

OILFIELD RESEARCH LABORATORIES

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

October 27, 1981

L & L Oil Company
P. O. Box 13
Benedict, Kansas 66714

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Hammerbacher Lease, Well No. 1, located in Crawford County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on October 20, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

4 c to Benedict, Kansas
1 c to Mike Ebers, Chanute, Kansas

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GENERAL INFORMATION & SUMMARY

Company L & L Oil Company Lease Hammerbacher Well No. 1
 Location _____
 Section 30 Twp. 28S Rge. 22E County Crawford State Kansas

Elevation, Feet

Name of Sand

Bartlesville

Top of Core

390.0

Bottom of Core

402.7

Top of Sand

390.0

Bottom of Sand

401.0

Total Feet of Permeable Sand

9.5

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 5

3.4

3.4

5 - 10

4.3

7.7

10 - 15

1.8

9.5

Average Permeability Millidarcys

7.0

Average Percent Porosity

16.7

Average Percent Oil Saturation

37.5

Average Percent Water Saturation

40.4

Average Oil Content, Bbls./A. Ft.

488.

Total Oil Content, Bbls./Acre

4,636.

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LOGName L & L Oil Company Lease Hammerbacher Well No. 1

<u>Depth Interval, Feet</u>	<u>Description</u>
390.0 - 393.2	Grayish brown shaly sandstone.
393.2 - 395.8	Brown sandstone with shale partings.
395.8 - 396.3	Gray shale.
396.3 - 397.9	Grayish brown slightly shaly sandstone with micaceous partings.
397.9 - 398.7	Brown sandstone.
398.7 - 399.6	Grayish light brown slightly shaly sandstone.
399.6 - 400.6	Gray shale.
400.6 - 401.0	Grayish brown shaly sandstone.
401.0 - 402.7	Gray shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company L & L Oil Company Lease Hammerbacher Well No. 1

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	390.7	16.7	26	54	80	337	1.8	1.0	1.0	337	1.80
2	391.4	16.9	46	35	81	603	0.89	1.0	2.0	603	0.89
3	392.5	16.8	37	42	79	482	6.3	1.2	3.2	578	7.56
4	393.5	18.0	46	34	80	642	9.4	0.8	4.0	514	7.52
5	394.4	18.1	40	35	75	562	15.	1.0	5.0	562	15.00
6	395.5	17.6	37	33	70	505	10.	0.8	5.8	404	8.00
7	396.5	16.7	45	28	73	583	6.6	0.6	6.4	350	3.96
8	397.4	17.7	31	46	77	426	4.9	1.0	7.4	426	4.90
9	398.4	15.0	38	40	78	442	11.	0.8	8.2	354	8.80
10	399.5	14.4	37	52	89	413	8.3	0.9	9.1	372	7.47
11	400.7	14.6	30	35	65	340	0.87	0.4	9.5	136	0.35

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SUMMARY OF PERMEABILITY & SATURATION TESTS

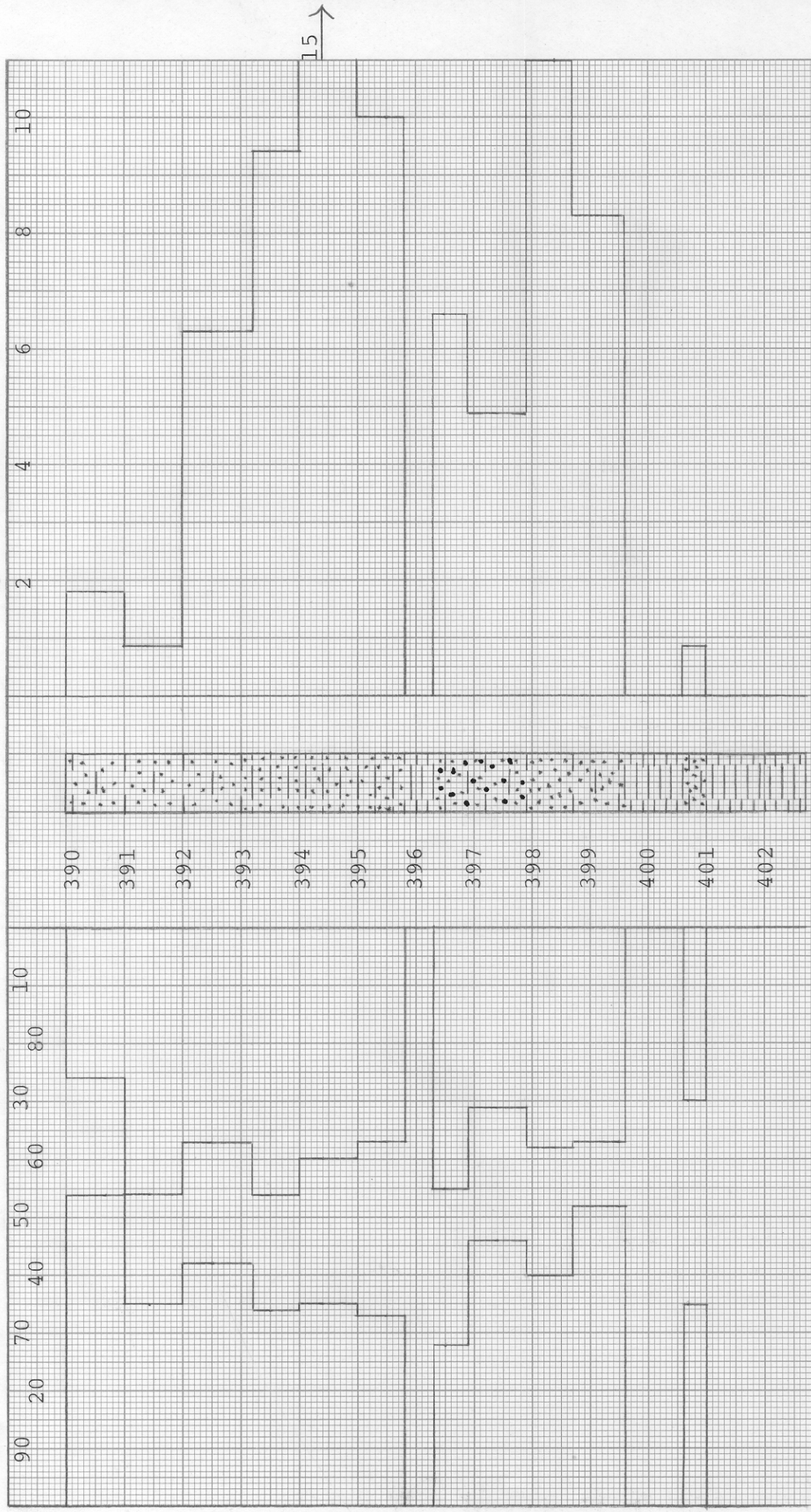
TABLE III

Company	Lease	Hammerbacher	Well No.
L & L Oil Company			1
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys
	Permeability Capacity Ft. x Md.		
	390.0 - 401.0	9.5	7.0
			66.25
	Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation
	Average Percent Water Saturation		Average Oil Content Bbl./A. Ft.
	Total Oil Content Bbls./Acre		
	390.0 - 401.0	9.5	37.5
		16.7	40.4
			488
			4,636

WATER SAT., PERCENT

OIL SAT., PERCENT

PERMEABILITY IN MILLIDARCYS



KEY:

SANDSTONE

SANDSTONE WITH SHALE PARTINGS

SHALY SANDSTONE

SANDSTONE WITH MICACEOUS PARTINGS

SHALE

L & L OIL COMPANY

L & L OIL COMPANY

HAMMERBACHER LEASE

WELL NO. 1

CRAWFORD COUTNY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY MILLIDARCYS
390.0 - 401.0	9.5	16.7	37.5	40.4	7.0

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CHANUTE, KANSAS
OCTOBER, 1981

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