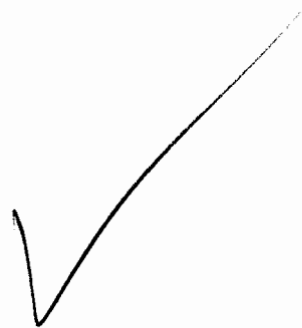


Ewing B' Q-27, 13-21-201

July 26, 1949



Deep Rock Oil Corporation
Tulsa, Oklahoma

Attention: Mr. T. F. Lawry

Gentlemen:

Enclosed herewith is the report of the partial analysis of the Keystone barrel core taken from the Ewing "B" Lease, Well No. Q-27, Anderson County, Kansas, and submitted to our laboratory on July 7, 1949.

In calculating the recovery for the sand within the vicinity of this well, no allowance was made for oil lost during coring; and, of course, it is assumed that the sand is not pressured up.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Fate

CLP:dt

c.c. to Mr. Neil Henderson
Mr. Jack McQueeney

DEEP ROCK OIL CORPORATION

CORE ANALYSIS REPORT

EWING LEASE

WELL NO. C-27

ANDERSON COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANNING, KANSAS

JULY 27, 1949

Oil Field Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Deep Rock Oil Corporation Lease Ewing "B" Well No. 9-27

Location South line well, 330 feet east of west line, NW 1/4

Section 13 Twp. 21 Rge. 20 County Anderson State Kansas

Name of Sand		Squirrel
Top of Core		659.80
Bottom of Core		707.00
Top of Sand		688.70
Bottom of Sand		703.70
Total Feet of Permeable Sand		11.28
Distribution of Permeable Sand:		
Permeable Range	Feet	Cum. Ft.
Millidarcys		

Average ^{effective} Permeability, Millidarcys		1.33
Average Percent Porosity		17.35
Average Percent Oil Saturation		41.75
Average Percent Water Saturation		51.30
Average Oil Content, Bbls./A. Ft.		572.
Total Oil Content, Bbls./Acre		8,069.
Average Percent Oil Recovery by Laboratory Flooding Tests		20.21
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.		283.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre		3,196.
Total Calculated Oil Recovery, Bbls./Acre		2,550.
Packer Setting, Feet		689.50
Viscosity, Centipoises @	<p>Note: The above averages are for that part of the sand section extending from the packer setting to the top of the cement plug.</p>	
A. P. I. Gravity, degrees @ 60 °F		

OIL FIELD RESEARCH LABORATORIES

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Company Deep Rock Oil Corporation Lease Fwing "B" Well No. 9-27

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
659.80 - 662.37	- Gray shale.
662.37 - 662.80	- Brown fine grained micaceous slightly shaley sandstone.
662.80 - 664.50	- Gray sandy shale.
664.50 - 664.95	- Hard brown fine grained micaceous sandstone.
664.95 - 665.30	- Gray sandy shale.
665.30 - 666.30	- Brown fine grained finely laminated micaceous sandstone.
666.30 - 666.70	- Gray sandy shale.
666.70 - 667.10	- Laminated shale and sandstone.
667.10 - 667.60	- Gray sandy shale.
667.60 - 667.95	- Hard brown fine grained micaceous sandstone.
667.95 - 668.05	- Gray sandy shale.
668.05 - 668.15	- Laminated shaley sandstone.
668.15 - 668.65	- Gray sandy shale.
668.65 - 673.10	- Gray shale.
673.10 - 673.80	- Gray sandy shale.
673.80 - 674.30	- Gray shale.
674.30 - 674.90	- Laminated sandstone and shale.
674.90 - 676.10	- Laminated shaley sandstone.
676.10 - 676.30	- Laminated sandstone and shale.
676.30 - 676.86	- Gray sandy shale.
676.86 - 677.12	- Brown fine grained laminated micaceous sandstone.
677.12 - 677.30	- Laminated sandstone and shale.

- 677.30 - 677.77 - Brown fine grained laminated micaceous sandstone.
- 677.77 - 678.15 - Laminated shale and sandstone.
- 678.15 - 678.67 - Brown fine grained laminated micaceous sandstone.
- 678.67 - 678.90 - Finely laminated sandstone and shale.
- 678.90 - 680.60 - Brown fine grained laminated micaceous sandstone.
- 680.60 - 681.20 - Laminated shaley sandstone.
- 681.20 - 681.80 - Finely laminated sandstone and shale.
- 681.80 - 683.20 - Gray sandy shale.
- 683.20 - 685.80 - Laminated sandstone and shale.
- 685.80 - 686.45 - Gray sandy shale.
- 686.45 - 686.70 - Brown fine grained slightly laminated micaceous sandstone.
- 686.70 - 688.25 - Finely laminated shale and sandstone.
- 688.25 - 688.70 - Laminated shale and sandstone.
- 688.70 - 689.40 - Brown fine grained micaceous sandstone.
- 689.40 - 689.90 - Gray sandy shale.
- 689.90 - 690.50 - Brown fine grained laminated micaceous sandstone.
- 690.50 - 691.42 - Brown fine grained micaceous sandstone.
- 691.42 - 691.90 - Brown fine grained laminated micaceous sandstone.
- 691.90 - 692.50 - Finely laminated shaley sandstone.
- 692.50 - 699.40 - Brown fine grained micaceous sandstone.
- 699.40 - 700.30 - Dark brown fine grained micaceous sandstone.
- 700.30 - 703.70 - Brown fine grained micaceous sandstone.
- 703.70 - 704.20 - Brown fine grained laminated micaceous sandstone.
- 704.20 - 704.40 - Gray sandy shale.
- 704.40 - 704.80 - Brown finely laminated shaley sandstone.
- 704.80 - 705.65 - Gray shale.
- 705.65 - 707.00 - Discarded at well.

OIL FIELD RESEARCH LABORATORIES

SHOE RECOMMENDATION

Company Deep Rock Oil Corporation Lease Ewing "B" Well No. 0-27

<u>Depth Interval, Feet</u>	<u>Feet of Sand</u>	<u>Size of Shell Inches</u>	<u>Gts./Ft.</u>	<u>Total Quarts</u>
694.50 - 702.50	8.0	4	2½	20

Recommended packer setting - 699.50 feet.

Oil Field Research Laboratories

RESULTS OF SATURATION TESTS

TABLE III

Deep Rock Oil Corporation

Wing "B"

0-27

Company _____

Lease _____

Well No. _____

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-6	666.10	14.0	17.3	-	-	188	1.00	1.00	188
F-7	666.90	14.0	23.1	-	-	251	0.40	1.40	100
F-8	667.75	15.7	34.1	-	-	416	0.45	1.85	187
F-14	675.95	14.6	17.3	-	-	196	0.40	2.25	78
F-16	677.50	14.7	19.6	-	-	223	0.47	2.72	105
F-17	678.32	16.2	23.0	53.5	76.5	290	0.52	3.24	151
F-18	679.30	14.7	23.8	-	-	272	0.90	4.14	245
F-19	680.30	16.7	23.7	49.1	82.8	308	0.80	4.94	246
F-22	683.36	12.0	20.6	-	-	191	0.80	5.74	153
F-23	684.70	15.1	29.7	-	-	348	1.10	6.84	383
F-24	685.45	16.2	24.6	-	-	309	0.70	7.54	216
F-26	687.80	14.7	15.4	-	-	176	1.55	9.09	272
F-28	689.20	19.1	52.0	-	-	772	0.70	9.79	541
F-29	690.10	16.6	33.7	-	-	434	0.60	10.39	260
F-30	691.05	15.8	33.0	-	-	465	0.92	11.31	372
F-31	691.70	17.9	34.5	-	-	479	0.48	11.79	230
F-32	692.90	19.6	45.7	-	-	697	0.90	12.69	628
F-33	694.00	19.3	34.4	-	-	516	1.20	13.89	620
F-34	695.22	18.2	50.3	-	-	711	1.10	14.99	782

Oil Field Research Laboratories

RESULTS OF SATURATION TESTS

TABLE III

Company Deep Rock Oil Corporation Lease Being "B" Well No. 2-27

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-35	696.20	19.4	43.6	-	-	656	0.70	15.69	460
F-36	696.60	19.7	40.3	-	-	616	0.70	16.39	432
F-37	697.55	17.8	55.6	-	-	769	0.90	17.29	692
F-38	698.40	18.6	49.3	-	-	713	0.80	18.09	570
F-39	699.25	16.6	48.3	-	-	622	1.50	19.59	933
F-40	700.60	13.6	23.4	-	-	248	1.00	20.59	248
F-41	702.00	17.4	57.4	-	-	775	1.25	21.84	970
F-42	703.10	17.5	35.0	-	-	475	1.15	22.99	546
F-43	703.87	15.1	28.1	-	-	330	0.50	23.49	165
hh	706.60	15.6	33.2	51.3	84.5	403	0.40	23.89	161
							Total - - -		10,934

Oil Field Research Laboratories

SUMMARY OF SATURATION TESTS

TABLE IV

Company Deep Rock Oil Corporation Lease Swing "B" Well No. Q-27

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
665.30-688.25	9.09	14.82	22.07	50.83	256	2,324
688.70-704.80	14.80	17.45	42.24	51.30	382	8,610
689.50-704.80	14.10	17.35	41.75	51.30	572	8,069

Oil Field Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE V

Company Deep Hook Oil Corporation Lease Swing "B" Well No. Q-27

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.			
5	666.10	14.0	17.3	188	0.0	0	17.3	80.8	188	0		50+
7	666.90	14.0	23.1	251	0.0	0	23.1	67.8	251	0	Imp.	50+
8	667.75	15.7	34.1	416	0.0	0	34.1	61.8	416	0	Imp.	50+
14	675.95	14.6	17.3	196	0.0	0	17.3	78.4	196	0	Imp.	50+
16	677.50	14.7	19.6	223	0.0	0	19.6	73.5	223	0	Imp.	50+
18	679.30	14.7	23.8	272	0.0	0	23.8	71.6	272	0	Imp.	50+
19	680.30	16.2	21.9	310	0.0	0	21.9	76.1	310	26	0.731	35
22	683.35	12.0	20.6	191	0.0	0	20.6	78.5	191	0	Imp.	50+
23	684.70	15.1	27.7	346	6.1	72	22.6	69.1	276	5	0.135	40
24	685.45	16.2	24.6	309	0.0	0	24.6	74.2	309	0	Imp.	50+
26	687.80	14.7	15.4	176	0.0	0	15.4	82.3	176	5	0.135	40
28	689.30	19.1	52.0	772	24.5	364	27.5	70.0	408	55	3.16	20
29	690.10	16.6	23.7	434	5.2	67	26.5	64.1	367	2	0.427	40
30	691.05	15.8	33.0	405	0.0	0	23.0	63.4	405	0	Imp.	50
31	691.70	17.9	34.5	479	11.1	154	23.4	71.2	325	6	0.307	25
32	692.90	19.6	45.7	697	23.3	356	22.4	75.8	341	77	2.58	15
33	694.00	19.3	34.4	516	14.4	216	20.0	78.6	300	51	2.70	15
34	695.22	18.2	50.3	711	27.8	392	22.5	77.0	318	47	1.24	10
35	696.20	19.4	43.6	656	20.2	304	23.4	73.9	352	54	2.92	10
36	696.60	19.7	40.3	616	10.7	164	22.6	57.0	452	5	0.104	25
37	697.55	17.8	55.6	769	24.2	335	21.4	66.0	424	30.5	1.22	15
38	698.40	18.6	49.3	713	25.7	372	22.6	74.6	341	49	1.42	15
39	699.25	16.6	46.3	622	22.0	254	26.3	68.1	338	10	0.164	20
40	700.60	13.6	23.4	248	0.0	0	23.4	72.5	248	0	Imp.	50+
41	702.00	17.4	57.4	775	35.4	451	24.0	69.0	324	51	1.60	10
42	703.10	17.5	35.0	475	10.4	141	24.5	70.9	334	22	1.01	20
43	703.87	15.1	28.1	330	0.0	0	26.1	67.2	330	0	Imp.	50+

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 Wing "B" Well No. 2-27

Depth Interval, Feet	609.50 - 703.70
Feet of Core Analyzed	11.28
Average Percent Porosity	18.13
Average Percent Original Oil Saturation	44.96
Average Percent Oil Recovery	20.21
Average Percent Residual Oil Saturation	24.75
Average Percent Residual Water Saturation	71.05
Average Percent Total Residual Fluid Saturation	95.80
Average Original Oil Content, Bbls./A. Ft.	670.
Average Oil Recovery, Bbls./A. Ft.	283.
Average Residual Oil Content, Bbls./A. Ft.	387.
Total Original Oil Content, Bbls./Acre	7,110.
Total Oil Recovery, Bbls./Acre	3,196.
Total Residual Oil Content, Bbls./Acre	3,914.
Average Effective Permeability, Millidarcys	1.33
Average Initial Fluid Production Pressure, p.s.i.	18.5