

# OILFIELD RESEARCH LABORATORIES

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

October 10, 1980

Pineridge Development Corporation  
14150 Elderberry Road  
Golden, Colorado 80401

Gentlemen:

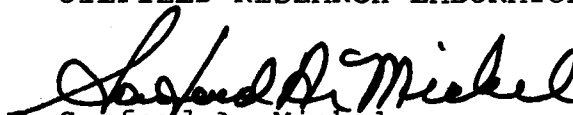
Enclosed herewith are the results of tests run on the rotary core samples taken from the Markley Lease, Well No. 5, located in Linn County, Kansas and submitted to our laboratory on September 8, 1980.

The samples were sealed in plastic bags by a representative of the client. In examining this core, it is assumed that each sample represents one foot of core.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

  
Sanford A. Michel

SAM/ks

5 c to Golden, Colorado

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

Company Pineridge Development Corporation Lease Markley Well No. 5  
 Location NE $\frac{1}{4}$  NE $\frac{1}{4}$   
 Section 1 Twp. 22S Rge. 23E County Linn State Kansas

Elevation, Feet . . . . .	-
Name of Sand . . . . .	Upper Bartlesville
Top of Core . . . . .	341.0
Bottom of Core . . . . .	348.0
Top of Sand . . . . .	341.0
Bottom of Sand . . . . .	348.0
Total Feet of Permeable Sand . . . . .	6.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 30	2.0	2.0
40 - 100	3.0	5.0
190 & Above	1.0	6.0

Average Permeability Millidarcys . . . . .	80.8
Average Percent Porosity . . . . .	19.1
Average Percent Oil Saturation . . . . .	39.7
Average Percent Water Saturation . . . . .	36.1
Average Oil Content, Bbls./A. Ft. . . . .	605.
Total Oil Content, Bbls./Acre . . . . .	4,238.

## OILFIELD RESEARCH LABORATORIES

LOGName Pineridge Development CorporationLease MarkleyWell No. 5

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
341.0 - 347.0	Brown slightly calcareous sandstone.
347.0 - 348.0	Hard grayish brown limestone.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Pineridge Development Corporation Lease Markley Well No. 5

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	341.5	19.1	43	31	74	637	28.	1.0	1.0	637	28.00
2	342.5	20.7	43	23	66	691	43.	1.0	2.0	691	43.00
3	343.5	22.6	46	28	74	807	90.	1.0	3.0	807	90.00
4	344.5	17.2	44	40	84	587	97.	1.0	4.0	587	97.00
5	345.5	12.2	21	67	88	199	28.	1.0	5.0	199	28.00
6	346.5	20.9	36	42	78	584	199.	1.0	6.0	584	199.00
7	347.5	21.0	45	22	67	733	Imp.	1.0	7.0	733	0.00

# Oilfield Research Laboratories

## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Pineridge Development Corporation	Lease	Markley	Well No.			
				5			
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.			
	341.0 - 348.0	6.0	80.8	485.00			
	Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre		
	341.0 - 348.0	7.0	19.1	39.7	36.1	605	4,238

KE 10 X 10 TO THE CENTIMETER #25 X 38 CM.  
KEUFFEL & ESSER CO. MADE IN U.S.A.

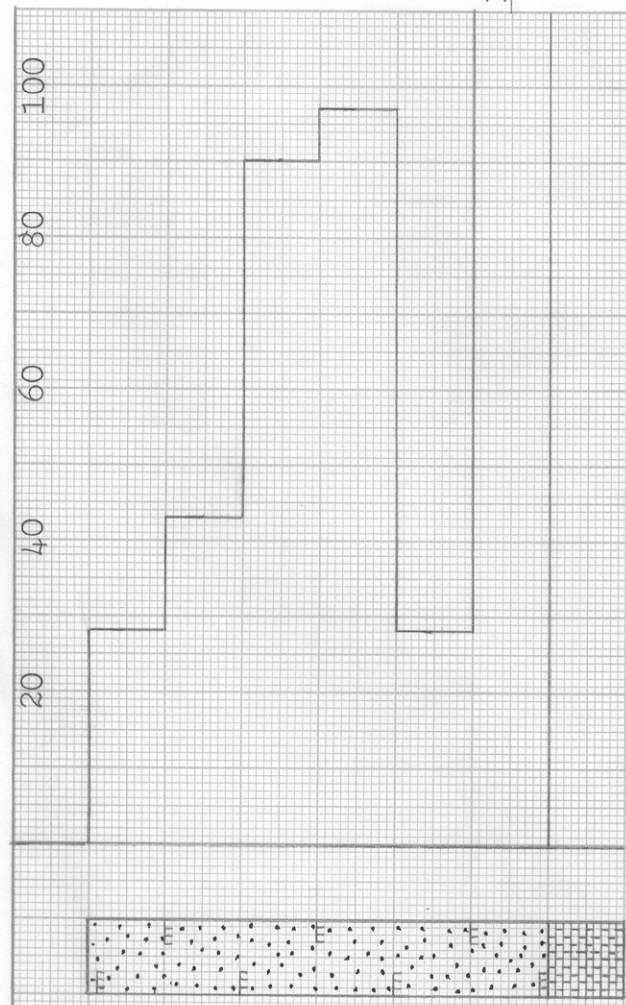
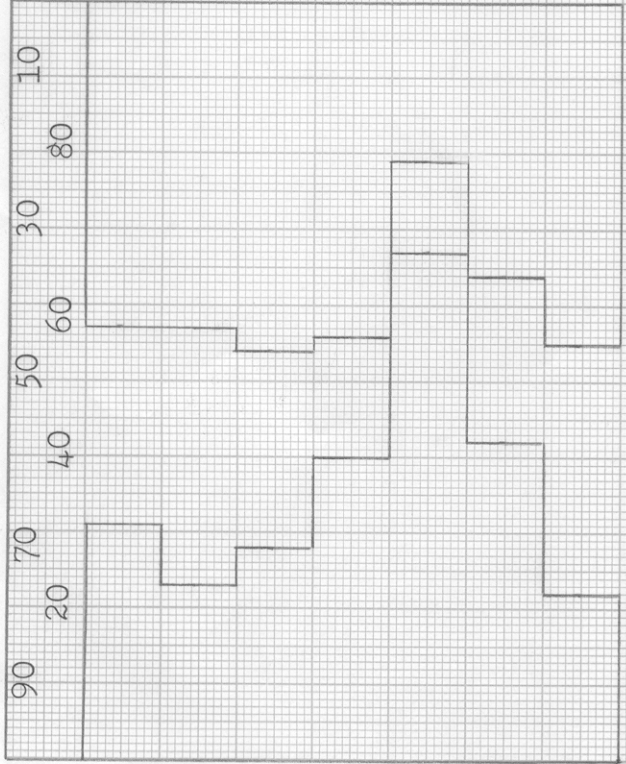
47 1512

WATER SAT.,  
PERCENT

OIL SAT.,  
PERCENT



PERMEABILITY IN MILLIDARCYS



341  
342  
343  
344  
345  
346  
347  
348

KEY:



CALCAREOUS SANDSTONE



LIMESTONE

# PINERIDGE DEVELOPMENT CORPORATION

MARKLEY LEASE

WELL NO. 5

LINN COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY MILLIDARCYs
341.0 - 348.0	7.0	19.1	39.7	36.1	80.8

OILFIELD RESEARCH LABORATORIES  
CHANUTE, KANSAS  
OCTOBER, 1980

MF