

OILFIELD RESEARCH LABORATORIES

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May 5, 1980

DFW Petroleum, Inc.
1506 Park
Harvey Center
Oklahoma City, Oklahoma 73102

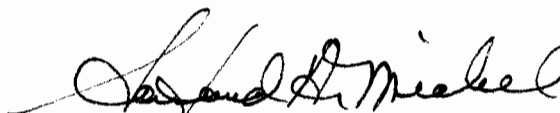
Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the D.R. Nelson Lease, Well No. 3-18, Allen County, Kansas, and submitted to our laboratory on April 1, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Sanford A. Michel

SAM/tem

5 c to Oklahoma City, Oklahoma

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GENERAL INFORMATION & SUMMARY

Company DFW Petroleum, Incorporated Lease D.R. Nelson Well No. 3-18

Location 220' W & 660' N of Center

Section 18 Twp. 26S Rge. 21E County Allen State Kansas

Elevation, Feet - - - - -

Name of Sand - - - - - Tucker

Top of Core - - - - - 834.0

Bottom of Core - - - - - 841.6

Top of Sand - - - - - 835.9

Bottom of Sand - - - - - 841.6

Total Feet of Permeable Sand - - - - - 5.3

Total Feet of Floodable Sand - - - - - 0.0

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

400 - 1000

2.7

2.7

1000 - 1500

1.0

3.7

1500 - 2000

1.6

5.3

Average Permeability Millidarcys - - - - - 1098.1

Average Percent Porosity - - - - - 27.1

Average Percent Oil Saturation - - - - - 17.6

Average Percent Water Saturation - - - - - 64.8

Average Oil Content, Bbls./A. Ft. - - - - - 366.

Total Oil Content, Bbls./Acre - - - - - 1938.

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 floodpot testing, 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>
834.0 - 835.9	Gray sandy shale.
835.9 - 839.5	Grayish brown sandstone.
839.5 - 839.9	Gray sandy shale.
839.9 - 841.6	Grayish brown sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company DFW Petroleum, Inc. Lease D.R. Nelson Well No. 3-18

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	836.5	29.2	16	46	62	363	1978.	1.1	1.1	399	2175.80
2	837.5	30.6	18	57	75	427	1378.	1.0	2.1	427	1378.00
3	838.5	17.1	21	72	93	279	436.	1.0	3.1	279	436.00
4	839.3	31.3	27	52	79	656	1533.	0.5	3.6	328	766.50
5	840.5	29.5	12	83	95	275	599.	1.0	4.6	275	599.00
6	841.3	26.4	16	78	94	328	664.	0.7	5.3	230	464.80

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	DFW Petroleum, Incorporated	Lease	D.R. Nelson		Well No.	3-18
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.			
835.9 - 841.6	5.3	1098.1	5820.10			
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
835.9 - 841.6	5.3	27.1	17.6	64.8	366	1,938

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

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	836.5	28.8	17	380	0	0	17	72	380	78	0.82	20
2	837.5	30.5	18	426	0	0	18	72	426	379	72.97	10
3	838.5	17.6	20	273	0	0	20	71	273	180	20.62	10
4	839.3	31.0	27	649	0	0	27	64	649	141	52.48	10
5	840.5	29.1	13	293	0	0	13	75	293	207	27.74	10
6	841.3	26.2	16	325	0	0	16	80	325	498	6.75	10

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.

Company DFW Petroleum, Incorporated Lease D.R. Nelson Well No. 3-18