



OILFIELD RESEARCH LABORATORIES

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

December 7, 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 Gay Lease, Well No. 7, Montgomery County, Kansas, and submitted to our laboratory on November 28, 1979.

The core was sampled by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP/tem
5 c to Cherryvale, Kansas

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GENERAL INFORMATION & SUMMARY

Company Diamond Oil Producers, Inc Lease Gay Well No. 7

Location _____

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

Name of Sand	- - - - -	Wayside
Top of Core	- - - - -	655.0
Bottom of Core	- - - - -	673.0
Top of Sand	- - - - -	655.0
Bottom of Sand	- - - - -	668.9
Total Feet of Permeable Sand	- - - - -	14.0
Total Feet of Floodable Sand	- - - - -	

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 1	3.9	3.9	
1 - 5	5.1	9.0	
10 - 20	2.0	11.0	
35 & Above	3.0	14.0	
Average Permeability Millidarcys	- - - - -		12.5
Average Percent Porosity	- - - - -		16.9
Average Percent Oil Saturation	- - - - -		21.1
Average Percent Water Saturation	- - - - -		61.2
Average Oil Content, Bbls./A. Ft.	- - - - -		283.
Total Oil Content, Bbls./Acre	- - - - -		4,210.
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

Name Diamond Oil Producers, Inc. Lease Gay Well No. 7

<u>Depth Interval, Feet</u>	<u>Description</u>
655.0 - 656.2	Grayish brown fine grained sandstone.
656.2 - 664.1	Light brown fine grained sandstone.
664.1 - 668.9	Alternate thin layers of shaly sandstone and sandy shale.
668.9 - 673.0	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Diamond Oil Producers, Incorporated Lease Gay Well No. 7

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.	Comp. Ft.		
1	655.5	16.5	26	48	333	47.	1.2	1.2	400	56.40
2	656.5	18.8	31	40	452	48.	0.8	2.0	362	38.40
3	657.5	17.3	28	46	376	35.	1.0	3.0	376	35.00
4	658.5	19.5	31	45	469	16.	1.0	4.0	469	16.00
5	659.5	18.8	23	51	336	13.	1.0	5.0	336	13.00
6	660.5	19.2	26	52	387	4.2	1.0	6.0	387	4.20
7	661.5	17.2	21	59	280	3.6	1.0	7.0	280	3.60
8	662.5	16.5	14	60	179	2.7	1.0	8.0	179	2.70
9	663.5	16.2	33	57	415	1.2	1.1	9.1	457	1.32
10	664.5	15.9	19	69	234	0.50	0.9	10.0	211	0.45
11	665.5	15.4	21	72	251	1.7	1.0	11.0	251	1.70
12	666.5	16.0	4	84	50	0.89	1.0	12.0	50	0.89
13	667.5	14.4	11	85	123	0.24	1.0	13.0	123	0.24
14	668.5	17.1	19	64	252	Imp.	0.9	13.9	227	0.00
15	669.5	14.6	9	86	102	0.34	1.0	14.9	102	0.34

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Diamond Oil Producers, Incorporated		Lease	Gay	Well No.	
Depth Interval, Feet		Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
655.0 - 664.1		9.1	18.8	170.62		
664.1 - 669.9		4.9	0.74	3.62		
655.0 - 669.9		14.0	12.5	174.24		

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
655.0 - 664.1	9.1	17.7	25.9	51.1	357	3,246
664.1 - 669.9	5.8	15.5	13.7	77.0	166	964
655.0 - 669.9	14.9	16.9	21.1	61.2	283	4,210