

OIL FIELD RESEARCH LABORATORIES  
CHANUTE, KANSAS

July 7, 1951

Mr. M. C. Colt  
Iola, Kansas

Dear Sir:

Attached hereto are the results of effective permeability tests of the 2" Rotary core taken from the Grubaugh Lease, Well No. 4 A0, Allen County, Kansas, and submitted to our Laboratory on June 29, 1951.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Clayton A. Nattier

CAN:pmd  
O.C.

27-24-21E

Grubaugh 4 A0

TWP 24S RGE 21E SEC 27

LOG

Company M. C. Colt Lease Grubaugh Well No. 4 AO

<u>Depth Interval, Feet</u>	<u>Description</u>
705.00 - 705.95	- Laminated sandy shale.
705.95 - 708.00	- Gray shale.
708.00 - 712.20	- Laminated sandy shale.
712.20 - 713.00	- Light brown fine grained micaceous slightly shaley sandstone.
713.00 - 714.70	- Brown fine grained micaceous sandstone.
714.70 - 716.20	- Brown medium grained micaceous sandstone.
716.20 - 716.55	- Laminated sandy shale.
716.55 - 718.68	- Brown medium grained micaceous sandstone.
718.68 - 732.85	- Loss.
732.85 - 737.80	- Dark brown medium grained micaceous sandstone.
737.80 - 738.35	- Laminated sandy shale.
738.35 - 740.05	- Dark brown medium grained micaceous sandstone.
740.05 - 740.85	- Brown fine grained laminated micaceous shaley sandstone.
740.85 - 741.00	- Coal.
741.00 - 741.85	- Gray shale.
741.85 - 748.00	- Discarded at well.

**Oil Field Research Laboratories**

**SHOT RECOMMENDATION**

Company M. C. Colt Lease Grubaugh Well No. 4 A0

<u>Depth Interval, Feet</u>	<u>Feet of Sand</u>	<u>Size of Shell Inches</u>	<u>Qts./Ft.</u>	<u>Total Quarts</u>
719.50 - 738.50	19.0	3.5	2.0	38.0

Recommended Packer Setting - - - 714.50 Feet

Note: Plug hole back to - - - 740.00 Feet

RESULTS OF EFFECTIVE PERMEABILITY TESTS

TABLE I

Company	M. C. Golt	Lease	Grubaugh	Well No. 4 A0	
Sample No.	Depth, Feet	Effective Permeability, Millidarcys		Feet of Sand Ft.	Cum. Ft.
1	712.30	1.78		0.80	0.80
2	713.30	4.60		0.80	1.60
3	714.30	1.92		0.90	2.50
4	715.25	6.84		1.00	3.50
5	716.10	0.177		0.50	4.00
6	717.10	5.80		0.95	4.95
7	717.90	14.40		1.18	6.13
8	732.95	8.21		0.50	6.63
9	733.80	5.10		0.95	7.58
10	734.85	11.70		1.10	8.68
11	735.90	18.80		1.00	9.68
12	736.90	12.00		0.90	10.58
13	737.75	0.260		0.50	11.08
14	738.45	10.50		0.55	11.63
15	739.35	4.36		1.15	12.78
16	740.35	0.533		0.80	13.58

SUMMARY OF EFFECTIVE PERMEABILITY TESTS

TABLE II

<u>Company</u>	<u>H. C. Colt</u>	<u>Lease</u>	<u>Grubaugh</u>	<u>Well No. 4 AO</u>
<u>Depth Interval, Feet</u>		<u>Feet of Core Analyzed</u>		<u>Average Effective Permeability, Millidarcys</u>
714.50 - 740.00		10.43		8.82