

# OILFIELD RESEARCH LABORATORIES

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

April 15, 1980

Unionville Exploration, Inc.  
P.O. Box 280  
Sedan, Kansas 67361

Gentlemen:

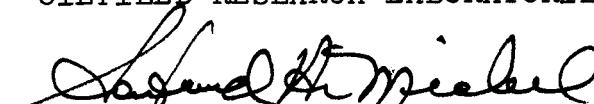
Enclosed herewith are the results of tests run on the rotary core taken from the Ballard Ranch Lease, Well No. 9-E, Chautauqua County, Kansas, and submitted to our laboratory on March 27, 1980.

The core was sampled by a representative of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/tem

5 c to Sedan, Kansas

# Oilfield Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company Unionville Exploration, Inc. Lease Ballard Ranch Well No. 9-E  
 Location S $\frac{1}{2}$  SE SW SW  
 Section 21 Twp. 33S Rge. 13E County Chautauqua State Kansas

Elevation, Feet . . . . .	
Name of Sand . . . . .	Wiser
Top of Core . . . . .	1017.0
Bottom of Core . . . . .	1035.4
Top of Sand . . . . .	1017.0
Bottom of Sand . . . . .	1035.4
Total Feet of Permeable Sand . . . . .	7.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 0.50	3.2	3.2
0.50 - 2.0	2.8	6.0
2.0 & Above	1.0	7.0

Average Permeability Millidarcys . . . . .	1.0
Average Percent Porosity . . . . .	12.8
Average Percent Oil Saturation . . . . .	8.9
Average Percent Water Saturation . . . . .	80.6
Average Oil Content, Bbls./A. Ft. . . . .	87.
Total Oil Content, Bbls./Acre . . . . .	1,606.

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LOG

Name Unionville Exploration, Inc. Lease Ballard Ranch Well 9-E

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
1017.0 - 1020.8	Very light brown shaly sandstone.
1020.8 - 1023.0	Light brown and gray laminated sandstone and shale.
1023.0 - 1027.2	Light brown shaly sandstone.
1027.2 - 1029.1	Brownish gray conglomeratic shaly sandstone.
1029.1 - 1032.4	Gray shaly sandstone.
1032.4 - 1035.4	Gray conglomeratic shaly sandstone.

## RESULTS OF SATURATION &amp; PERMEABILITY TESTS

TABLE 1-B

Company Unionville Exploration, Inc. Lease Ballard Ranch Well No. 9-E

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation		Oil Content Bbbs. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water			Ft.	Cum. Ft.		
1	1017.5	14.5	5	84	56	0.33	1.0	1.0	56	0.33
2	1018.6	13.6	14	67	150	1.8	1.0	2.0	150	1.80
3	1019.5	12.9	10	73	100	3.0	1.0	3.0	100	3.00
4	1020.7	14.9	3	84	35	1.4	0.8	3.8	28	1.12
5	1021.5	14.6	4	79	45	Imp.	1.2	5.0	54.	0.00
6	1022.5	12.9	3	86	30	Imp.	1.0	6.0	30	0.00
7	1023.5	12.7	10	75	99	Imp.	1.0	7.0	99	0.00
8	1024.5	14.2	7	81	77	0.50	1.0	8.0	77	0.50
9	1025.5	11.2	11	79	96	Imp.	1.0	9.0	96	0.00
10	1026.5	13.1	9	89	92	0.26	1.2	10.2	110	0.31
11	1027.5	13.0	16	81	161	0.18	1.0	11.2	161	0.18
12	1028.5	11.0	5	90	43	Imp.	0.9	12.1	39	0.00
13	1029.5	12.4	18	70	173	Imp.	0.9	13.0	156	0.00
14	1030.5	11.8	4	87	37	Imp.	1.0	14.0	37	0.00
15	1031.5	12.0	14	69	130	Imp.	1.4	15.4	182	0.00
16	1032.5	12.4	17	90	67	Imp.	1.0	16.4	67	0.00
17	1033.5	11.5	13	84	116	Imp.	1.0	17.4	116	0.00
18	1034.5	12.3	5	86	48	Imp.	1.0	18.4	48	0.00

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

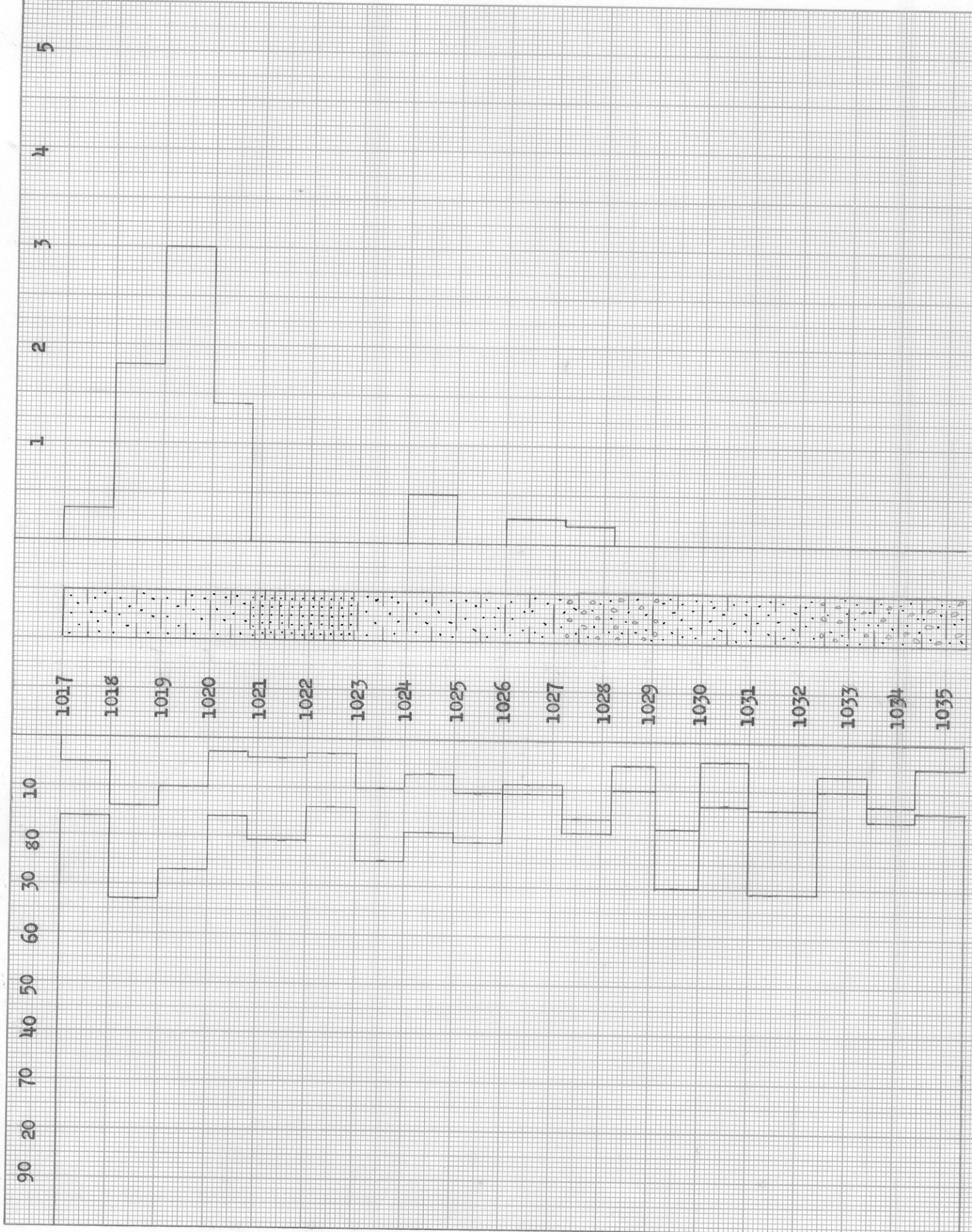
TABLE III

Company	Lease	Ballard Ranch	Well No.
Unionville Exploration, Inc.			9-E
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys
	1017.0 - 1035.4	7.0	1.0
			Permeability Capacity Ft. x Md.
			7.24
	Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation
	1017.0 - 1035.4	18.4	12.8
			Average Percent Water Saturation
			80.6
			Average Oil Content Bbl./A. Ft.
			87
			Total Oil Content Bbls./Acre
			1,606

WATER SAT.:  
PERCENT

OIL SAT.:  
PERCENT

PERMEABILITY, IN MILLIDARCYS



KEY:



SHALY SANDSTONE



CONGLOMERATIC SHALY SANDSTONE



LAMINATED SANDSTONE AND SHALE

# UNIONVILLE EXPLORATION, INC.

BALLARD RANCH LEASE

WELL NO. 9 - E

CHAUTAQUA COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCY
1017.0 - 1035.4	18.4	12.8	8.9	80.6	1.0

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CHANUTE, KANSAS  
APRIL, 1980. HR