

# OILFIELD RESEARCH LABORATORIES

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

April 1, 1980

Willis Energy  
Rural Route 2  
Box 225  
Neodesha, Kansas 66757

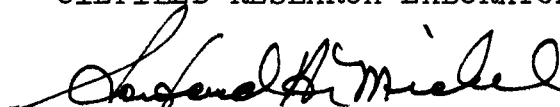
Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the E. Newland Lease, Well No. 2, Wilson County, Kansas, and submitted to our laboratory on March 19, 1980.

The core was sampled by a representative of Oilfield Research Laboratories.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/tem  
5 c to Neodesha, Kansas

# Oilfield Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company Willis Energy Lease E. Newland Well No. 2  
 Location 660' WEL & 600' NSL W $\frac{1}{2}$  SW $\frac{1}{4}$   
 Section 21 Twp. 30S Rge. 16E County Wilson State Kansas

Elevation, Feet . . . . .	
Name of Sand . . . . .	Bartlesville
Top of Core . . . . .	805.0
Bottom of Core . . . . .	819.5
Top of Sand . . . . .	805.0
Bottom of Sand . . . . .	811.7
Total Feet of Permeable Sand . . . . .	1.7

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	1.0	1.0
5 & Above	0.7	1.7

Average Permeability Millidarcys . . . . .	2.5
Average Percent Porosity . . . . .	8.5
Average Percent Oil Saturation . . . . .	36.2
Average Percent Water Saturation . . . . .	57.1
Average Oil Content, Bbls./A. Ft. . . . .	235.
Total Oil Content, Bbls./Acre . . . . .	1,295.

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LOG

Name Willis Energy Lease E. Newland Well No. 2

Depth Interval,  
Feet

Description

805.0 - 809.8

Grayish brown shaly sandstone.

809.8 - 811.0

Gray sandy shale.

811.0 - 811.7

Grayish brown shaly sandstone.

811.7 - 819.5

Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Willis Energy Lease E. Newland Well No. 2

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	805.5	9.5	35	63	98	258	Imp.	1.0	1.0	258	0.00
2	806.5	12.2	35	46	81	331	Imp.	1.0	2.0	331	0.00
3	807.5	4.5	40	55	95	140	Imp.	1.0	3.0	140	0.00
4	808.5	7.8	34	58	92	206	0.19	1.0	4.0	206	0.19
5	809.5	9.7	33	65	98	248	Imp.	0.8	4.8	198	0.00
6	811.5	7.3	41	57	98	232	5.8	0.7	5.5	162	4.06

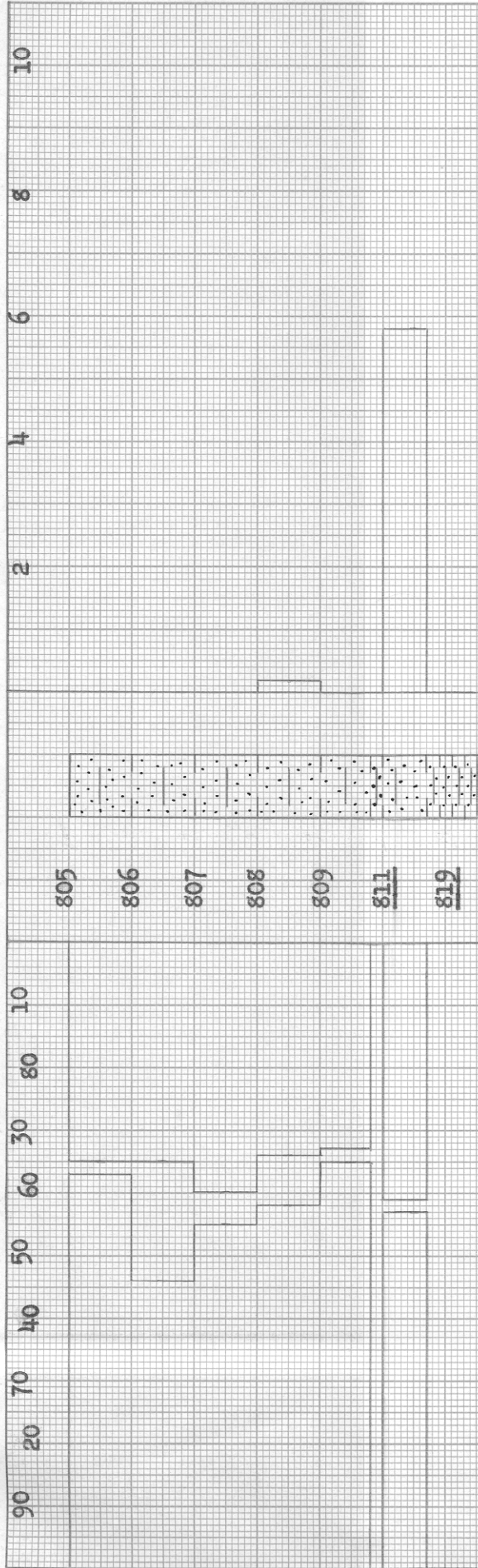
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## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Lease	E. Newland	Well No.				
			2				
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Porosity	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
805.0 - 811.7	1.7	2.5	4.25				
805.0 - 811.7	5.5			8.5	36.2	57.1	235
805.0 - 811.7	5.5			8.5	36.2	57.1	1,295

WATER SAT., PERCENT ← → OIL SAT., PERCENT  
 PERMEABILITY, IN MILLIDARCS



KEY:

SHALY SANDSTONE

SANDY SHALE

# WILLIS ENERGY

E. NEWLAND LEASE  
 WILSON COUNTY, KANSAS  
 WELL NO. 2

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCS
805.0 - 811.7	5.5	8.5	36.2	57.1	2.5