

OILFIELD RESEARCH LABORATORIES

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

July 28, 1982

J. Osborn Oil & Gas
14111 Pflumm Road
Overland Park, Kansas 66021

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Vering Lease, Well No. 2, located in Johnson County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and submitted to our laboratory on July 23, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/dlb

5 c to Overland Park, Kansas

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GENERAL INFORMATION & SUMMARY

Company J. Osborn Oil & Gas Lease Vering Well No. 2
 Location 165' FSL & 495' FEL, SE $\frac{1}{4}$
 Section 14 Twp. 13S Rge. 23E County Johnson State Kansas

Elevation, Feet

Name of Sand.....	Squirrel
Top of Core	678.0
Bottom of Core	704.0
Top of Sand	679.5
Bottom of Sand	704.0
Total Feet of Permeable Sand	10.5

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 10	2.8	2.8
10 - 50	4.4	7.2
50 - 100	2.0	9.2
100 & Over	1.3	10.5

Average Permeability Millidarcys	51.0
Average Percent Porosity	22.6
Average Percent Oil Saturation	33.5
Average Percent Water Saturation.....	37.1
Average Oil Content, Bbls./A. Ft.	592.
Total Oil Content, Bbls./Acre.....	6,212.

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LOGName J. Osborn Oil & Gas Lease Vering Well No. 2

<u>Depth Interval, Feet</u>	<u>Description</u>
678.0 - 679.5	Gray and brown laminated shale and sandstone.
679.5 - 680.5	Brown shaly sandstone.
680.5 - 692.6	Gray shale.
692.6 - 692.9	Brown sandstone.
692.9 - 693.5	Grayish brown very shaly sandstone.
693.5 - 694.3	Alternate layers gray shale and brown sandstone.
694.3 - 696.0	Brown sandstone.
696.0 - 697.0	Brown sandstone with gray shale partings.
697.0 - 697.4	Brown sandstone.
697.4 - 698.0	Gray and brown laminated shale and sandstone.
698.0 - 699.1	Brown sandstone.
699.1 - 699.8	Gray and brown laminated shale and sandstone.
699.8 - 704.0	Brown sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company J. Osborn Oil & Gas Lease Vering Well No. 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	679.7	20.8	28	44	72	452	5.2	0.5	0.5	226	2.60
2	680.4	20.1	39	17	56	608	5.2	0.5	1.0	304	2.60
3	692.7	26.7	24	30	54	497	415.	0.3	1.3	149	124.50
4	693.6	17.9	24	54	78	333	4.2	0.8	2.1	266	3.36
5	694.4	21.7	22	49	71	370	15.	0.7	2.8	259	10.50
6	695.5	21.5	35	38	73	584	17.	1.0	3.8	584	17.00
7	696.6	20.7	22	42	64	353	8.7	1.0	4.8	353	8.70
8	697.3	21.0	30	42	72	489	13.	0.4	5.2	196	5.20
9	698.6	24.2	38	34	72	713	44.	1.1	6.3	784	48.40
10	700.5	22.8	46	29	75	814	31.	1.2	7.5	977	37.20
11	701.6	24.5	39	34	73	741	80.	1.0	8.5	741	80.00
12	702.5	25.3	34	34	68	667	123.	1.0	9.5	667	123.00
12	703.6	24.6	37	35	72	706	72.	1.0	10.5	706	72.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

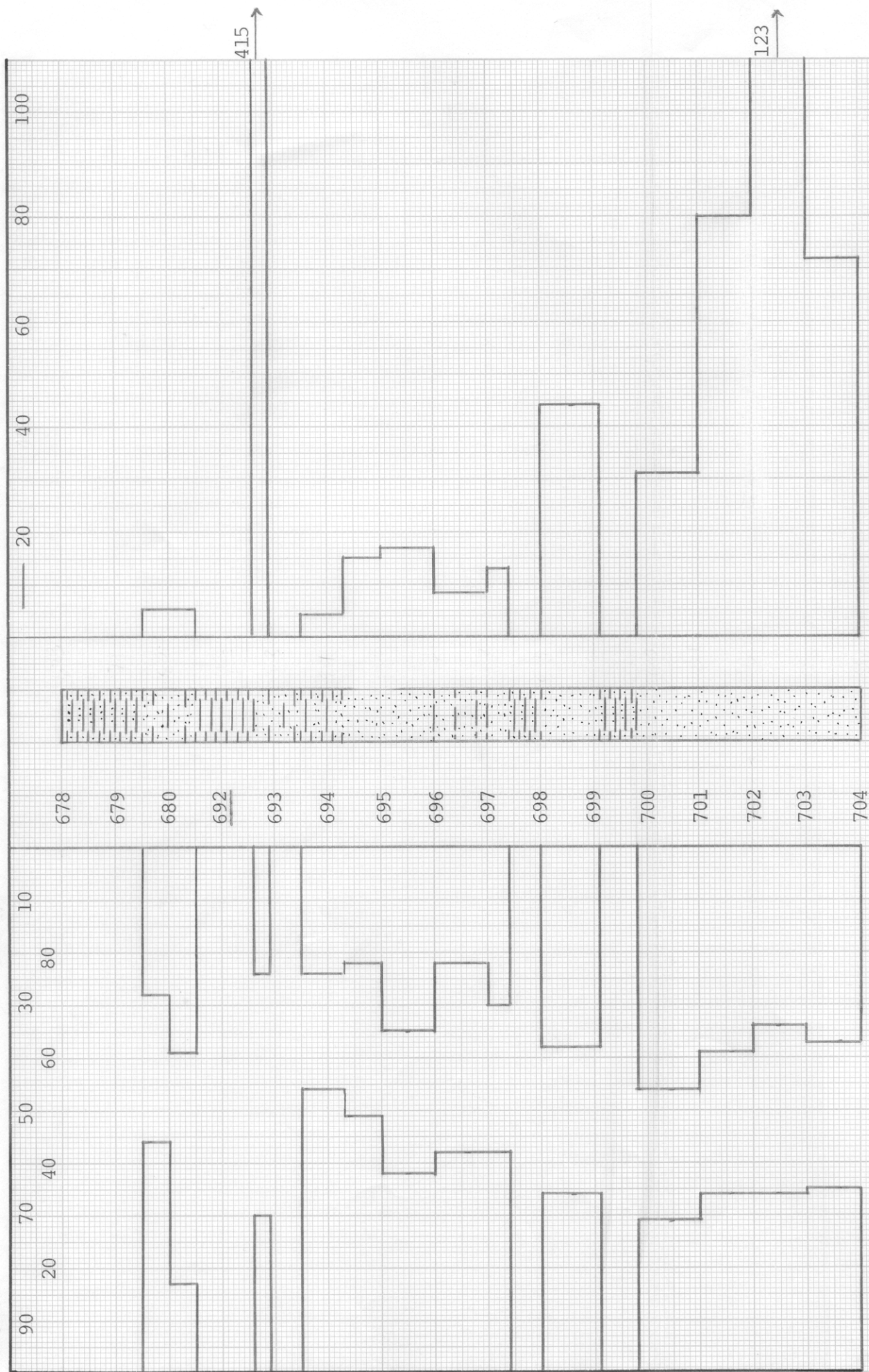
Company <u>J. Osborn Oil & Gas</u>		Lease <u>Vering</u>		Well No. <u>2</u>	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
679.5 - 697.0	4.8	35.3	169.26		
697.0 - 704.0	5.7	64.2	365.80		
679.5 - 704.0	10.5	51.0	535.06		

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
679.5 - 697.0	4.8	20.9	27.6	41.0	446	2,141
697.0 - 704.0	5.7	24.0	38.4	33.7	714	4,071
679.5 - 704.0	10.5	22.6	33.5	37.1	592	6,212

PERMEABILITY, IN MILLIDARCYS

WATER SAT., PERCENT

OIL SAT., PERCENT



SHALY SANDSTONE

SANDSTONE WITH SHALE PARTINGS

LAMINATED SANDSTONE AND SHALE

KEY:

SANDSTONE

SHALE

KEY:



SANDSTONE



SHALE



SHALY SANDSTONE



SANDSTONE WITH SHALE PARTINGS



LAMINATED SANDSTONE AND SHALE



ALTERNATE LAYERS OF SANDSTONE AND SHALE

J. OSBORN OIL & GAS

VERING LEASE

JOHNSON COUNTY, KANSAS

WELL NO. 2

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
679.5 - 697.0	4.8	20.9	27.6	41.0	35.3
697.0 - 704.0	5.7	24.0	38.4	33.7	64.2
679.5 - 704.0	10.5	22.6	33.5	37.1	51.0

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CHANUTE, KANSAS
JULY, 1982
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