

OILFIELD RESEARCH LABORATORIES

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

December 18, 1980

Yoder Oil Company
Box 34
Newton, Kansas 67114

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core samples taken from the Burrows Lease, Well No. 3, located in Montgomery County, Kansas and submitted to our laboratory on December 3, 1980.

The core samples were sealed in plastic bags by a representative of the client. In examining this core, 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

SAM/mkf

4 c to Newton, Ks.
1 c to Peru, Ks.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Yoder Oil Company Lease Burrows Well No. 3
 Location 795' FNL & 495' FWL, SW $\frac{1}{4}$
 Section 9 Twp. 35S Rge. 14E County Montgomery State Kansas

Elevation, Feet	-	
Name of Sand	Cattleman	Bartlesville
Top of Core	1243.0	1346.0
Bottom of Core	1252.0	1356.0
Top of Sand	1243.0	1346.0
Bottom of Sand	1252.0	1356.0
Total Feet of Permeable Sand	4.0	9.0

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet **Cum. Ft.**

CATTLEMAN SAND

0 - 1	2.0	2.0
1 & Above	2.0	4.0

BARTLESVILLE SAND

0 - 8	6.0	6.0
12 & Above	3.0	9.0

Average Permeability Millidarcys	1.0	6.7
Average Percent Porosity	9.9	13.4
Average Percent Oil Saturation	13.8	34.5
Average Percent Water Saturation	72.4	45.9
Average Oil Content, Bbls./A. FL	139.	351.
Total Oil Content, Bbls./Acre	1,249.	3,510.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Yoder Oil Company

Lease BURROWS

Well No. 3

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	1243.5	13.4	29	43	72	302	0.74	1.0	1.0	302	0.74
2	1244.5	13.0	27	41	68	272	1.7	1.0	2.0	272	1.70
3	1245.5	2.9	5	90	95	117	Imp.	1.0	3.0	117	0.00
4	1246.5	6.2	10	86	96	48	Imp.	1.0	4.0	48	0.00
5	1247.5	6.2	4	90	94	19	Imp.	1.0	5.0	19	0.00
6	1248.5	9.0	7	85	92	49	Imp.	1.0	6.0	49	0.00
7	1249.5	8.9	9	87	96	62	0.04	1.0	7.0	62	0.00
8	1250.5	15.2	23	50	73	271	1.6	1.0	8.0	271	0.04
9	1251.5	14.0	10	80	90	109	*	1.0	9.0	109	1.60
<u>CATTLEMAN SAND</u>											
<u>BARTLESVILLE SAND</u>											
10	1346.5	14.2	33	41	74	364	3.4	1.0	1.0	364	3.40
11	1347.5	15.7	37	33	70	451	6.0	1.0	2.0	451	6.00
12	1348.5	14.8	33	40	73	379	12.	1.0	3.0	379	12.00
13	1349.5	17.1	29	41	70	385	2.4	1.0	4.0	385	2.40
14	1350.5	10.8	45	52	97	377	0.54	1.0	5.0	377	0.54
15	1351.5	15.0	26	42	68	303	2.5	1.0	6.0	303	2.50
16	1352.5	9.2	32	64	96	228	Imp.	1.0	7.0	228	0.00
17	1353.5	8.7	37	60	97	250	0.18	1.0	8.0	250	0.00
18	1354.5	16.6	29	40	69	374	14.	1.0	9.0	374	14.00
19	1355.5	11.7	44	46	90	399	19.	1.0	10.0	399	19.00

NOTE: * Permeability sample unobtainable.

Oilfield Research Laboratories
SUMMARY OF PERMEABILITY & SATURATION TESTS

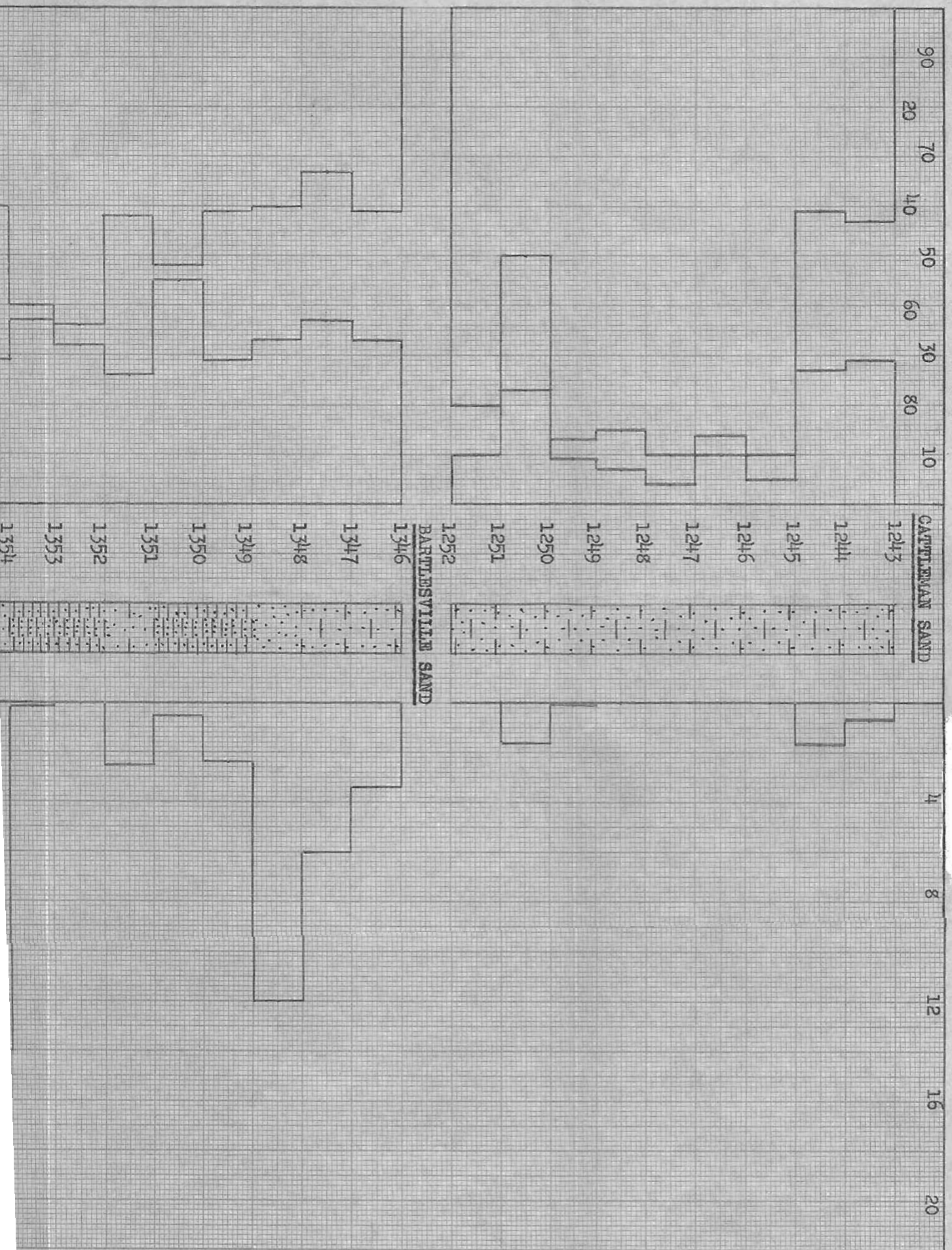
TABLE III

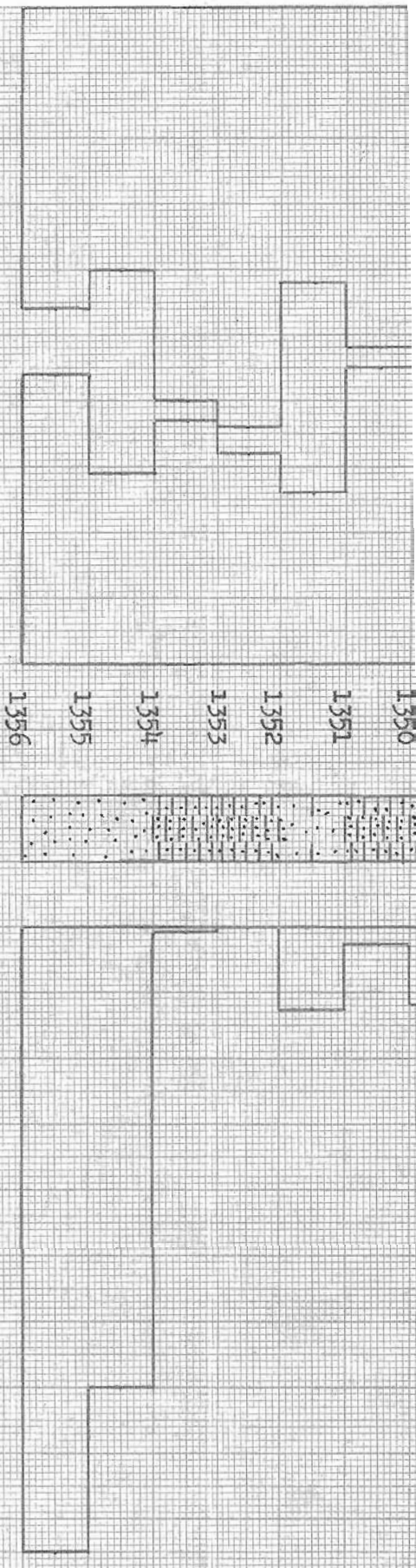
Company	Lease	Burrows	Well No.		
Yoder Oil Company	Burrows		3		
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
<u>CATTLEMAN SAND</u>					
1243.0 - 1252.0	4.0	1.0	4.08		
<u>BARTLESVILLE SAND</u>					
1346.0 - 1356.0	9.0	6.7	60.02		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
<u>CATTLEMAN SAND</u>					
1243.0 - 1252.0	9.0	13.8	72.4	139	1,249
<u>BARTLESVILLE SAND</u>					
1346.0 - 1356.0	10.0	34.5	45.9	351	3,510

WATER SAT., ———→
 PERCENT

→ OIL SAT.,
 PERCENT

PERMEABILITY, IN MILLIDARCS





KEY:



SHALY SANDSTONE



SANDSTONE



LAMINATED SANDSTONE & SHALE

YODER OIL COMPANY

BURROWS LEASE

WELL NO. 3

MONTGOMERY COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY MILLIDARCS
1243.0 - 1252.0	9.0	9.9	13.8	72.4	1.0
<u>CATTLEMAN SAND</u>					
1346.0 - 1356.0	10.0	13.4	34.5	45.9	6.7
<u>BARTLESVILLE SAND</u>					

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
DECEMBER, 1980

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