

OIL FIELD RESEARCH LABORATORIES
CHANUTE, KANSAS

November 30, 1951

Mr. M. C. Colt
Iola, Kansas

Dear Sir:

Attached hereto are the results of effective permeability tests made on the small Cable Tool core taken from the Marshall Lease, Well No. WW-27 Allen County, Kansas, and submitted to our laboratory on November 15, 1951.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Clayton A. Nattier

CAN:eda

TWP 24 S RGE 21 E SEC 3

3-24-21E

WW-27

Marshall

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LOG

Company M. C. Colt Lease Marshall Well No. WW-27

<u>Depth Interval, Feet</u>	<u>Description</u>
621.00 - 625.60	- Hard sandy conglomeratic shale.
625.60 - 628.60	- Sandy shale.
628.60 - 628.85	- Hard brown fine grained micaceous slightly shaley sandstone.
628.85 - 630.00	- Sandy shale.
630.00 - 634.05	- Brown fine grained micaceous sandstone.
634.05 - 636.00	- Brown fine grained laminated micaceous shaley sandstone.
636.00 - 636.40	- Brown fine grained micaceous shaley sandstone.
636.40 - 640.95	- Gray sandy shale.
640.95 - 641.35	- Brown fine grained micaceous sandstone.
641.35 - 643.05	- Brown fine grained micaceous shaley sandstone.
643.05 - 644.15	- Brown fine grained micaceous sandstone.
644.15 - 645.10	- Brown fine grained micaceous slightly shaley sandstone.
645.10 - 660.75	- Gray sandy shale.
660.75 - 665.40	- Light brown fine grained micaceous shaley sandstone.
665.40 - 666.80	- Light brown fine grained micaceous sandstone.
666.80 - 668.85	- Brown fine grained micaceous shaley sandstone.
668.85 - 670.00	- Brown fine grained micaceous sandstone.
670.00 - 672.30	- Gray sandy shale.
672.30 - 673.30	- Brown fine grained micaceous shaley sandstone.
673.30 - 675.95	- Brown fine grained micaceous sandstone.
675.95 - 676.15	- Brown fine grained micaceous slightly shaley sandstone.
676.15 - 676.35	- Brown fine grained micaceous sandstone.
676.35 - 676.53	- Brown fine grained micaceous slightly shaley sandstone.
676.53 - 677.40	- Calcareous shale.

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- 677.40 - 678.60 - Brown fine grained micaceous sandstone.
- 678.60 - 681.60 - Dark fine grained micaceous shaley sandstone.
- 681.60 - 682.50 - Gray shaley sandstone.
- 682.50 - 684.75 - Gray sandy shale.
- 684.75 - 687.00 - Gray shale.

Oil Field Research Laboratories

SHOT RECOMMENDATION

Company M. C. Colt, M.T. Project Lease Marshall Well No. WW-27

Depth Interval, Feet	Feet of Sand	Size of Shell Inches	Qts./Ft.	Total Quarts
641.00 - 644.00	3.0	4.0	2.5	7.50
644.00 - 673.50	29.5	Spacer		
673.50 - 680.50	<u>7.0</u>	4.0	2.5	<u>17.50</u>
Total	10.0			25.00

Recommended Packer Setting 631.50 feet.

Note: Plug hole back to 681.50 feet.

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RESULTS OF EFFECTIVE PERMEABILITY TESTS

TABLE I

Company M. G. Colt. M.T. Project Lease Marshall Well No. WW-27

Sample No.	Depth Ft.	Effective Permeability <u>Millidarcys</u>	Feet of Sand Ft.	Cum. Ft.
1	628.75	Imp.	0.25	0.25
2	630.15	2.70	0.90	1.15
3	631.60	0.474	1.15	2.30
4	632.50	5.15	0.85	3.15
5	633.30	2.10	0.70	3.85
6	633.93	1.13	0.45	4.30
7	636.15	Imp.	0.40	4.70
8	641.15	0.303	0.40	5.10
9	642.70	Imp.	1.70	6.80
10	643.20	0.227	0.55	7.35
11	644.05	Imp.	0.55	7.90
12	651.12	Imp.	0.95	8.85
13	652.70	Imp.	1.25	10.10
14	653.20	Imp.	0.60	10.70
15	653.95	Imp.	1.05	11.75
16	655.20	Imp.	0.80	12.55
17	655.90	Imp.	1.40	13.95
18	657.10	Imp.	0.70	14.65
19	657.90	Imp.	0.80	15.45
20	658.70	Imp.	0.55	16.00
21	659.90	Imp.	1.15	17.15
22	673.60	2.13	0.70	17.85
23	674.40	0.357	0.95	18.80
24	675.45	4.03	1.00	19.80
25	676.50	Imp.	0.18	19.98
26	677.55	Imp.	1.20	21.18
27	678.70	Imp.	0.45	21.63
28	679.45	Imp.	0.95	22.58
29	680.50	Imp.	0.95	23.53
30	681.40	Imp.	0.65	24.18
31	682.40	Imp.	0.90	25.08

SUMMARY OF PERMEABILITY TESTS

TABLE II

Company M. C. Colt. M.T. Project Lease Marshall Well No. WW-27

<u>Depth Interval, Feet</u>	<u>Feet of Core Analyzed</u>	<u>Average Effective Permeability Millidarcys</u>
630.00 - 675.95	7.65	2.02
631.50 - 681.50	6.15	2.07