26-18-22E

March 18, 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 Baker Lease, Well No. G-23, Miami County, Kansas, and submitted to our laboratory on February 16, 1949.

In calculating the recovery for the area within the vicinity of this well, an allowance was made for oil lost during coring and it was assumed that the true water saturation of the sand is 36 percent.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:bb
c.c. to Mr. Neil Henderson

Baker G-23

DEEP ROCK OIL CORPORATION

CORE ANALYSIS REPORT

BAKER LEASE WELL NO. G-23

MIAMI COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANUTE, KANSAS

MARCH 18, 1949

Oil Field Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Deep Rock Oil Corporation Lease Baker Well No. G-23

Location 440' South of North Line, 1320' East of West Line, NW¼

Section 26 Twp. 18 Rge. 22 County Miami State Kansas

Name of Sand	Peru
Top of Core	344.00
Bottom of Core	364.90
Top of Sand	345.50
Bottom of Sand	364.50
Total Feet of Permeable Sand	4.20

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.

Average Effective Permeability, Millidarcys	0.303
Average Percent Porosity	16.68
Average Percent Oil Saturation	29.58
Average Percent Water Saturation	-
Average Oil Content, Bbls./A. Ft.	358.
Total Oil Content, Bbls./Acre	2,934.
Average Percent Oil Recovery by Laboratory Flooding Tests	3.38
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	40.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	166.
Total Calculated Oil Recovery, Bbls./Acre	350.
Packer Setting, Feet	345.5
Viscosity, Centipoises @	
A. P. I. Gravity, degrees @ 60 °F	

Note: The above averages are for that part of the sand section extending from the packer setting to the top of Cement plug.

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LOG

Company Dean Rock Oil Corporation Lease Baker Well No. G-23

Depth Interval, Feet	Description
344.00 - 344.22	Gray sandy shale.
344.22 - 344.73	Gray shale.
344.73 - 345.50	Gray sandy shale.
345.50 - 346.10	Dark brown fine grained micaceous sandstone.
346.10 - 346.25	Gray sandy shale.
346.25 - 346.55	Dark brown fine grained micaceous sandstone.
346.55 - 348.25	Brown fine grained micaceous shaley sandstone.
348.25 - 348.62	Gray sandy shale..
348.62 - 350.90	Sandy shaley limestone.
350.90 - 355.22	Gray sandy calcareous shale.
355.22 - 355.40	Gray shale.
355.40 - 361.40	Laminated sandstone & shale.
361.40 - 362.20	Limestone.
362.20 - 363.35	Very hard dark fine grained micaceous carbonaceous calcareous sandstone.
363.35 - 363.70	Gray sandy calcareous shale.
363.70 - 364.50	Very hard dark fine grained micaceous carbonaceous calcareous sandstone.
364.50 - 364.90	Gray sandy calcareous shale.

OIL FIELD RESEARCH LABORATORIES

SHOT RECOMMENDATION

Company Deep Rock Oil Corporation Lease Baker Well No. G-23

Depth Interval, Feet	Feet of Sand	Size of Shell, Inches	Qts./Ft.	Total Qts.
350.5 - 359.5	9.0	4½	3.1	27.9

Recommended Packer Setting - 345.5 feet.
Note: Plug hole back to 361.0 feet.

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RESULTS OF SATURATION TESTS

TABLE III

Company Deep Rock Oil Corporation Lease Baker Well No. 6-23

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.	
1	345.95	20.8	24.2	-	-	392	0.60	0.60	235
2	348.15	19.6	23.9	-	-	212	2.00	2.60	424
6	355.55	14.3	37.8	-	-	530	0.80	3.40	424
7	356.87	15.4	40.0	-	-	479	1.40	4.80	671
8	358.36	14.7	38.7	-	-	491	1.50	6.30	738
9	359.75	15.7	10.8	-	-	132	1.40	7.70	185
10	361.25	15.9	41.5	-	-	513	0.90	8.60	462
11	362.65	11.0	57.2	-	-	489	1.15	9.75	798
12	364.15	11.2	42.7	-	-	372	0.80	10.55	298
								Total - - - -	3,999

Oil Field Research Laboratories

SUMMARY OF SATURATION TESTS

TABLE IV

Company Deep Rock Oil Corporation Lease Baker Well No. 6-23

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbls./A. Ft.	Total Oil Content Bbls./Acre
345.50-348.25	2.60	19.89	23.96	-	253	659
355.40-364.50	7.95	14.23	37.33	-	420	3,340
345.50-361.00	8.20	16.68	29.58	-	358	2,934

Oil Field Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE V

Company Deep Rock Oil Corporation Lease Baker Well No. C-23

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.
			Percent	Bbls./A. Ft.	Percent	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
1	345.95	20.8	24.2	392	0.0	0	24.2	68.4	392	5	0.136	35
2	346.15	19.6	23.9	212	0.0	0	25.9	68.7	212	0	Imp.	50+
6	350.55	14.3	37.8	530	2.0	22	35.8	55.0	508	2	0.0803	45
7	356.87	15.4	40.0	479	5.7	68	34.3	59.7	411	17.5	0.729	25
8	358.36	14.7	38.7	491	2.2	25	36.5	54.8	466	8.5	0.095	30
9	359.75	15.7	10.8	132	0.0	0	10.8	78.2	132	0	Imp.	50+
10	361.25	15.9	41.5	513	2.6	32	38.9	51.6	481	1	0.0925	50
11	362.65	11.0	57.2	489	0.0	0	57.2	20.5	489	0	Imp.	50+
12	364.15	11.2	42.7	372	0.0	0	42.7	29.1	372	0	Imp.	50+

Mpt

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.

Oil Field Research Laboratories

SUMMARY OF LABORATORY FLOODING TESTS

TABLE VI

Company Deep Rock Oil Corporation Lease Baker Well No. G-23

Depth Interval, Feet	345.50 - 361.00
Feet of Core Analyzed	4.20
Average Percent Porosity	15.00
Average Percent Original Oil Saturation	39.26
Average Percent Oil Recovery	3.38
Average Percent Residual Oil Saturation	35.88
Average Percent Residual Water Saturation	56.10
Average Percent Total Residual Fluid Saturation	91.98
Average Original Oil Content, Bbls./A. Ft.	497.
Average Oil Recovery, Bbls./A. Ft.	40.
Average Residual Oil Content, Bbls./A. Ft.	457.
Total Original Oil Content, Bbls./Acre	2,087.
Total Oil Recovery, Bbls./Acre	166.
Total Residual Oil Content, Bbls./Acre	1,921.
Average Effective Permeability, Millidarcys	0.303
Average Initial Fluid Production Pressure, p.s.i.	37.5

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