

31-23-10E

THE OHIO OIL COMPANY

CORE ANALYSIS REPORT

MARTINDELL LEASE WELL NO. W-18

GREENWOOD COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANUTE, KANSAS

JULY 22, 1950

July 22, 1950

Ohio Oil Company
Thompson Building
Tulsa, Oklahoma

Attention: Mr. H. R. Bolton

Gentlemen:

Enclosed herewith are the results of permeability and porosity tests made on the 2 $\frac{1}{2}$ " rotary core taken from the Martindell Lease, Well No. W-18, Greenwood County, Kansas, and submitted to our laboratory on July 13, 1950.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:dt

OIL FIELD RESEARCH LABORATORIES

LOG

Company The Ohio Oil Company Lease Martindell Well No. W-18

<u>Depth Interval, Feet</u>	<u>Description</u>
2288.00 - 2288.70	- Brownish gray fine grained micaceous slightly shaley sandstone.
2288.70 - 2289.40	- Brownish gray fine grained laminated micaceous shaley sandstone.
2289.40 - 2290.20	- Gray fine grained laminated micaceous shaley sandstone.
2290.20 - 2291.15	- Brownish gray fine grained slightly laminated micaceous shaley sandstone.
2291.15 - 2291.65	- Brownish gray fine grained micaceous shaley sandstone.
2291.65 - 2292.70	- Gray fine grained laminated micaceous shaley sandstone.
2292.70 - 2294.00	- Light brown fine grained micaceous sandstone.
2294.00 - 2295.15	- Brownish gray fine grained micaceous sandstone.
2295.15 - 2295.50	- Gray sandy shale.
2295.50 - 2297.00	- Light brown fine grained micaceous slightly shaley sandstone.
2297.00 - 2298.55	- Light brown fine grained micaceous shaley sandstone.
2298.55 - 2299.00	- Light brown fine grained micaceous sandstone.
2299.00 - 2299.85	- Gray shale.
2299.85 - 2300.00	- Brownish gray fine grained micaceous shaley sandstone.
2300.00 - 2301.10	- Gray sandy shale.
2301.10 - 2302.67	- Light brown fine grained micaceous shaley sandstone.
2302.67 - 2303.00	- Gray shale.
2303.00 - 2304.00	- Loss.
2304.00 - 2304.82	- Laminated sandy shale.
2304.82 - 2305.42	- Light brown fine grained micaceous shaley sandstone.
2305.42 - 2306.00	- Light brown fine grained micaceous sandstone.
2306.00 - 2309.00	- Loss.

2309.00 - 2309.60 - Gray sandy shale.

2309.60 - 2310.32 - Gray fine grained laminated micaceous shaley sandstone.

2310.32 - 2310.90 - Gray sandy shale.

2310.90 - 2311.45 - Light brown fine grained finely laminated micaceous shaley sandstone.

2311.45 - 2311.70 - Light brown fine grained micaceous sandstone.

2311.70 - 2312.53 - Sandy conglomerate.

2312.53 - 2314.42 - Gray shale.

2314.42 - 2314.56 - Sandy conglomerate.

2314.56 - 2314.82 - Gray shale.

2314.82 - 2315.13 - Sandy conglomerate.

2315.13 - 2316.38 - Laminated sandy shale.

2316.38 - 2317.55 - Light brown fine grained micaceous sandstone.

2317.55 - 2318.00 - Light brown fine grained laminated micaceous carbonaceous sandstone.

2318.00 - 2318.50 - Finely laminated sandy shale.

2318.50 - 2320.35 - Gray sandy shale.

2320.35 - 2320.50 - Light brown fine grained micaceous sandstone.

2320.50 - 2320.70 - Finely laminated carbonaceous sandstone.

2320.70 - 2321.00 - Light brown fine grained micaceous slightly carbonaceous sandstone.

2321.00 - 2322.75 - Light brown fine grained micaceous sandstone.

2322.75 - 2322.85 - Gray shale.

2322.85 - 2323.15 - Laminated shaley sandstone.

2323.15 - 2323.44 - Light brown fine grained micaceous slightly calcareous sandstone.

2323.44 - 2323.55 - Gray shale.

2323.55 - 2324.15 - Sandy conglomerate.

2324.15 - 2324.60 - Light brown fine grained micaceous calcareous sandstone.

2324.60 - 2326.65 - Light brown fine grained micaceous slightly calcareous sandstone.

2326.65 - 2330.62 - Light brown fine grained micaceous sandstone.

2330.62 - 2330.82 - Light brown fine grained micaceous slightly carbonaceous conglomeratic sandstone.

2330.82 - 2331.32 - Gray calcareous conglomeratic shale.

2331.32 - 2332.40 - Gray sandy shale.

2332.40 - 2333.00 - Loss.

Oil Field Research Laboratories
RESULTS OF PERMEABILITY TESTS
TABLE I

Company The Ohio Oil Company Lease Martindell Well No. W-18

Sample No.	Depth, Feet	Permeability Millidarcys	Feet of Core		Permeability Capacity Ft. x Md.
			Ft.	Cum. Ft.	
1	2288.10	1.2	0.70	0.70	0.84
2	2289.50	Imp.	0.80	1.50	0.00
3	2290.80	Imp.	0.95	2.45	0.00
4	2291.35	Imp.	0.50	2.95	0.00
5	2292.80	Imp.	0.80	3.75	0.00
6	2293.85	2.2	0.90	4.65	1.98
7	2294.80	Imp.	0.75	5.40	0.00
8	2295.75	Imp.	0.80	6.20	0.00
9	2296.75	0.98	0.70	6.90	0.69
10	2297.60	Imp.	1.55	8.45	0.00
11	2298.75	1.6	0.45	8.90	0.72
12	2299.93	Imp.	0.15	9.05	0.00
13	2301.30	Imp.	0.90	9.95	0.00
14	2302.30	Imp.	0.67	10.62	0.00
15	2304.93	Imp.	0.60	11.22	0.00
16	2305.90	Imp.	0.58	11.80	0.00
17	2310.05	Imp.	0.72	12.52	0.00
18	2311.60	Imp.	0.25	12.77	0.00
19	2312.15	1.6	0.83	13.60	1.33
20	2314.95	4.8	0.31	13.91	1.49
21	2316.55	1.1	0.62	14.53	0.68
22	2317.45	2.8	0.55	15.08	1.54
23	2320.45	1.2	0.15	15.23	0.18
24	2321.40	3.0	0.90	16.13	2.70
25	2322.25	12.	0.85	16.98	10.20
26	2323.25	Imp.	0.30	17.28	0.00
27	2324.40	32.	0.45	17.73	14.40
28	2325.40	35.	1.00	18.73	35.00
29	2326.40	34.	1.05	19.78	35.70
30	2327.40	37.	1.05	20.83	38.85
31	2328.45	90.	1.00	21.83	90.00
32	2329.45	56.	1.00	22.83	56.00
33	2330.50	5.7	0.92	23.75	5.24

OIL FIELD RESEARCH LABORATORIES

RESULTS OF POROSITY & EFFECTIVE PERMEABILITY TESTS

TABLE II

Company <u>The Ohio Oil Company</u>		Lease <u>Martindell</u>	Well No. <u>W-18</u>
Sample No.	Depth, Feet	Effective Permeability Millidarcys	Effective Porosity Percent
1	2288.10	Imp.	-
2	2289.50	Imp.	-
3	2290.80	Imp.	-
4	2291.35	Imp.	-
5	2292.80	Imp.	-
6	2293.85	0.258	18.1
7	2294.80	Imp.	-
8	2295.75	Imp.	-
9	2296.75	Imp.	-
10	2297.60	Imp.	-
11	2298.75	0.152	16.3
12	2299.93	Imp.	-
13	2301.30	Imp.	-
14	2302.30	Imp.	-
15	2304.93	0.083	16.4
16	2305.90	Imp.	-
17	2310.05	Imp.	-
18	2311.60	Imp.	-
19	2312.15	0.077	14.4
20	2314.95	0.152	13.7
21	2316.55	Imp.	-
22	2317.45	0.199	15.4
23	2320.45	0.164	14.6
24	2321.40	0.268	18.9
25	2322.25	3.21	19.1
26	2323.25	Imp.	-
27	2324.40	14.55	17.1
28	2325.40	18.07	18.6
29	2326.40	12.70	17.0
30	2327.40	14.10	16.9
31	2328.45	35.10	18.3
32	2329.45	21.30	16.9
33	2330.50	1.29	14.2

OIL FIELD RESEARCH LABORATORIES
SUMMARY OF EFFECTIVE PERMEABILITY & POROSITY TESTS

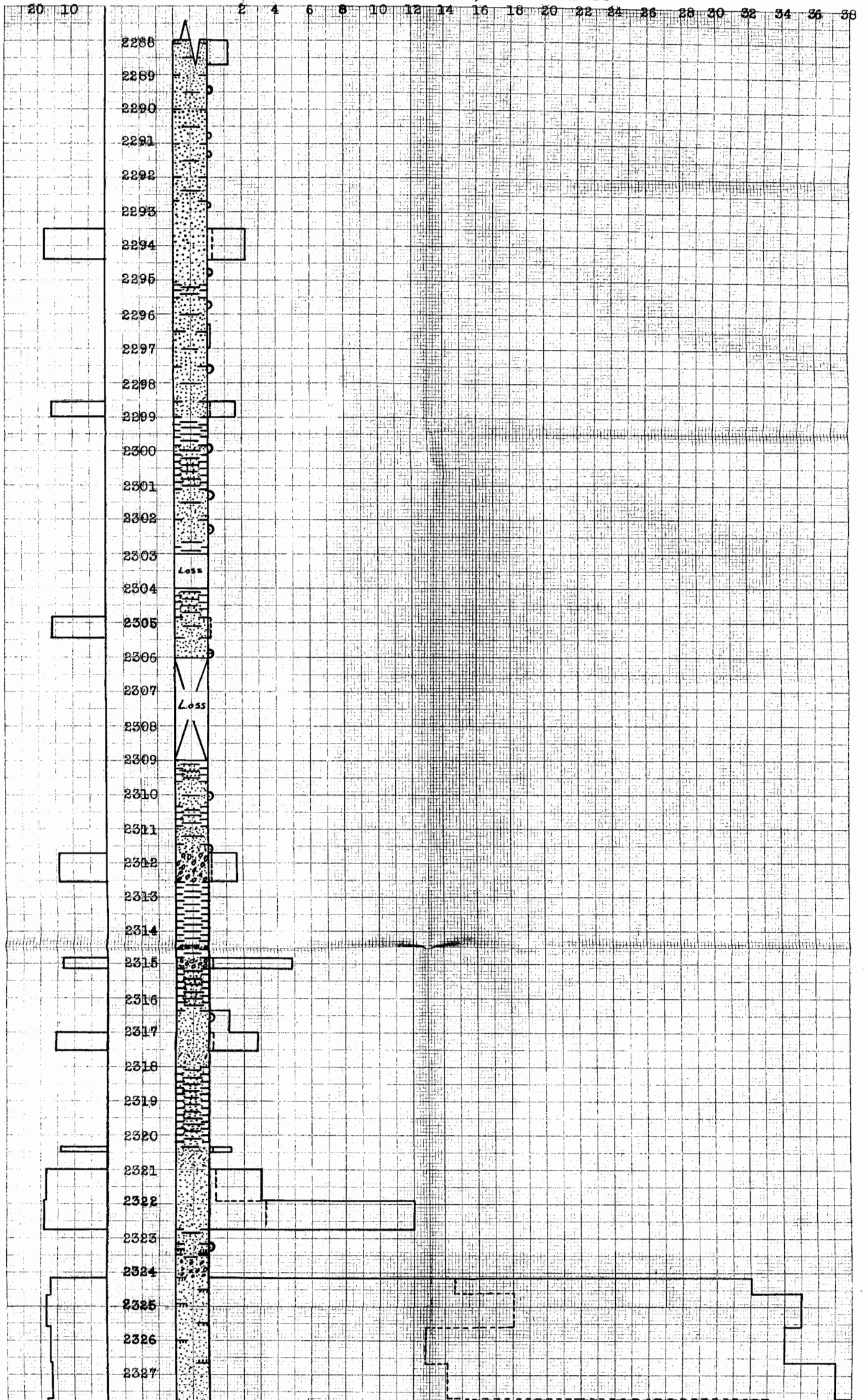
TABLE III

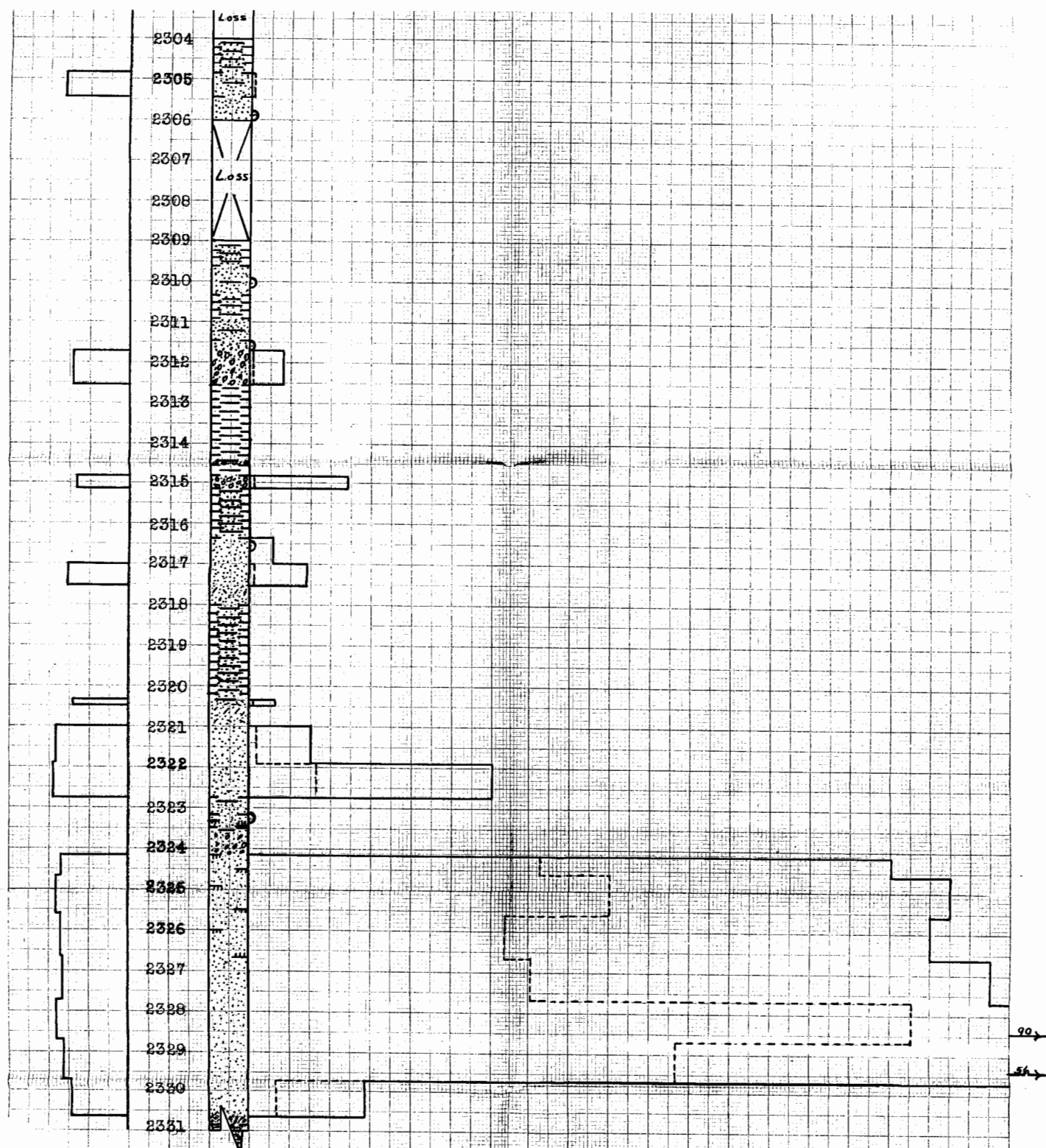
Company	<u>Ohio Oil Company</u>	Lease	<u>Martindell</u>	Well No.	<u>W-18</u>
Depth Interval, Feet	- - - - -	- - - - -	- - - - -	2288.00 -	2330.62
Feet of Core Analyzed	- - - - -	- - - - -	- - - - -	- - - - -	13.43
Average Air Permeability, Millidarcys	- - - - -	- - - - -	- - - - -	- - - - -	22.16
Average Effective Permeability, Millidarcys	- - - - -	- - - - -	- - - - -	- - - - -	9.48
Average Percent Porosity ϕ	- - - - -	- - - - -	- - - - -	- - - - -	16.98



PERCENT
POROSITY

----- EFFECTIVE PERMEABILITY, IN MILLIDARCYS
——— DRY PERMEABILITY, IN MILLIDARCYS





KEY:

- SANDSTONE
- SHALEY SANDSTONE
- SANDY CONGLOMERATE
- CARBONACEOUS SANDSTONE

- CALCAREOUS SANDSTONE
- CARBONACEOUS CONGLOMERATIC SANDSTONE
- CALCAREOUS CONGLOMERATIC SHALE
- SANDY SHALE
- SHALE

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