

OILFIELD RESEARCH LABORATORIES

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

February 12, 1980

Apache Resources Corporation
1717 Kentucky Avenue
Joplin, Missouri 64801

Gentlemen:

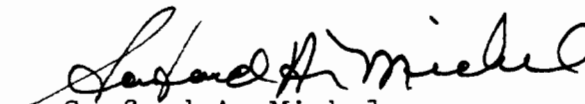
Enclosed herewith are the results of tests run on the rotary core taken from the Goley Lease, Well No. JG-5, Crawford County, Kansas, and submitted to our laboratory on January 31, 1980.

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



Sanford A. Michel

SAM/tem

4 c to Joplin, Missouri
1 c to Chanute, Kansas

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GENERAL INFORMATION & SUMMARY

Company Apache Resources Corporation Lease Goley Well No. JG-5

Location NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$

Section 17 Twp. 28S Rge. 22E County Crawford State Kansas

Elevation, Feet

Name of Sand Tucker

Top of Core 511.0

Bottom of Core 529.2

Top of Sand 511.0

Bottom of Sand (Tested) . . . 528.6

Total Feet of Permeable Sand 17.6

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 1	8.5	8.5
1 - 4	3.7	12.2
10 - 20	2.0	14.2
40 - 50	1.7	15.9
55 & Above	1.7	17.6

Average Permeability Millidarcys 12.4

Average Percent Porosity 16.8

Average Percent Oil Saturation 37.1

Average Percent Water Saturation 37.8

Average Oil Content, Bbls./A. Ft. 490.

Total Oil Content, Bbls./Acre 8,620.

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LOGName Apache Resources Corp. Lease Goley Well No. JG-5

<u>Depth Interval, Feet</u>	<u>Description</u>
511.0 - 517.3	Brown and gray laminated sandstone and shale.
517.3 - 518.7	Dark brown sandstone.
518.7 - 520.9	Brown and gray laminated sandstone and shale.
520.9 - 528.6	Gray shaly carbonaceous sandstone.
528.6 - 529.2	Gray laminated shale and sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Apache Resources Corporation Lease Goley Well No. JG-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			Ft.	Cum. Ft.		
1	511.5	13.4	35	40	364	18.	1.0	1.0	364	18.00
2	512.5	12.0	33	61	307	44.	1.0	2.0	307	44.00
3	513.5	13.7	37	48	393	58.	1.0	3.0	393	58.00
4	514.5	18.8	49	29	715	11.	1.0	4.0	715	11.00
5	515.5	18.2	24	42	339	3.9	1.0	5.0	339	3.90
6	516.5	17.0	51	21	673	0.44	1.3	6.3	875	0.57
7	517.5	14.9	13	61	150	60.	0.7	7.0	105	42.00
8	518.5	19.7	27	42	413	46.	0.7	7.7	289	32.20
9	519.5	20.7	52	14	835	0.45	1.2	8.9	1002	0.54
10	520.5	16.5	37	43	474	0.31	1.0	9.9	474	0.31
11	521.5	16.5	41	40	525	0.63	1.0	10.9	525	0.63
12	522.5	17.1	32	46	425	0.45	1.0	11.9	425	0.45
13	523.5	16.7	36	31	466	0.50	1.0	12.9	466	0.50
14	524.5	17.1	43	26	570	0.92	1.0	13.9	570	0.92
15	525.5	18.6	45	20	649	1.4	1.0	14.9	649	1.40
16	526.5	15.2	32	57	377	0.98	1.0	15.9	377	0.98
17	527.5	19.4	32	35	482	1.2	1.0	16.9	482	1.20
18	528.5	17.3	28	44	376	1.4	0.7	17.6	263	0.98

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Apache Resources Corporation		Lease		Goley		Well No.		JG--5	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Total Oil Content Bbls./Acre
511.0 - 528.6	17.6	12.4	217.58								
511.0 - 528.6	17.6	16.8							37.1	37.8	8,620