



OILFIELD RESEARCH LABORATORIES

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

December 4, 1968

24-23-10E

Newland Oil Company
501 East Rutledge
Yates Center, Kansas

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Wolfe Lease, Well No. 9, Woodson County, Kansas, and submitted to our laboratory on December 3, 1968.

This core was sampled, sealed in plastic bags, and submitted to our laboratory by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate.

CLP:dp

2 c. - Yates Center, Kansas

Wolfe 9

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GENERAL INFORMATION & SUMMARY

Company Newland Oil Company Lease Wolfe Well No. 9

Location NW NW NE

Section 24 Twp. 23S Rge. 16E County Woodson State Kansas

Name of Sand - - - - - Squirrel

Top of Core - - - - - 940.0

Bottom of Core - - - - - 958.0

Top of ^{Good} Sand - - - - - 940.8

Bottom of Sand - - - - - (Received) 958.0

Total Feet of Permeable Sand - - - - - 13.4

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 10	1.8	1.8
10 - 20	5.8	7.6
20 - 40	3.9	11.5
40 & above	1.9	13.4

Average Permeability Millidarcys - - - - - 27.3

Average Percent Porosity - - - - - 18.3

Average Percent Oil Saturation - - - - - 53.0

Average Percent Water Saturation - - - - - 26.6

Average Oil Content, Bbls./A. Ft. - - - - - 768.

Total Oil Content, Bbls./Acre - - - - - 11,608.

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 Newland Oil Company Lease Wolfe Well No. 9

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
940.0 - 940.8	Gray laminated micaceous shaly sandstone.
940.8 - 941.7	Dark brown fine grained slightly shaly sandstone.
941.7 - 942.4	Gray sandy shale.
942.4 - 944.1	Gray and brown micaceous laminated shaly sandstone.
944.1 - 946.3	Gray laminated sandy shale.
946.3 - 946.8	Dark micaceous conglomeratic sandstone.
946.8 - 950.4	Dark fine grained micaceous sandstone.
950.4 - 952.2	Dark micaceous shaly sandstone.
952.2 - 955.2	Dark fine grained micaceous sandstone.
955.2 - 958.0	Brown finely laminated micaceous shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Newland Oil Company Lease Wolfe Well No. 9

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	940.5	13.8	38	51	89	408	0.59	0.8	0.8	327	0.47
2	941.5	18.4	54	17	71	771	101.	0.9	1.7	694	90.90
3	942.5	14.5	22	74	96	248	Imp.	0.6	2.3	149	0.00
4	943.4	14.9	38	50	88	439	Imp.	1.1	3.4	483	0.00
5	946.5	18.9	44	50	94	645	21.	0.5	3.9	322	10.50
6	947.4	21.2	66	15	81	1086	35.	1.2	15.1	1303	42.00
7	948.5	21.8	61	14	75	1032	53.	1.0	6.1	1032	53.00
8	949.5	19.0	53	17	70	781	38.	1.4	7.5	1093	53.20
9	950.5	18.1	53	19	72	744	16.	0.6	8.1	446	9.60
10	951.5	18.6	55	17	72	794	17.	1.2	9.3	955	20.40
11	952.5	20.1	65	16	81	1013	17.	0.8	10.1	811	13.60
12	953.6	19.1	56	18	74	830	12.	1.0	11.1	830	12.00
13	954.4	20.6	65	16	81	1038	13.	1.2	12.3	1247	15.60
14	955.6	18.5	56	21	77	804	30.	0.8	13.1	643	24.00
15	956.5	16.1	51	37	88	637	17.	1.0	14.1	637	17.00
16	957.5	16.4	50	30	80	636	3.5	1.0	15.1	636	3.50

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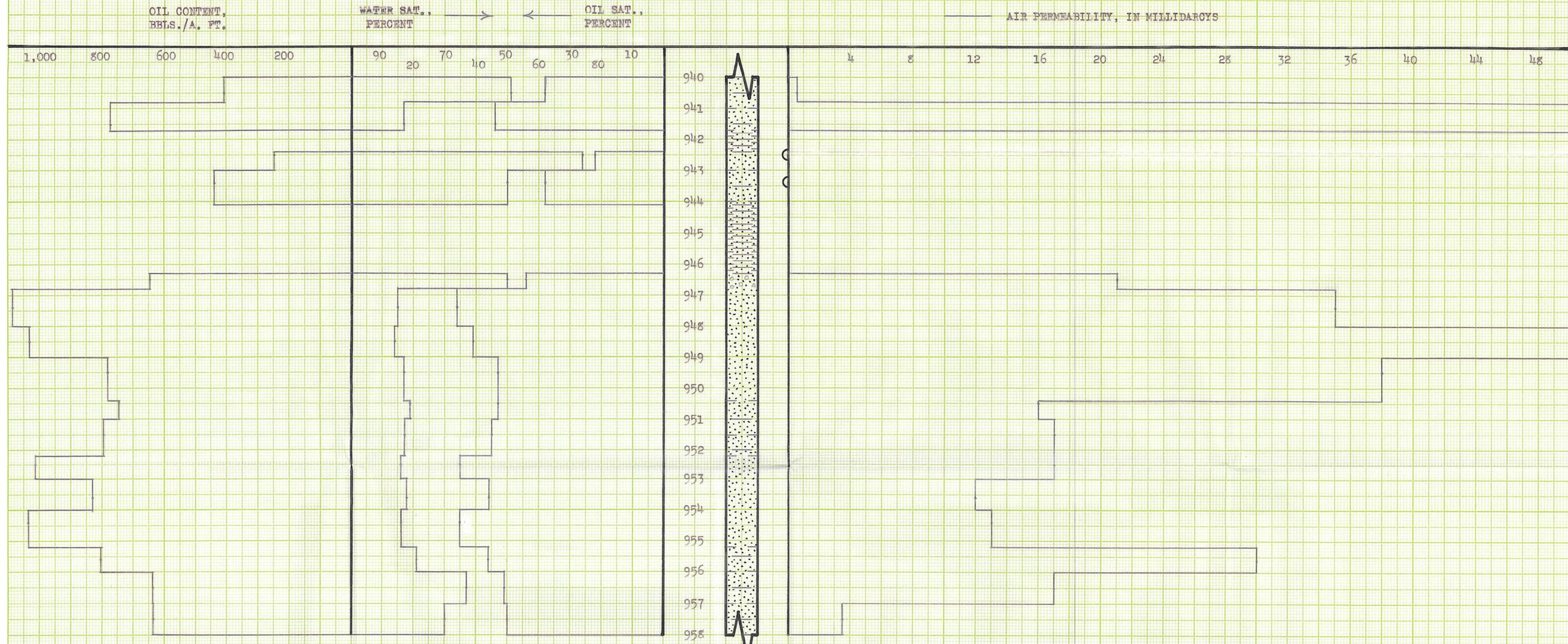
SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Newland Oil Company Lease Wolfe Well No. 9

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
940.0 - 944.1	1.7	53.7	91.37
946.3 - 958.0	11.7	23.5	274.40
940.0 - 958.0	13.4	27.3	365.77

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
940.0 - 944.1	3.4	15.5	30.7	35.3	376	1,653
946.3 - 958.0	11.7	19.1	56.9	21.1	850	9,955
940.0 - 958.0	15.1	18.3	53.0	26.6	768	11,608



KEY:
 SANDSTONE
 CONGLOMERATIC SANDSTONE
 SHALY SANDSTONE

SANDY SHALE
 IMPERMEABLE TO AIR

NEWLAND OIL COMPANY
 WOLF'S LEASE WOODSON COUNTY, KANSAS WELL NO. 9

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBL./A. FT.	TOTAL OIL CONTENT BBL./ACRE	AVG. AIR PERMEABILITY MILLIDARCY
940.0 - 944.1	3.4	15.5	30.7	35.3	376	1,653	53.7
946.3 - 958.0	11.7	19.1	56.9	21.1	850	9,955	23.5
940.0 - 958.0	15.1	18.3	53.0	26.6	768	11,608	27.3

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 CHANUTE, KANSAS
 DECEMBER, 1968

KEUFFEL & ESSER CO. MADE IN U.S.A.
 STANDARD CROSS SECTION MILLIMETER