

OILFIELD RESEARCH LABORATORIES

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

July 28, 1982

Rainbow Oil & Gas
805 Willow
Independence, Kansas 67301

Gentlemen:

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

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on July 27, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/dlb

5 c to Independence, Kansas

- REGISTERED ENGINEERS -

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

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Rainbow Oil & Gas Lease Gullick Well No. 1
 Location _____
 Section 23 Twp. 33S Rge. 14E County Montgomery State Kansas

Elevation, Feet

Name of Sand.....

Wiser

Top of Core

764.0

Bottom of Core

784.0

Top of Sand

764.0

Bottom of Sand(Tested).....

780.7

Total Feet of Permeable Sand

12.8

Distribution of Permeable Sand:
 Permeability Range
 Millidarcys

Feet

Cum. Ft.

0 - 15

1.9

1.9

24 - 30

5.8

7.7

35 - 67

5.1

12.8

Average Permeability Millidarcys

33.5

Average Percent Porosity

16.4

Average Percent Oil Saturation

20.1

Average Percent Water Saturation.....

59.7

Average Oil Content, Bbls./ A. Ft.

259.

Total Oil Content, Bbls./ Acre.....

4,066.

LOGName Rainbow Oil & Gas Lease Gullick Well No. 1

<u>Depth Interval, Feet</u>	<u>Description</u>
764.0 - 767.0	Light brown slightly calcareous sandstone.
767.0 - 768.0	Brown slightly calcareous sandstone.
768.0 - 770.0	Brown sandstone.
770.0 - 771.0	Light brown slightly calcareous sandstone.
771.0 - 771.9	Light gray slightly calcareous slightly shaly sandstone.
771.9 - 773.0	Light brown sandstone.
773.0 - 774.5	Light brown slightly calcareous sandstone.
774.5 - 775.2	Light grayish brown slightly calcareous sandstone.
775.2 - 776.8	Light brown slightly calcareous sandstone.
776.8 - 777.2	Light gray slightly calcareous sandstone.
777.2 - 778.7	Gray and light brown laminated shale and sandstone.
778.7 - 779.3	Gray shale with light gray sandstone partings.
779.3 - 780.7	Grayish brown very shaly sandstone.
780.7 - 783.2	Gray shale.
783.2 - 784.0	Gray and light gray laminated shale and sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbbs. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	764.4	14.8	25	52	77	287	24.	1.0	1.0	287	24.00
2	765.4	13.1	28	50	78	284	12.	1.0	2.0	284	12.00
3	766.5	15.8	17	42	59	208	52.	1.0	3.0	208	52.00
4	767.5	16.1	35	50	85	437	35.	1.0	4.0	437	35.00
5	768.6	21.3	26	47	73	430	66.	1.0	5.0	430	66.00
6	769.5	20.0	25	50	75	388	44.	1.0	6.0	388	44.00
7	770.5	17.7	21	61	82	288	28.	1.0	7.0	288	28.00
8	771.6	16.9	12	77	89	157	6.0	0.9	7.9	141	5.40
9	772.5	20.4	22	49	71	348	62.	1.1	9.0	383	68.20
10	773.6	15.6	19	58	77	230	24.	1.5	10.5	345	36.00
11	774.7	13.8	10	64	74	107	24.	0.7	11.2	75	16.80
12	775.5	15.3	19	62	81	226	25.	0.8	12.0	181	20.00
13	776.5	15.5	22	67	89	265	26.	0.8	12.8	212	20.80
14	777.5	13.5	8	78	86	84	Imp.	1.0	13.8	84	0.00
15	778.6	11.4	11	86	97	97	Imp.	0.5	14.3	49	0.00
16	779.5	17.2	10	84	94	133	Imp.	0.7	15.0	93	0.00
17	780.5	16.7	20	67	87	259	Imp.	0.7	15.7	181	0.00

Company Rainbow Oil & Gas

Lease

Gullick

Well No.

1

Oilfield Research Laboratories

SUMMARY OF PERMEABILITY & SATURATION TESTS

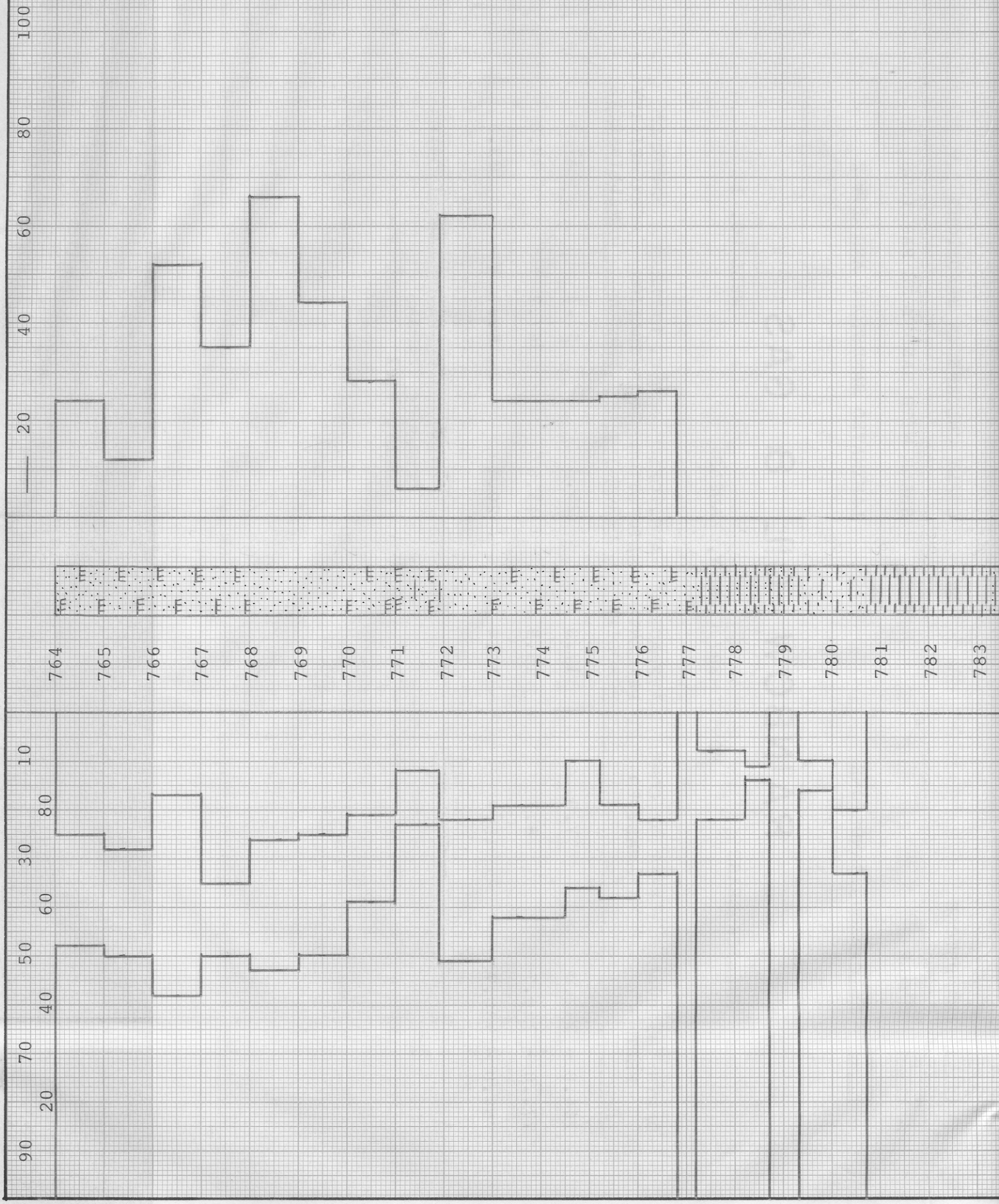
TABLE III

Company		Rainbow Oil & Gas		Lease		Gullick		Well No.	
Depth Interval, Feet		Feet of Core Analyzed		Average Permeability, Millidarcys		Permeability Capacity Ft. x Md.			
764.0 - 771.0		7.0		37.3		261.00			
771.0 - 780.7		5.8		28.8		167.20			
764.0 - 780.7		12.8		33.5		428.20			
Depth Interval, Feet		Feet of Core Analyzed		Average Porosity		Average Percent Oil Saturation		Average Percent Water Saturation	
764.0 - 771.0		7.0		17.0		25.3		50.3	
771.0 - 780.7		8.7		15.9		15.8		67.2	
764.0 - 780.7		15.7		16.4		20.1		59.7	
764.0 - 771.0		7.0		17.0		25.3		332	
771.0 - 780.7		8.7		15.9		15.8		200	
764.0 - 780.7		15.7		16.4		20.1		259	
764.0 - 771.0		7.0		17.0		25.3		332	
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771.0 - 780.7		8.7		15.9		15.8		200	
764.0 - 780.7									

— PERMEABILITY, IN MILLIDARCYS

WATER SAT.,
PERCENT

→ ← OIL SAT.,
PERCENT



782
783
784

KEY:



SANDSTONE

SHALE

CALCAREOUS SANDSTONE

SHALY SANDSTONE

SHALY CALCAREOUS SANDSTONE

SHALE WITH SANDSTONE PARTINGS

LAMINATED SANDSTONE AND SHALE

RAINBOW OIL & GAS

GULLICK LEASE

MONTGOMERY COUNTY, KANSAS

WELL NO. 1

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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764.0 - 771.0	7.0	17.0	25.3	50.3	37.3
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771.0 - 780.7	8.7	15.9	15.8	67.2	28.8
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764.0 - 780.7	15.7	16.4	20.1	59.7	33.5
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OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
JULY, 1982
PDC