

OILFIELD RESEARCH LABORATORIES

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

September 1, 1979

George A. Hoffman
P.O. Box 537
Henderson, Kentucky 42420

Gentlemen:

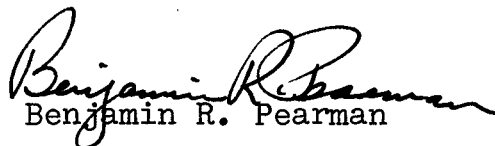
Enclosed herewith are the results of tests run on the rotary core samples taken from the Williams Lease, Well No. W-1, Allen County, Kansas, and submitted to our laboratory on August 30, 1979.

These core samples were sealed in plastic bags by a representative of the client. In examining this core, it is assumed that each sample represents one foot of core.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Benjamin R. Pearman

SAM:km
4 c to Henderson, Kentucky
1 c to Erie, Kansas

- REGISTERED ENGINEERS -

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

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GENERAL INFORMATION & SUMMARY

Company	George A. Hoffman	Lease	Williams	Well No.	W-1
Location	1200' FSL & 1360' FEL NE $\frac{1}{4}$				
Section	28	Twp	26S	Rge	21E
		County	Allen		State Kansas
Name of Sand	- - - - -				Bartlesville
Top of Core	- - - - -				666.0
Bottom of Core	- - - - -				674.0
Top of Sand	- - - - -				666.0
Bottom of Sand	- - - - -				674.0
Total Feet of Permeable Sand	- - - - -				8.0
Total Feet of Floodable Sand	- - - - -				
Distribution of Permeable Sand:					
Permeability Range Millidarcys	Feet		Cum. Ft.		
0 - 1	3.0		3.0		
10 - 50	4.0		7.0		
50 - 100	1.0		8.0		
Average Permeability Millidarcys - - - - -					
					28.8
Average Percent Porosity - - - - -					
					14.0
Average Percent Oil Saturation - - - - -					
					33.0
Average Percent Water Saturation - - - - -					
					47.6
Average Oil Content, Bbls./A. Ft. - - - - -					
					323.
Total Oil Content, Bbls./Acre - - - - -					
					2,585.
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 George A. Hoffman Lease Williams Well No. W-1

<u>Depth Interval, Feet</u>	<u>Description</u>
666.0 - 667.0	Light brown and gray laminated sandstone and shale.
667.0 - 671.0	Brown sandstone.
671.0 - 672.0	Brown conglomeratic sandstone and shale.
672.0 - 673.0	Light brown conglomeratic sandstone and shale.
673.0 - 674.0	Brown conglomeratic sandstone and shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company George A. Hoffman Lease Williams Well No. W-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	666.5	16.8	32	48	80	417	0.46	1.0	1.0	417	0.46
2	667.5	19.5	30	37	67	454	18.	1.0	2.0	454	18.
3	668.5	21.8	25	46	71	423	46.	1.0	3.0	423	46.
4	669.5	18.2	28	46	74	395	39.	1.0	4.0	395	39.
5	670.5	19.7	29	42	71	443	100.	1.0	5.0	443	100.
6	671.5	2.9	50	44	94	112	0.16	1.0	6.0	112	0.16
7	672.5	6.9	17	78	95	91	1.0	1.0	7.0	91	1.0
8	673.5	6.3	53	40	93	259	26.	1.0	8.0	259	26.

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company <u>George A. Hoffman</u>		Lease <u>Williams</u>		Well No. <u>W-1</u>	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
666.0 - 671.0	5.0	40.7	203.46		
671.0 - 674.0	3.0	9.1	27.16		
666.0 - 674.0	8.0	28.8	230.62		

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
666.0 - 671.0	5.0	19.2	28.8	43.8	426	2,123
671.0 - 674.0	3.0	5.4	40.0	54.0	154	462
666.0 - 674.0	8.0	14.0	33.0	47.6	323	2,585