

OILFIELD RESEARCH LABORATORIES

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

December 24, 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. 23, 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/mkf

5 c to Bronson, Ks.

Oilfield Research Laboratories
GENERAL INFORMATION & SUMMARY

Company Hillenburg Oil Company Lease Ermel "B" Well No. 23
 Location _____
 Section 28 Twp. 24S Rge. 22E County Bourbon State Kansas

Elevation, Feet	-
Name of Sand	Bartlesville
Top of Core	645.0
Bottom of Core	656.4
Top of Sand	645.0
Bottom of Sand	656.2
Total Feet of Permeable Sand	11.2

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 20	3.8	3.8
20 - 40	3.2	7.0
40 - 100	3.2	10.2
100 & Above	1.0	11.2

Average Permeability Millidarcys	54.9
Average Percent Porosity	20.5
Average Percent Oil Saturation	58.3
Average Percent Water Saturation	31.2
Average Oil Content, Bbls./A. Ft.	934.
Total Oil Content, Bbls./Acre	10,459.

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LOG

Name Hillenburg Oil Co. Lease Ermel "B" Well No. 23

Depth Interval, <u>Feet</u>	<u>Description</u>
645.0 - 650.1	Dark brown slightly calcareous sandstone.
650.1 - 650.8	Dark brown and gray laminated slightly calcareous sandstone and shale.
650.8 - 656.2	Dark brown slightly calcareous sandstone.
656.2 - 656.4	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Hillenburg Oil Company Lease Erme1 "B" Well No. 23

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	645.5	19.6	43	55	98	654	288.	1.0	1.0	654	288.00
2	646.6	20.1	55	35	90	858	32.	1.0	2.0	858	32.00
3	647.5	17.6	73	11	84	997	13.	1.0	3.0	997	13.00
4	648.5	22.0	57	31	88	973	28.	1.0	4.0	973	28.00
5	649.6	21.7	52	31	83	875	15.	1.1	5.1	963	16.50
6	650.5	19.3	54	40	94	809	6.7	0.7	5.8	566	4.69
7	651.7	22.4	62	28	90	1077	68.	1.2	7.0	1292	81.60
8	652.5	21.3	51	43	94	843	44.	1.0	8.0	843	44.00
9	653.5	22.3	61	25	86	1055	42.	1.0	9.0	1055	42.00
10	654.6	18.0	61	32	93	852	20.	1.0	10.0	852	20.00
11	655.5	20.7	73	18	91	1172	38.	1.2	11.2	1406	45.60

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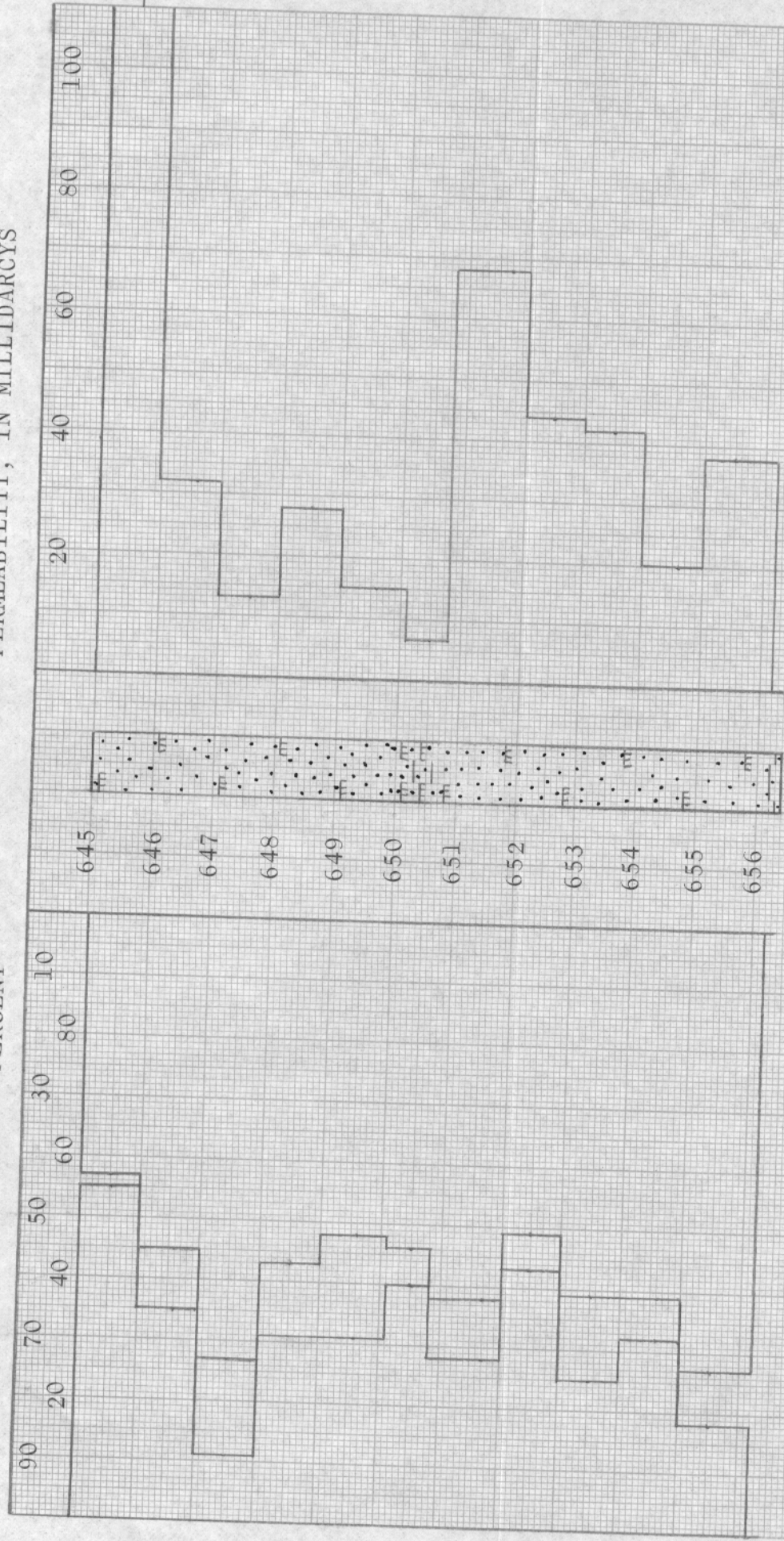
SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Hillenburg Oil Company		Lease	Ermel "B"	Well No.	23
Depth Interval, Feet	Feet of Core Analyzed	Average Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Total Oil Content Bbls./Acre
645.0 - 656.2	11.2	20.5	58.3	31.2	54.9	615.39	10,459
645.0 - 656.2	11.2	20.5	58.3	31.2	54.9	615.39	10,459

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WATER SAT., PERCENT $\longrightarrow$ OIL SAT., PERCENT
 $\longleftarrow$ PERMEABILITY, IN MILLIDARCYS



KEY:

-  CALCAREOUS SANDSTONE
-  SANDY SHALE

LAMINATED CALCAREOUS SANDSTONE & SHALE

KEY:



CALCAREOUS SANDSTONE



LAMINATED CALCAREOUS SANDSTONE & SHALE



SANDY SHALE

HILLENBURG OIL COMPANY

ERMEL (B) LEASE

WELL NO. 23

BOURBON COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE		AVG. OIL		AVG. WATER		AVERAGE	
		POROSITY PERCENT	SATURATION PERCENT	SATURATION PERCENT	SATURATION PERCENT	SATURATION PERCENT	SATURATION PERCENT	PERMEABILITY MILLIDARCS	PERMEABILITY MILLIDARCS

645.0 - 656.2

11.2

20.5

58.3

31.2

54.9

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CHANUTE, KANSAS
DECEMBER, 1980 SO