



OILFIELD RESEARCH LABORATORIES

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June 3, 1980

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

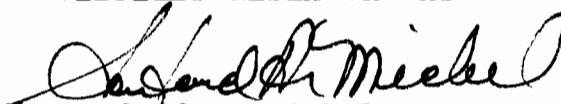
Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Quick Lease, Well No. 1, Anderson County, Kansas, and submitted to our laboratory on April 29, 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

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GENERAL INFORMATION & SUMMARY

Company James E. Russell Petroleum, Inc. Lease Quick Well No. 1

Location 220' SNL & 220' EWL NW $\frac{1}{4}$

Section 14 Twp. 23S Rge. 19E County Anderson State Kansas

Elevation, Feet Datum: Mean Sea Level (G.L.) . . . 1094.6

Name of Sand Squirrel

Top of Core 750.0

Bottom of Core 785.0

Top of Sand 755.0

Bottom of Sand 767.7

Total Feet of Permeable Sand 4.0

Total Feet of Floodable Sand 0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	3.0	3.0
1 - 2	1.0	4.0

Average Permeability Millidarcys	0.63
Average Percent Porosity	12.0
Average Percent Oil Saturation	12.8
Average Percent Water Saturation	75.0
Average Oil Content, Bbls./A. Ft.	119.
Total Oil Content, Bbls./Acre	1,374.
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

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-2-

The core was sampled by a representative of Oilfield Research Laboratories. Air and water was used as a drilling fluid. The core was from a semi-virgin area.

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

FORMATION CORED

The detailed log of the formation cored is as follows:

<u>Depth Interval, Feet</u>	<u>Description</u>
750.0 - 755.0	Shale, gray, sandy. First oil show.
755.0 - 764.8	Sandstone, grayish brown, shaly.
764.8 - 767.7	Sandstone, gray, shaly.
767.7 - 770.0	Shale, gray, sandy.
770.0 - 770.7	Shale, calcareous, fossiliferous, sandy.
770.7 - 772.9	Sandstone and shale, gray, laminated.
772.9 - 776.0	Shale, gray, sandy.
776.0 - 777.7	Shale, calcareous, fossiliferous, sandy.
777.7 - 778.0	Shale, gray.
778.0 - 778.8	Shale, gray, fossiliferous, calcareous.
778.8 - 785.0	Shale, gray.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc. Lease Quick Well No. 1

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	755.6	13.0	7	69	76	71	0.20	1.0	1.0	71	0.20
2	756.6	13.5	5	78	93	52	1.3	1.0	2.0	52	1.30
3	757.5	12.3	10	76	86	95	Imp.	1.0	3.0	95	0.00
4	758.5	10.0	11	83	94	85	0.15	1.0	4.0	85	0.15
5	759.5	11.5	11	85	96	98	Imp.	1.0	5.0	98	0.00
6	760.5	13.9	28	58	86	302	0.87	1.0	6.0	302	0.87
7	761.4	13.3	8	71	79	83	Imp.	1.0	7.0	83	0.00
8	762.6	12.6	23	74	97	225	Imp.	1.0	8.0	225	0.00
9	763.6	10.4	20	75	95	161	Imp.	1.0	9.0	161	0.00
10	764.7	12.4	8	75	83	77	Imp.	0.8	9.8	62	0.00
11	766.5	9.9	14	80	94	108	Imp.	1.0	10.8	108	0.00
12	767.6	11.5	5	76	81	45	Imp.	0.7	11.5	32	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		James E. Russell Petroleum, Inc.	Lease	Quick	Well No.		1
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.				
755.0 - 767.7	4.0	0.63	2.52				
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 Bbbl./Acre	
755.0 - 767.7	11.5	12.0	12.8	75.0	119	1,374	

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company		James E. Russell Petroleum, Inc.			Lease		Quick		Well No.		1	
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				
1	755.6	13.4	6	62	0	0	6	71	0	Imp.	-	
2	756.6	13.5	5	52	0	0	5	79	0	Imp.	-	
3	757.5	12.6	9	88	0	0	9	77	0	Imp.	-	
4	758.5	9.7	12	90	0	0	12	83	0	Imp.	-	
5	759.5	11.7	11	100	0	0	11	85	0	Imp.	-	
6	760.5	13.4	29	301	0	0	29	60	0	Imp.	-	
7	761.4	13.5	8	84	0	0	8	71	0	Imp.	-	
8	762.6	13.0	22	222	0	0	22	75	0	Imp.	-	
9	763.6	10.6	20	164	0	0	20	75	0	Imp.	-	
10	764.7	12.1	9	84	0	0	9	76	0	Imp.	-	
11	766.5	9.7	14	105	0	0	14	80	0	Imp.	-	
12	767.6	11.2	6	52	0	0	6	77	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.