

14-25-1GE



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS - PHONE HE1-2650

January 31, 1966

Four States Oil & Gas Company
& Layton Oil Company
P.O. Box 263
Independence, Kansas

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Salle Lease, Well No. S-23, Allen County, Kansas, and submitted to our laboratory on January 26, 1966.

This core was sampled and the samples sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:rf

5 c.

Salle S-23

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Four States Oil & Gas Co.

Company Four States Oil & Gas Co. & Layton Oil Company Lease Sallee Well No. S-23

Location 1460' SNL & 1460' EWL, NW $\frac{1}{4}$

Section 14 Twp. 25S Rge. 19E County Allen State Kansas

Name of Sand - - - - - Bartlesville

Top of Core - - - - - 830.0

Bottom of Core - - - - - 880.2

Top of ^{Good}Sand - - - - - 855.3

Bottom of ^{Good}Sand - - - - - 872.2

Total Feet of Permeable Sand - - - - - 21.6

Total Feet of Floodable Sand - - - - - -

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 10	8.7	8.7
10 - 20	5.2	13.9
20 - 50	4.0	17.9
50 & above	3.7	21.6

Average Permeability Millidarcys - - - - - 25.8

Average Percent Porosity - - - - - 19.5

Average Percent Oil Saturation - - - - - 62.8

Average Percent Water Saturation - - - - - 21.6

Average Oil Content, Bbls./A. Ft. - - - - - 950.

Total Oil Content, Bbls./Acre - - - - - 20,515.

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 - - - - -

Packer Setting, Feet - - - - -

Viscosity, Centipoises @ - - - - -

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

Elevation, Feet - - - - -

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-LOG-

Company Four States Oil & Gas Co.
& Layton Oil Co. Lease Sallee Well No. S-23Depth Interval, Description
Feet

830.0 - 852.0 - Sandy shale.

852.0 - 852.3 - Laminated sandstone and shale.

852.3 - 853.0 - Brown, laminated, shaly sandstone.

853.0 - 855.3 - Laminated sandstone and shale.

855.3 - 860.3 - Dark brown, laminated, slightly shaly sandstone.

860.3 - 861.6 - Sandy shale.

861.6 - 866.5 - Dark brown, laminated, slightly shaly sandstone.

866.5 - 868.5 - Sandy limestone.

868.5 - 872.2 - Dark brown, laminated, slightly shaly sandstone.

872.2 - 878.0 - Dark, carbonaceous, laminated, shaly sandstone.

878.0 - 878.7 - Sandy shale.

878.7 - 880.2 - Dark, carbonaceous, conglomeratic sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Four States Oil & Gas Co.
& Layton Oil Co.

Lease Sallee

Well No. S-23

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	852.5	18.5	51	28	79	731	12.	0.7	0.7	512	8.40
2	855.8	21.6	56	18	74	938	52.	1.0	1.7	938	52.00
3	856.8	19.7	50	28	78	763	53.	1.0	2.7	763	53.00
4	857.8	21.4	53	22	75	879	13.	1.0	3.7	879	13.00
5	858.8	17.6	43	33	76	586	2.0	1.0	4.7	586	2.00
6	859.8	17.7	59	22	81	810	3.1	1.0	5.7	810	3.10
7	861.8	18.9	61	36	97	893	1.3	0.7	6.4	625	0.91
8	862.8	16.3	60	38	98	758	0.29	0.9	7.3	682	0.26
9	863.5	19.9	68	18	86	1,050	4.7	0.8	8.1	840	3.76
10	864.5	19.5	61	25	86	924	13.	1.0	9.1	924	13.00
11	865.5	22.3	58	16	74	1,001	15.	1.5	10.6	1,501	22.50
12	869.0	19.1	65	24	89	961	13.	1.0	11.6	961	13.00
13	870.0	21.0	58	22	80	944	46.	1.0	12.6	944	46.00
14	871.0	21.3	59	16	75	974	48.	1.0	13.6	974	48.00
15	872.0	21.8	66	14	80	1,117	62.	0.7	14.3	782	43.40
16	873.0	17.8	69	29	98	952	5.3	1.3	15.6	1,238	6.89
17	874.0	18.5	73	23	96	1,048	39.	1.0	16.6	1,048	39.00
18	875.0	19.1	82	15	97	1,215	145.	1.0	17.6	1,215	145.00
19	876.0	19.1	62	9	71	919	28.	1.0	18.6	919	28.00
20	877.0	19.6	73	17	90	1,111	4.1	1.5	20.1	1,666	6.15
21	879.5	18.8	78	13	91	1,138	6.3	1.5	21.6	1,708	9.45
								Total-----		20,515	

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

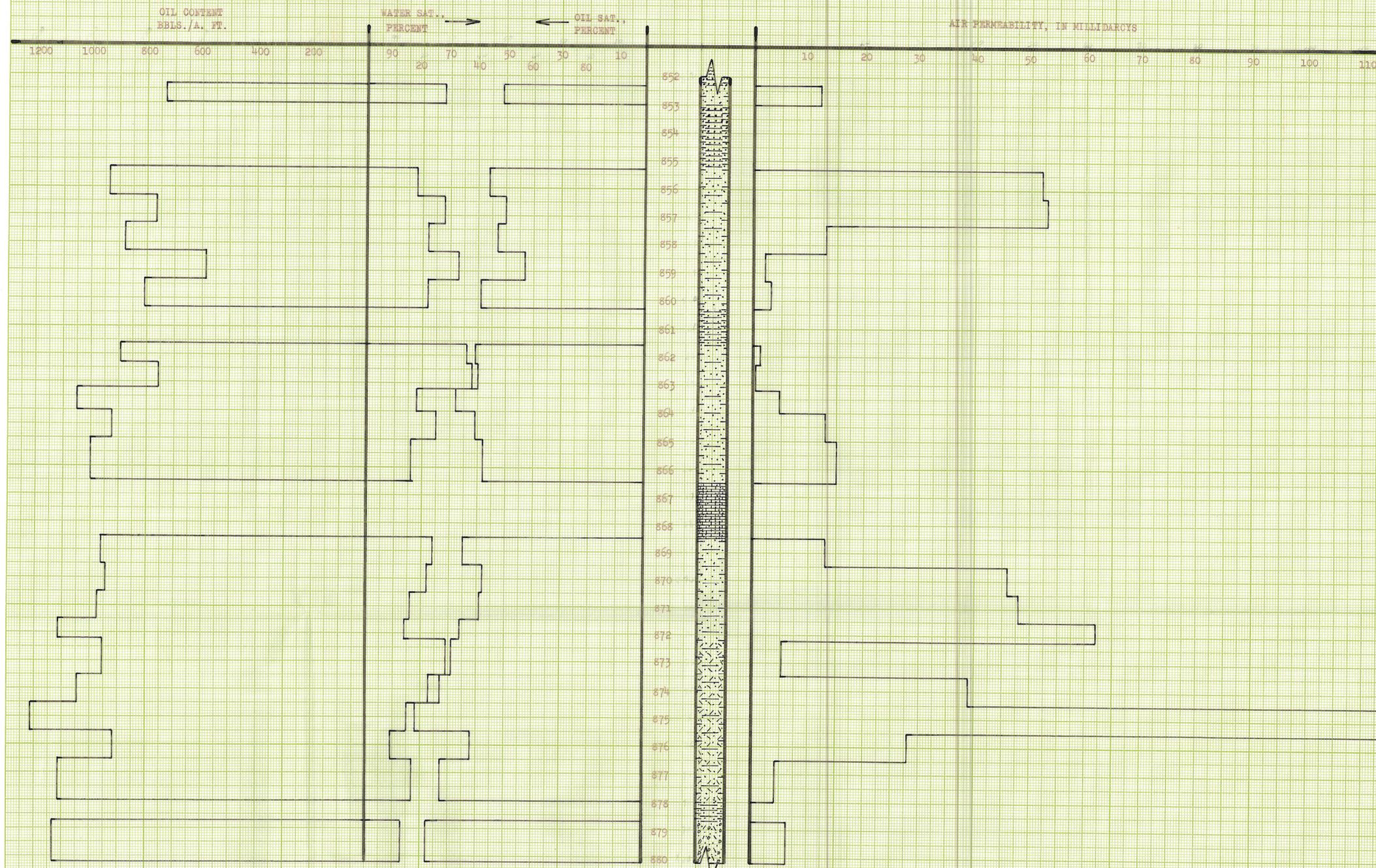
Company Four States Oil & Gas Co. & Layton Oil Co. Lease Sallee Well No. S-23

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
852.3 - 872.2	14.3	22.5	322.33
872.2 - 880.2	7.3	32.1	234.49
852.3 - 880.2	21.6	25.8	556.82

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
852.3 - 872.2	14.3	19.9	57.6	23.6	890	12,721
872.2 - 880.2	7.3	18.8	73.0	17.8	1,068	7,794
852.3 - 880.2	21.6	19.5	62.8	21.6	950	20,515

KEUFFEL & ESSER CO.
MADE IN U.S.A.

K&E STANDARD
COROS SECTION
MILLIMETER



SHALY SANDSTONE
 LAMINATED SANDSTONE & SHALE
 SANDY LIMESTONE

CARBONACEOUS SHALY SANDSTONE
 CARBONACEOUS CONGLOMERATIC SANDSTONE
 SANDY SHALE

FOUR STATES OIL & GAS COMPANY & LAYTON OIL COMPANY

SALLEE LEASE ALLEN COUNTY, KANSAS WELL NO. 8-43

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, MILLIDARCY
852.3 - 872.2	14.3	19.9	57.6	23.6	390	12,721	22.5
872.2 - 880.2	7.3	18.8	73.0	17.8	1,068	7,794	32.1
852.3 - 880.2	21.6	19.5	62.8	21.6	950	20,515	25.8

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CHANUTE, KANSAS
FEBRUARY, 1966