

# OILFIELD RESEARCH LABORATORIES

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December 2, 1980

Oaks Petroleum, Inc.  
c/o Calvin T. Oaks, Jr.  
R R # 2  
Stoystown, PA 15563

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the F. Roseberry Lease, Well No. FR-3, located in Franklin County, Kansas and submitted to our laboratory on September 24, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

2 c to Stoystown, PA  
3 c to Ray Wagner, Paola, KS

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

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## GENERAL INFORMATION & SUMMARY

Company Oaks Petroleum, Inc. Lease F. Roseberry Well No. FR-3

Location 1170' WEL & 165' NSL, E $\frac{1}{2}$  SE $\frac{1}{2}$

Section 12 Twp. 18S Rge. 20E County Franklin State Kansas

Elevation, Feet	-
Name of Sand	Squirrel
Top of Core	660.5
Bottom of Core	669.0
Top of Sand	660.5
Bottom of Sand	665.8
	(Tested)
Total Feet of Permeable Sand	3.3
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0.39 - 3.7	3.3	3.3

Average Permeability Millidarcys	2.0
Average Percent Porosity	16.8
Average Percent Oil Saturation	38.7
Average Percent Water Saturation	43.9
Average Oil Content, Bbls./A. Ft.	494.
Total Oil Content, Bbls./Acre	2,619.
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.

## OILFIELD RESEARCH LABORATORIES

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This core was sampled and the samples sealed in plastic bags by a representative of the client. The well was cored using fresh water mud as the circulating fluid.

In as much as the core proved to be impermeable to water during waterflooding susceptibility tests, no recovery calculations are presented.

### FORMATION CORED

The detailed log of the formation cored is as follows:

<u>Depth Interval, Feet</u>	<u>Description</u>
660.5 - 662.8	Brown shaly sandstone.
662.8 - 668.5	Brown and gray laminated sandstone and shale.
668.5 - 669.0	Gray sandy shale.

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## RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Oaks Petroleum, Inc. Lease F. Roseberry Well No. FR-3

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation		Oil Content Bbbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.	
			Oil	Water			Total	Ft.			Cum. Ft.
1	660.7	19.3	38	49	87	569	3.6	1.0	1.0	569	3.60
2	661.7	22.3	37	41	78	640	0.39	1.3	2.3	832	0.51
3	663.5	14.2	38	48	86	419	Imp.	1.0	3.3	419	0.00
4	664.5	8.6	46	51	97	307	2.5	1.0	4.3	307	2.50
5	665.5	18.1	35	31	66	492	Imp.	1.0	5.3	492	0.00

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease	Well No.			
Oaks Petroleum, Inc.		F. Roseberry	FR-3			
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.			
660.5 - 665.8	3.3	2.0	6.61			
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre	
660.5 - 665.8	5.3	16.8	38.7	43.9	494	2,619

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company: Oaks Petroleum, Inc. Lease: F. Roseberry Well No. FR-3

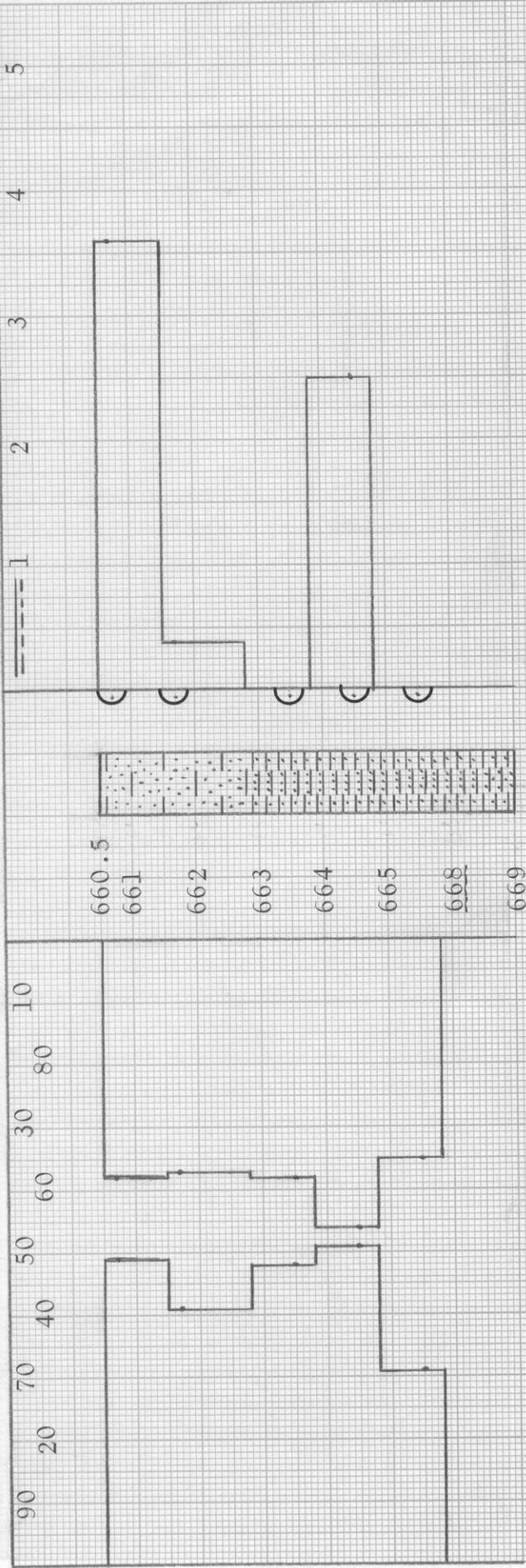
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbbs./A. Ft.	%	Bbbs./A. Ft.	% Oil	% Water	Bbbs./A. Ft.			
1	660.7	19.0	37	545	0	0	37	55	545	0	Imp.	-
2	661.7	22.3	37	640	0	0	37	43	640	0	Imp.	-
3	663.5	14.4	40	447	0	0	40	50	447	0	Imp.	-
4	664.5	9.0	45	314	0	0	45	52	314	0	Imp.	-
5	665.5	18.3	37	525	0	0	37	33	525	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 ←  
 ——— PERMEABILITY, IN MILLIDARCYS  
 - - - - - EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS



KEY:

▨ SHALY SANDSTONE

▨ SANDY SHALE

▨ LAMINATED SANDSTONE AND SHALE

○ IMPERMEABLE TO WATER

# OAKS PETROLEUM, INC.

F. ROSEBERRY LEASE

FRANKLIN COUNTY, KANSAS

WELL NO. FR - 3

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
660.5 - 665.8	5.3	16.8	38.7	43.9	2.0	-----