



OILFIELD RESEARCH LABORATORIES

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

December 12, 1979

Perpetual Oil & Gas Company
P.O. Box 826
Eldorado, Kansas 67042

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Mann Lease, Well No. 5, Elk County, Kansas, and submitted to our laboratory on December 9, & 10, 1979.

The core was sampled by a representative of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP/tem
5 c to Eldorado, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

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GENERAL INFORMATION & SUMMARY

Company	Perpetual Oil & Gas Co.	Lease	Mann	Well No.	5
Location	SE				
Section	10	Twp.	31S	Rge.	12E
		County	Elk		State
					Kansas
Name of Sand					Bartlesville
Top of Core					1393.0
Bottom of Core					1405.5
Top of Sand					1393.0
Bottom of Sand					1395.7
Total Feet of Permeable Sand					2.7
Total Feet of Floodable Sand					
Distribution of Permeable Sand:					
Permeability Range Millidarcys	Feet		Cum. Ft.		
0 - 3	1.4		1.4		
3 & Above	1.3		2.7		
Average Permeability Millidarcys					4.2
Average Percent Porosity					12.9
Average Percent Oil Saturation					24.4
Average Percent Water Saturation					60.2
Average Oil Content, Bbls./A. Ft.					250.
Total Oil Content, Bbls./Acre					674.
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 Perpetual Oil & Gas Company Lease Mann Well No. 5

Depth Interval,
Feet

Description

1393.0 - 1394.3

Light brown shaly sandstone.

1394.3 - 1395.7

Light brown very shaly sandstone.

1395.7 - 1405.5

Gray shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Perpetual Oil & Gas Company

Lease Mann

Well No. 5

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	1393.5	13.7	34	48	82	361	6.2	1.3	1.3	469	8.06
2	1394.5	11.0	16	80	96	137	2.4	0.7	2.0	96	1.68
3	1395.5	13.4	15	63	78	156	2.4	0.7	2.7	109	1.68