

# OILFIELD RESEARCH LABORATORIES

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

April 1, 1981

Diamond B Industries  
R R # 1  
Paola, Kansas 66071

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Henning Lease, Well No. DH-18, located in Miami County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on March 21, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

1 c to Paola, Kansas  
4 c to Pierre, South Dakota

**Oilfield Research Laboratories**  
**GENERAL INFORMATION & SUMMARY**

Company Diamond B Industries Lease Henning Well No. DH-18  
 Location 1185' FNL & 3135' FEL  
 Section 23 Twp. 16S Rge. 21E County Miami State Kansas

Elevation, Feet .....	
Name of Sand .....	Lower Squirrel
Top of Core .....	633.0
Bottom of Core .....	653.0
Top of Sand .....	633.0
Bottom of Sand .....	653.0
Total Feet of Permeable Sand .....	18.6

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	2.8	2.8
5 - 25	9.1	11.9
25 - 50	2.9	14.8
50 & Above	3.8	18.6

Average Permeability Millidarcys .....	25.6
Average Percent Porosity .....	19.6
Average Percent Oil Saturation .....	31.2
Average Percent Water Saturation .....	39.1
Average Oil Content, Bbls./A. Ft. ....	483.
Total Oil Content, Bbls./Acre .....	9,665.

## OILFIELD RESEARCH LABORATORIES

LOGName Diamond B Industries Lease Henning Well No. DH-18

<u>Depth Interval, Feet</u>	<u>Description</u>
633.0 - 634.9	Grayish light brown slightly calcareous shaly sandstone.
634.9 - 635.9	Light brown slightly calcareous sandstone.
635.9 - 636.8	Grayish light brown slightly calcareous shaly sandstone.
636.8 - 637.7	Brown slightly calcareous sandstone.
637.7 - 638.8	Grayish light brown slightly calcareous shaly sandstone.
638.8 - 646.8	Brown slightly calcareous sandstone.
646.8 - 648.0	Grayish light brown slightly calcareous shaly sandstone.
648.0 - 649.6	Light brown slightly calcareous sandstone.
649.6 - 652.0	Grayish light brown slightly calcareous shaly sandstone.
652.0 - 653.0	Grayish light brown slightly calcareous sandstone.

## RESULTS OF SATURATION &amp; PERMEABILITY TESTS

TABLE I-B

Company Diamond B Industries Lease Henning Well No. DH-18

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	633.3	12.8	24	50	74	238	0.84	0.9	0.9	214	0.76
2	634.5	22.1	27	41	68	463	4.0	1.0	1.9	463	4.00
3	635.7	21.9	42	40	82	714	14.	1.0	2.9	714	14.00
4	636.2	14.7	34	51	81	388	1.3	0.9	3.8	349	1.17
5	637.3	22.2	42	35	77	723	31.	0.9	4.7	651	27.90
6	638.2	20.7	52	32	84	835	5.9	1.1	5.8	919	6.49
7	639.3	25.8	38	22	60	761	73.	1.0	6.8	761	73.00
8	640.6	20.1	25	32	57	390	49.	1.0	7.8	390	49.00
9	641.6	24.4	33	36	69	625	35.	1.0	8.8	625	35.00
10	642.4	23.9	34	37	71	630	77.	1.0	9.8	630	77.00
11	643.9	18.4	57	36	93	814	9.4	1.2	11.0	977	11.28
12	644.5	20.9	10	46	56	162	21.	1.0	12.0	162	21.00
13	645.5	21.7	38	27	65	640	58.	1.0	13.0	640	58.00
14	646.4	21.6	15	40	55	251	52.	0.8	13.8	201	41.60
15	647.5	16.7	35	52	87	454	5.2	1.2	15.0	545	6.24
16	648.5	19.2	34	17	51	506	21.	1.0	16.0	506	21.00
17	649.4	19.5	32	18	50	484	15.	0.6	16.6	290	9.00
18	650.5	11.8	18	61	79	165	Imp.	1.4	18.0	231	0.00
19	651.8	17.5	26	22	48	353	7.4	1.0	19.0	353	7.40
20	652.7	19.0	3	71	74	44	12.	1.0	20.0	44	12.00

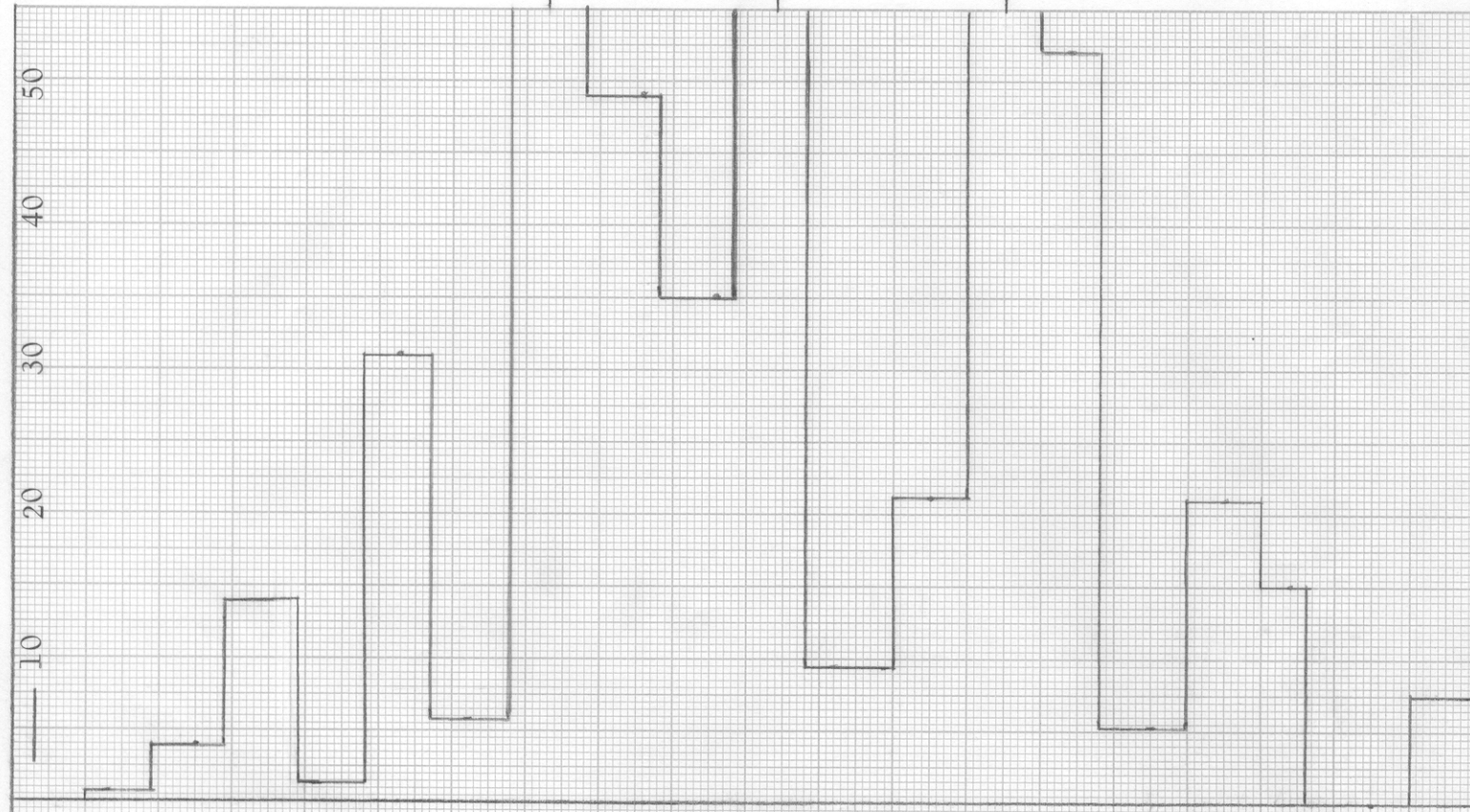
# Oilfield Research Laboratories

## SUMMARY OF PERMEABILITY & SATURATION TESTS

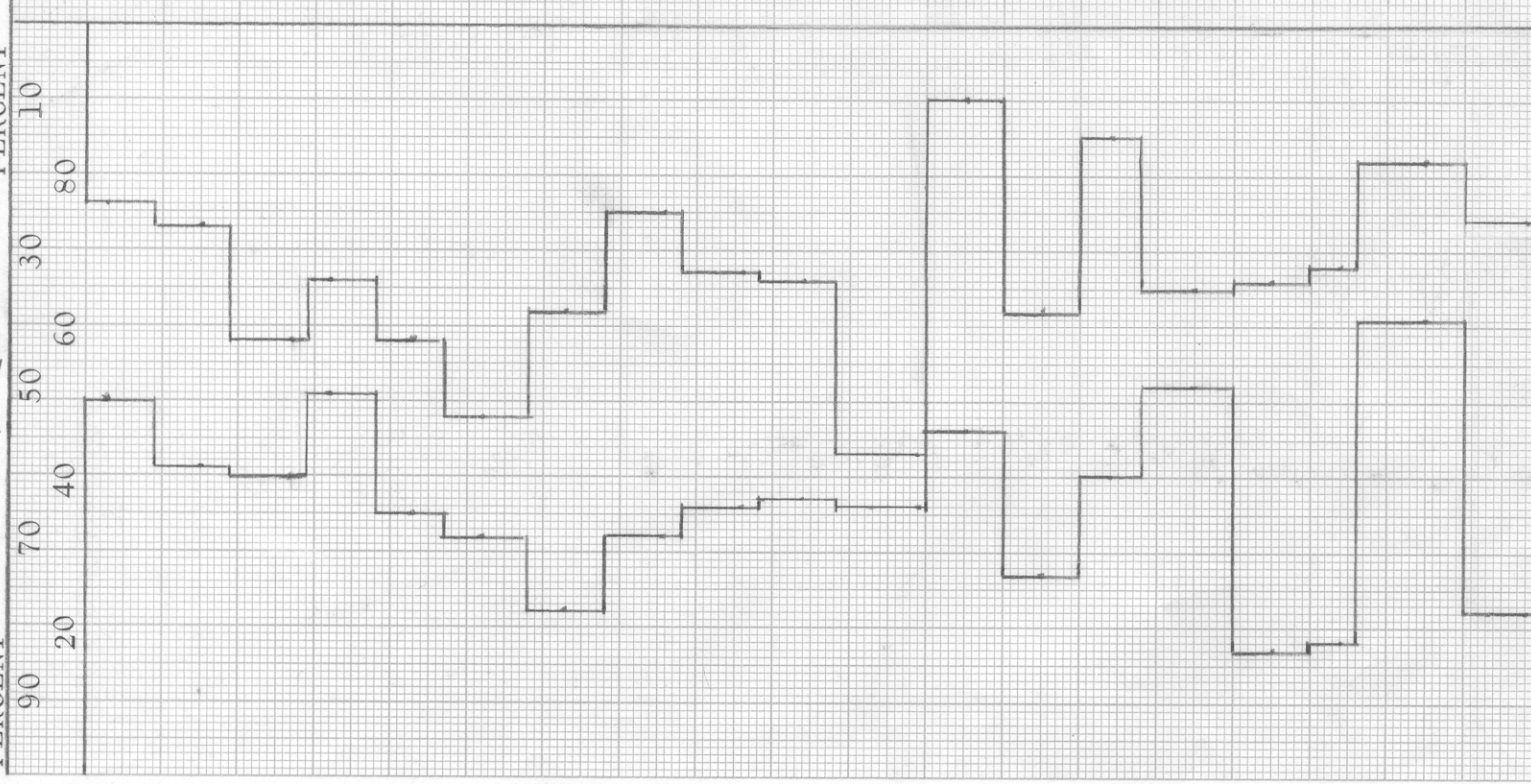
TABLE III

Company	Diamond B Industries	Lease	Henning	Well No.		
				DH-18		
Depth Interval, Feet	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity, Ft. x Md.		
633.0 - 638.8	633.0 - 638.8	5.8	9.4	54.32		
638.8 - 653.0	638.8 - 653.0	12.8	32.9	421.52		
633.0 - 653.0	633.0 - 653.0	18.6	25.6	475.84		
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
633.0 - 638.8	5.8	19.2	37.3	41.1	571	3,310
638.8 - 653.0	14.2	19.7	28.7	38.3	448	6,355
633.0 - 653.0	20.0	19.6	31.2	39.1	483	9,665

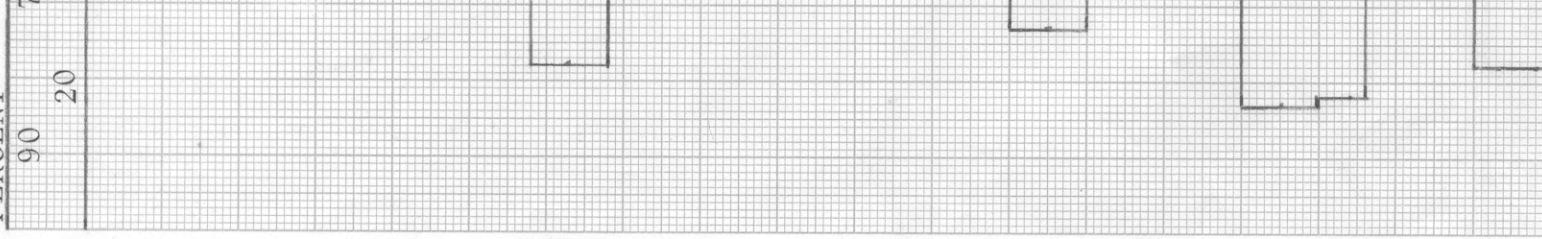
PERMEABILITY, IN MILLIDARCYS



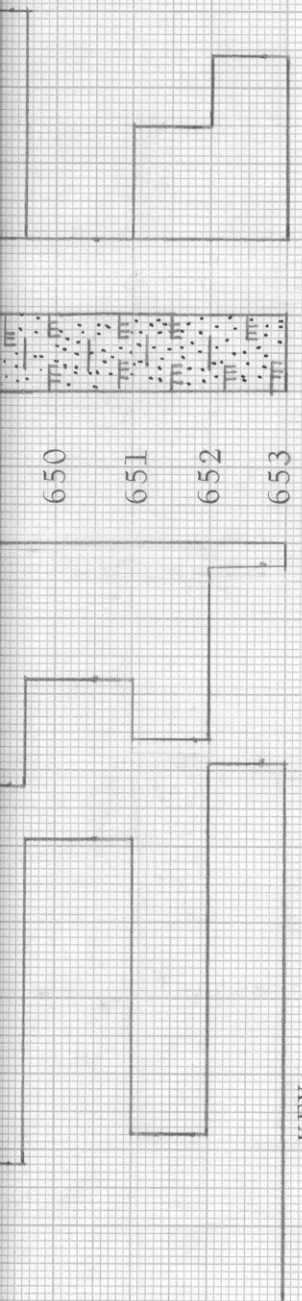
OIL SAT., PERCENT



WATER SAT., PERCENT



633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651



KEY:



SHALY CALCAREOUS SANDSTONE



CALCAREOUS SANDSTONE

# DIAMOND B INDUSTRIES

HENNING LEASE

MIAMI COUNTY, KANSAS

WELL NO. DH - 18

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE		AVG. OIL		AVG. WATER		AVERAGE	
		PERCENT POROSITY	PERCENT	SATURATION PERCENT	SATURATION PERCENT	SATURATION PERCENT	PERMEABILITY, MILLIDARCYS		
633.0 - 638.8	5.8	19.2	37.3	41.1	9.4				
638.8 - 653.0	14.2	19.7	28.7	38.3	32.9				
633.0 - 653.0	20.0	19.6	31.2	39.1	25.6				

OILFIELD RESEARCH LABORATORIES  
CHANUTE, KANSAS  
MARCH, 1981

PDC