

OILFIELD RESEARCH LABORATORIES

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

December 27, 1980

Hillenburg Oil Company
P. O. Box 94
Bronson, Kansas 66716

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Ermel "B" Lease, Well No. 22, located in Bourbon County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and submitted to our laboratory on December 16, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Bronson, Kansas

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GENERAL INFORMATION & SUMMARY

Company Hillenburg Oil Company Lease Ermel "B" Well No. 22
 Location -
 Section 28 Twp. 24S Rge. 22E County Bourbon State Kansas

Elevation, Feet	-
Name of Sand	Bartlesville
Top of Core	643.0
Bottom of Core	657.3
Top of Sand	643.0
Bottom of Sand	657.3
Total Feet of Permeable Sand	14.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 50	3.3	3.3
50 - 100	4.7	8.0
100 - 300	4.0	12.0
300 & Above	2.0	14.0

Average Permeability Millidarcys	159.2
Average Percent Porosity	20.7
Average Percent Oil Saturation	59.4
Average Percent Water Saturation	32.3
Average Oil Content, Bbls./A. Ft.	958.
Total Oil Content, Bbls./Acre	13,414.

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LOG

Name Hillenburg Oil Company Lease Ermel "B" Well No. 22

<u>Depth Interval, Feet</u>	<u>Description</u>
643.0 - 649.9	Dark brown slightly calcareous sandstone containing a vertical fracture.
649.9 - 650.2	Hard gray limestone.
650.2 - 657.3	Dark brown slightly calcareous sandstone containing a vertical fracture.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Hillenburg Oil Company Lease Ermel "B" Well No. 22

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	643.5	21.0	40	55	95	652	266.	1.0	1.0	652	266.00
2	644.5	21.6	43	48	91	721	280.	1.0	2.0	721	280.00
3	645.5	21.0	51	41	92	863	192.	1.0	3.0	863	192.00
4	646.4	21.5	69	23	92	1151	371.	1.0	4.0	1151	371.00
5	647.6	19.3	55	39	94	824	94.	1.0	5.0	824	94.00
6	648.5	22.3	55	40	95	952	463.	1.0	6.0	952	463.00
7	649.5	22.7	60	33	93	1057	84.	0.9	6.9	951	75.60
8	650.5	19.6	48	45	93	730	80.	0.8	7.7	584	64.00
9	651.5	17.4	49	45	94	661	181.	1.0	8.7	661	181.00
10	652.5	20.0	72	24	96	1117	20.	1.0	9.7	1117	20.00
11	653.5	22.1	73	20	93	1252	92.	1.0	10.7	1252	92.00
12	654.5	21.8	71	16	87	1201	43.	1.0	11.7	1201	43.00
13	655.4	20.3	70	14	84	1102	54.	1.0	12.7	1102	54.00
14	656.6	19.6	70	17	87	1064	26.	1.3	14.0	1383	33.80

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SUMMARY OF PERMEABILITY & SATURATION TESTS

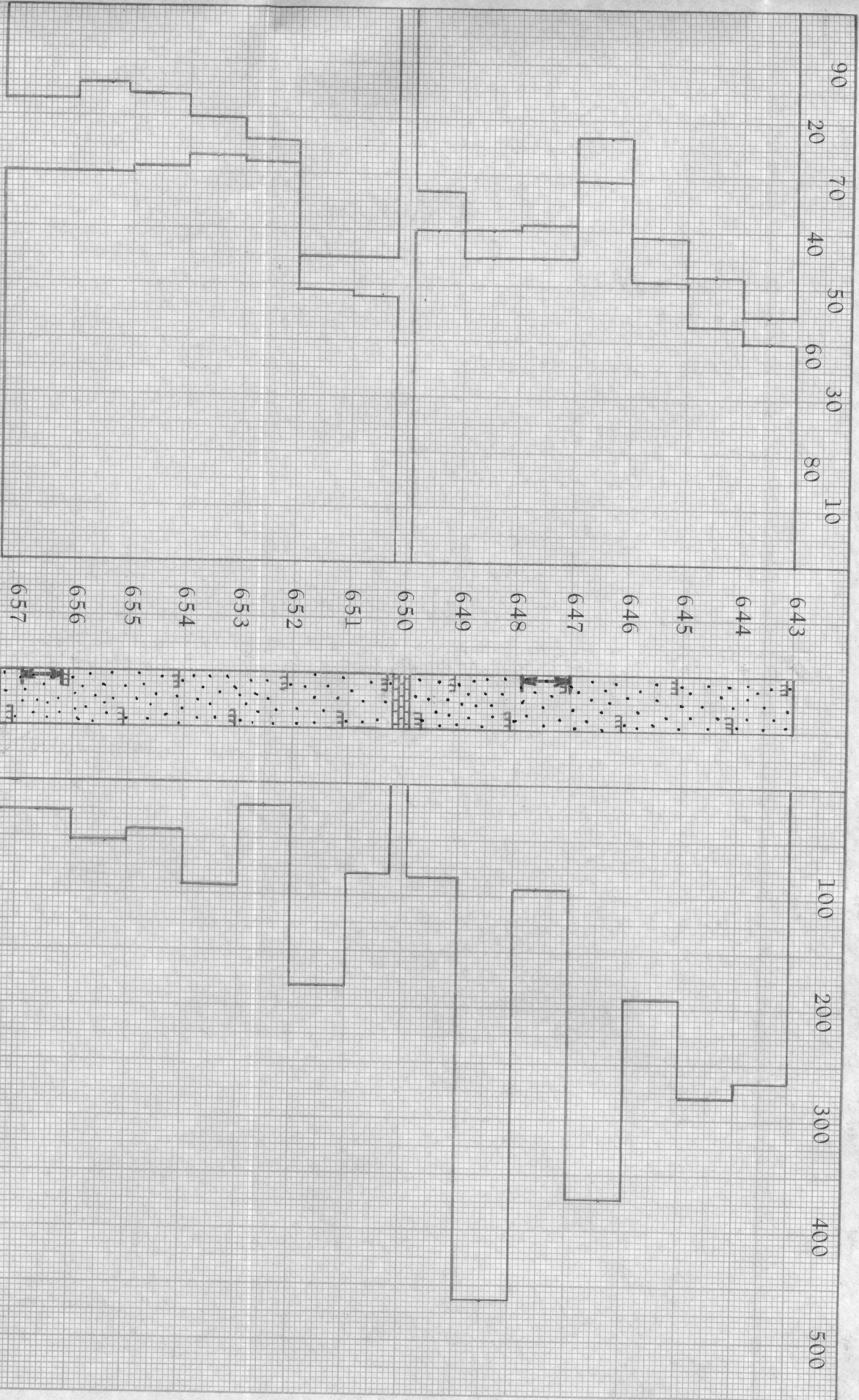
TABLE III

Company	Hillenburg Oil Company	Lease	Ermel "B"	Well No.	22
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	
	643.0 - 657.3	14.0	159.2	2,229.40	
	Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Total Oil Content Bbls./Acre
	643.0 - 657.3	14.0	59.4	32.3	13,414
				958	

WATER SAT., PERCENT

K&E 10 X 10 TO THE CENTIMETER .25 X .38 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

471512
PERMEABILITY, IN MILLIDARCS



KEY:

CALCAREOUS SANDSTONE w/Vertical Fracture

LIMESTONE



CALCAREOUS SANDSTONE w/Vertical
Fracture



LIMESTONE

HILLENBURG OIL COMPANY

ERMEL (B) LEASE

BOURBON COUNTY, KANSAS

WELL NO. 22

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY MILLIDARCYs
643.0 - 657.3	14.0	20.7	59.4	32.3	159.2

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CHANUTE, KANSAS
DECEMBER, 1980

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