



OILFIELD RESEARCH LABORATORIES

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

April 23, 1979

Diamond Oil Producers, Inc.
114 South Depot
Cherryvale, Kansas 67335

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Murray Lease, Well No. 3, Labette County, Kansas, and submitted to our laboratory on April 18, 1979.

This core was sampled and the samples sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Benjamin R. Pearman

SAM:cgb

5 c to Cherryvale, Kansas

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GENERAL INFORMATION & SUMMARY

Company Diamond Oil Producers, Inc. Lease Murray Well No. 3

Location 825' EWL & 2145' NSL W $\frac{1}{2}$ SW

Section 6 Twp. 33S Rge. 18E County Labette State Kansas

Name of Sand - - - - - Upper Bartlesville

Top of Core - - - - - 638.0

Bottom of Core - - - - - 663.5

Top of Sand - - - - - 638.0

Bottom of Sand - - - - - 662.7

Total Feet of Permeable Sand - - - - - 22.4

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 5	13.1	13.1
5 - 10	3.5	16.6
10 - 20	3.8	20.4
20 - 45	2.0	22.4

Average Permeability Millidarcys - - - - - 7.7

Average Percent Porosity - - - - - 13.1

Average Percent Oil Saturation - - - - - 33.2

Average Percent Water Saturation - - - - - 41.5

Average Oil Content, Bbls./A. Ft. - - - - - 325.

Total Oil Content, Bbls./Acre - - - - - 7,667.

Average Percent Oil Recovery by Laboratory Flooding Tests - - - - -

Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. - - - - -

Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre - - - - -

Total Calculated Oil Recovery, Bbls./Acre - - - - -

Packer Setting, Feet - - - - -

Viscosity, Centipoises @ - - - - -

A. P. I. Gravity, degrees @ 60 °F - - - - -

Elevation, Feet - - - - -

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- LOG -

Company Diamond Oil Producers, Inc. Lease Murray Well No. 3

<u>Depth Interval, Feet</u>	<u>Description</u>
638.0 - 641.7	Light brown sandstone.
641.7 - 642.2	Gray shale.
642.2 - 643.1	Light brown and gray laminated sandstone and shale.
643.1 - 643.3	Gray shale.
643.3 - 644.8	Light brown slightly shaly sandstone.
644.8 - 645.2	Gray shale.
645.2 - 649.0	Light brown sandstone.
649.0 - 650.2	Light brown very shaly sandstone.
650.2 - 652.0	Light brown sandstone.
652.0 - 662.7	Light brown shaly sandstone.
662.7 - 663.5	Gray and white laminated shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Diamond Oil Producers, Inc. Lease Murray Well No. 3

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			Ft.	Cum. Ft.		
1	638.5	14.2	14	52	66	5.3	1.0	1.0	154	5.30
2	639.5	14.6	19	43	62	12.6	1.0	2.0	215	12.00
3	640.5	13.2	22	50	72	3.6	1.0	3.0	225	3.60
4	641.5	3.9	66	20	86	6.1	0.7	3.7	140	4.27
5	642.5	12.9	19	53	72	0.20	0.9	4.6	171	0.18
6	643.5	13.8	17	48	65	3.1	0.7	5.3	127	2.17
7	644.5	14.8	20	43	63	7.1	0.8	6.1	184	5.68
8	645.5	15.2	29	40	69	2.4	0.8	6.9	274	1.92
9	646.5	14.2	38	30	68	22.	1.0	7.9	419	22.00
10	647.5	13.1	40	37	77	17.	1.0	8.9	407	17.00
11	648.5	17.9	40	26	66	44.	1.0	9.9	556	44.00
12	649.5	8.9	40	37	77	Imp.	1.2	11.1	331	0.00
13	650.5	13.6	48	42	90	16.	0.8	11.9	405	12.80
14	651.5	13.7	35	35	70	14.	1.0	12.9	372	14.00
15	652.5	13.4	38	36	74	4.8	1.0	13.9	395	4.80
16	653.5	14.7	32	38	70	6.3	1.0	14.9	365	6.30
17	654.5	13.9	43	37	80	1.1	1.0	15.9	464	1.10
18	655.5	12.7	18	42	60	3.7	1.0	16.9	177	3.70
19	656.5	13.3	25	53	78	3.9	1.0	17.9	258	3.90
20	657.5	9.4	52	35	87	1.3	1.0	18.9	379	1.30
21	658.5	14.6	29	44	73	1.4	1.0	19.9	329	1.40
22	659.5	13.1	42	41	83	0.76	1.0	20.9	427	0.76
23	660.5	10.2	37	51	88	1.2	1.0	21.9	293	1.20
24	661.5	13.0	32	55	87	2.4	1.0	22.9	323	2.40
25	662.5	13.1	39	38	77	1.6	0.7	23.6	277	1.12

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company <u>Diamond Oil Producers, Inc.</u>		Lease <u>Murray</u>		Well No. <u>3</u>	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
638.0 - 644.8	6.1	5.4	33.20		
645.2 - 655.0	8.6	14.4	123.92		
655.0 - 662.7	7.7	2.0	15.78		
638.0 - 662.7	22.4	7.7	172.90		

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
638.0 - 644.8	6.1	12.8	24.0	45.0	199	1,216
645.2 - 655.0	9.8	13.7	38.3	36.4	407	3,988
655.0 - 662.7	7.7	12.4	34.0	45.1	320	2,463
638.0 - 662.7	23.6	13.1	33.2	41.5	325	7,667