OILFIELD RESEARCH LABORATORIES

- REGISTERED ENGINEERS -

813 EAST SIXTH
OKMULGEE, OKLAHOMA
PHONE: 4444

536 N. HIGHLAND
CHANUTE, KANSAS
PHONE: 728

Chanute, Kansas

June 9, 1961

A. W. Pugh Oil Company
Columbus, Kansas

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Joe Blaes Lease, Well No. 3, Montgomery County, Kansas, and submitted to our laboratory on June 5, 1961.

This core was sampled and the samples were sealed in cans by Mr. Pugh.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Fred O. Stenger

Fred O. Stenger

FOS:rf

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GENERAL INFORMATION & SUMMARY

Company A. W. Pugh Oil Co. Lease Joe Blaes Well No. 3

Location N½ NE¼

Section 30 Twp. 31S Rge. 17E County Montgomery State Kansas

Name of Sand	Bartlesville
Top of Core	736.0
Bottom of Core	790.0
Top of Sand	?
Bottom of Sand Upper (Received)	750.0
Total Feet of Permeable Sand	10.0
Total Feet of Floodable Sand	-

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	6.0	6.0
5 - 10	3.0	9.0
10 & above	1.0	10.0

Average Permeability Millidarcys (Upper Sand)	4.1
Average Percent Porosity (Upper Sand)	16.2
Average Percent Oil Saturation (Upper Sand)	30.2
Average Percent Water Saturation (Upper Sand)	46.8
Average Oil Content, Bbls./A. Ft. (Upper Sand)	392.
Total Oil Content, Bbls./Acre (Upper Sand)	5,486.
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 Joe Blaes Well No. 3

Depth Interval, Feet	Description
736.0 - 745.0	Grayish brown slightly shaley sandstone.
745.0 - 749.0	Brownish gray slightly shaley sandstone.
749.0 - 750.0	Gray shaley sandstone.
750.0 - 789.0	Core not received.
789.0 - 790.0	Hard dark slightly calcareous carbonaceous sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company A. W. Pugh Oil Co. Lease Joe Blaes Well No. 3

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	736.5	16.9	28	33	61	367	9.2	1.0	1.0	367	9.20
2	737.5	16.2	32	36	68	402	2.7	1.0	2.0	402	2.70
3	738.5	14.9	43	46	89	497	1.4	1.0	3.0	497	1.40
4	739.5	15.3	29	49	78	344	5.6	1.0	4.0	344	5.60
5	740.5	18.8	40	36	76	584	5.9	1.0	5.0	584	5.90
6	741.5	16.9	29	35	64	380	2.2	1.0	6.0	380	2.20
7	742.5	17.1	40	45	85	530	0.32	1.0	7.0	530	0.32
8	743.5	19.0	31	39	70	456	11.	1.0	8.0	456	11.00
9	744.5	18.0	26	42	68	363	2.6	1.0	9.0	363	2.60
10	745.5	18.4	36	37	73	514	0.34	1.0	10.0	514	0.34
11	746.5	14.7	34	58	92	388	Imp.	1.0	11.0	388	0.00
12	747.5	13.3	21	70	91	217	Imp.	1.0	12.0	217	0.00
13	748.5	14.3	18	64	82	200	Imp.	1.0	13.0	200	0.00
14	749.5	12.4	15	65	80	144	Imp.	1.0	14.0	144	0.00
15	789.5	8.3	27	20	47	173	Imp.	1.0	15.0	173	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company A. W. Pugh Oil Co. Lease Joe Blaes Well No. 3

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
736.0 - 746.0	10.0	4.1	41.26

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
736.0 - 746.0	10.0	17.2	33.4	39.8	444	4,437
746.0 - 750.0	4.0	13.7	22.0	64.2	262	1,049
736.0 - 750.0	14.0	16.2	30.2	46.8	392	5,486