

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

July 17, 1980

Layton Oil Company
P.O. Box 263
Independence, Kansas 67301

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Abby Norris Lease, Well No. G-50, Montgomery County, Kansas, and submitted to our laboratory on June 23, 1980.

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

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Sanford A. Michel

SAM/tem

5 c to Independence, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

Oilfield Research Laboratories
GENERAL INFORMATION & SUMMARY

Company Layton Oil Company Lease Abby Norris Well No. G-50
 Location -
 Section 3 Twp. 34S Rge. 14E County Montgomery State Kansas

Elevation, Feet	
Name of Sand	Wayside
Top of Core	662.0
Bottom of Core	687.0
Top of Sand	663.5
Bottom of Sand	685.2
Total Feet of Permeable Sand	21.7

Distribution of Permeable Sand:
 Permeability Range
 Millidarcys

Feet

Cum. Ft.

0 - 10	8.4	8.4
10 - 20	3.0	11.4
20 - 40	7.7	19.1
60 & Above	2.6	21.7

Average Permeability Millidarcys	22.5
Average Percent Porosity	16.4
Average Percent Oil Saturation	31.0
Average Percent Water Saturation	48.9
Average Oil Content, Bbls./A. Ft.	394.
Total Oil Content, Bbls./Acre	8,549.

LOGName Layton Oil Company Lease Abby Norris Well No. G-50

<u>Depth Interval, Feet</u>	<u>Description</u>
662.0 - 663.5	Gray sandy shale.
663.5 - 664.8	Brown slightly calcareous shaly sandstone.
664.8 - 670.2	Brown slightly calcareous sandstone.
670.2 - 673.7	Brown shaly slightly calcareous sandstone.
673.7 - 675.3	Brown slightly calcareous sandstone.
675.3 - 676.3	Brown and gray laminated calcareous sandstone and shale.
676.3 - 679.0	Brown sandstone.
679.0 - 682.6	Dark brown slightly carbonaceous slightly calcareous sandstone.
682.6 - 683.6	Brown and gray laminated sandstone and shale.
683.6 - 685.2	Grayish brown very shaly sandstone.
685.2 - 687.0	Gray sandy shale.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company	Layton Oil Company	Lease	Abby Norris	Well No.	G-50
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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			Ft.	Cum. Ft.		
1	664.1	10.3	39	40	312	8.5	1.3	1.3	406	11.05
2	665.5	16.0	53	40	658	17.	1.0	2.3	658	17.00
3	666.5	13.8	19	56	203	31.	1.0	3.3	203	31.00
4	668.2	17.6	25	51	341	31.	1.5	4.8	512	46.50
5	668.9	19.3	20	53	300	38.	0.9	5.7	270	34.20
6	669.9	16.0	43	47	534	17.	1.0	6.7	534	17.00
7	670.7	15.8	20	49	245	6.3	1.5	8.2	368	9.45
8	672.2	14.1	45	42	492	9.4	1.0	9.2	492	9.40
9	673.1	13.9	37	51	399	4.8	1.0	10.2	399	4.80
10	674.0	16.0	28	60	348	10.	1.0	11.2	348	10.00
11	674.9	15.5	35	56	421	30.	0.6	11.8	253	18.00
12	676.2	14.5	18	73	203	0.58	1.0	12.8	203	0.58
13	676.9	18.1	31	43	435	61.	1.0	13.8	435	61.00
14	678.2	19.9	24	42	371	26.	1.7	15.5	631	44.20
15	679.3	20.7	41	36	658	66.	0.6	16.1	395	39.60
16	680.0	18.0	43	39	601	26.	1.0	17.1	601	26.00
17	681.3	21.3	45	29	744	76.	1.0	18.1	744	76.00
18	682.2	17.2	42	38	560	31.	1.0	19.1	560	31.00
19	683.1	17.1	14	59	186	0.22	1.0	20.1	186	0.22
20	684.0	15.1	17	65	199	1.0	1.0	21.1	199	1.00
21	685.0	12.6	26	72	254	0.38	0.6	21.7	152	0.23

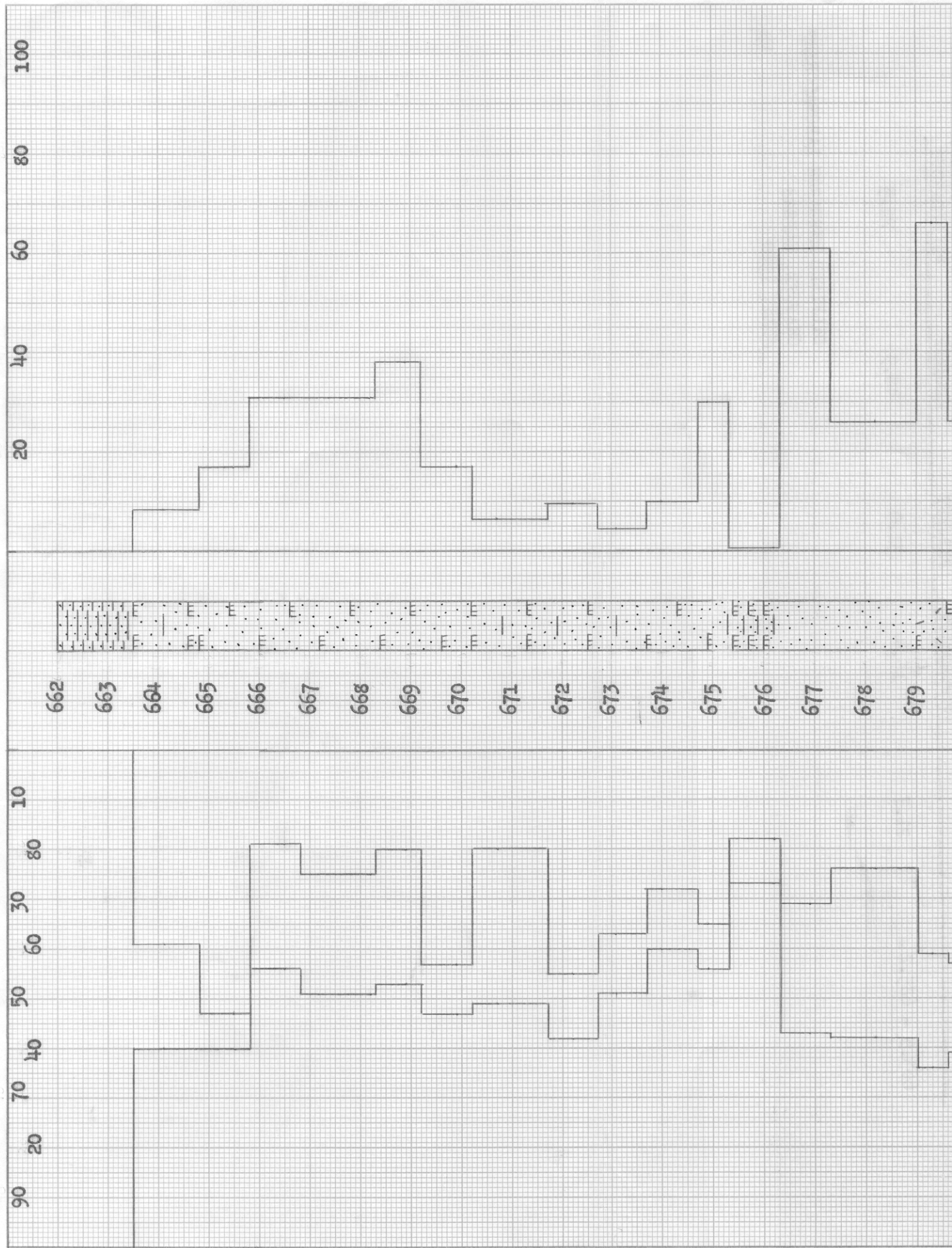
Oilfield Research Laboratories
SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Well No.	
Layton Oil Company		Abby Norris		G-50	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
663.5 - 685.2	21.7	22.5	488.23		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Total Oil Content Bbls./Acre
663.5 - 685.2	21.7	16.4	31.0	48.9	8,549
				394	

WATER SAT., PERCENT → OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCS



680
681
682
683
684
685
687

KEY:

 SANDY SHALE

 CALCAREOUS SANDSTONE

 SANDSTONE

 LAMINATED SANDSTONE & SHALE

 CALCAREOUS SHALY SANDSTONE

 LAMINATED CALCAREOUS SANDSTONE & SHALE

 CARBONACEOUS CALCAREOUS SANDSTONE

 SHALY SANDSTONE

LAYTON OIL COMPANY

ABBY NORRIS LEASE

WELL NO. G-50

MONTGOMERY COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE		AVG. OIL		AVG. WATER		AVERAGE	
		POROSITY	PERCENT	SATURATION	PERCENT	SATURATION	PERCENT	PERMEABILITY,	MILLIDARCS
663.5 - 685.2	21.7	16.4	31.0			48.9		22.5	