



OILFIELD RESEARCH LABORATORIES

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

November 17, 1978

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 Don Nelson Lease, Well No. H-23, Allen County, Kansas, and submitted to our laboratory on November 8, 1978.

These core samples were sampled by a representative of the client and were sealed in plastic bags. 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
Benjamin R. Pearman

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

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company George A. Hoffman Lease Don Nelson Well No. H-23

Location 950' SNL & 150' WEL

Section 28 Twp. 26S Rge. 21E County Allen State Kansas

Name of Sand	Bartlesville
Top of Core	670.0
Bottom of Core	685.0
Top of Sand	670.0
Bottom of Sand	685.0
Total Feet of Permeable Sand	13.0
Total Feet of Floodable Sand	

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 2	6.0	6.0
2 - 10	2.0	8.0
10 - 30	3.0	11.0
30 & Above	2.0	13.0

Average Permeability Millidarcys	13.4
Average Percent Porosity	16.5
Average Percent Oil Saturation	31.1
Average Percent Water Saturation	53.2
Average Oil Content, Bbls./A. Ft.	413.
Total Oil Content, Bbls./Acre	6,201.
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 Don Nelson Well No. H-23

<u>Depth Interval, Feet</u>	<u>Description</u>
670.0 - 672.0	Light brown slightly shaly sandstone.
672.0 - 675.0	Gray laminated sandstone and shale.
675.0 - 678.0	Brown slightly shaly sandstone.
678.0 - 685.0	Gray and light brown conglomeratic shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company George A. Hoffman

Lease Don Nelson

Well No. H-23

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.	Com. Ft.		
1	670.5	18.2	28	46	74	392	24.	1.0	1.0	392	24.00
2	671.5	20.1	21	43	64	328	38.	1.0	2.0	328	38.00
3	672.5	12.3	14	68	82	134	0.30	1.0	3.0	134	0.30
4	673.5	10.9	9	80	89	76	Imp.	1.0	4.0	76	0.00
5	674.5	10.7	12	66	78	100	Imp.	1.0	5.0	100	0.00
6	675.5	21.9	38	36	74	645	29.	1.0	6.0	645	29.00
7	676.5	20.1	40	33	73	623	49.	1.0	7.0	623	49.00
8	677.5	19.6	40	32	72	608	18.	1.0	8.0	608	18.00
9	678.5	17.9	33	60	93	458	9.6	1.0	9.0	458	9.60
10	679.5	18.8	41	55	96	598	1.7	1.0	10.0	598	1.70
11	680.5	15.1	45	51	96	526	0.87	1.0	11.0	526	0.87
12	681.5	13.5	30	63	93	314	2.0	1.0	12.0	314	2.00
13	682.5	19.1	39	50	89	577	0.61	1.0	13.0	577	0.61
14	683.5	16.0	30	66	96	372	0.47	1.0	14.0	372	0.47
15	684.5	12.6	46	49	95	450	0.57	1.0	15.0	450	0.57

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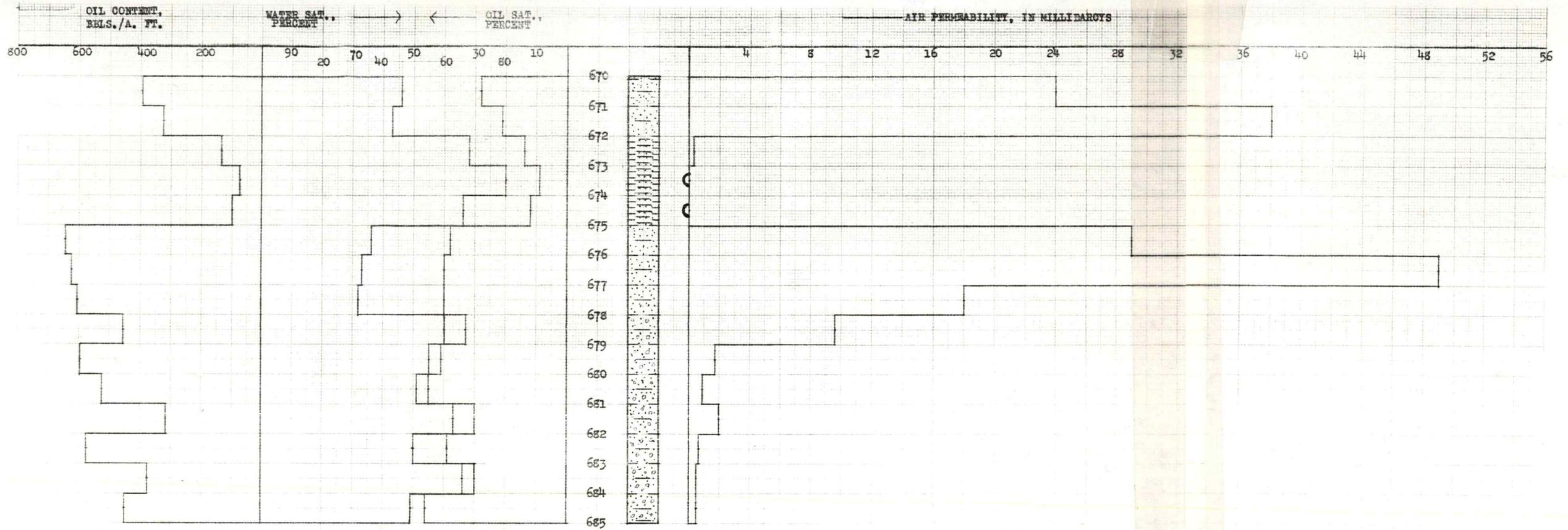
SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company George A. Hoffman Lease Don Nelson Well No. H-23

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
670.0 - 678.0	6.0	26.4	158.30
678.0 - 685.0	7.0	2.3	15.82
670.0 - 685.0	13.0	13.4	174.12

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
670.0 - 678.0	8.0	16.7	25.3	50.5	363	2,906
678.0 - 685.0	7.0	16.1	37.7	56.3	471	3,295
670.0 - 685.0	15.0	16.5	31.1	53.2	413	6,201



KEY: SHALY SANDSTONE LAMINATED SANDSTONE AND SHALE CONGLOMERATIC SHALY SANDSTONE IMPERMEABLE TO AIR

GEORGE A. HOFFMAN

DON NELSON LEASE WELL NO. H-23
ALLEN COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBLs./A. FT.	TOTAL OIL CONTENT BBLs./ACRE	AVG. AIR PERMEABILITY, MILLIDARCTS
670.0 - 673.0	3.0	16.7	25.3	50.5	363	2,966	26.4
673.0 - 685.0	7.0	16.1	37.7	56.3	471	3,295	2.3
670.0 - 685.0	15.0	16.5	31.1	53.2	413	6,201	13.4

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CHANUTE, KANSAS
NOVEMBER, 1978.