

# OILFIELD RESEARCH LABORATORIES

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

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

Chanute, Kansas

May 7, 1965

33-30-16E

Fred E. Wood & Associates  
Wuite 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. 41-AE, Wilson County, Kansas, and submitted to our laboratory on May 1, 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

*Benjamin R. Pearman*  
Benjamin R. Pearman

BRP:rf

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

Wolfe 41-AE

# Oilfield Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company Fred E. Wood & Associates Lease Wolfe Well No. 41-AE

Location \_\_\_\_\_

Section \_\_\_\_\_ Twp. \_\_\_\_\_ Rge. \_\_\_\_\_ County Wilson State Kansas

Name of Sand	Bartlesville
Top of Core	774.4
Bottom of Core	790.3
Top of Sand	774.4
Bottom of Sand	790.3
Total Feet of Permeable Sand	9.0
Total Feet of Floodable Sand	-

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1.0	2.0	2.0
1.0 - 10	6.0	8.0
10 & above	1.0	9.0

Average Permeability Millidarcys	4.7
Average Percent Porosity	13.5
Average Percent Oil Saturation	37.9
Average Percent Water Saturation	30.8
Average Oil Content, Bbls./A. Ft.	391.
Total Oil Content, Bbls./Acre	6,210.
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	-
Elevation, Feet	-

OILFIELD RESEARCH LABORATORIES

Company Fred E. Wood & Assoc. -LOG- Lease Wolfe Well No. 41-AE

Depth Interval, Description  
Feet

774.4 - 786.6 - Brown, shaly sandstone.

786.6 - 790.3 - Dark carbonaceous, shaly sandstone.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Fred E. Wood & Associates

Lease Wolfe

Well No. 41-AE

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			Ft.	Cum. Ft.		
1	774.5	12.4	22	40	212	Imp.	0.6	0.6	127	0.00
2	775.5	14.0	34	29	369	11.	1.0	1.6	369	11.00
3	776.5	16.2	26	31	327	0.74	1.0	2.6	327	0.74
4	777.5	15.0	30	28	349	9.4	1.0	3.6	349	9.40
5	778.5	15.0	25	34	291	4.2	1.0	4.6	291	4.20
6	779.5	10.7	49	42	407	8.0	1.0	5.6	407	8.00
7	780.5	14.1	37	29	405	3.7	1.0	6.6	405	3.70
8	781.5	13.2	23	30	236	1.0	1.0	7.6	236	1.00
9	782.5	12.9	49	26	490	3.1	1.0	8.6	490	3.10
10	783.5	14.3	39	28	433	0.66	1.0	9.6	433	0.66
11	784.5	14.2	65	21	716	Imp.	1.0	10.6	716	0.00
12	785.5	6.5	49	47	247	Imp.	1.0	11.6	247	0.00
13	786.5	12.9	40	30	400	Imp.	0.6	12.2	240	0.00
14	787.5	14.9	37	30	427	Imp.	1.4	13.6	597	0.00
15	788.5	13.9	46	28	496	Imp.	1.0	14.6	496	0.00
16	789.5	14.4	33	25	369	Imp.	1.3	15.9	480	0.00

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

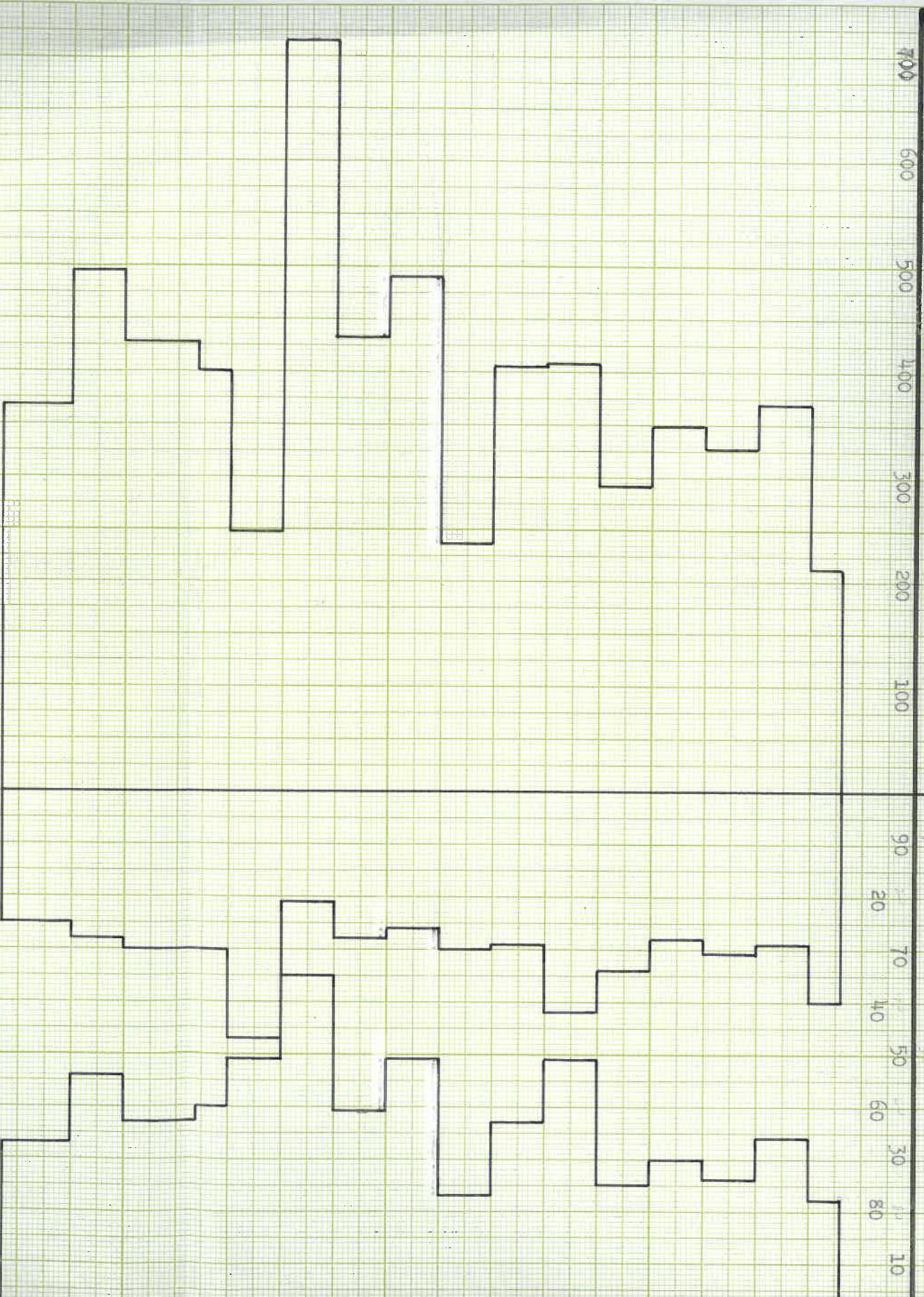
TABLE III

Company	Fred E. Wood & Associates	Lease	Wolfe	Well No.		
				41-AE		
Depth Interval, Feet	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
	774.4 - 784.0	9.0	4.7	41.80		
	784.0 - 790.3	0.0	0.0	0.00		
	774.4 - 790.3	9.0	4.7	41.80		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
774.4 - 784.0	9.6	13.8	33.8	31.4	358	3,434
784.0 - 790.3	6.3	13.0	44.3	29.9	440	2,776
774.4 - 790.3	15.9	13.5	37.9	30.8	391	6,210

OIL CONTENT,  
BBLS./A. FT.

WATER SAT.,  
PERCENT

OIL SAT.,  
PERCENT



SHALY SANDSTONE

FRED E. WOOD

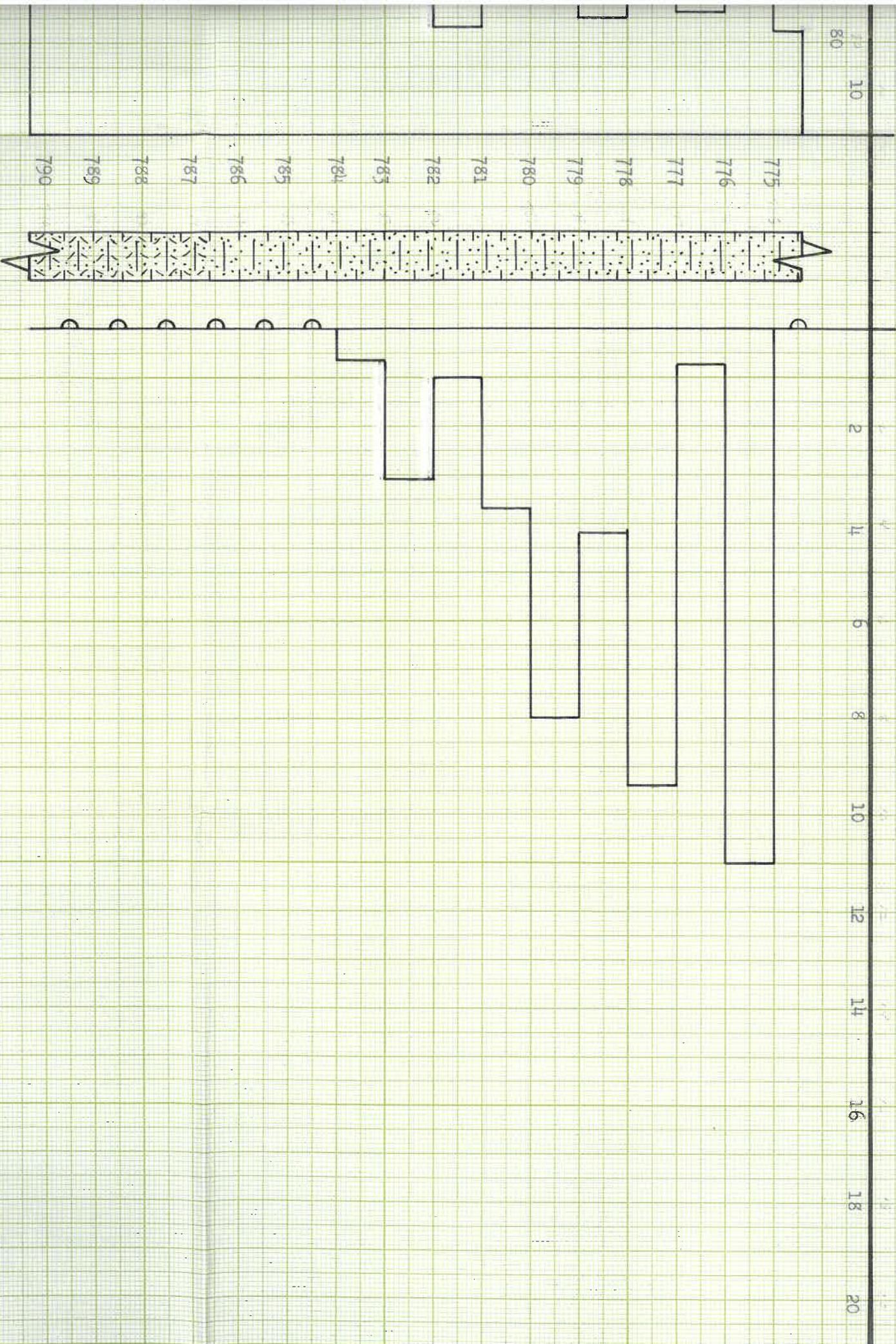
WOLFE LEASE

WILSON CO.

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY, PERCENT	AVG. OIL SATURATION PERCENT
774.4 - 784.0	9.6	13.8	33.8
784.0 - 790.3	6.3	13.0	40.3
774.4 - 790.3	15.9	13.5	37.9

OIL SAT.,  
PERCENT

AIR PERMEABILITY, IN MILLIDARCY



CARBONACEOUS SHALEY SANDSTONE

IMPERMEABLE TO AIR

# WOOD & ASSOCIATES

WILSON COUNTY, KANSAS

WELL NO. 41-AE

AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBL./A. FT.	TOTAL OIL CONTENT BBL./ACRE	AVG. AIR PERMEABILITY, MILLIDARCY	CALCULATED OIL RECOVERY, BBL./ACRE
33.8	31.4	358	3,434	4.7	
44.3	29.9	440	2,776	0.0	
37.9	30.8	391	6,210	4.7	