

OILFIELD RESEARCH LABORATORIES

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

July 11, 1980

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

Gentlemen:

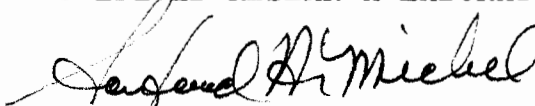
Enclosed herewith are the results of tests run on the rotary core taken from the Minckley B-Section 9 Lease, Well No. 90, Anderson County, Kansas, and submitted to our laboratory on June 12, 1980.

The core was sampled and sealed in plastic bags by a representative of Oilfield Research Laboratories.

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 Minckley B-Sec. 9 Well No 90
 Location 1540' SNL & 1540' EWL NE $\frac{1}{4}$
 Section 9 Twp. 23S Rge. 19E County Anderson State Kansas

Elevation, Feet . . . Datum: Mean Sea Level (G.L.). 1020.9
 Name of Sand Squirrel
 Top of Core 732.0
 Bottom of Core 752.0
 Top of Sand 732.0
 Bottom of Sand 748.9
 Total Feet of Permeable Sand 3.9

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 0.20	2.1	2.1
0.20 & Above	1.8	3.9

Average Permeability Millidarcys 0.22
 Average Percent Porosity 14.8
 Average Percent Oil Saturation 32.9
 Average Percent Water Saturation 45.2
 Average Oil Content, Bbls./A. Ft. 382.
 Total Oil Content, Bbls./Acre 3,399.

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LOGName James E. Russell Petroleum, IncorporatedLease Minckley B - Section 9 Well No. 90

<u>Depth Interval, Feet</u>	<u>Description</u>
732.0 - 734.1	Sandstone, grayish brown, very shaly. First oil show.
734.1 - 742.1	Shale, gray, sandy.
742.1 - 743.5	Sandstone, grayish brown, very shaly.
743.5 - 745.3	Sandstone, brown, very shaly.
745.3 - 748.9	Sandstone, grayish black, slightly carbona- ceous, very shaly.
748.9 - 750.2	Shale, gray.
750.2 - 751.6	Shale, hard, gray, fossiliferous, calcareous.
751.6 - 752.0	Shale, gray.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company James E. Russell Petroleum, Inc.

Lease Minckley B=Section 9

Well No. 90

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	732.6	14.8	30	51	81	344	Imp.	1.0	1.0	344	0.00
2	733.5	13.8	21	57	78	225	0.17	1.1	2.1	248	0.19
3	742.2	15.1	24	53	77	281	Imp.	1.4	3.5	393	0.00
4	743.7	14.3	24	56	80	266	0.31	0.8	4.3	213	0.25
5	744.5	14.1	29	48	77	317	Imp.	1.0	5.3	317	0.00
6	745.5	15.8	40	35	75	490	0.16	1.0	6.3	490	0.16
7	746.8	14.8	48	33	81	551	0.26	1.0	7.3	551	0.26
8	747.7	15.4	48	26	74	574	Imp.	0.6	7.9	344	0.00
9	748.3	15.7	41	38	79	499	Imp.	1.0	8.9	499	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company James E. Russell Petroleum, Inc. Lease Minckley B-Section 9 Well No. 90

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
732.0 - 748.9	3.9	0.22	0.86

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
732.0 - 748.9	8.9	14.8	32.9	45.2	382	3,399