

OILFIELD RESEARCH LABORATORIES

• REGISTERED ENGINEERS •

700 NORTH MISSION
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Chanute, Kansas

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September 19, 1962

A.W. Pugh Oil Company
Box 50
Columbus, Kansas

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Cook Lease, Well No. 1, Montgomery County, Kansas, and submitted to our laboratory on September 13, 1962.

This core was sampled and the samples sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP:rf

5 c.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company A.W. Pugh Oil Co. Lease Cook Well No. 1

Location Lot 3

Section 5 Twp. 31S Rge. 17E County Montgomery State Kansas

Name of Sand - - - - - Bartlesville

Top of Core - - - - - 828.0

Bottom of Core - - - - - 853.0

Top of Sand - - - - - 828.0

Bottom of Sand - - - - - 823.0

Total Feet of Permeable Sand - - - - - 25.0

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 10	5.0	5.0
10 - 100	3.0	8.0
100 - 200	6.0	14.0
200 - 300	6.0	20.0
300 - 400	1.0	21.0
400 & above	4.0	25.0

Average Permeability Millidarcys - - - - - 186.8

Average Percent Porosity - - - - - 20.7

Average Percent Oil Saturation - - - - - 32.0

Average Percent Water Saturation - - - - - 45.4

Average Oil Content, Bbls./A. Ft. - - - - - 514.

Total Oil Content, Bbls./Acre - - - - - 12,869.

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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Company A.W. Pugh Oil Co. Lease Cook Well No. 1

Depth Interval, Description
Feet

828.0 - 837.0 - Light brown, slightly shaly sandstone.

837.0 - 842.0 - Brown sandstone.

842.0 - 853.0 - Light brown sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company			Lease			Cook			Well No.		
A.W. Pugh Oil Co.									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.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	828.5	17.5	24	46	70	326	10.	1.0	1.0	326	10.00
2	829.5	18.8	28	42	70	408	242.	1.0	2.0	408	242.00
3	830.5	18.3	28	45	73	397	8.4	1.0	3.0	397	8.40
4	831.5	19.5	27	51	78	409	2.2	1.0	4.0	409	2.20
5	832.5	19.2	42	43	85	625	36.	1.0	5.0	625	36.00
6	833.5	17.3	33	50	83	443	16.	1.0	6.0	443	16.00
7	834.5	22.1	50	33	83	857	370.	1.0	7.0	857	370.00
8	835.5	20.0	39	36	75	605	0.77	1.0	8.0	605	0.77
9	836.5	22.8	45	37	82	795	49.	1.0	9.0	795	49.00
10	837.5	22.2	49	32	81	842	429.	1.0	10.0	842	429.00
11	838.5	21.4	40	39	79	664	436.	1.0	11.0	664	436.00
12	839.5	21.3	43	35	78	710	2.0	1.0	12.0	710	2.00
13	840.5	22.1	44	31	75	753	242.	1.0	13.0	753	242.00
14	841.5	22.7	39	39	78	686	429.	1.0	14.0	686	429.00
15	842.5	22.3	27	40	67	466	475.	1.0	15.0	466	475.00
16	843.5	21.1	27	51	78	441	277.	1.0	16.0	441	277.00
17	844.5	20.9	22	55	77	356	222.	1.0	17.0	356	222.00
18	845.5	21.8	22	66	88	372	266.	1.0	18.0	372	266.00
19	846.5	18.9	15	64	79	220	171.	1.0	19.0	220	171.00
20	847.5	21.3	23	59	82	379	157.	1.0	20.0	379	157.00
21	848.5	20.2	18	56	74	282	199.	1.0	21.0	282	199.00
22	849.5	21.2	29	50	79	476	151.	1.0	22.0	476	151.00
23	850.5	21.0	31	45	76	505	130.	1.0	23.0	505	130.00
24	851.5	17.2	35	58	93	466	112.	1.0	24.0	466	112.00
25	852.5	26.2	19	34	53	386	232.	1.0	25.0	386	232.00
Total										12,869	

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Company A.W. Pugh Oil Co. Lease Cook Well No. 1

Depth Interval, Description
Feet

828.0 - 837.0 - Light brown, slightly shaly sandstone.

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Well No.	
A.W. Pugh Oil Co.		Cook		1	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
828.0 - 837.0	9.0	81.6	734.37		
837.0 - 842.0	5.0	307.6	1538.00		
842.0 - 853.0	11.0	217.5	2392.00		
828.0 - 853.0	25.0	186.8	4664.37		

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
828.0 - 837.0	9.0	19.5	35.2	42.6	541	4,865
837.0 - 842.0	5.0	21.9	43.0	35.2	730	3,655
842.0 - 853.0	11.0	21.2	24.4	52.5	395	4,349
828.0 - 853.0	25.0	20.7	32.0	45.4	514	12,869