

OILFIELD RESEARCH LABORATORIES

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

February 19, 1982

Rantoul Energy Corporation
1505 SW 42nd Street
Topeka, Kansas 66609

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Moews Lease, Well No. 9-A, located in Franklin County, Kansas and submitted to our laboratory on February 17, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM:bl

5 c to Topeka, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Rantoul Energy Corporation Lease Moews Well No. 9-A
 Location 1520' WEL & 640' SNL
 Section 3 Twp. 19S Rge. 20E County Franklin State Kansas

Elevation, Feet

Name of Sand.....	Squirrel
Top of Core	789.0
Bottom of Core	798.4
Top of Sand	790.0
Bottom of Sand	796.6
Total Feet of Permeable Sand	5.2
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	4.6	4.6
10 - 12	0.6	5.2

Average Permeability Millidarcys	4.5
Average Percent Porosity	16.0
Average Percent Oil Saturation	26.3
Average Percent Water Saturation	52.7
Average Oil Content, Bbls./A. Ft.	320.
Total Oil Content, Bbls./Acre	2,013.
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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The core was sampled in the laboratory after being delivered by the client unbagged. The core was reported to be from a 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>
789.0 - 790.0	Gray shale.
790.0 - 791.0	Brown slightly shaly slightly calcareous sandstone.
791.0 - 791.3	Gray shaly calcareous sandstone.
791.3 - 791.9	Brown slightly calcareous sandstone with shale partings.
791.9 - 792.7	Brown slightly calcareous shaly sandstone.
792.7 - 793.8	Gray and brown laminated shale and sandstone.
793.8 - 795.0	Gray and brown finely laminated shale and sandstone.
795.0 - 796.6	Gray shaly sandstone with brown sandstone partings.
796.6 - 798.4	Gray shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Rantoul Energy Corporation Lease Moews Well No. 9-A

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	790.5	14.0	35	39	74	380	4.8	1.0	1.0	380	4.80
2	791.5	13.6	18	37	55	190	11.	0.6	1.6	114	6.60
3	792.6	13.8	34	60	94	364	3.9	0.8	2.4	291	3.12
4	793.7	15.0	35	57	92	407	Imp.	1.1	3.5	448	0.00
5	794.7	18.8	34	48	82	496	4.3	1.2	4.7	595	5.16
6	795.5	19.3	9	58	67	135	3.8	1.0	5.7	135	3.80
7	796.5	15.4	7	74	81	84	0.20	0.6	6.3	50	0.12

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Rantoul Energy Corporation		Lease	Moews	Well No.	9-A
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Permeability Capacity Ft. x Md.	Total Oil Content Bbls./Acre
790.0 - 796.6	6.3	16.0	26.3	52.7	320	23.60	2,013

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Well No. 9-A

Lease MOEWS

Rantoul Energy Corporation

Company

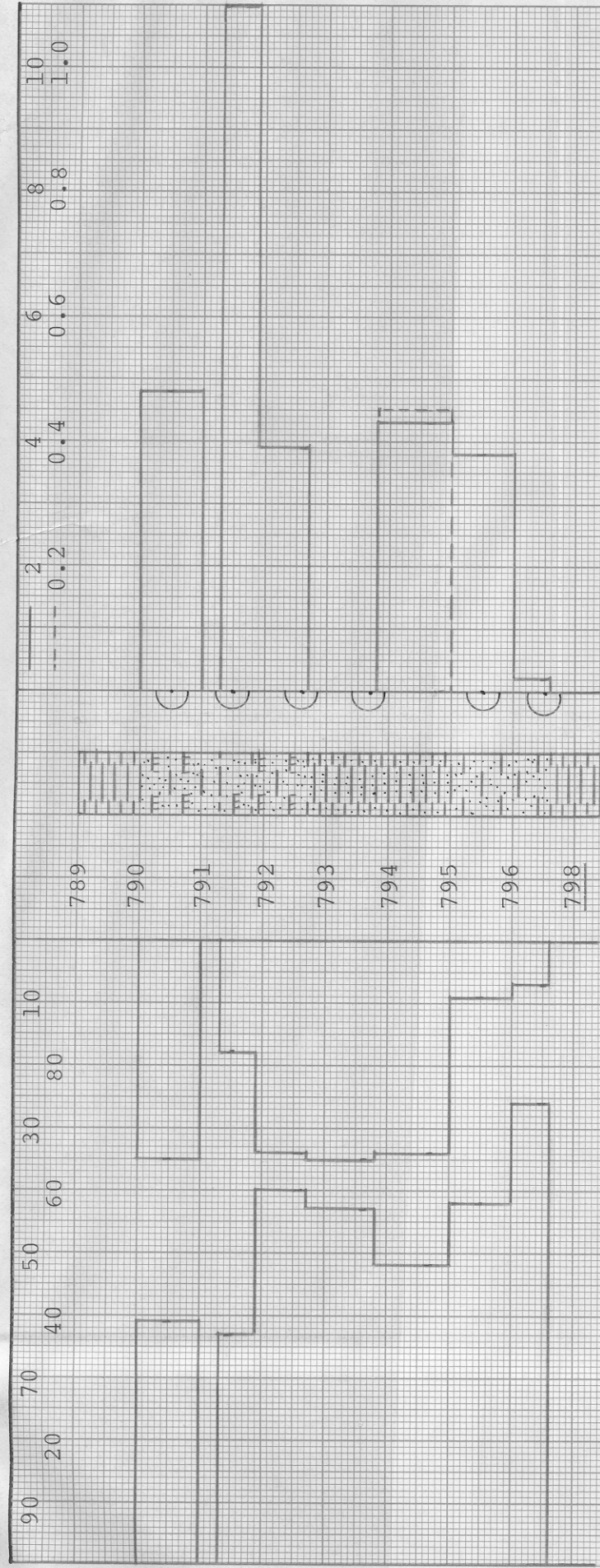
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbbls./A. Ft.	%	Bbbls./A. Ft.	% Oil	% Water	Bbbls./A. Ft.			
1	790.5	14.1	35	383	0	0	35	40	383	0	Imp.	-
2	791.5	13.8	18	193	0	0	18	38	193	0	Imp.	-
3	792.6	14.3	33	366	0	0	33	62	366	0	Imp.	-
4	793.7	15.1	35	410	0	0	35	58	410	0	Imp.	-
5	794.7	18.3	35	497	0	0	35	49	497	24	0.45	40
6	795.5	19.4	9	135	0	0	9	59	135	0	Imp.	-
7	796.5	15.5	7	84	0	0	7	75	84	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 MILLIDARCS
 - - - - - EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCS



KEY:



SHALE



SHALY SANDSTONE



SHALY CALCAREOUS SANDSTONE



LAMINATED SANDSTONE AND SHALE



CALCAREOUS SANDSTONE WITH SHALE PARTINGS



IMPERMEABLE TO WATER

RANTOUL ENERGY CORPORATION

MOEWS LEASE

FRANKLIN COUNTY, KANSAS

WELL NO. 9-A

SHALE
CALCAREOUS SANDSTONE WITH SHALE PARTINGS

SHALY SANDSTONE



IMPERMEABLE TO WATER

SHALY CALCAREOUS SANDSTONE

RANTOUL ENERGY CORPORATION

MOEWS LEASE

WELL NO. 9-A

FRANKLIN 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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790.0 - 796.6

6.3

16.0

26.3

52.7

4.5

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OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
FEBRUARY, 1982