

OILFIELD RESEARCH LABORATORIES

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

January 8, 1982

Baldwin City Oil Company
1915 West 24th Street
Lawrence, Kansas 66044

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the F. Bell Lease, Well No. Schutz -2, located in Douglas County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on January 7, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

4 c to Lawrence, Kansas
1 c to John Graves, Graves Drilling Company
910 Union Center, Wichita, Kansas 67202

- REGISTERED ENGINEERS -

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

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GENERAL INFORMATION & SUMMARY

Company Baldwin City Oil Company Lease F. Bell Well No. Schutz-2
 Location E $\frac{1}{2}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$
 Section 36 Twp. 14S Rge. 20E County Douglas State Kansas

Elevation, Feet

Name of Sand

Squirrel

Top of Core

825.0

Bottom of Core

836.2

Top of Sand

825.0

Bottom of Sand

836.2

Total Feet of Permeable Sand

10.4

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
1 - 10	5.8	5.8
15 - 30	1.7	7.5
31 - 34	1.9	9.4
70 & Above	1.0	10.4

Feet

Cum. Ft.

1 - 10

5.8

5.8

15 - 30

1.7

7.5

31 - 34

1.9

9.4

70 & Above

1.0

10.4

Average Permeability Millidarcys

19.9

Average Percent Porosity

21.2

Average Percent Oil Saturation

38.9

Average Percent Water Saturation

49.1

Average Oil Content, Bbls./A. Ft.

644.

Total Oil Content, Bbls./Acre

6,699.

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LOG

Name Baldwin City Oil Company Lease F. Bell Well No. Schuta-2

<u>Depth Interval, Feet</u>	<u>Description</u>
825.0 - 826.8	Brown sandstone.
826.8 - 829.0	Gray and brown laminated shale and sandstone.
829.0 - 829.6	Brown sandstone.
829.6 - 831.7	Gray and brown laminated shale and sandstone.
831.7 - 832.5	Gray slightly sandy shale.
832.5 - 832.8	Brown sandstone with fine shale partings.
832.8 - 834.3	Gray and brown laminated shale and sandstone.
834.3 - 836.2	Brown sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Baldwin City Oil Company Lease F. Bell Well No. Schutz -2

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	825.5	20.6	40	58	98	639	31.	1.0	1.0	639	31.00
2	826.4	22.2	33	53	86	568	24.	0.8	1.8	454	19.20
3	827.6	18.9	35	56	91	513	7.8	1.2	3.0	616	9.36
4	828.5	19.4	42	54	96	632	8.2	1.0	4.0	632	8.20
5	829.5	22.8	30	52	82	531	28.	0.6	4.6	319	16.80
6	830.3	22.3	37	46	83	640	8.0	1.0	5.6	640	8.00
7	831.6	22.7	30	45	75	528	8.0	1.1	6.7	581	8.80
8	832.6	20.2	41	40	81	643	15.	0.3	7.0	193	4.50
9	833.4	16.5	38	58	96	486	1.0	1.5	8.5	729	1.50
10	834.4	25.5	55	40	95	1098	70.	1.0	9.5	1098	70.00
11	835.6	24.8	46	26	72	885	33.	0.9	10.4	797	29.70

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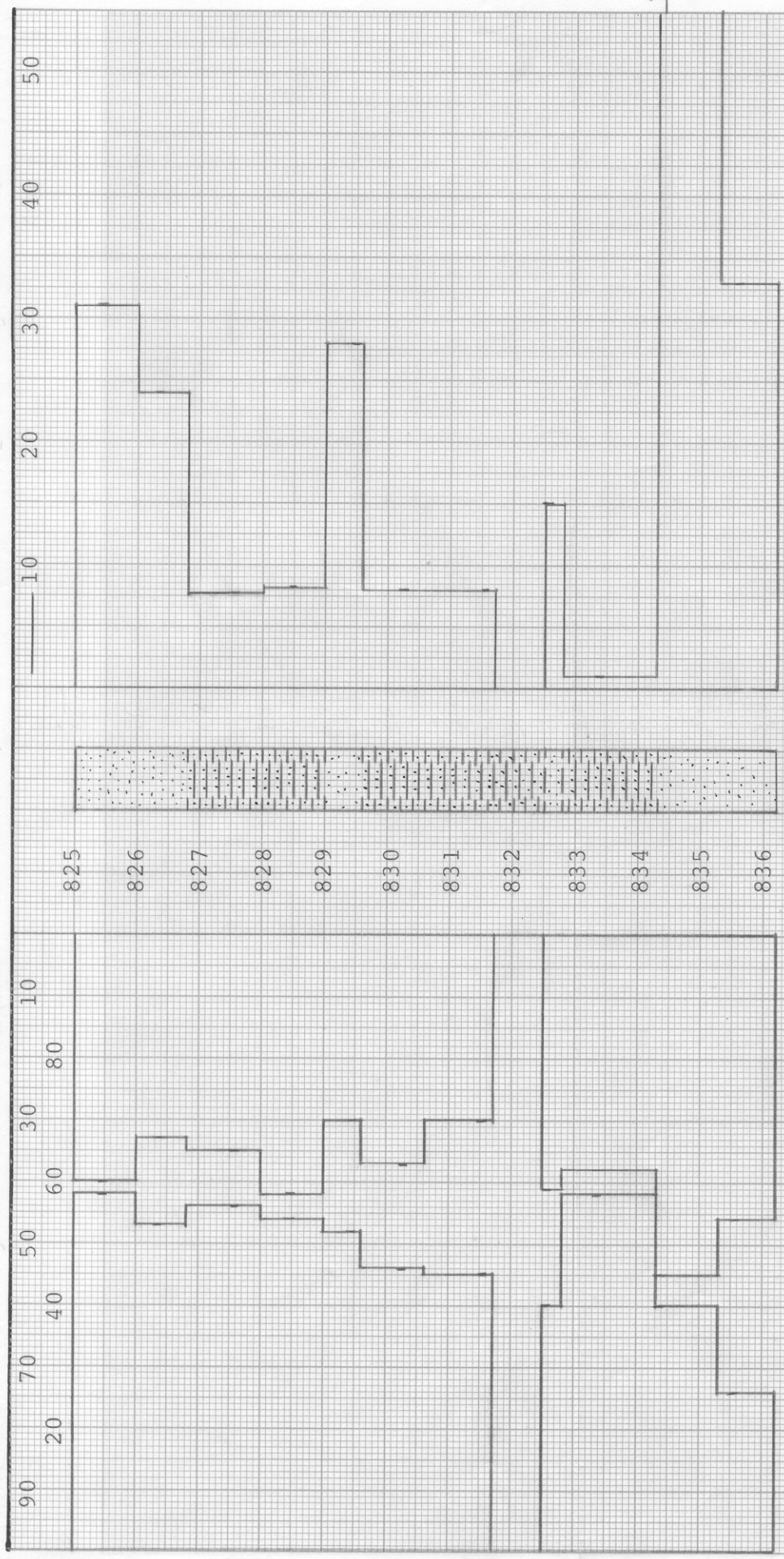
SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Baldwin City Oil Company		Lease		F. Bell		Well No.		Schutz - 2	
Depth Interval, Feet		Feet of Core Analyzed		Average Permeability, Millidarcys		Permeability Capacity Ft. x Md.					
825.0 - 836.2		10.4		19.9		207.06					
Depth Interval, Feet		Feet of Core Analyzed		Average Percent Oil Saturation		Average Water Saturation		Average Oil Content Bbl./A. Ft.		Total Oil Content Bbls./Acre	
825.0 - 836.2		10.4		21.2		38.9		49.1		644	
										6,699	

WATER SAT., PERCENT → ——— PERMEABILITY, IN MILLIDARCYS

← ——— OIL SAT., PERCENT



KEY:

SANDSTONE

LAMINATED SANDSTONE AND SHALE

SANDY SHALE

SANDSTONE WITH SHALE PARTINGS

BALDWIN CITY OIL COMPANY

F. BELL LEASE

DOUGLAS COUNTY, KANSAS

WELL NO. SCHUTZ-2

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
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825.0 - 836.2	10.4	21.2	38.9	49.1	19.9
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OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
JANUARY, 1982

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