



OILFIELD RESEARCH LABORATORIES

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

November 17, 1980

Eastern Kansas Gas & Oil
202 E. 23rd St.
Fort Scott, Kansas 66702

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Cox Ranch Lease, Well No. 3-N, located in Linn County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and submitted to our laboratory on October 28, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

4 c to Fort Scott, Kansas
1 c to Tulsa, Oklahoma

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GENERAL INFORMATION & SUMMARY

Company Eastern Kansas Gas & Oil Lease Cox Ranch Well No. 3-N
 Location -
 Section - Twp. - Rge. - County Linn State Kansas

Elevation, Feet	-
Name of Sand	Squirrel
Top of Core	361.0
Bottom of Core	406.4
Top of Sand	361.0
Bottom of Sand	405.6
Total Feet of Permeable Sand	34.1

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	21.5	21.5
5 - 10	5.7	27.2
10 - 20	2.4	29.6
20 & Above	4.5	34.1

Average Permeability Millidarcys	9.2
Average Percent Porosity	17.0
Average Percent Oil Saturation	37.1
Average Percent Water Saturation	54.2
Average Oil Content, Bbls./A. Fl.	516.
Total Oil Content, Bbls./Acre	20,756.

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LOGName Eastern Kansas Gas & Oil Lease Cox Ranch Well No. 3-N

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
361.0 - 363.2	Brown sandstone.
363.2 - 363.8	Brown and gray laminated sandstone and shale.
363.8 - 364.6	Brown sandstone.
364.6 - 368.7	Brown and gray laminated sandstone and shale.
368.7 - 372.0	Brown slightly laminated sandstone and shale.
372.0 - 374.4	Gray sandy shale.
374.4 - 375.9	Grayish light brown very shaly sandstone.
375.9 - 376.9	Gray sandy shale.
376.9 - 380.0	Light brown and gray laminated sandstone and shale.
380.0 - 381.0	Gray sandy shale.
381.0 - 388.7	Grayish light brown very shaly sandstone.
388.7 - 405.6	Brown and gray laminated sandstone and shale.
405.6 - 406.4	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Eastern Kansas Gas & Oil Lease Cox Ranch Well No. 3-N

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	361.5	22.7	52	17	69	916	97.	1.0	1.0	916	97.00
2	362.5	22.4	60	26	86	1043	35.	1.2	2.2	1252	42.00
3	363.5	18.8	56	29	85	817	16.	0.6	2.8	490	9.60
4	364.5	20.9	45	32	77	730	17.	0.8	3.6	584	13.60
5	365.5	8.6	29	66	95	194	1.0	1.4	5.0	272	1.00
6	366.5	15.0	47	50	97	547	1.6	1.0	6.0	547	1.60
7	367.5	16.8	35	57	92	456	4.9	1.0	7.0	456	4.90
8	368.5	18.5	45	39	84	646	9.9	0.7	7.7	452	6.93
9	369.5	19.3	45	40	85	674	27.	1.3	9.0	876	35.10
10	370.5	19.6	53	35	88	805	23.	1.0	10.0	805	23.00
11	371.5	19.5	43	39	82	651	16.	1.0	11.0	651	16.00
12	374.5	15.5	31	63	94	373	Imp.	0.5	11.5	187	0.00
13	375.5	15.0	31	67	98	361	Imp.	1.0	12.5	361	0.00
14	377.5	17.7	39	54	93	536	0.24	1.1	13.6	589	0.26
15	378.5	15.4	20	75	95	239	0.37	1.0	14.6	239	0.37
16	379.5	16.8	50	46	96	652	Imp.	1.0	15.6	652	0.00
17	381.5	15.0	11	86	97	128	Imp.	1.0	16.6	128	0.00
18	382.5	14.4	9	86	95	101	0.28	1.0	17.6	101	0.28
19	383.5	15.1	22	76	98	258	Imp.	1.0	18.6	258	0.00
20	384.5	16.0	22	74	96	273	Imp.	1.0	19.6	273	0.00
21	385.5	17.8	44	48	92	608	0.95	1.0	20.6	608	0.95
22	386.5	15.2	19	79	97	224	5.4	1.0	21.6	224	5.4
23	387.5	15.3	22	73	95	261	0.69	1.0	22.6	261	0.69
24	388.5	17.1	45	54	99	597	0.80	0.7	23.3	418	0.56
25	389.5	16.8	42	55	97	547	0.95	1.3	24.6	711	1.24
26	390.5	18.5	42	44	86	603	2.8	1.0	25.6	603	2.80
27	391.5	16.3	34	59	93	430	1.3	1.0	26.6	430	1.30
28	392.5	15.7	35	63	98	426	0.76	1.0	27.6	426	0.76
29	393.5	17.8	38	51	89	525	2.4	1.0	28.6	525	2.40
30	394.5	16.4	34	62	96	433	5.8	1.0	29.6	433	5.80

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RESULTS OF SATURATION & PERMEABILITY TESTS

Page 2

TABLE I-B

Company Eastern Kansas Gas & Oil Lease Cox Ranch Well No. 3-N

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.		
31	395.5	18.6	51	37	88	736	5.2	1.0	30.6	736	5.20
32	396.5	18.6	40	43	83	577	2.6	1.0	31.6	577	2.60
33	397.5	16.1	55	41	96	687	4.7	1.0	32.6	687	4.70
34	398.5	17.7	36	50	86	494	9.6	1.0	33.6	494	9.60
35	399.5	18.6	49	42	91	707	9.4	1.0	34.6	707	9.40
36	400.5	16.6	35	56	91	451	1.8	1.0	35.6	451	1.80
37	401.5	17.2	30	52	82	974	1.0	1.0	36.6	974	1.00
38	402.5	17.2	20	73	93	267	2.0	1.0	37.6	267	2.00
39	403.5	16.1	36	61	97	450	0.71	1.0	38.6	450	0.71
40	404.5	16.0	28	63	91	348	1.6	1.0	39.6	348	1.60
41	405.5	14.2	51	45	96	562	Imp.	0.6	40.2	337	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Eastern Kansas Gas & Oil Lease Cox Ranch Well No. 3-N

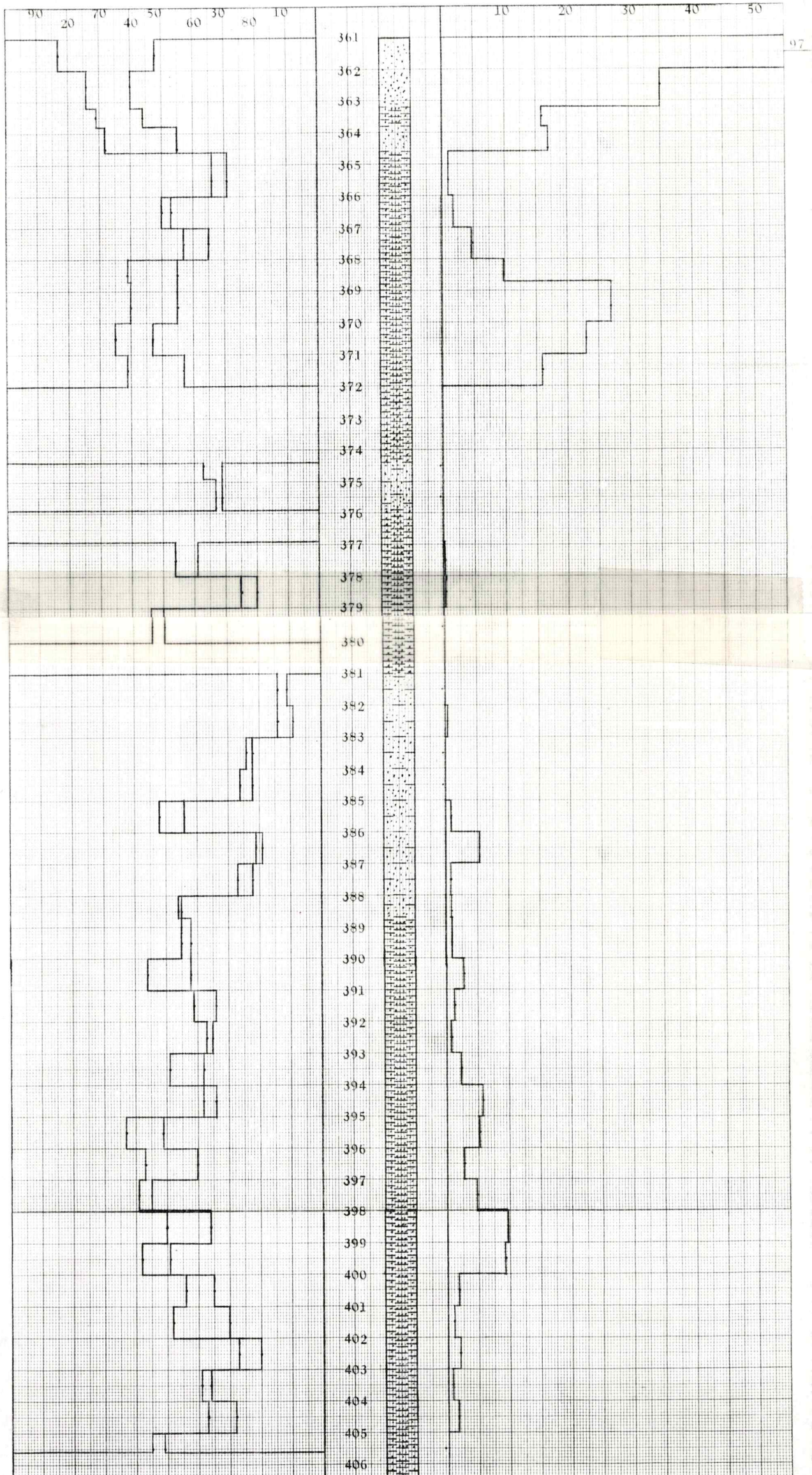
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
361.0 - 405.6	34.1	9.2	312.15

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
361.0 - 405.6	40.2	17.0	37.1	54.2	516	20,756

WATER SAT., PERCENT

OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCYS



KEY:

SANDSTONE

SHALY SANDSTONE

SANDY SHALE

LAMINATED SANDSTONE AND SHALE

EASTERN KANSAS GAS & OIL

COX RANCH LEASE

LINN COUNTY, KANSAS

WELL NO. 3 - N

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
361.0 - 405.6	40.2	17.0	37.1	54.2	9.2

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
NOVEMBER, 1980

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