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

April 3, 1979

Sieg Drilling Company
923 N. Cherry
Ottawa, Kansas 66067

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Willard Miller Lease, Well No. 1, Franklin County, Kansas, and submitted to our laboratory on March 29, 1979.

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

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman

BRP:km
5 c to Ottawa, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Sieg Drilling Company Lease Willard Miller Well No. 1

Location 660' FWL & 1155' FNL E½ SW¼

Section 20 Twp. 17S Rge. 21E County Franklin State Kansas

Name of Sand	Squirrel
Top of Core	525.0
Bottom of Core	585.0
Top of Sand	527.8
Bottom of Sand	534.5
Total Feet of Permeable Sand	6.7
Total Feet of Floodable Sand	

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	2.8	2.8
5 - 10	1.8	4.6
10 - 30	1.0	5.6
30 & Above	1.1	6.7

Average Permeability Millidarcys	15.9
Average Percent Porosity	19.0
Average Percent Oil Saturation	55.0
Average Percent Water Saturation	29.2
Average Oil Content, Bbls./A. Ft.	819.
Total Oil Content, Bbls./Acre	5,488.
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	

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LOG

Company Sieg Drilling Company Lease Willard Miller Well No. 1

Depth Interval, Feet	Description
525.0 - 527.8	Gray sandy shale.
527.8 - 531.7	Brown sandstone with fine shale streaks.
531.7 - 532.6	Brown and gray laminated sandstone and shale.
532.6 - 533.5	Brown slightly shaly sandstone.
533.5 - 534.5	Light brown and gray laminated sandstone and shale.
534.5 - 540.0	Gray sandy shale.
540.0 - 585.0	Gray sandy shale with slight bleeding.

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Sieg Drilling Company Lease Willard Miller Well No. 1

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
527.8 - 534.5	6.7	15.9	106.38

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
527.8 - 534.5	6.7	19.0	55.0	29.2	819	5,488

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Sieg Drilling Company Lease Willard Miller Well No. 1

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	527.9	22.3	49	23	72	848	39.	0.4	0.4	339	15.60
2	528.5	17.4	57	35	92	769	8.2	0.8	1.2	615	6.56
3	529.5	16.9	47	44	91	616	9.3	1.0	2.2	616	9.30
4	530.5	19.6	46	29	75	700	26.	1.0	3.2	700	26.00
5	531.5	22.0	53	18	71	905	62.	0.7	3.9	634	43.40
6	532.4	14.4	49	40	89	547	0.69	0.8	4.7	438	0.55
7	533.3	21.0	66	21	87	1075	4.4	1.0	5.7	1,075	4.40
8	534.3	20.3	68	20	88	1071	0.57	1.0	6.7	1,071	0.57