



OILFIELD RESEARCH LABORATORIES

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

April 6, 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 Billy Gay Lease, Well No. 1, Montgomery County, Kansas, and submitted to our laboratory on April 4, 1979.

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

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

SAM:km
5 c to Cherryvale, Kansas

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GENERAL INFORMATION & SUMMARY

Company Diamond Oil Producers, Inc. Lease Billy Gay Well No. 1

Location N $\frac{1}{2}$ SE $\frac{1}{4}$

Section 34 Twp. 33S Rge. 14E County Montgomery State Kansas

Name of Sand	- - - - -	Wayside
Top of Core	- - - - -	690.0
Bottom of Core	- - - - -	696.0
Top of Sand	- - - - -	690.0
Bottom of Sand	- - - - -	693.7
Total Feet of Permeable Sand	- - - - -	1.7
Total Feet of Floodable Sand	- - - - -	

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 4

1.7

1.7

Average Permeability Millidarcys	- - - - -	2.4
Average Percent Porosity	- - - - -	16.7
Average Percent Oil Saturation	- - - - -	25.9
Average Percent Water Saturation	- - - - -	63.3
Average Oil Content, Bbls./A. Ft.	- - - - -	333.
Total Oil Content, Bbls./Acre	- - - - -	1,031.
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 Billy Gay Well No. 1

<u>Depth Interval, Feet</u>	<u>Description</u>
690.0 - 691.0	Light brown and gray laminated sandstone and shale.
691.0 - 691.3	Gray shale.
691.3 - 692.7	Light brown and gray laminated slightly calcareous sandstone and shale.
692.7 - 693.0	Gray shale.
693.0 - 693.7	Light brown and gray laminated sandstone and shale.
693.7 - 696.0	Gray shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company Diamond Oil Producers, Inc. Lease Billy Gay Well No. 1

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	690.5	17.3	27	68	95	362	1.4	1.0	1.0	362	1.40
2	691.5	22.6	26	43	69	456	3.8	0.7	1.7	319	2.66
3	692.5	11.5	31	64	95	277	Imp.	0.7	2.4	194	0.00
4	693.5	15.1	19	76	95	223	Imp.	0.7	3.1	156	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Diamond Oil Producers, Inc.	Lease	Billy Gay	Well No.	1
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
690.0 - 693.7	1.7	2.4	4.06		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
690.0 - 693.7	3.1	16.7	25.9	63.3	1,031