

OILFIELD RESEARCH LABORATORIES

212 EAST SIXTH
OKMULGEE, OKLAHOMA
PHONE 1488

- REGISTERED ENGINEERS -

Chanute, Kansas

226 N. HIGHLAND
CHANUTE, KANSAS
PHONE 722

September 5, 1959

Tec Drilling Company, Inc.
Attn: Mr. H. A. Caldwell
P. O. Box 693
El Dorado, Kansas

Gentlemen:

Enclosed herewith are the results of tests run on the Cable Tool core taken from the Young Lease, Well No. 10, Woodson, County, Kansas, and submitted to our laboratory on August 29, 1959.

This core was sampled and the samples were sealed in cans by a representative of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. McElrea
Carl L. McElrea

CLM:cs

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10-26-16E

young 10

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Tec Drilling Company, Inc. Lease Young Well No. 10

Location _____

Section 16 Twp. 26S Rge. 16E County Woodson State Kansas

Name of Sand _____ Bartlesville

Top of Core _____ 1107.0

Bottom of Core _____ 1154.4

Top of Sand _____ ?

Bottom of Sand _____ 1148.7

Total Feet of Permeable Sand _____ 19.5

Total Feet of Fracturable Sand _____ -

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	3.1	3.1
5 - 10	4.2	7.3
10 - 20	6.0	13.3
20 - 30	4.2	17.5
30 & above	2.0	19.5

Average Permeability Millidarcys _____ 19.1

Average Percent Porosity _____ 17.3

Average Percent Oil Saturation _____ 23.1

Average Percent Water Saturation _____ 56.0

Average Oil Content, Bbls./A. Ft. _____ 313.

Total Oil Content, Bbls./Acre _____ 6,798.

Average Percent Oil Recovery by Laboratory Flooding Tests _____

Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. _____

Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre _____

Total Calculated Oil Recovery, Bbls./Acre _____

Fracture Setting, Feet _____

Viscosity, Centipoise @ _____

A. P. I. Gravity, degrees @ 60 °F _____

Elevation, Feet _____

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LOGCompany Tec Drilling Company, Inc. Lease Young Well No. 10

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
1107.0 - 1107.6	- Brown shaley sandstone.
1107.6 - 1108.0	- Laminated sandstone and shale.
1108.0 - 1113.2	- Brown shaley sandstone.
1113.2 - 1116.0	- Laminated sandstone and shale.
1116.0 - 1124.0	- Laminated sandy shale.
1124.0 - 1129.2	- Brown shaley sandstone.
1129.2 - 1133.9	- Laminated sandy shale.
1133.9 - 1134.0	- Brown shaley sandstone.
1134.0 - 1136.5	- Laminated sandy shale.
1136.5 - 1137.2	- Brown shaley sandstone.
1137.2 - 1139.5	- Gray laminated sandstone and shale.
1139.5 - 1142.2	- Brown shaley sandstone.
1142.2 - 1144.7	- Gray sandy shale.
1144.7 - 1145.2	- Brown shaley sandstone.
1145.2 - 1145.4	- Laminated sandstone and shale.
1145.4 - 1147.6	- Brown shaley sandstone.
1147.6 - 1148.7	- Brown to dark calcareous sandstone.
1148.7 - 1149.7	- Loss.
1149.7 - 1152.0	- Gray sandy shale.
1152.0 - 1154.4	- Shale (Discarded at well).

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RESULTS OF PERMEABILITY TESTS
TABLE I

Company Tec Drilling Company, Inc. Leas Young Well No. 10

Sample No.	Depth, Feet	Permeability millidarcys	Feet of Core		Permeability Capacity Ft. x Md.
			Ft.	Cum. Ft.	
1	1107.5	17.	0.6	0.6	10.20
2	1108.5	31.	1.0	1.6	31.00
3	1109.5	27.	1.0	2.6	27.00
4	1110.5	122.	1.0	3.6	122.00
5	1111.5	27.	1.0	4.6	27.00
6	1112.5	21.	1.2	5.8	25.20
7	1113.5	Imp.	0.8	6.6	0.00
8	1114.5	2.6	1.0	7.6	2.60
9	1124.5	7.4	1.0	8.6	7.40
10	1125.5	12.	1.0	9.6	12.00
11	1126.5	23.	1.0	10.6	23.00
12	1127.5	14.	1.0	11.6	14.00
13	1128.5	11.	1.2	12.8	13.20
14	1129.5	Imp.	0.8	13.6	0.00
15	1134.5	1.7	0.8	14.4	1.36
16	1136.7	6.4	0.7	15.1	4.48
17	1137.5	1.2	0.8	15.9	0.96
18	1140.5	8.0	1.0	16.9	8.00
19	1141.5	16.	1.0	17.9	16.00
20	1144.8	6.7	0.5	18.4	3.35
21	1145.5	12.	0.6	19.0	7.20
22	1146.5	8.1	1.0	20.0	8.10
23	1147.8	14.	0.6	20.6	8.40
24	1148.5	1.0	0.5	21.1	0.50

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RESULTS OF SATURATION TESTS

TABLE II

Company Tec Drilling Company, Inc. Lease Young Well No. 10

Sct. No.	Depth Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls./A. Ft.	Feet of Core		Total Oil Content Bbls./Acre
			Oil	Water	Total		Ft.	Cum. Ft.	
1	1107.1	18.1	23	57	80	323	0.6	0.6	194
2	1108.1	17.9	26	43	69	361	0.6	1.2	217
3	1109.1	19.1	29	54	83	430	1.0	2.2	430
4	1110.1	20.6	31	34	65	495	1.0	3.2	495
5	1111.1	19.1	23	54	77	341	1.0	4.2	341
6	1112.1	19.4	25	57	82	376	1.0	5.2	376
7	1113.1	17.7	19	60	79	261	0.6	5.8	157
8	1114.1	15.9	16	62	78	197	1.4	7.2	276
9	1115.1	16.4	29	46	75	369	1.4	8.6	516
10	1124.1	19.7	27	54	81	413	0.6	9.2	248
11	1125.1	19.0	25	56	81	368	1.0	10.2	368
12	1126.1	19.5	35	50	85	530	1.0	11.2	530
13	1127.1	17.7	18	57	75	247	1.0	12.2	247
14	1128.1	17.8	23	70	93	318	1.0	13.2	318
15	1129.1	18.5	18	62	80	258	0.6	13.8	155
16	1134.1	15.0	17	62	79	198	0.7	14.5	139
17	1136.6	16.2	18	53	71	226	0.4	14.9	90
18	1137.1	17.2	23	56	79	307	0.3	15.2	92
19	1140.1	15.9	17	72	89	210	1.1	16.3	231
20	1141.1	17.6	14	63	77	191	1.0	17.3	191
21	1142.1	17.6	25	55	80	342	0.6	17.9	205
22	1145.1	16.0	24	47	71	298	0.5	18.4	149
23	1146.1	16.2	16	59	75	201	1.2	19.6	241
24	1147.1	16.8	27	51	78	352	1.0	20.6	352
25	1148.1	10.4	27	59	86	218	1.1	21.7	240
							Total-	- - - - -	-6,798

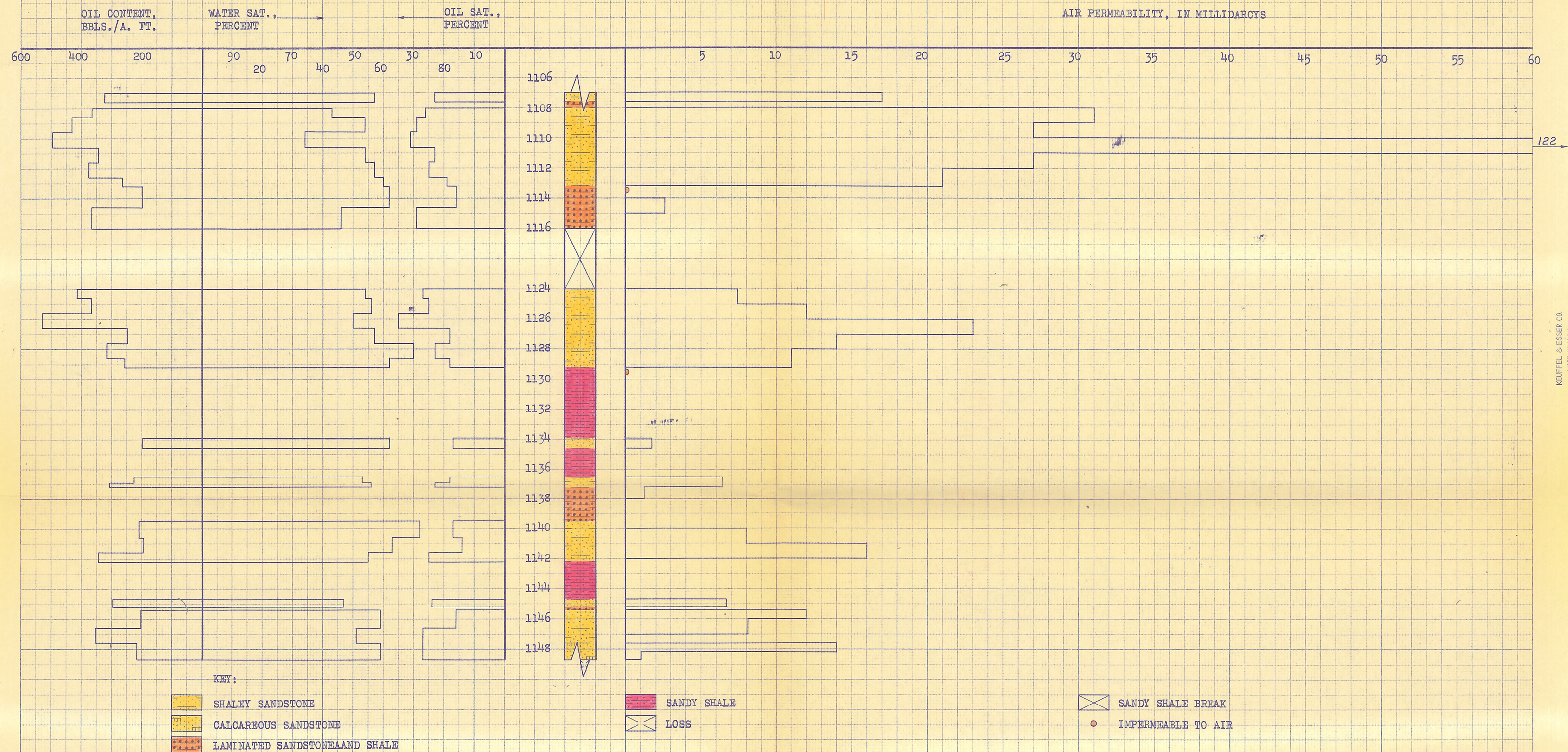
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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE II

Company Tec Drilling Company, Inc. Lease Young Well No. 10

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Fl. x Md.
1107.0 - 1129.2	12.0	26.2	314.60
1129.2 - 1148.7	7.5	7.8	58.35
1107.0 - 1148.7	19.5	19.1	372.95

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
1107.0 - 1129.2	13.8	18.3	24.6	54.2	352	4,868
1133.9 - 1148.7	7.9	15.6	20.5	59.0	244	1,930
1107.0 - 1148.7	21.7	17.3	23.1	56.0	313	6,798



TEC DRILLING COMPANY, INCORPORATED

YOUNG LEASE WOODSON COUNTY, KANSAS WELL NO. 10

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY, PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBLs./A. FT.	TOTAL OIL CONTENT BBLs./ACRE	AVG. AIR PERMEABILITY, MILLIDARCYs
1107.0 - 1129.2	13.8	18.3	24.6	54.2	352	4,868	26.2
1133.9 - 1148.7	7.9	15.6	20.5	59.0	244	1,930	7.8
1107.0 - 1148.7	21.7	17.3	23.1	56.0	313	6,798	19.1