

OILFIELD RESEARCH LABORATORIES

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October 24, 1980

Mid-States Energy Corporation
P.O. Box 371
Paola, Kansas 66071

Gentlemen:

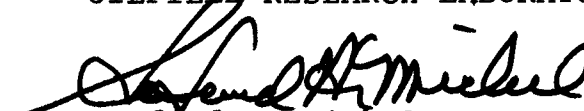
Enclosed herewith are the results of tests run on the rotary core taken from the Edwards Lease, Well No. 1, Miami County, Kansas.

The core was sampled and sealed in plastic bags by a representative of Oilfield Research Laboratories and submitted to our laboratory on September 18, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Sanford A. Michel

SAM/tem

5 c to Paola, Kansas

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GENERAL INFORMATION & SUMMARY

Company Mid-States Energy Corporation Lease Edwards Well No. 1
 Location -
 Section 31 Twp. 16S Rge. 24E County Miami State Kansas

Elevation, Feet	
Name of Sand	
Top of Core	560.0
Bottom of Core	592.0
Top of Sand	560.0
Bottom of Sand	585.7
Total Feet of Permeable Sand	24.9

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 10	8.3	8.3
10 - 50	2.9	11.2
50 - 100	2.0	13.2
100 - 200	8.3	21.5
200 & Above	3.4	24.9

Average Permeability Millidarcys	102.5
Average Percent Porosity	21.6
Average Percent Oil Saturation	50.2
Average Percent Water Saturation	19.3
Average Oil Content, Bbls./A. Ft.	838.
Total Oil Content, Bbls./Acre	20,866.

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LOGName Mid-States Energy Corporation Lease Edwards Well No. 1

<u>Depth Interval, Feet</u>	<u>Description</u>
560.0 - 562.6	Dark brown slightly calcareous sandstone.
562.6 - 563.8	Brown and gray laminated slightly calcareous sandstone and shale.
563.8 - 565.8	Dark brown slightly calcareous sandstone.
565.8 - 567.3	Brown and gray conglomeratic slightly calcareous sandstone and shale.
567.3 - 568.7	Dark brown slightly calcareous sandstone.
568.7 - 569.6	Brown and gray laminated sandstone and shale.
569.6 - 571.7	Dark brown slightly calcareous sandstone.
571.7 - 572.2	Brown and gray laminated sandstone and shale.
572.2 - 572.4	Gray sandy shale.
572.4 - 573.1	Brown and gray conglomeratic slightly calcareous sandstone and shale.
573.1 - 579.0	Brown and gray laminated sandstone and shale.
579.0 - 581.7	Dark brown slightly calcareous sandstone.
581.7 - 582.9	Grayish brown very shaly sandstone.
582.9 - 584.1	Dark brown slightly calcareous sandstone.
584.1 - 584.2	Coal.
584.2 - 585.7	Dark brown slightly calcareous sandstone.
585.7 - 586.1	Coal.
586.1 - 592.0	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Mid-States Energy, Corporation Lease Edwards 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.	Vert. Perm.
			Oil	Water			Ft.	Cum. Ft.			
1	560.5	23.1	45	14	806	86.	1.0	1.0	806	86.00	56.
2	561.5	25.3	51	10	1001	153.	1.0	2.0	1001	153.00	105.
3	562.5	23.8	47	11	868	105.	0.6	2.6	521	63.00	6.5
4	563.5	19.4	51	17	768	3.9	1.2	3.8	922	4.68	12.
5	564.5	23.8	52	10	960	25.	1.0	4.8	960	25.00	105.
6	565.5	20.2	49	14	768	51.	1.0	5.8	768	51.00	145.
7	566.5	16.3	65	25	822	324.	1.5	7.3	1233	486.00	52.
8	567.5	20.3	52	18	819	16.	1.0	8.3	819	16.00	60.
9	568.5	18.2	46	24	650	121.	9.4	8.7	260	48.40	*
10	569.5	23.9	55	12	1020	1.7	0.9	9.6	918	1.53	113.
11	570.5	25.0	58	10	1125	115.	1.0	10.6	1125	115.00	14.
12	571.5	24.2	55	8	1033	113.	1.1	11.7	1136	124.00	145.
13	572.5	19.2	36	35	536	203.	0.7	12.4	375	142.00	Imp.
14	573.5	21.3	49	13	810	0.32	1.0	13.4	810	0.32	9.9
15	574.5	18.4	29	42	414	0.47	1.0	14.4	414	0.47	*
16	575.5	18.8	50	19	729	6.3	1.0	15.4	729	6.30	13.
17	576.5	18.0	46	21	642	9.6	1.0	16.4	642	9.60	*
18	577.5	18.1	40	28	562	8.5	1.0	17.4	562	8.50	*
19	578.5	16.2	29	49	365	46.	0.9	18.3	329	41.40	*
20	579.5	24.3	55	12	1037	166.	1.0	19.3	1037	166.00	29.
21	580.5	24.3	46	17	867	199.	1.0	20.3	867	199.00	163.
22	581.5	26.6	58	16	1197	184.	0.7	21.0	838	128.80	Imp.
23	582.5	19.9	41	16	633	0.25	1.2	22.2	760	0.30	141.
24	583.5	26.2	65	12	1321	346.	1.2	23.4	1585	415.20	145.
25	584.5	24.2	56	12	1051	192.	1.0	24.4	1051	192.00	9.9
26	585.5	20.5	50	19	795	137.	0.5	24.9	398	68.50	2.2

NOTE: * Vertical permeability samples unobtainable.

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Lease	Edwards	Well No.
Mid-States Energy Corporation		Edwards	1
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys
			Permeability Capacity Ft. x Md.
	560.0 - 585.7	24.9	102.5
			2552.0
	Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity
			Average Percent Saturation
			Average Oil Content Bbl./A. Ft.
			Total Oil Content Bbla./Acre
	560.0 - 585.7	24.9	21.6
			50.2
			19.3
			838
			20,866