

OILFIELD RESEARCH LABORATORIES

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

February 19, 1980

KLI Petroleum Corporation
808 Southeast Sixth
Evansville, Indiana 74048

Gentlemen:

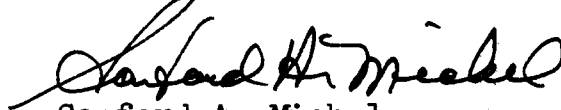
Enclosed herewith are the results of tests run on the rotary cores taken from the Nelson Lease, Well No. K-44, Allen County, Kansas, and submitted to our laboratory on February 13, 1980.

The cores were 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/kas
5 c to Evansville, Indiana

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company KLI Petroleum Corporation Lease Nelson Well No. K-44

Location —

Section 21 Twp. 26S Rge. 21E County Allen State Kansas

Elevation, Feet	Upper Bartlesville	Lower Bartlesville
Name of Sand		
Top of Core	621.0	650.0
Bottom of Core	630.0	727.0
Top of Sand (Tested) . .	622.3	650.0
Bottom of Sand	628.0	720.8
Total Feet of Permeable Sand	5.7	62.7

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

UPPER BARTLESVILLE SAND

0 - 20	2.0	2.0
20 - 40	2.0	4.0
50 & Above	1.7	5.7

LOWER BARTLESVILLE SAND

0 - 5	22.1	22.1
5 - 10	8.8	30.9
10 - 30	9.0	39.9
30 - 40	7.8	47.7
40 - 60	6.1	53.8
60 - 100	4.0	57.8
100 & Above	4.9	62.7
Average Permeability Millidarcys		35.7
Average Percent Porosity		18.4
Average Percent Oil Saturation		28.9
Average Percent Water Saturation		57.0
Average Oil Content, Bbls./A. Ft.		405.
Total Oil Content, Bbls./Acre		2,310.

30.1

18.5

45.3

33.4

658.

42,384.

LOGName KLI Petroleum Corporation Lease Nelson Well No. K-44

<u>Depth Interval, Feet</u>	<u>Description</u>
<u>UPPER BARTLESVILLE SAND</u>	
621.0 - 621.3	Brown sandstone.
621.3 - 622.3	Gray sandy shale.
622.3 - 628.0	Brown shaly sandstone.
628.0 - 630.0	Gray sandy shale.
<u>LOWER BARTLESVILLE SAND</u>	
650.0 - 652.2	Dark brown sandstone.
652.2 - 653.0	Light brown very shaly sandstone.
653.0 - 655.0	Brown slightly carbonaceous slightly shaly sandstone.
655.0 - 655.2	Gray sandy shale.
655.2 - 657.3	Brown very shaly sandstone.
657.3 - 662.0	Brown slightly carbonaceous shaly sandstone.
662.0 - 665.2	Gray sandy shale.
665.2 - 668.9	Brown very shaly sandstone.
668.9 - 670.0	Gray sandy shale.
670.0 - 671.0	Gray laminated very shaly sandstone.
671.0 - 689.1	Brown slightly carbonaceous sandstone.
689.1 - 689.3	Brown conglomeratic sandstone.
689.3 - 698.8	Dark brown slightly shaly sandstone.
698.8 - 720.8	Dark carbonaceous shaly sandstone.
720.8 - 721.3	Coal.
721.3 - 727.0	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company KLI Petroleum Corporation Lease Nelson Well No. K-44

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.		
UPPER BARTLESVILLE SAND											
1	622.5	17.0	31	51	82	409	84.	0.7	0.7	286	58.80
2	623.5	18.3	26	62	88	369	39.	1.0	1.7	369	39.00
3	624.5	15.4	34	56	90	406	15.	1.0	2.7	406	15.00
4	625.5	16.8	31	64	95	404	36.	1.0	3.7	404	36.00
5	626.5	23.1	24	63	87	430	50.	1.0	4.7	430	50.00
6	627.5	19.1	28	44	72	415	4.6	1.0	5.7	415	4.60
LOWER BARTLESVILLE SAND											
1	650.5	16.9	34	39	73	446	137.	1.0	1.0	446	137.00
2	651.5	22.1	40	33	73	686	121.	1.2	2.2	823	145.20
3	652.5	4.0	8	87	95	25	7.5	0.8	3.0	20	6.00
4	653.5	21.7	47	28	75	791	288.	1.0	4.0	791	288.00
5	654.5	22.0	57	16	73	973	4.5	1.0	5.0	973	4.50
6	655.5	17.4	45	38	83	606	1.8	2.1	7.1	1273	3.78
7	657.5	16.9	46	32	78	603	Imp.	0.7	7.8	422	0.00
8	658.5	19.6	54	19	73	821	0.54	1.0	8.8	821	0.54
9	659.5	21.2	52	22	74	855	0.31	1.0	9.8	855	0.31
10	660.5	19.4	60	18	78	903	1.0	1.0	10.8	903	1.00
11	661.5	20.7	58	17	75	931	0.89	1.0	11.8	931	0.89
12	665.5	15.7	31	52	83	378	0.74	1.0	12.8	378	0.74
13	668.5	15.8	55	30	85	674	Imp.	1.0	13.8	674	0.00
14	670.3	16.3	38	46	84	481	4.1	1.0	14.8	481	4.10
15	671.5	12.7	32	57	89	315	39.	1.0	15.8	315	39.00
16	672.5	18.7	35	40	75	508	31.	1.0	16.8	508	31.00
17	673.5	21.6	52	21	73	871	86.	1.0	17.8	871	86.00
18	674.5	20.5	52	26	78	827	24.	1.0	18.8	827	24.00
19	675.5	20.5	54	21	75	859	24.	1.0	19.8	859	24.00
20	676.5	21.9	52	23	75	884	43.	1.0	20.8	884	43.00
21	677.5	22.0	54	21	75	922	37.	1.0	21.8	922	37.00

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company KLI Petroleum Corporation Lease Nelson Well No. K-44

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.		
22	678.5	21.2	50	28	78	822	44.	1.0	22.8	822	44.00
23	679.5	18.7	50	31	81	725	13.	1.0	23.8	725	13.00
24	680.5	20.5	49	32	81	779	30.	1.0	24.8	779	30.00
25	681.5	17.5	52	30	82	706	51.	1.0	25.8	706	51.00
26	682.5	20.9	47	29	76	762	10.	1.0	26.8	762	10.00
27	683.5	18.0	46	33	79	642	123.	1.0	27.8	642	123.00
28	684.5	20.5	52	27	79	827	20.	1.0	28.8	827	20.00
29	685.5	20.7	54	25	79	867	18.	1.0	29.8	867	18.00
30	686.5	18.3	39	40	79	554	18.	1.0	30.8	554	18.00
31	687.5	18.7	48	35	83	696	50.	1.0	31.8	696	50.00
32	688.5	19.8	46	31	77	707	49.	1.1	32.9	778	53.90
33	689.5	20.8	44	32	76	710	169.	0.7	33.6	497	118.30
34	690.5	21.7	45	31	76	758	64.	1.0	34.6	758	64.00
35	691.5	22.0	53	24	77	905	60.	1.0	35.6	905	60.00
36	692.5	18.4	36	42	78	514	35.	1.0	36.6	514	35.00
37	693.5	18.1	39	36	75	548	47.	1.0	37.6	548	47.00
38	694.5	18.5	45	31	76	646	9.1	1.0	38.6	646	9.10
39	695.5	18.7	36	39	75	522	33.	1.0	39.6	522	33.00
40	696.5	23.1	40	29	69	717	61.	1.0	40.6	717	61.00
41	697.5	20.6	40	33	73	639	33.	1.0	41.6	639	33.00
42	698.5	20.1	34	37	71	530	37.	0.8	42.4	424	29.60
43	699.5	17.6	38	40	78	519	7.4	1.2	43.6	623	8.88
44	700.5	17.9	38	40	78	528	5.0	1.0	44.6	528	5.00
45	701.5	17.4	34	47	81	459	2.1	1.0	45.6	459	2.10
46	702.5	19.4	47	34	81	707	8.3	1.0	46.6	707	8.30
47	703.5	20.0	43	34	77	667	5.0	1.0	47.6	667	5.00
48	704.5	13.0	35	53	88	353	0.73	1.0	48.6	353	0.73
49	705.5	15.8	52	32	84	637	0.31	1.0	49.6	637	0.31

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company KLI Petroleum Corporation Lease Nelson Well No. K-14

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.		
50	706.5	15.6	46	46	92	564	1.6	1.0	50.6	564	1.60
51	707.5	18.9	44	36	80	645	1.6	1.0	51.6	645	1.60
52	708.5	16.1	22	56	78	275	2.9	1.0	52.6	275	2.90
53	709.5	17.7	48	39	87	659	2.3	1.0	53.6	659	2.30
54	710.5	15.0	31	56	87	361	0.65	1.0	54.6	361	0.65
55	711.5	18.9	55	29	84	806	4.4	1.0	55.6	806	4.40
56	712.5	17.0	56	39	95	739	0.61	1.0	56.6	739	0.61
57	713.5	19.1	59	31	90	874	3.1	1.0	57.6	874	3.10
58	714.5	18.9	55	30	85	806	10.	1.0	58.6	806	10.00
59	715.5	18.6	67	27	94	967	3.8	1.0	59.6	967	3.80
60	716.5	18.9	56	31	87	821	1.4	1.0	60.6	821	1.40
61	717.5	16.3	55	38	93	696	5.6	1.0	61.6	696	5.60
62	718.5	20.4	51	31	82	807	7.8	1.0	62.6	807	7.80
63	719.5	21.3	56	24	80	925	13.	1.0	63.6	925	13.00
64	720.5	20.3	57	28	85	898	5.0	0.8	64.4	718	4.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company KLI Petroleum Corporation Lease Nelson Well No. K-44

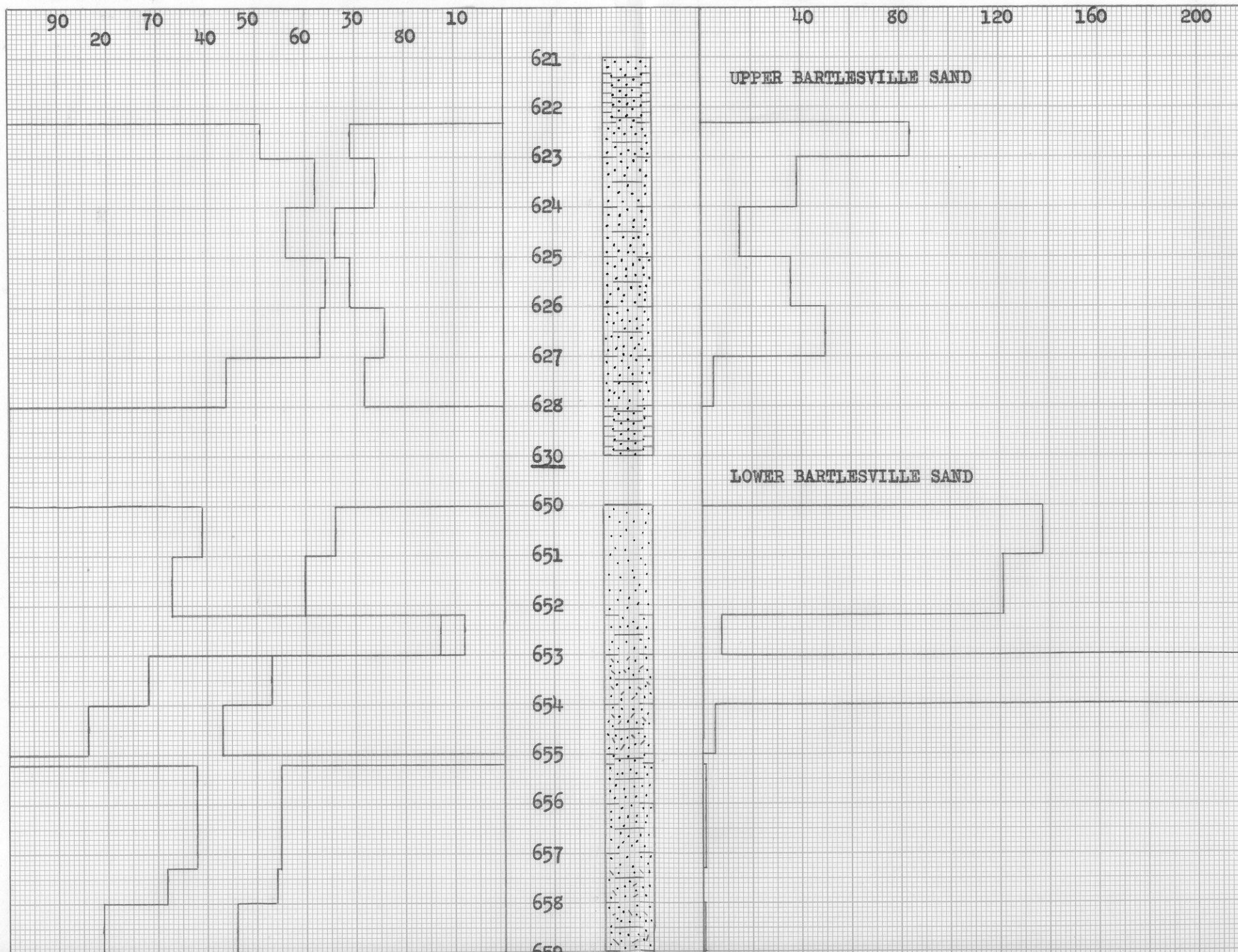
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
<u>UPPER BARTLESVILLE SAND</u>			
622.3 - 628.0	5.7	35.7	203.40
<u>LOWER BARTLESVILLE SAND</u>			
650.0 - 671.0	13.1	45.2	592.06
671.0 - 705.0	33.8	36.5	1234.91
705.0 - 720.8	15.8	4.0	63.07
650.0 - 720.8	62.7	30.1	1890.04

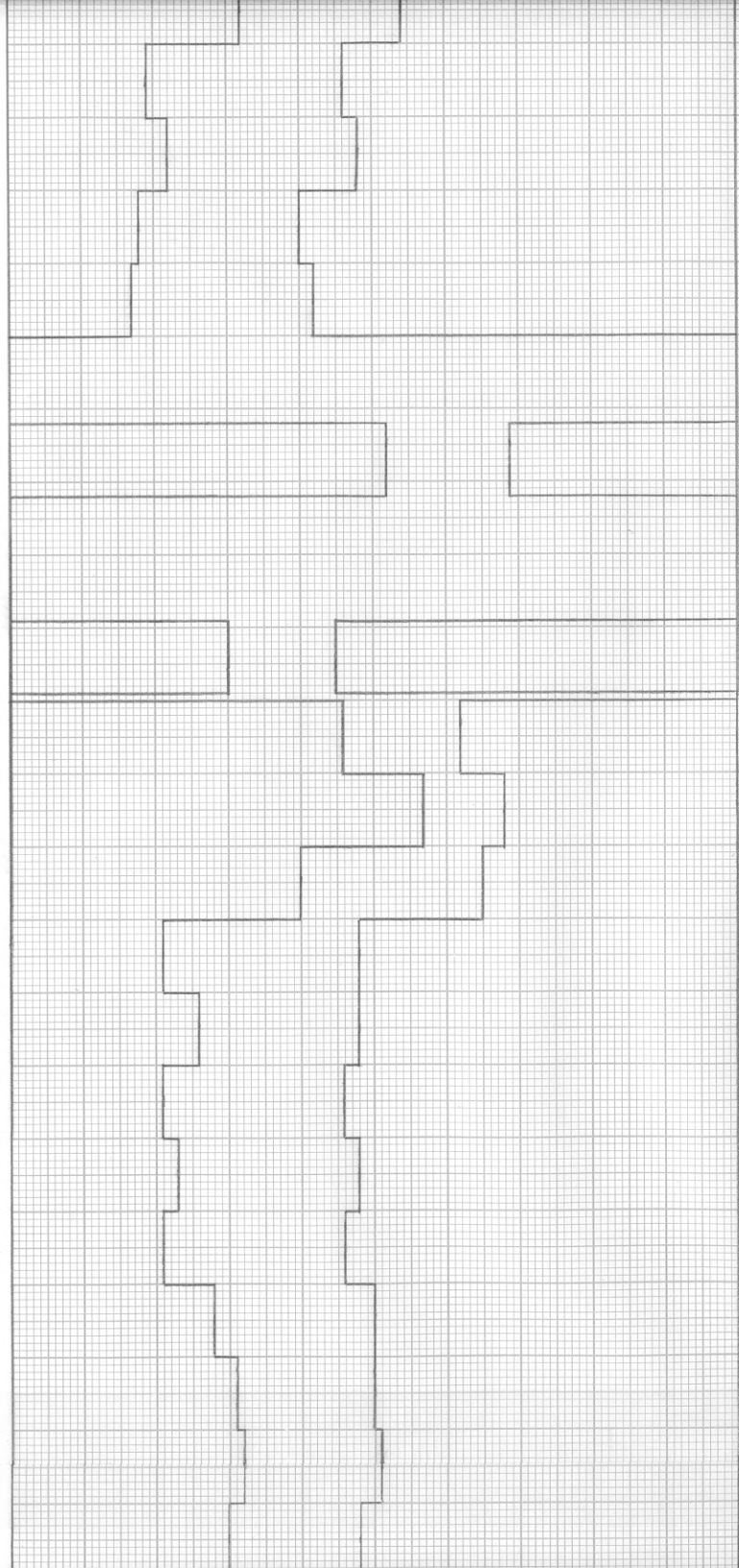
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
<u>UPPER BARTLESVILLE SAND</u>						
622.3 - 628.0	5.7	18.4	28.9	57.0	405	2,310
<u>LOWER BARTLESVILLE SAND</u>						
650.0 - 671.0	14.8	16.8	41.7	30.9	662	9,791
671.0 - 705.0	33.8	19.4	44.5	33.3	630	21,293
705.0 - 720.8	15.8	18.0	50.5	35.9	715	11,300
650.0 - 720.8	64.4	18.5	45.3	33.4	658	42,384

WATER SAT.,
PERCENT

OIL SAT.,
PERCENT

PERMEABILITY, IN MILLIDARCS





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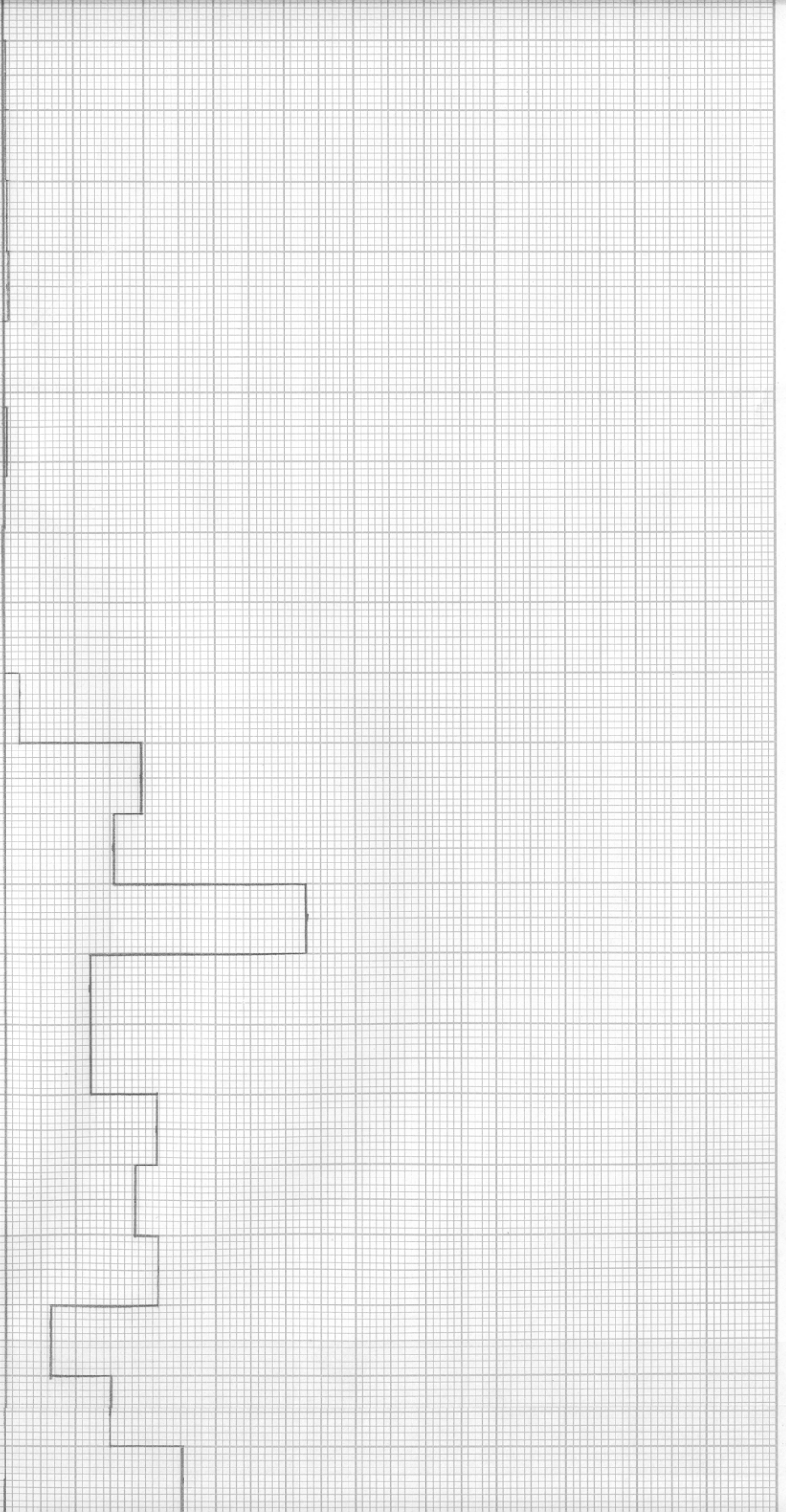
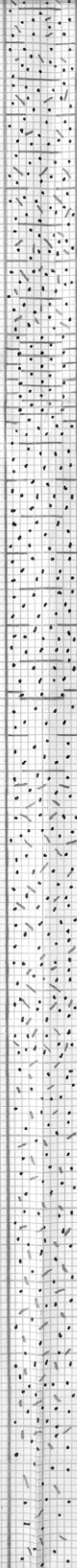
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COAL

KEY:



SANDSTONE



CARBONACEOUS SHALY SANDSTONE



CONGLOMERATIC SANDSTONE



COAL



SHALY SANDSTONE



CARBONACEOUS SANDSTONE



SANDY SHALE

KLI PETROLEUM CORPORATION

NELSON LEASE

WELL NO. K - 44

ALLEN COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
<u>UPPER BARTLESVILLE SAND</u>					
622.3 - 628.0	5.7	18.4	28.9	57.0	35.7
<u>LOWER BARTLESVILLE SAND</u>					
650.0 - 671.0	14.8	16.8	41.7	30.9	45.2
671.0 - 705.0	33.8	19.4	44.5	33.3	36.5
705.0 - 720.8	15.8	18.0	50.5	35.9	4.0
650.0 - 720.8	64.4	18.5	45.3	33.4	30.1

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
FEBRUARY, 1980. HR