	Lease	Wolfe	Well No.	
				46-EE	
Depth Interval, Feet	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Total Oil Content Bbls./Acre
	758.0 - 768.6	7.6	8.4	63.90	3,192
	768.6 - 778.3	6.4	5.4	34.68	4,348
	758.0 - 778.3	14.0	7.0	98.58	7,540
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.
758.0 - 768.6	10.6	14.0	27.4	43.0	301
768.6 - 778.3	9.7	13.6	40.6	40.3	448
758.0 - 778.3	20.3	13.8	33.7	41.7	371

AIR PERMEABILITY, IN MILLIDARCS



SHALE

O IMPERMEABLE TO AIR

& ASSOCIATES

WELL NO. 46-2111

WY, KANSAS

OR T	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBL./A. FT.	TOTAL OIL CONTINENT, PERMEABILITY, BBL./ACRE	AVG. AIR PERMEABILITY, MILLIDARCS
	43.0	301	3,192	8.4
	40.3	118	4,348	5.4
	41.7	371	7,510	7.0

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CHANDLER, KANSAS
MAY, 1965

OIL CONTENT,
BBL./A. FT.

WATER SAT.,
PERCENT

OIL SAT.,
PERCENT



SHALY SANDSTONE

SHALE

FRED E. WOOD & ASSOC

WOLFE LEASE

WILSON COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT
758.0 - 768.6	10.6	14.0	27.4	43.0
768.6 - 778.3	9.7	13.6	40.6	40.3
758.0 - 778.3	20.3	13.8	33.7	41.7