OILFIELD RESEARCH LABORATORIES

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

May 26, 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 Minckley "B", Section 10 Lease, Well No. 122, located in Anderson County, Kansas and submitted to our laboratory on May 16, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

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

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company James E. Russell Petroleum, Inc. Lease Minckley "B" Sec. 10 Well No. 122

Location 660' SNL & 440' EWL NW¼

Section 10 Twp. 23S Rge. 19E County Anderson State Kansas

Elevation, Feet Datum: Mean Sea Level (Ground Level)	1028.3
Name of Sand	Squirrel
Top of Core	686.0
Bottom of Core	705.3
Top of Sand	695.5
Bottom of Sand	703.4
Total Feet of Permeable Sand	7.1
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	2.7	2.7
1 - 5	2.6	5.3
5 - 10	1.8	7.1

Average Permeability Millidarcys	3.0
Average Percent Porosity	14.5
Average Percent Oil Saturation	40.1
Average Percent Water Saturation	42.2
Average Oil Content, Bbls./A. Ft.	453.
Total Oil Content, Bbls./Acre	3,581.
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 susceptibility tests, no calculated recovery is given.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
686.0 - 695.5	Shale, gray, sandy.
695.5 - 698.2	Sandstone and shale, light brown and gray laminated.
698.2 - 701.0	Sandstone, dark brown, shaly.
701.0 - 701.8	Sandstone and shale, light brown and gray laminated.
701.8 - 702.6	Sandstone, dark brown, shaly.
702.6 - 703.4	Sandstone, grayish light brown, very shaly.
703.4 - 705.3	Shale, gray, sandy.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc. Lease Minckley "B" Section 10 Well No. 122

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	696.5	13.9	33	53	86	356	0.25	1.7	1.7	605	0.43
2	697.5	13.5	59	33	92	618	0.22	1.0	2.7	618	0.22
3	698.5	19.0	36	32	68	531	5.6	1.0	3.7	531	5.60
4	699.5	14.8	51	22	73	586	3.5	1.0	4.7	586	3.50
5	700.5	15.4	49	41	90	585	7.4	0.8	5.5	468	5.92
6	701.3	10.3	22	70	92	176	Imp.	0.8	6.3	141	0.00
7	702.5	15.6	22	52	74	266	4.6	0.8	7.1	213	3.68
8	703.2	13.5	50	32	82	524	2.1	0.8	7.9	419	1.68

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company James E. Russell Petroleum, Inc. Lease Minckley "B" Section 10 Well No. 122

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
695.5 - 703.4	7.1	3.0	21.03

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
695.5 - 703.4	7.9	14.5	40.1	42.2	453.	3,581.

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

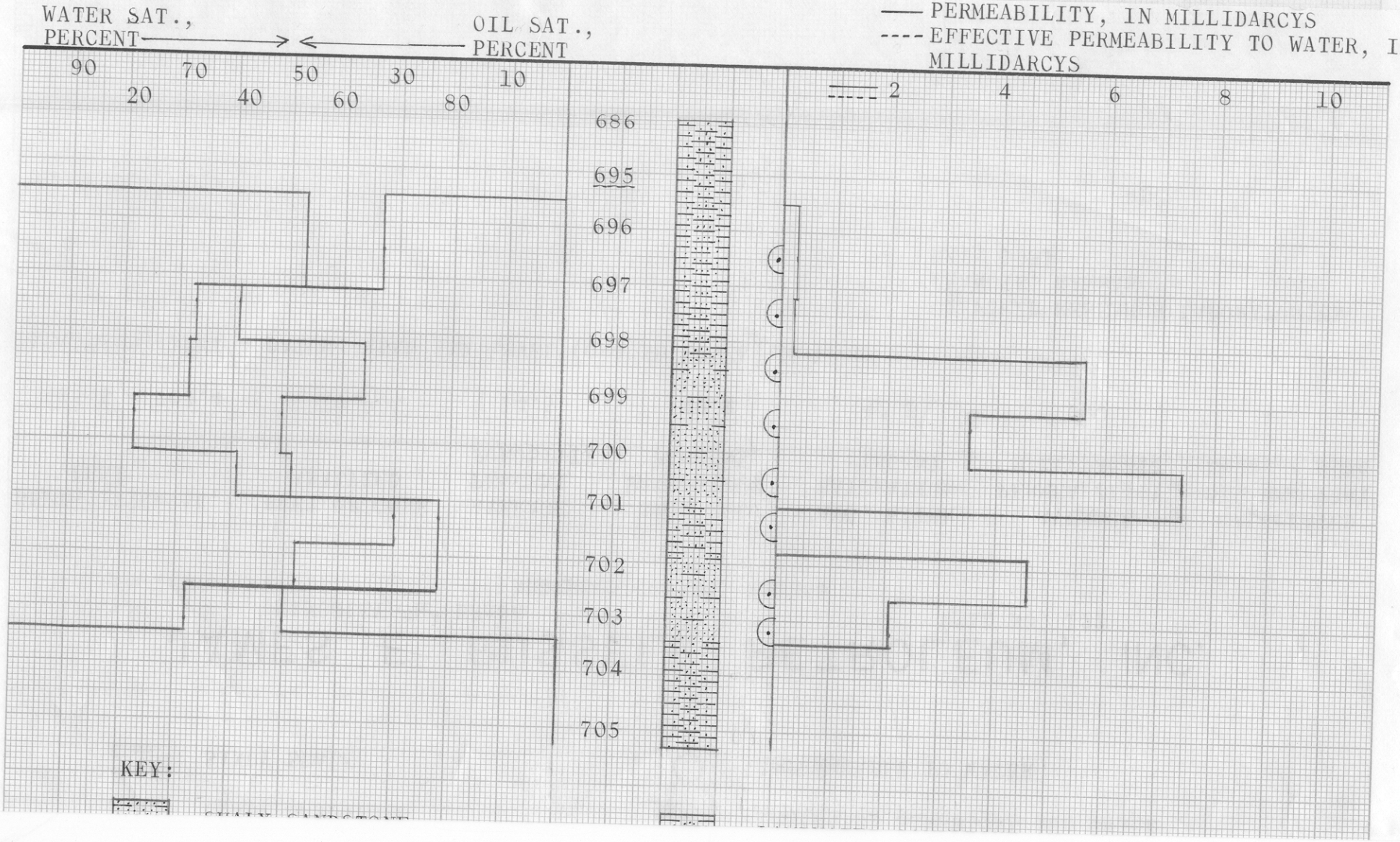
Company James E. Russell Petroleum, Inc. Lease Minckley "B" Section 10 Well No. 122

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	696.5	13.8	33	353	0	0	33	54	353	0	Imp.	-
2	697.5	13.7	58	616	0	0	58	36	616	0	Imp.	-
3	698.5	18.9	36	528	0	0	36	33	528	0	Imp.	-
4	699.5	14.9	51	590	0	0	51	23	590	0	Imp.	-
5	700.5	15.3	49	582	0	0	49	42	582	0	Imp.	-
6	701.3	10.7	21	174	0	0	21	72	174	0	Imp.	-
7	702.5	15.5	22	265	0	0	22	53	265	0	Imp.	-
8	703.2	13.6	50	528	0	0	50	33	528	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., PERCENT
OIL SAT., PERCENT
90
70
50
30
10
20
40
60
80
PERMEABILITY, IN MILLIDARCYS
EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS
2
4
6
8
10
686
695
696
697
698
699
700
701
702
703
704
705
KEY:

SHALY SANDSTONE

SANDY SHALE

LAMINATED SANDSTONE AND SHALE

IMPERMEABLE TO WATER

JAMES E. RUSSELL PETROLEUM, INC.

MINCKLEY "B" LEASE WELL NO. 122

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
695.5 - 703.4	7.9	14.5	40.1	42.2	3.0	-

ELEVATION, FEET - DATUM: MEAN SEA LEVEL (GROUND LEVEL) 1028.3

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
MAY, 1981

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