24-23-16E

September 21, 1950

Susmio Oil Company
Box 1894
Wichita, Kansas

Attention: Mr. O. A. Sutton

Gentlemen:

Enclosed herewith is the report of the partial analysis made on the small Cable Tool core taken from the Maynard Lease, Well No. 1-W, Woodson County, Kansas, and submitted to our laboratory on September 15, 1950.

In calculating the recovery for the sand within the vicinity of this well, an allowance was made for oil lost during coring, and it was assumed that the true water saturation of the sand is 20 percent. Due to the laminated condition of part of the sand, we were unable to get samples of sufficient size for laboratory flooding tests and, as a result, we had to run saturation and air permeability tests on same.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:mm
c.c. to Mr. G. M. Smith

Maynard 1-W

SUSMIO OIL COMPANY

CORE ANALYSIS REPORT

MAYNARD LEASE WELL NO. 1-W

WOODSON COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANUTE, KANSAS

SEPTEMBER 21, 1950

Oil Field Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Sumnio Oil Company Lease Maynard Well No. 1-W

Location 440' West of East Line & 50' South of North Line SW¼

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

Name of Sand	Squirrel
Top of Core	947.00
Bottom of Core	965.70
Top of Sand	951.00
Bottom of Sand	965.00
Total Feet of Permeable Sand	5.50

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 20	1.00	1.00
20 - 40	0.70	1.70
40 - 80	2.00	3.70
80 - 100	0.85	4.55
100 & above	0.95	5.50

Average Permeability, Millidarcys	55.35
Average Percent Porosity	21.69
Average Percent Oil Saturation	45.17
Average Percent Water Saturation	38.02
Average Oil Content, Bbls./A. Ft.	763.
Total Oil Content, Bbls./Acre	9,917.
Average Percent Oil Recovery by Laboratory Flooding Tests	7.72
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	137.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	780.
Total Calculated Oil Recovery, Bbls./Acre	5,500.
Packer Setting, Feet	951.00
Viscosity, Centipoises @	
A. P. I. Gravity, degrees @ 60 °F	

The above averages are for that part of the sand section extending from the packer setting to the top of the cement plug.

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LOG

Company Susmio Oil Company Lease Maynard Well No. 1-V

Depth Interval, Feet		Description
947.00 - 948.00	-	Gray shale (discarded at well).
948.00 - 949.30	-	Cuttings.
949.30 - 951.00	-	Laminated sandstone and shale.
951.00 - 959.00	-	Dark brown fine grained micaceous sandstone.
959.00 - 961.80	-	Dark fine grained micaceous carbonaceous sandstone.
961.80 - 965.00	-	Dark fine grained micaceous carbonaceous shaley sandstone.
965.00 - 965.70	-	Laminated sandy shale.

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SHOT RECOMMENDATION

Company Susmio Oil Company Lease Maynard Well No. 1-W

Depth Interval, Feet	Feet of Sand	Size of Shell Inches	Qts./Ft.	Total Quarts
954.0 - 958.0	4	4	2.5	10.00

Recommended Packer Setting 951.0 feet
Note: Plug hole back to 964.0 feet

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RESULTS OF PERMEABILITY TESTS

TABLE I

Company Susmio Oil Company Lease Haynard Well No. 1-W

Sample No.	Depth, Feet	Permeability Millidarcys	Feet of Core		Permeability Capacity Ft. x Md.
			Ft.	Cum. Ft.	
1	953.22	102.	0.40	0.40	40.80
2	953.80	56.	0.45	0.85	25.20
3	954.02	102.	0.55	1.40	56.10
4	954.53	95.	0.35	1.75	33.25
5	954.83	66.	0.25	2.00	16.50
6	955.25	46.	0.40	2.40	18.40
7	955.60	38.	0.30	2.70	11.40
8	955.95	44.	0.40	3.10	17.60
9	959.69	42.	0.50	3.60	21.00
10	960.32	85.	0.50	4.10	42.50
11	960.74	21.	0.40	4.50	8.40
12	962.90	16.	0.50	5.00	8.00
13	963.45	11.	0.50	5.50	5.50

Oil Field Research Laboratories

SUMMARY OF PERMEABILITY TESTS

TABLE II

Company Susmio Oil Company Lease Maynard Well No. M

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity, Ft. x Md.
953.00 - 956.10	3.10	70.73	219.25
959.50 - 963.50	2.40	35.58	85.40
951.00 - 964.00	5.50	55.35	304.65

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RESULTS OF SATURATION TESTS

TABLE III

Company Suamio Oil Company Lease Maynard Well No. 1-W

Sat. No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls./A. Ft.	Feet of Core		Total Oil Content Bbls./Acre
			Oil	Water	Total		Ft.	Cum. Ft.	
F-1	951.46	23.5	46.4	-	-	847	1.20	1.20	1,016
2	952.77	23.4	47.8	31.5	79.3	869	1.20	2.40	1,047
3	953.95	23.2	44.6	40.3	84.9	804	1.00	3.40	804
4	955.05	21.4	47.3	37.5	84.8	786	1.30	4.70	1,022
F-5	956.17	20.6	45.4	-	-	726	1.10	5.80	800
F-6	957.23	21.9	41.0	-	-	697	1.10	6.90	767
7	958.72	25.1	45.4	36.6	82.0	885	1.10	8.00	975
8	959.79	22.5	44.8	44.4	89.2	784	1.00	9.00	784
9	960.62	20.3	46.9	31.8	78.7	738	0.90	9.90	665
10	961.58	21.2	44.0	37.8	81.8	724	0.90	10.80	651
11	962.72	19.6	45.0	35.8	80.8	685	1.10	11.90	754
12	963.98	17.2	43.1	46.8	89.9	575	1.10	13.00	632
13	964.88	16.7	42.8	47.8	90.6	555	1.00	14.00	555
							Total -	- - - -	10,472

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SUMMARY OF SATURATION TESTS

TABLE IV

Company Sunmio Oil Company Lease Maynard Well No. 1-W

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbls./A. Ft.	Total Oil Content Bbls./Acre
951.00-959.00	8.00	22.70	45.46	36.30	804	6,431
959.00-965.00	6.00	19.52	44.38	40.97	674	4,041
951.00-964.00	13.00	21.69	45.17	38.02	763	9,917

Oil Field Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE V

Company Sunmio Oil Company Lease Maynard Well No. 1-W

Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc*	Effective Permeability, Millidarcys **	Initial Fluid Production Pressure Lbs./Sq. In.
			Percent	Bbls./A. Ft.	Percent	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
1	951.46	23.5	46.4	847	11.3	206	35.1	63.1	641	147	13.40	10
2A	952.90	23.4	45.8	832	5.1	93	40.7	61.8	739	91	6.70	15
5	956.17	20.6	45.4	726	9.2	147	36.2	66.5	579	114	5.43	20
6	957.23	21.9	41.0	697	4.6	78	36.4	64.2	619	137	5.91	15
7A	958.88	24.4	41.0	872	8.3	137	37.7	61.4	715	183	7.09	20

Notes: cc = cubic centimeter
*Volume of water recovered at the time of maximum oil recovery.
**Determined by passing water through sample which still contains residual oil.
"A" sample was drilled from the core after it was received in the laboratory.

Oil Field Research Laboratories

SUMMARY OF LABORATORY FLOODING TESTS

TABLE VI

Company Suemio Oil Company Lease Maynard Well No. 1-W

Depth, Interval, Feet	951.00 - 959.00
Feet of Core Analyzed	5.70
Average Percent Porosity	22.79
Average Percent Original Oil Saturation	46.05
Average Percent Oil Recovery	7.72
Average Percent Residual Oil Saturation	38.33
Average Percent Residual Water Saturation	63.32
Average Percent Total Residual Fluid Saturation	101.65
Average Original Oil Content, Bbls./A. Ft.	796.
Average Oil Recovery, Bbls./A. Ft.	137.
Average Residual Oil Content, Bbls./A. Ft.	659.
Total Original Oil Content, Bbls./Acre	4,539.
Total Oil Recovery, Bbls./Acre	780.
Total Residual Oil Content, Bbls./Acre	3,759.
Average Effective Permeability, Millidarcys	7.41
Average Initial Fluid Production Pressure, p.s.i.	16.0

NOTE: Only those samples which recovered oil were used in calculating the above averages.