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

May 30, 1980

James E. Russell Petroleum, Inc.
P.O. Box 2618
Abilene, Texas 79604

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Alexander Lease, Well No. W-67, Woodson County, Kansas, and submitted to our laboratory on April 22, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/tem

3 c to Abilene, Texas
2 c to Chanute, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company James E. Russell Petroleum, Incorporated Lease Alexander Well No. W-67

Location 660' EWL & 2635' SNL SW¼

Section 2 Twp. 24S Rge. 16E County Woodson State Kansas

Elevation, Feet Datum: Mean Sea Level (G.L.)	1065.2
Name of Sand	Squirrel
Top of Core	1025.0
Bottom of Core	1044.2
Top of Sand	1029.4
Bottom of Sand	1038.2
Total Feet of Permeable Sand	3.9
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	2.0	2.0
30 - 40	1.9	3.9

Average Permeability Millidarcys	18.2
Average Percent Porosity	13.5
Average Percent Oil Saturation	17.3
Average Percent Water Saturation	68.2
Average Oil Content, Bbls./A. Ft.	187.
Total Oil Content, Bbls./Acre	1,643.
Average Percent Oil Recovery by Laboratory Flooding Tests	0
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	0
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	0
Total Calculated Oil Recovery, Bbls./Acre	0

The core was sampled by a representative of Oilfield Research Laboratories. Fresh water mud was used as a drilling fluid. The core was from a non-virgin area.

Since the core did not respond to flooding susceptability tests, no calculated recovery is given.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
1025.0 - 1029.4	Shale, gray and brown.
1029.4 - 1033.7	Shale, brown and gray, sandy.
1033.7 - 1035.6	Sandstone, brown.
1035.6 - 1038.2	Shale, gray and brown, sandy.
1038.2 - 1044.2	Shale, gray.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc. Lease Alexander Well No. W-67

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	1029.6	11.8	10	88	98	92	Imp.	0.6	0.6	55	0.00
2	1030.5	13.9	5	85	90	54	Imp.	1.0	1.6	54	0.00
3	1031.7	15.5	26	59	85	313	2.6	1.0	2.6	313	2.60
4	1032.5	14.4	27	56	83	302	3.0	1.0	3.6	302	3.00
5	1033.6	12.1	15	79	94	141	Imp.	0.7	4.3	99	0.00
6	1034.5	13.4	11	73	84	114	34.	1.3	5.6	148	44.20
7	1035.5	19.1	27	15	42	400	35.	0.6	6.2	240	21.00
8	1036.7	11.8	28	70	98	256	Imp.	1.4	7.6	358	0.00
9	1037.8	11.4	7	75	82	62	Imp.	1.2	8.8	74	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company James E. Russell Petroleum, Incorporated Lease Alexander Well No. W-67

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
1029.4 - 1038.2	3.9	18.2	70.80

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
1029.4 - 1038.2	8.8	13.5	17.3	68.2	187	1,643

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company James E. Russell Petroleum, Inc. Lease Alexander Well No. W-67

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.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
1	1029.6	12.2	9	85	0	0	9	89	85	0	Imp.	-
2	1030.5	13.7	5	53	0	0	5	87	53	0	Imp.	-
3	1031.7	15.0	28	326	0	0	28	58	326	0	Imp.	-
4	1032.5	14.4	27	302	0	0	27	56	302	0	Imp.	-
5	1033.6	12.5	14	168	0	0	14	80	168	0	Imp.	-
6	1034.5	13.7	10	106	0	0	10	75	106	0	Imp.	-
7	1035.5	19.0	27	398	0	0	27	30	398	0	Imp.	-
8	1036.7	12.1	27	253	0	0	27	71	253	0	Imp.	-
9	1037.8	11.8	7	64	0	0	7	77	64	0	Imp.	-

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.