

June 21, 1949

Deep Rock Oil Corporation
Tulsa, Oklahoma

Attention: Mr. T. F. Lawry

Gentlemen:

Enclosed herewith is the report of the partial analysis of the No. 6 Baker barrel core taken from the Miller Lease, Well No. G-1, Franklin County, Kansas, and submitted to our laboratory on June 6, 1949.

No calculated recovery is given for the sand within the vicinity of this well as the core hole is located approximately 20' from an old well, and, as a result, a calculated recovery value would not be reliable. Furthermore, no samples were taken from part of the sand cored.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Fate

CLF:cc
c.c. to Mr. Neil Henderson

DEEP ROCK OIL CORPORATION

CORE ANALYSIS REPORT

MILLER LEASE

WELL NO. 0-1

FRANKLIN COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANUTE, KANSAS

JUNE 20, 1949

Oil Field Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Deep Rock Oil Corporation Lease Miller Well No. G-1

Location _____

Section 34 Twp. 16S Rge. 21E County Franklin State Kansas

Name of Sand	Squirrel
Top of Core	553.70
Bottom of Core	568.40
Top of Sand	555.80
Bottom of ^{Pay} Sand	564.40
Total Feet of Permeable Sand	4.87

Distribution of Permeable Sand:		
Permeable Range	Feet	Cum. Ft.
Millidarcys		

Average ^{Effective} Permeability, Millidarcys	9.00
Average Percent Porosity	18.98
Average Percent Oil Saturation	33.82
Average Percent Water Saturation	51.11
Average Oil Content, Bbls./A. Ft.	497.
Total Oil Content, Bbls./Acre	3,223.
Average Percent Oil Recovery by Laboratory Flooding Tests	11.13
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	168.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	818.
Total Calculated Oil Recovery, Bbls./Acre	-
Packer Setting, Feet	536.0
Viscosity, Centipoises @	
A. P. I. Gravity, degrees @ 60 °F	

Note: An old well is located approximately 50' from core hole.

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LOG

Company Deep Rock Oil Corporation Lease Miller Well No. G-1

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
553.70 - 554.70	- Sandy shale.
554.70 - 555.50	- Laminated shale and sandstone.
555.50 - 555.80	- Laminated sandstone and shale.
555.80 - 556.91	- Brown fine grained micaceous calcareous sandstone.
556.91 - 557.57	- Brown fine grained laminated micaceous sandstone.
557.57 - 562.30	- Brown fine grained micaceous sandstone.
562.30 - 562.90	- Brown fine grained micaceous calcareous slightly shaley sandstone.
562.90 - 563.40	- Brown fine grained micaceous shaley sandstone.
563.40 - 563.50	- Gray sandy shale.
563.50 - 564.40	- Brown fine grained laminated micaceous sandstone.
564.40 - 564.88	- Laminated sandy shale.
564.88 - 565.60	- Finely laminated shaley sandstone.
565.60 - 566.95	- Laminated sandstone and shale.
566.95 - 568.40	- Gray sandy shale.

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SHOT RECOMMENDATION

Company	<u>Deep Rock Oil Corporation</u>	Lease	<u>Miller</u>	Well No.	<u>G-1</u>
Depth Interval, <u>Feet</u>	<u>Feet of Sand</u>	<u>Size of Shell Inches</u>	<u>Qts./Ft.</u>	<u>Total Qts.</u>	
561.0 - 563.5	2.5	3 $\frac{1}{2}$	2.0	5.0	

Recommended Packer Setting - 556.0 feet.
Note: Plug hole back to - 565.0 feet.

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RESULTS OF SATURATION TESTS

TABLE III

Company Deep Rock Oil Corporation Lease Miller Well No. 3-1

Sat. No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content, Bbls./A. Ft.	Feet of Core		Total Oil Content Bbls./Acre
			Oil	Water	Total		Ft.	Cum. Ft.	
F-1	555.90	19.6	32.2	-	-	496	1.11	1.11	550
F-2	557.35	13.4	34.2	-	-	406	0.66	1.77	259
F-3	560.40	20.2	42.1	-	-	661	1.20	2.97	794
F-4	561.25	21.6	33.2	84.0	-	559	1.50	4.47	838
F-5	562.40	18.2	29.6	-	-	419	0.60	5.07	251
F-6	563.20	16.9	29.6	-	-	387	0.50	5.57	193
F-7	563.65	16.7	31.6	80.1	-	412	1.00	6.57	412
F-9	565.45	16.6	15.0	94.5	-	194	0.72	7.29	140
Total -----									3,467

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SUMMARY OF SATURATION TESTS

TABLE IV

Company	Lease	Well No.				
Deep Rock Oil Corporation	Killer	0-1				
Depth Interval, Feet	Feet of Core Analyzed	Average Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbls./A. Ft.	Total Oil Content Bbls./Acre
555.60-557.57	1.77	16.19	33.50	-	463	619
559.60-565.60	5.52	16.93	31.81	56.40	476	2,625
566.00-565.00	6.49	16.92	33.82	51.11	497	3,223

Oil Field Research
RESULTS OF LABORATORY

TABLE

Company Deep Rock Oil Corporation Lease Mill

Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery	
			Percent	Bbls./A. Ft.	Percent	Bbls./A. Ft.
1	555.90	19.8	32.2	496	10.9	168
2	557.35	15.4	34.2	408	4.8	87
3	560.40	20.2	42.1	661	13.4	211
4	561.25	19.4	40.3	608	16.1	243
5	562.40	18.2	29.6	419	1.2	17
6	563.20	16.9	29.6	387	0.0	0

Notes: -cc- cubic cent
*Volume of water
of maximum oil
**Determined by
which still (

ch Laboratories

DRY FLOODING TESTS

E V

SR _____ Well No. 6-1

Residual Saturation			Volume of Water Recovered cc*	** Effective Permeability, Millidarcys	Initial Fluid Production Pressure Lbs./Sq. In.
% Oil	% Water	Bbls./A. Ft.			
21.3	69.5	328	159	16.30	5
29.4	60.5	351	20	0.69	20
28.7	69.8	450	136	7.08	10
24.2	74.2	365	235	13.20	10
26.4	71.1	402	12	0.415	30
29.6	69.5	387	0	Imp.	50 +

water
 recovered at the time
 recovery.

passing water through sample
 contains residual oil.

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SUMMARY OF LABORATORY FLOODING TESTS

TABLE VI

Company	Lease	Miller	Well No.
	555.80 - 557.57	559.60 - 563.40	556.00 - 563.40
Depth Interval, Feet	1.77	3.30	4.87
Feet of Core Analyzed	18.19	19.45	16.97
Average Percent Porosity	32.93	39.02	37.11
Average Percent Original Oil Saturation	8.64	12.45	11.13
Average Percent Oil Recovery	24.29	26.57	25.98
Average Percent Residual Oil Saturation	66.10	72.00	69.98
Average Percent Residual Water Saturation	90.39	98.57	93.96
Average Percent Total Residual Fluid Saturation	462.	592.	550.
Average Original Oil Content, Bbls./A. Ft.	136.	190.	166.
Average Oil Recovery, Bbls./A. Ft.	536.	402.	362.
Average Residual Oil Content, Bbls./A. Ft.	620.	1,956.	2,677.
Total Original Oil Content, Bbls./Acre	234.	627.	618.
Total Oil Recovery, Bbls./Acre	596.	1,329.	1,659.
Total Residual Oil Content, Bbls./Acre	10.46	6.65	9.00
Average Effective Permeability, Millidarcys	12.5	16.7	15.0
Average Initial Fluid Production Pressure, p.s.i.			

Notes: Only those samples which recovered oil were used in calculating the above averages.