

# OILFIELD RESEARCH LABORATORIES

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

May 28, 1982

Bishop Oil & Refining Co.  
P. O. Box 652  
Independence, Kansas 67301

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core samples taken from the T. Mitchell Lease, Well No. 1, located in Montgomery County, Kansas.

The core samples were sampled and sealed in plastic bags by a representative of the client and were submitted to our laboratory on May 26, 1982. In examining these core samples, it is assumed that each sample represents one foot of core.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

*Sanford A. Michel*  
by A.D.

Sanford A. Michel

SAM/kas

5 c to Independence, Kansas

- REGISTERED ENGINEERS -

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

**Oilfield Research Laboratories**  
**GENERAL INFORMATION & SUMMARY**

Company Bishop Oil & Refining Co. Lease T. Mitchell Well No. 1  
 Location \_\_\_\_\_  
 Section 3 Twp. 33S Rge. 16E County Montgomery State Kansas

Elevation, Feet .....  
 Name of Sand..... Peru  
 Top of Core ..... 461.0  
 Bottom of Core ..... 481.0  
 Top of Sand ..... 461.0  
 Bottom of Sand ..... 481.0  
 Total Feet of Permeable Sand ..... 20.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.	
20 - 40	4.0	4.0	
40 - 60	9.0	13.0	
60 - 80	4.0	17.0	
80 - 110	3.0	20.0	
Average Permeability Millidarcys .....			55.4
Average Percent Porosity .....			17.8
Average Percent Oil Saturation .....			25.8
Average Percent Water Saturation .....			53.7
Average Oil Content, Bbls./A. Ft. ....			354.
Total Oil Content, Bbls./Acre .....			7,088.

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## LOG

Name Bishop Oil & Refining Co. Lease T. Mitchell Well No. 1

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
461.0 - 481.0	Light brown sandstone.

# Oilfield Research Laboratories

## RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company Bishop Oil & Refining Co.

Lease T. Mitchell

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	461.5	18.6	34	44	78	491	60.	1.0	1.0	491	60.00
2	462.5	19.3	35	44	79	524	62.	1.0	2.0	524	62.00
3	463.5	18.6	33	47	80	476	42.	1.0	3.0	476	42.00
4	464.5	20.2	27	49	76	423	110.	1.0	4.0	423	110.00
5	465.5	18.7	22	53	75	319	87.	1.0	5.0	319	87.00
6	466.5	15.1	33	55	88	367	26.	1.0	6.0	367	26.00
7	467.5	16.8	30	45	75	391	44.	1.0	7.0	391	44.00
8	468.5	17.6	25	57	82	341	52.	1.0	8.0	341	52.00
9	469.5	17.7	28	52	80	385	52.	1.0	9.0	385	52.00
10	470.5	18.8	28	49	77	408	62.	1.0	10.0	408	62.00
11	471.5	17.2	28	56	84	374	36.	1.0	11.0	374	36.00
12	472.5	17.0	22	51	73	290	49.	1.0	12.0	290	49.00
13	473.5	17.3	29	50	79	389	44.	1.0	13.0	389	44.00
14	474.5	18.3	13	61	74	185	71.	1.0	14.0	185	71.00
15	475.5	18.2	14	58	72	198	84.	1.0	15.0	198	84.00
16	476.5	16.4	19	65	84	242	28.	1.0	16.0	242	28.00
17	477.5	19.3	20	56	76	300	58.	1.0	17.0	300	58.00
18	478.5	15.3	25	73	98	297	22.	1.0	18.0	297	22.00
19	479.5	18.1	28	52	80	393	77.	1.0	19.0	393	77.00
20	480.5	17.3	22	57	79	295	42.	1.0	20.0	295	42.00

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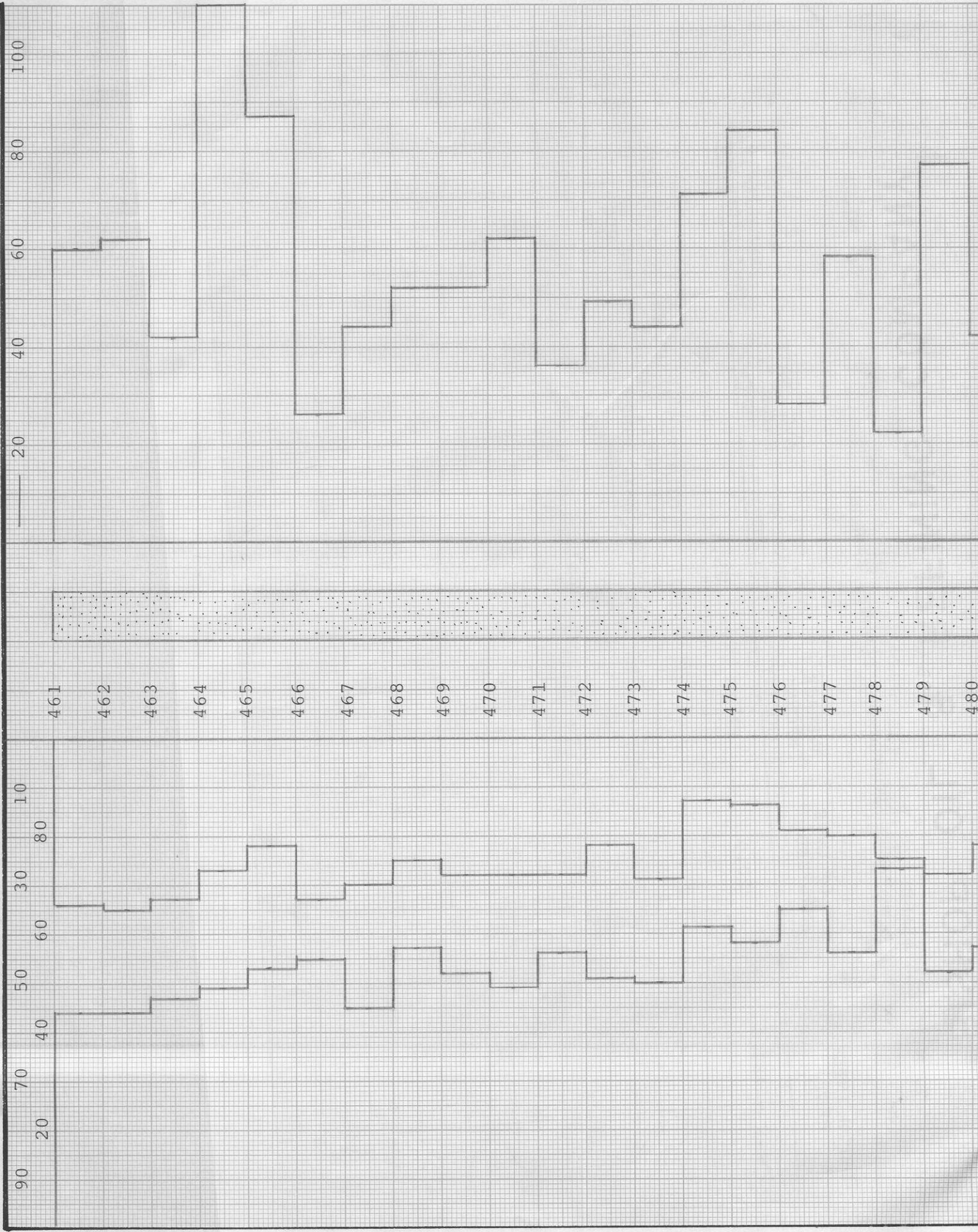
## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

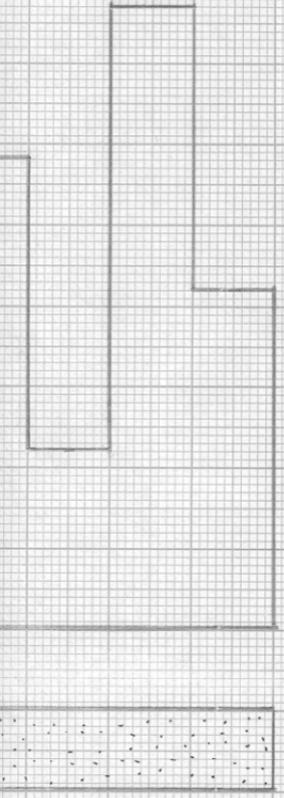
Company		Lease		Well No.			
Bishop Oil & Refining Co.		T. Mitchell		1			
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
461.0 - 481.0	20.0	55.4	1108.00	25.8	53.7	354	7,088
461.0 - 481.0	20.0			17.8			

PERMEABILITY, IN MILLIDARCYS

WATER SAT., PERCENT → ← OIL SAT., PERCENT



478  
479  
480  
481



SANDSTONE

KEY:

# BISHOP OIL & REFINING COMPANY

T. MITCHELL LEASE

MONTGOMERY COUNTY, KANSAS

WELL NO. 1

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
461.0 - 481.0	20.0	17.8	25.8	53.7	55.4

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CHANUTE, KANSAS  
MAY, 1982  
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