

OILFIELD RESEARCH LABORATORIES

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

March 26, 1968

Mr. G. M. Smith
260 N. Terrace Drive
Wichita, Kansas 67200

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary cores taken from the E. Light Lease, Well No. 6-A, Woodson County, Kansas, and submitted to our laboratory on March 23, 1968.

These cores are from a virgin territory. The upper core was sampled and the samples sealed in plastic bags by a representative of the client. The lower core was sampled and the samples sealed in plastic bags by a representative of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:bjo

4 c. - Wichita, Kansas
1 c. - Yates Center, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company	<u>G. M. Smith</u>	Lease	<u>E. Light</u>	Well No.	<u>6-A</u>
Location	<u>1210' NSL & 220' EWL, E/2 SW/4</u>				
Section	<u>16</u>	Twp.	<u>25S</u>	Rge.	<u>16E</u>
		County	<u>Woodson</u>	State	<u>Kansas</u>
Name of Sand	- - - - -				Upper Squirrel
Top of Core	- - - - -				885.0
Bottom of Core	- - - - -				897.0
Permeable					
Top of Sand	- - - - -				889.0
Bottom of Sand	(Analyzed) - - - - -				896.0
Total Feet of Permeable Sand	(Analyzed) - - - - -				7.0
Total Feet of Floodable Sand	- - - - -				
Distribution of Permeable Sand:					
Permeability Range		Feet		Cum. Ft.	
Millidarcys					
0 - 1		3.0		3.0	
1 - 3		3.0		6.0	
3 & above		1.0		7.0	
Average Permeability Millidarcys	- - - - -				2.5
Average Percent Porosity	- - - - -				16.2
Average Percent Oil Saturation	- - - - -				45.5
Average Percent Water Saturation	- - - - -				42.3
Average Oil Content, Bbls./A. Ft.	- - - - -				578.
Total Oil Content, Bbls./Acre	- - - - -				5,320.
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

GENERAL INFORMATION & SUMMARY

Company G. M. Smith Lease E. Light Well No. 6-A

Location 1210' NSL & 220' EWL, E/2 SW/4

Section 16 Twp. 25S Rge. 16E County Woodson State Kansas

Name of Sand - - - - - Lower Squirrel

Top of Core - - - - - 910.0

Bottom of Core - - - - - 935.0

Top of Sand - - - - - 915.2

Bottom of Sand - - - - - 921.3

Total Feet of Permeable Sand XXX Formation - - - - - 2.8

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
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0 - 1	2.0	2.0
1 & above	0.8	2.8

Average Permeability Millidarcys - - - - - 2.6

Average Percent Porosity - - - - - 15.4

Average Percent Oil Saturation - - - - - 56.9

Average Percent Water Saturation - - - - - 34.8

Average Oil Content, Bbls./A. Ft. - - - - - 680.

Total Oil Content, Bbls./Acre - - - - - 1,904.

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 - - - - -

- LOG -

Company G. M. Smith Lease E. Light Well No. 6-ADepth Interval, Description
FeetUPPER SAND

885.0 - 886.0 - Finely laminated shaly sandstone.

886.0 - 887.8 - Sandy shale.

887.8 - 897.0 - Brown finely laminated shaly sandstone.

897.0 - 910.0 - Core not received.

LOWER SAND

910.0 - 915.2 - Sandy shale.

915.2 - 915.5 - Dark brown sandstone.

915.5 - 920.8 - Sandy shale containing a few dark sandstone streaks.

920.8 - 921.3 - Brown shaly sandstone.

921.3 - 935.0 - Sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company G. M. Smith Lease E. Light Well No. 6-A

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.		
UPPER SAND											
1	885.5	14.6	34	50	84	385	Imp.	1.0	1.0	385	0.00
2	888.5	14.5	48	49	97	540	Imp.	1.2	2.2	648	0.00
3	889.5	14.6	39	56	95	442	0.94	1.0	3.2	442	0.94
4	890.5	16.6	41	38	79	528	2.1	1.0	4.2	528	2.10
5	891.5	15.8	39	46	85	478	0.72	1.0	5.2	478	0.72
6	892.5	17.2	40	38	78	534	0.96	1.0	6.2	534	0.96
7	893.5	19.3	54	25	79	809	8.0	1.0	7.2	809	8.00
8	894.5	15.5	50	46	96	602	2.9	1.0	8.2	602	2.90
9	895.5	18.0	64	31	95	894	1.6	1.0	9.2	894	1.60
LOWER SAND											
10	915.4	15.2	61	28	89	719	9.3	0.3	0.2	216	2.79
11	917.2	14.7	51	47	98	582	0.34	1.0	1.3	582	0.34
12	918.4	16.0	56	33	89	695	0.28	1.0	2.3	695	0.28
13	921.1	15.6	68	18	86	823	7.8	0.5	2.8	411	3.90

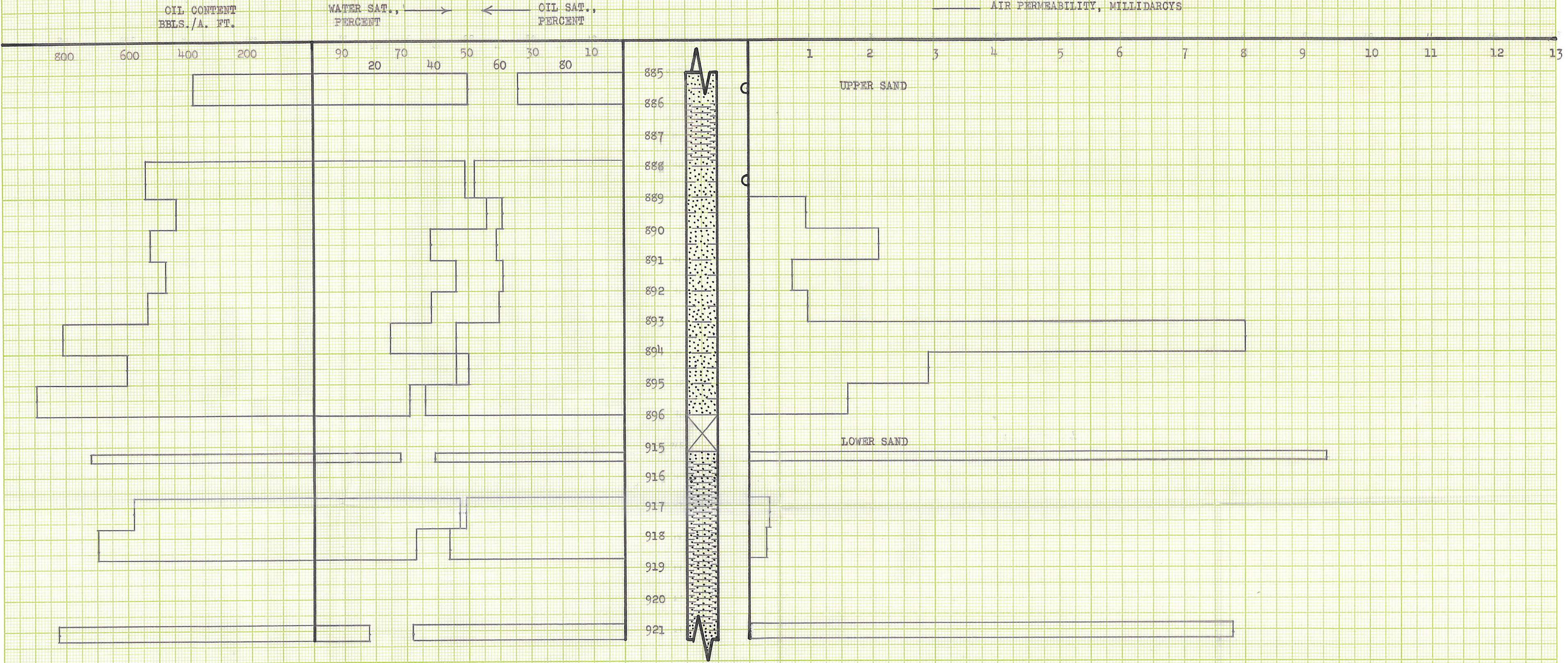
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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company G. M. Smith Lease E. Light Well No. 6-A

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
<u>UPPER SAND</u>			
885.0 - 896.0	7.0	2.5	17.22
<u>LOWER SAND</u>			
915.2 - 921.3	2.8	2.6	7.31

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
<u>UPPER SAND</u>						
885.0 - 896.0	9.2	16.2	45.5	42.3	578.	5,320.
<u>LOWER SAND</u>						
915.2 - 921.3	2.8	15.4	56.9	34.8	680.	1,904.



KEY:
SANDSTONE
SHALY SANDSTONE

SANDY SHALE CONTAINING A FEW SANDSTONE STREAKS
SANDY SHALE

BREAK
IMPERMEABLE TO AIR

G. M. SMITH
E. LIGHT LEASE WELL NO. 6-A
WOODSON COUNTY, KANSAS

DEPTH INTERVAL FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BLS./A. FT.	TOTAL OIL CONTENT BLS./ACRE	AVG. AIR PERMEABILITY MILLIDARCY
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UPPER SAND

885.0 - 896.0	9.2	16.2	45.5	42.3	578.	5,320.	2.5
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LOWER SAND

915.2 - 921.3	2.8	15.4	56.9	34.8	680.	1,904.	2.6
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OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
MARCH, 1968