

# OILFIELD RESEARCH LABORATORIES

813 EAST SIXTH  
OKMULGEE, OKLAHOMA  
PHONE: 1486

- REGISTERED ENGINEERS -  
Chanute, Kansas

536 N. HIGHLAND  
CHANUTE, KANSAS  
PHONE: 726

May 26, 1959

25-28-19E

Mr. James R. Fleming  
Box 74  
Erie, Kansas

Dear Sir:

Enclosed herewith are the results of tests run on the 2 3/16" Rotary core taken from the John Heady Lease, Well No. 3, Neosho County, Kansas, and submitted to our laboratory by you on May 20, 1959.

This core was sampled and the samples were sealed in jars by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

*Carl L. McElrea*  
Carl L. McElrea

CLM:cs

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JOHN HEADY 3

# Oilfield Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company James R. Fleming Lease John Heady Well No. 3

Location \_\_\_\_\_

Section 25 Twp. 28S Rge. 19E County Neosho State Kansas

Name of Sand	Bartlesville
Top of Core	517.3
Bottom of Core	527.0
Top of Sand	518.1
Good	
Bottom of Sand	523.3
Total Feet of Permeable Sand	5.6
Total Feet of Floodable Sand	-

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 15	1.7	1.7
15 - 30	1.2	2.9
30 & over	2.7	5.6

Average Permeability Millidarcys	28.4
Average Percent Porosity	19.6
Average Percent Oil Saturation	43.9
Average Percent Water Saturation	28.9
Average Oil Content, Bbls./A. Ft.	670.
Total Oil Content, Bbls./Acre	3,352.
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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LOG

Company James R. Fleming Lease John Heady Well No. 3

Depth Interval, Description  
Feet

- 517.3 - 518.1 - Finely laminated sandy shale.
- 518.1 - 520.1 - Brown fine grained micaceous sandstone.
- 520.1 - 520.3 - Finely laminated sandy shale.
- 520.3 - 523.3 - Brown fine grained micaceous sandstone.
- 523.3 - 525.0 - Dark fine grained micaceous carbonaceous sandstone.
- 525.0 - 527.0 - Gray sandy shale.

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**RESULTS OF PERMEABILITY TESTS**  
**TABLE I**

Company James R. Fleming Lease John Heady Well No. 3

Sample No.	Depth Feet	Permeability Millidarcys	Feet of Core		Permeability Capacity Ft. x Md.
			Ft.	Cum. Ft.	
1	518.4	26.	0.6	0.6	15.60
2	519.1	39.	0.8	1.4	31.20
3	520.0	15.	0.6	2.0	9.00
4	520.9	43.	0.9	2.9	38.70
5	521.6	55.	1.0	3.9	55.00
6	522.7	4.5	1.1	5.0	4.50
7	523.4	8.6	0.6	5.6	5.16

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## RESULTS OF SATURATION TESTS

### TABLE II

Company James R. Fleming Lease John Heady Well No. 3

Sat. No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls./A. Ft.	Feet of Core		Total Oil Content Bbls./Acre
			Oil	Water	Total		Ft.	Cum. Ft.	
1	518.2	18.5	44	33	77	630	0.5	0.5	315
2	518.9	21.0	44	28	72	715	0.8	1.3	572
3	519.8	20.4	52	27	79	822	0.7	2.0	575
4	520.7	19.9	51	26	77	788	0.7	2.7	552
5	521.4	20.0	42	23	65	652	1.0	3.7	652
6	522.5	18.2	34	37	71	480	0.9	4.6	432
7	523.2	18.6	44	30	74	635	0.4	5.0	254
							Total-	- - - - -	-3,352

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company James R. Fleming Lease John Heady Well No. 3

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
518.1 - 523.9	5.6	28.4	159.16

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 Bbl./Acre
518.1 - 523.3	5.0	19.6	43.9	28.9	670	3,352