



OILFIELD RESEARCH LABORATORIES

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

November 28, 1979

The Marshall Petroleum Company
119 North Eighth Street
Humboldt, Kansas 66748

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Wolf Lease, Well No. 1, Woodson County, Kansas, and submitted to our laboratory on November 13, 1979.

The core was sampled by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP/tem
5 c to Humboldt, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

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GENERAL INFORMATION & SUMMARY

Company The Marshall Petroleum Co. Lease Wolf Well No. 1

Location -

Section 10 Twp. 26S Rge. 17E County Woodson State Kansas

Name of Sand	Bartlesville
Top of Core	955.0
Bottom of Core	973.1
Top of Sand	955.0
Bottom of Sand	972.0
Total Feet of Permeable Sand	13.6
Total Feet of Floodable Sand	

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 10	0.7	0.7
10 - 20	6.7	7.4
20 - 40	3.2	10.6
40 & Above	3.0	13.6

Average Permeability Millidarcys	29.8
Average Percent Porosity	19.0
Average Percent Oil Saturation	27.3
Average Percent Water Saturation	50.2
Average Oil Content, Bbls./A. Ft.	408.
Total Oil Content, Bbls./Acre	5,544.
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

Name The Marshall Petroleum Co. Lease Wolf Well No. 1

Depth Interval,
Feet

Description

955.0 - 958.7

Dark fine grained sandstone.

958.7 - 960.0

Dark and gray shaly sandstone.

960.0 - 961.9

Gray shaly sandstone.

961.9 - 962.7

Brown sandstone.

962.7 - 966.8

Grayish brown sandstone.

966.8 - 972.0

Brown medium grained sandstone.

972.0 - 973.1

Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company The Marshall Petroleum Company Lease Wolf 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.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	955.5	19.6	31	50	81	471	55.	1.0	1.0	471	55.00
2	956.3	20.5	38	39	77	604	15.	0.7	1.7	423	10.50
3	957.0	19.9	37	33	70	571	19.	1.0	2.7	571	19.00
4	958.2	20.1	39	37	76	608	23.	1.0	3.7	608	23.00
5	960.2	17.7	32	38	70	439	3.5	0.7	4.4	307	2.45
6	961.0	18.5	20	63	83	287	11.	1.2	5.6	344	13.20
7	962.0	20.3	47	37	84	740	15.	0.8	6.4	592	12.00
8	963.2	17.5	22	56	78	299	14.	1.0	7.4	299	14.00
9	964.3	19.5	26	48	74	393	15.	1.0	8.4	393	15.00
10	966.0	17.1	20	64	84	265	26.	1.0	9.4	265	26.00
11	966.9	17.2	12	62	74	160	58.	1.0	10.4	160	58.00
12	967.9	18.7	22	57	79	319	39.	1.2	11.6	383	46.80
13	969.3	19.5	23	53	76	348	18.	1.0	12.6	348	18.00
14	971.2	20.4	24	52	76	380	93.	1.0	13.6	380	93.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company <u>The Marshall Petroleum Company</u>		Lease <u>Wolf</u>		Well No. <u>1</u>	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
955.0 - 972.0	13.6	29.8	405.95		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbbl./Acre
955.0 - 972.0	13.6	19.0	27.3	50.2	5,544