

OILFIELD RESEARCH LABORATORIES

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

August 19, 1981

Chaser Oil Company
Earl Finfrock
Bronson, Kansas 66716

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Reynard Lease, Well No. 6, located in Woodson County, Kansas and submitted to our laboratory on August 14, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel
by B.L.
Sanford A. Michel

SAM/kas

5 c to Bronson, Kansas

- REGISTERED ENGINEERS -

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

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GENERAL INFORMATION & SUMMARY

Company Chaser Oil Company Lease Reynard Well No. 6
 Location 590' SNL & 150' WEL E $\frac{1}{2}$, SE $\frac{1}{4}$
 Section 14 Twp. 24S Rge. 15E County Woodson State Kansas

Elevation, Feet

Name of Sand

Upper Squirrel

Top of Core

1125.0

Bottom of Core

1133.8

Top of Sand

1125.0

Bottom of Sand

1133.8

Total Feet of Permeable Sand

7.5

Total Feet of Floodable Sand

0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
1 - 10	2.2	2.2
10 - 20	3.3	5.5
20 & Above	2.0	7.5

Average Permeability Millidarcys

14.1

Average Percent Porosity

17.2

Average Percent Oil Saturation

37.6

Average Percent Water Saturation

44.4

Average Oil Content, Bbls./A. Ft.

503.

Total Oil Content, Bbls./Acre

3,775.

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 and the samples sealed in plastic bags by a representative of the client. Fresh water mud was used as a drilling fluid.

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>
1125.0 - 1127.3	Grayish brown shaly sandstone.
1127.3 - 1131.8	Brown sandstone.
1131.8 - 1133.0	Grayish brown shaly sandstone.
1133.0 - 1133.8	Brown sandstone.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Chaser Oil Company Lease Reynard Well No. 6

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	1125.4	15.5	23	54	77	277	2.1	1.0	1.0	277	2.10
2	1127.5	19.1	32	40	72	474	21.	1.0	2.0	474	21.00
3	1128.5	16.8	43	42	85	560	14.	1.5	3.5	840	21.00
4	1130.3	17.4	35	38	73	473	20.	1.0	4.5	473	20.00
5	1131.4	17.6	39	41	80	533	16.	1.0	5.5	533	16.00
6	1132.4	16.3	48	48	96	607	8.6	1.2	6.7	728	10.32
7	1133.6	18.6	39	49	88	563	19.	0.8	7.5	450	15.20

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Reynard		Well No.	
Chaser Oil Company						6	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys		Permeability Capacity Ft. x Md.			
1125.0 - 1133.8	7.5	14.1		105.62			
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation		Average Percent Water Saturation		Average Oil Content Bbl./A. Ft.	
1125.0 - 1133.8	7.5	37.6		44.4		503	
						Total Oil Content Bbls./Acre	
						3,775	

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Chaser Oil Company			Lease		Reynard		Well No.		6		
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	1125.4	15.6	23	278	0	0	23	55	0	Imp.	-
2	1127.5	19.0	32	472	0	0	32	42	0	Imp.	-
3	1128.5	17.1	42	557	0	0	42	44	0	Imp.	-
4	1130.3	17.3	35	470	0	0	35	39	0	Imp.	-
5	1131.4	17.5	39	529	0	0	39	43	0	Imp.	-
6	1132.4	16.4	48	611	0	0	48	49	0	Imp.	-
7	1133.6	18.7	39	566	0	0	39	51	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.

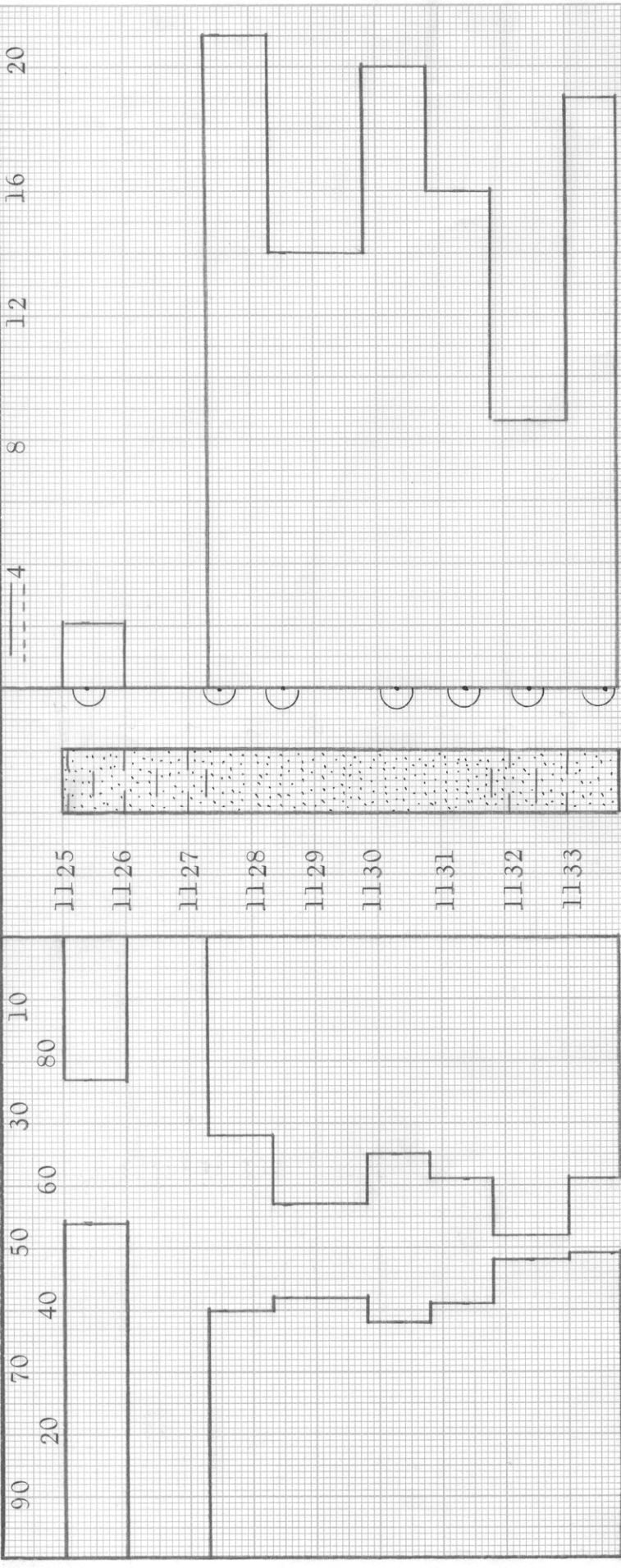
WATER SAT., PERCENT

→ <

OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCYS

EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS



KEY:

SANDSTONE

SHALY SANDSTONE

IMPERMEABLE TO WATER

REYNARD LEASE

WOODSON COUNTY, KANSAS

WELL NO. 6

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

CHASER OIL COMPANY

WELL NO. 6

REYNARD LEASE

WOODSON 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
1125.0 - 1133.8	7.5	17.2	37.6	44.4	14.1	-

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CHANUTE, KANSAS
AUGUST, 1981

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