



OILFIELD RESEARCH LABORATORIES

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

December 18, 1980

Mid-States Petroleum Corporation
P. O. Box 402
Paola, Kansas 66071

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Paulson Lease, Well No. 4, located in Miami County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and submitted to our laboratory on December 5, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Paola, Kansas

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GENERAL INFORMATION & SUMMARY

Company Mid-States Petroleum Corp. Lease Paulson Well No. 4
 Location -
 Section 31 Twp. 16S Rge. 24E County Miami State Kansas

Elevation, Feet	-
Name of Sand	-
Top of Core	590.0
Bottom of Core	605.6
Top of Sand	590.0
Bottom of Sand	605.6
Total Feet of Permeable Sand	14.4

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

	Feet	Cum. Ft.
100 - 200	4.4	4.4
200 - 300	6.0	10.4
300 - 400	2.0	12.4
400 - 500	1.0	13.4
500 & Above	1.0	14.4

Average Permeability Millidarcys	273.4
Average Percent Porosity	23.5
Average Percent Oil Saturation	59.1
Average Percent Water Saturation	10.5
Average Oil Content, Bbls./A. Ft.	1,093.
Total Oil Content, Bbls./Acre	17,053.

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LOG

Name Mid-States Petroleum Corp. Lease Paulson Well No. 4

<u>Depth Interval, Feet</u>	<u>Description</u>
590.0 - 591.0	Dark brown slightly calcareous sandstone.
591.0 - 592.2	Grayish brown very shaly sandstone.
592.2 - 605.6	Dark brown slightly calcareous sandstone.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

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	590.5	22.4	74	15	1286	571.	1.0	1.0	1286	571.00
2	591.5	11.1	41	41	353	Imp.	1.2	2.2	424	0.00
3	592.4	24.1	69	9	1290	203.	1.0	3.2	1290	203.00
4	593.6	27.0	71	7	1487	115.	1.0	4.2	1487	115.00
5	594.5	23.2	58	12	1044	408.	1.0	5.2	1044	408.00
6	595.5	23.6	57	7	1044	273.	1.0	6.2	1044	273.00
7	596.7	25.5	63	7	1246	259.	1.0	7.2	1246	259.00
8	597.5	23.1	53	12	950	399.	1.0	8.2	950	399.00
9	598.5	25.1	55	9	1071	253.	1.0	9.2	1071	253.00
10	599.5	25.3	59	10	1158	131.	1.0	10.2	1158	131.00
11	600.5	24.5	56	4	1064	189.	1.0	11.2	1064	189.00
12	601.5	25.4	62	4	1222	137.	1.0	12.2	1222	137.00
13	602.5	23.6	55	5	1007	296.	1.0	13.2	1007	296.00
14	603.5	26.2	60	3	1220	280.	1.0	14.2	1220	280.00
15	604.5	25.5	56	9	1108	371.	1.0	15.2	1108	371.00
16	605.4	23.2	60	3	1080	130.	0.4	15.6	432	52.00

Company Mid-States Petroleum Corp. Lease Paulson Well No. 4

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Well No.			
Mid-States Petroleum Corp.		Paulson		4			
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Porosity	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
590.0 - 605.6	14.4	273.4	3,937.00				
590.0 - 605.6	15.6			23.5	59.1	1,093	17,053