



OILFIELD RESEARCH LABORATORIES

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

February 7, 1968

10-25-10E

TEC Drilling Company, Inc.
P. O. Box 693
El Dorado, Kansas 67042

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary cores taken from the Coffield Lease, Well No. 5, Woodson County, Kansas, and submitted to our laboratory on February 4, 1968.

These cores are from a virgin territory and were sampled and the samples sealed in tin cans by a member of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:bjo

5 c. - El Dorado, Kansas

Coffield 5

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company TEC Drilling Company, Inc. Lease Coffield Well No. 5

Location 220' SNL and 330' EWL, SW/4

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

Name of Sand - - - - - Upper Squirrel

Top of Core - - - - - 869.0

Bottom of Core - - - - - 884.0

Top of Sand - (Cored) - - - - - 869.0

Bottom of Sand - - - - - 880.3

Total Feet of Permeable Sand - - - - - 10.7

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 5

1.6

1.6

5 - 10

5.1

6.7

10 - 15

2.0

8.7

15 & above

2.0

10.7

Average Permeability Millidarcys - - - - - 9.2

Average Percent Porosity - - - - - 17.9

Average Percent Oil Saturation - - - - - 53.8

Average Percent Water Saturation - - - - - 26.7

Average Oil Content, Bbls./A. Ft. - - - - - 748.

Total Oil Content, Bbls./Acre - - - - - 8,006.

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 TEC Drilling Company, Inc. Lease Coffield Well No. 5

Location 220' SNL and 330' EWL, SW/4

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

Name of Sand - - - - - Lower Squirrel

Top of Core - - - - - 913.0

Bottom of Core - - - - - 932.5

Top of Sand - - - - - 915.4

Bottom of Sand - - - - - 923.5

Total Feet of Permeable Sand - - - - - 7.3

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 50	2.5	2.5
50 - 75	3.2	5.7
75 & above	1.6	7.3

Average Permeability Millidarcys - - - - - 55.3

Average Percent Porosity - - - - - 19.5

Average Percent Oil Saturation - - - - - 54.8

Average Percent Water Saturation - - - - - 20.8

Average Oil Content, Bbls./A. Ft. - - - - - 42

Total Oil Content, Bbls./Acre - - - - - 6,151.

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 TEC Drilling Company, Inc. Lease Coffield Well No. 5

Depth Interval, Description

FeetUPPER SAND

869.0 - 870.4 - Dark brown fine grained sandstone.

870.4 - 871.0 - Brown finely laminated shaly sandstone.

871.0 - 880.3 - Dark brown fine grained sandstone.

880.3 - 881.0 - Gray shale.

881.0 - 884.0 - Sandy shale (discarded at well).

LOWER SAND

913.0 - 913.8 - Dark shale.

913.8 - 914.7 - Hard gray shaly limestone.

914.7 - 915.0 - Gray shale.

915.0 - 915.2 - Gray shaly limestone.

915.2 - 915.4 - Gray shale.

915.4 - 917.2 - Dark slightly shaly sandstone.

917.2 - 917.4 - Gray sandy shale.

917.4 - 919.0 - Grayish brown to dark brown laminated shaly sandstone.

919.0 - 922.1 - Dark fine grained shaly sandstone.

922.1 - 922.6 - Gray sandy shale.

922.6 - 923.5 - Dark micaceous shaly sandstone.

923.5 - 932.5 - Loss.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

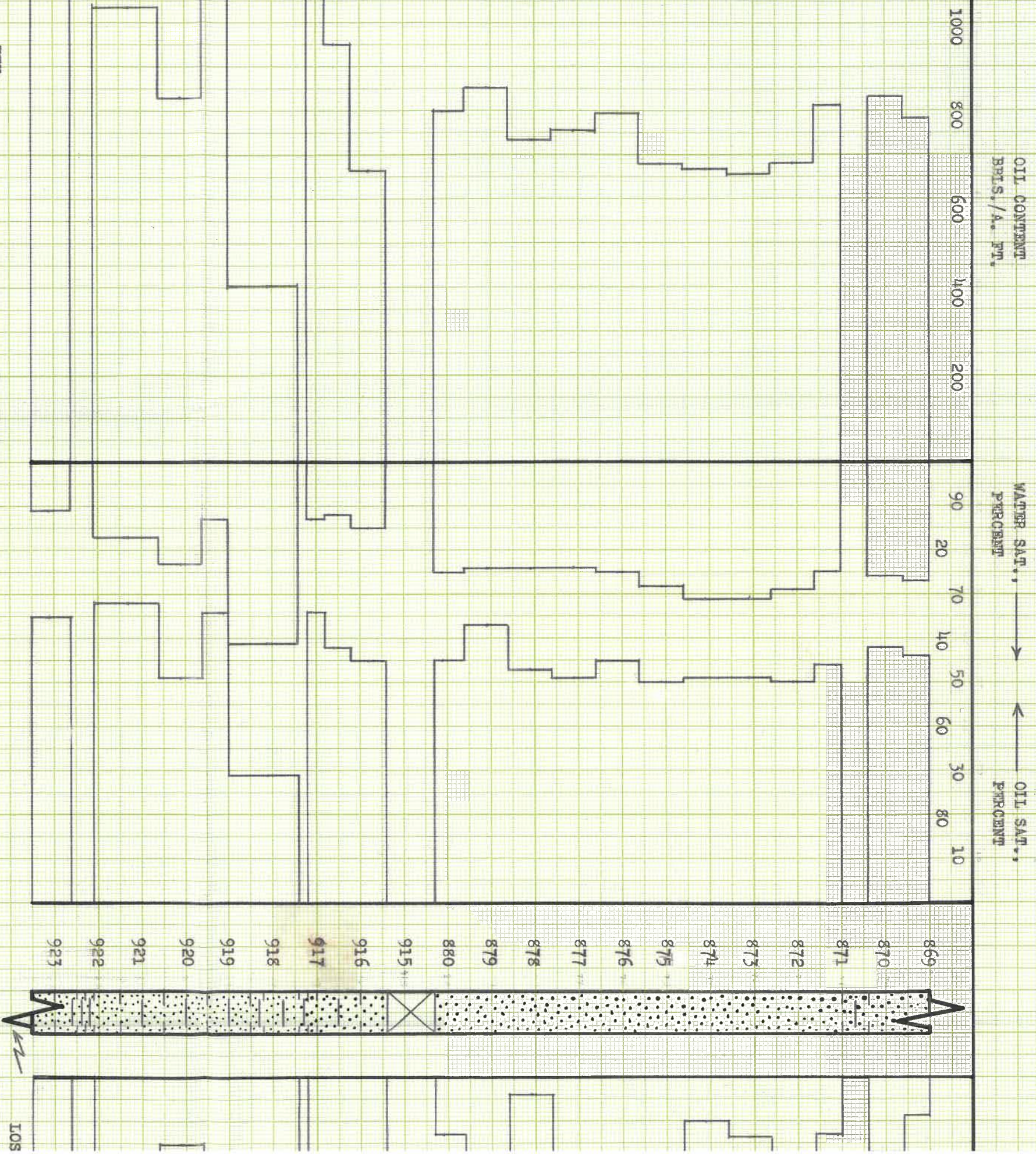
Company TEC Drilling Company, Inc. Lease Coffield Well No. 5

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			Ft.	Cum. Ft.		
1	869.1	18.0	56	27	83	<u>UPPER SAND</u> 782	0.6	0.6	469	2.64
2	870.1	18.5	58	26	84		0.8	1.4	666	6.80
3	871.1	19.4	54	25	79		0.6	2.0	488	3.90
4	872.1	17.6	50	29	79		1.0	3.0	682	11.00
5	873.1	16.6	51	31	82		1.0	4.0	657	6.80
6	874.1	16.9	51	31	82		1.0	5.0	669	5.20
7	875.1	17.6	50	28	78		1.0	6.0	682	9.40
8	876.1	18.6	55	25	80		1.0	7.0	794	17.00
9	877.1	18.8	51	24	75		1.0	8.0	754	12.00
10	878.1	17.9	53	24	77		1.0	9.0	736	1.90
11	879.1	17.4	63	24	87		1.0	10.0	851	17.00
12	880.1	18.7	55	25	80		0.7	10.7	558	4.55
13	915.8	15.6	55	15	70	<u>LOWER SAND</u> 666	0.8	0.8	533	44.80
14	916.6	21.1	58	12	70		0.6	1.4	570	45.60
15	917.1	20.7	66	13	79		0.4	1.8	424	79.20
16	918.1	17.9	29	41	70		1.5	3.3	604	28.50
17	919.1	21.6	66	13	79		0.6	3.9	664	46.20
18	920.1	20.5	51	23	74		1.0	4.9	831	7.60
19	921.3	19.7	68	17	85		1.5	6.4	1558	87.00
20	923.1	21.3	65	11	76		0.9	7.3	967	64.80

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	TEC Drilling Company, Inc.	Lease	Coffield	Well No.	5
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
UPPER SAND					
869.0 - 880.3	10.7	9.2	98.19		
LOWER SAND					
915.4 - 923.5	7.3	55.3	403.70		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
UPPER SAND					
869.0 - 880.3	10.7	53.8	26.7	748.	8,006.
LOWER SAND					
915.4 - 923.5	7.3	54.8	20.8	842.	6,151.



KEY:

SANDSTONE

SHALY SANDSTONE

SANDY SHALE

BREAK

TEC DRILLING COM

COFFIELD LEASE

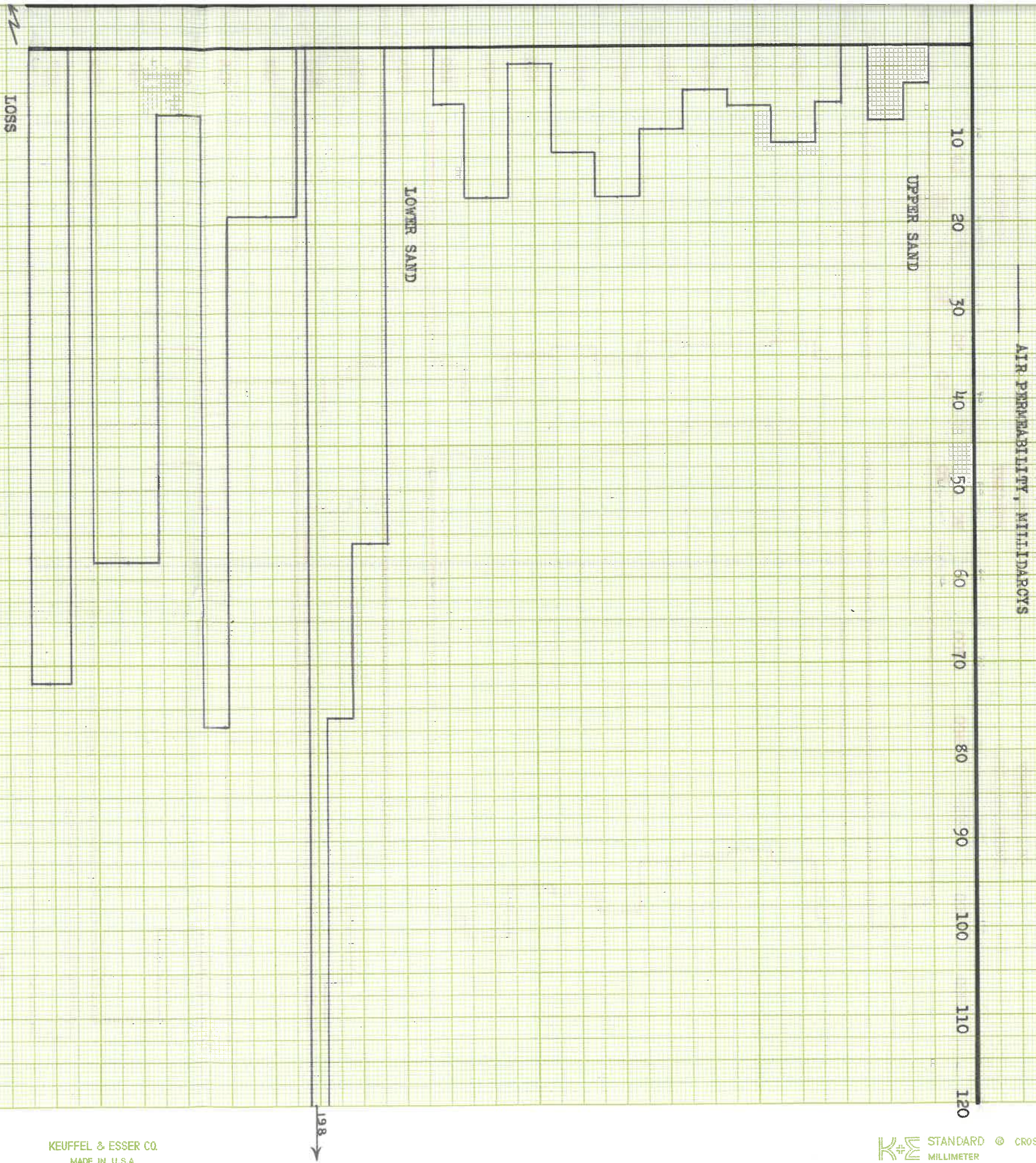
WOODSON COUNTY, KANSAS

WELL NO

DEPTH INTERVAL FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBLs./A. FT.
869.0 - 880.3	10.7	17.9	53.8	26.7	748.
915.4 - 923.5	7.3	19.5	54.8	20.8	842.

UPPER SAND

LOWER SAND



SANDY SHALE
BREAK

COMPANY, INC.

WELL NO. 5

KANSAS

AVG. OIL CONTENT BBLs./A.FT.	TOTAL OIL CONTENT BBLs./ACRE	AVG. AIR PERMEABILITY MILLIDARCYs
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748.	8,006.	9.2
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842.	6,151.	55.3
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OILFIELD RESEARCH LABORATORIES
CHANDLER, KANSAS
FEBRUARY, 1968