

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

January 11, 1980

Hillenburg Oil Company 116th Street & South Lynn Lane Road Broken Arrow, Oklahoma 74012

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Woodward "B" Lease, Well No. 8, Bourbon County, Kansas, and submitted to our laboratory on December 17, 1979.

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

3 c to Broken Arrow, Oklahoma

2 c to Bronson, Kansas

T245, R222 1 2.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Hillenburg Oil	Company	Lease Woodward "B"	
Location			
Section Twp Rge	c	ountyBourbon	State Kansas
Elevation, Feet			
Name of Sand			Tucker
Top of Core			684.0
Bottom of Core			693.0
Top of Sand			684.3
Bottom of Sand			691.0
Total Feet of Permeable Sand			6.7
Total Feet of Floodable Sand			
Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.	
0 - 15	2.7	2.7	
15 - 35	2.0	4.7	
45 & Above	2.0	6.7	
Average Permeability Millidarcys			32.5
Average Percent Porosity			12.0
Average Percent Oil Saturation -			61.1
Average Percent Water Saturation			32.9
Average Oil Content, Bbls./A. Ft		. 	581.
Total Oil Content, Bbls./Acre -			3,892.
Average Percent Oil Recovery by La	boratory Flooding Tests		
Average Oil Recovery by Laboratory	Flooding Tests, Bbls./A	Ft	·
Total Oil Recovery by Laboratory Flo	ooding Tests, Bbls./Acre		
Total Calculated Oil Recovery, Bbls./	Acre	· · · ·	

OILFIELD RESEARCH LABORATORIES

LOG

Name_	Hillenburg Oil	Company Lease Woodward "B" Well No. 8						
Depth	Interval, Feet	Description						
684.0	- 684.3	Gray sandy shale.						
684.3	- 685.0	Brown shaly sandstone containing a vertical fracture.						
685.0	- 689.9	Dark brown calcareous sandstone containing a vertical fracture.						
689.9	- 691.0	Brown slightly shaly slightly calcareous sandstone.						
691.0	- 693.0	Gray shale.						

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Hillenburg Oil Company

Lease Woodward "B"

Well No. 8

Sample Depth, Eff	Feet	7	684.5	685.3	686.3	687.7			689.2
Effective Percer	ПО	 	14.2 64	40	60	72	70	15.5 76	
Percent Saturation	Water Total B		34 98	51 . 91		25 97	23 93		
Oil Content	 							914	
Perm.					···		~	12.) -
Feet of Sand	Ft. Cum. Ft.		0.7 0.7				1.0 4.7	0.9 5.6	-
Total Oil	Content	-	494	251	. 354	693	641	823	636
Pen	Capacity Ft. X md.)	2.10	97.00	19.C	49.00	30.00	10.80	9.90

		Company		
684.3 - 691.0	Depth Interval, Feet	<u> Hillenburg Oil Company</u>		15
6.7	Feet of Core Analyzed		TABI	MHARY OF PERMEABIL
32.5	Average Permeability, Millidarcys	Lease Woodward "B"	TABLE III	SUMMARY OF FERMEABILITY & SATURATION TESTS
217.80	Permeability Capacity Ft. x Md.	Well No.		

Oilfield Research Laboratories

684.3 - 691.0

6.7

12.0

61.1

32.9

189

3,892

Depth Interval,

Feet of Core Analyzed

Average Percent Percenty

Average Percent Oil Saturation

Average Percent Water Saturation

Average
Oil Content
Bbl./A. Ft.

Total Oil Content Bbis./Acre