

OILFIELD RESEARCH LABORATORIES

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

December 7, 1981

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

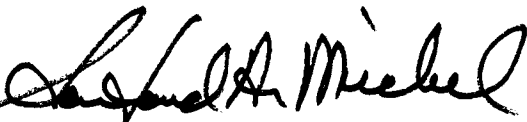
Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Burke Lease, Well No. 0-9, located in Anderson County, Kansas and submitted to our laboratory on November 30, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/mkf

3 c to Abilene, Tx.
2 c to Chanute, Ks.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company James E. Russell Petroleum, Inc. Lease Burke Well No. 0-9
 Location 580' EWL & 330' SNL NW¼
 Section 26 Twp. 22S Rge. 19E County Anderson State Kansas

Elevation, Feet Datum: Mean Sea Level (G. L.) 1096.8
 Name of Sand..... SQUIRREL
 Top of Core 778.0
 Bottom of Core 798.0
 Top of Sand (Tested) 779.0
 Bottom of Sand (Tested) 791.0
 Total Feet of Permeable Sand 8.2
 Total Feet of Floodable Sand 0.

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	4.3	4.3
1 - 4	3.0	7.3
13 - 16	0.9	8.2

Average Permeability Millidarcys 2.6
 Average Percent Porosity 12.9
 Average Percent Oil Saturation 40.3
 Average Percent Water Saturation..... 47.0
 Average Oil Content, Bbls./A. Ft. 410.
 Total Oil Content, Bbls./Acre..... 3,939.
 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.

-2-

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.

Inasmuch as 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:

Depth Interval, Description

<u>Feet</u>	<u></u>
778.0 - 779.0	Sandstone, very shaly, gray.
779.0 - 781.3	Sandstone, shaly, grayish brown.
781.3 - 781.8	Sandstone, brown.
781.8 - 788.2	Sandstone, shaly, grayish brown.
788.2 - 789.6	Sandstone and shale, laminated, gray and brown.
789.6 - 791.0	Sandstone, very shaly, grayish brown with micaceous partings.
791.0 - 792.0	Sandstone, very shaly, grayish brown.
792.0 - 798.0	Shale, gray.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc. Lease Burke Well No. 0-9

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	779.5	9.8	26	66	92	198	0.56	1.3	1.3	257	0.73
2	780.6	10.3	50	38	88	400	0.34	1.0	2.3	400	0.34
3	781.7	14.8	63	17	80	723	13.	0.5	2.8	362	6.50
4	782.4	16.0	33	38	71	410	3.3	1.0	3.8	410	3.30
5	783.4	16.7	31	57	88	402	1.9	1.0	4.8	402	1.90
6	784.3	12.1	47	44	91	441	0.37	1.0	5.8	441	0.37
7	786.6	15.3	55	33	88	653	2.1	1.0	6.8	653	2.10
8	788.4	12.9	46	39	85	460	0.19	1.0	7.8	460	0.19
9	789.4	15.5	52	36	88	625	15.	0.4	8.2	250	6.00
10	790.4	10.0	28	67	95	217	Imp.	1.4	9.6	304	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		James E. Russell Petroleum, Inc.		Lease	Burke	Well No.		0-9
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.					
779.0 - 791.0	8.2	2.6	21.43					
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		
779.0 - 791.0	9.6	12.9	40.3	47.0	410	3,939		

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

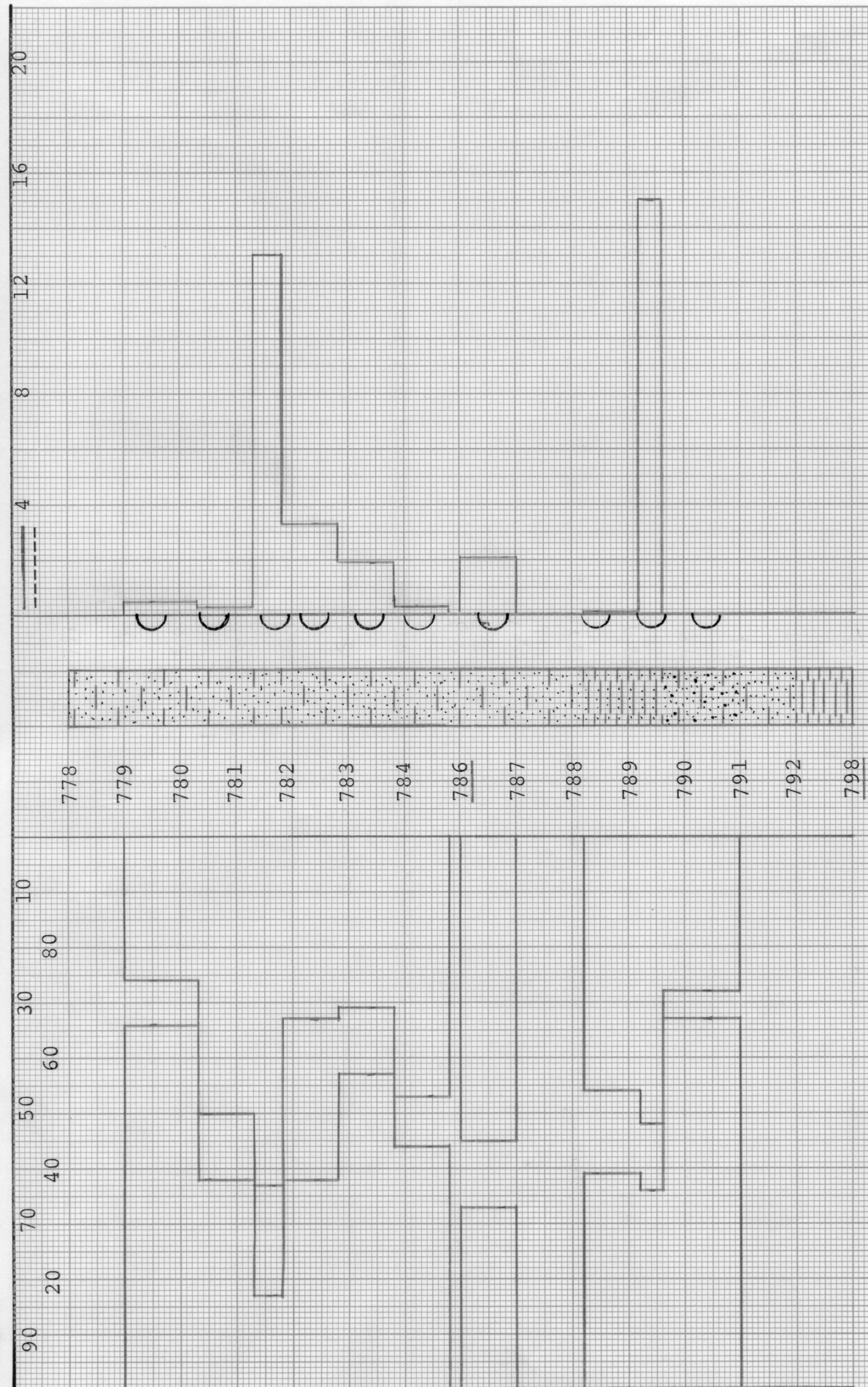
Company		James E. Russell Petroleum, Inc.		Lease		Burke		Well No.		0-9	
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation		Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water			
1	779.5	9.5	27	199	0	0	27	67	0	Imp.	-
2	780.6	10.2	50	396	0	0	50	39	0	Imp.	-
3	781.7	16.0	62	721	0	0	62	20	0	Imp.	-
4	782.4	16.0	33	410	0	0	33	41	0	Imp.	-
5	783.4	16.2	32	402	0	0	32	57	0	Imp.	-
6	784.3	12.2	47	445	0	0	47	46	0	Imp.	-
7	786.6	15.6	54	654	0	0	54	34	0	Imp.	-
8	788.4	12.8	46	457	0	0	46	39	0	Imp.	-
9	789.4	15.6	52	629	0	0	52	40	0	Imp.	-
10	790.4	10.3	27	216	0	0	27	68	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.

WATER SAT. ——— EFFECTIVE PERMEABILITY TO WATER IN MDS.
PERCENT ——— PERCENT



KEY:

- SANDSTONE
- SHALE

SHALY SANDSTONE

MICACEOUS SHALY SANDSTONE

LAMINATED SANDSTONE AND SHALE

○ IMPERMEABLE TO WATER

JAMES E. RUSSELL PETROLEUM, INC.

WELL NO. 0-9

BURKE LEASE

ANDERSON COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY MILLIDARCYS	CALCULATED OIL RECOVERY BBLs./ACRE
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779.0 - 791.0	9.6	12.9	40.3	47.0	2.6	-
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NOTE: ELEVATION, FEET - DATUM MEAN SEA LEVEL (GROUND LEVEL) 1096.8

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
DECEMBER, 1981

PDC/MKF