

OILFIELD RESEARCH LABORATORIES

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

February 26, 1980

P & H Oil Company
Box 234
Chanute, Kansas 66720

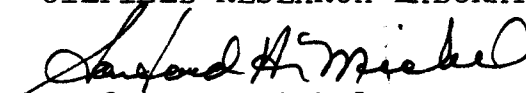
Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Wilson Lease, Well No. O-3, Allen County, Kansas, and submitted to our laboratory on February 6, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Sanford A. Michel

SAM/kas
4 c to Chanute, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company P & H Oil Company Lease Wilson Well No. 0-3

Location 700' NSL & 80' ECL S $\frac{1}{8}$ SE $\frac{1}{4}$

Section 29 Twp. 26S Rge. 18E County Allen State Kansas

Elevation, Feet - - - - -

Name of Sand - - - - -

Bartlesville

Top of Core - - - - -

755.0

Bottom of Core - - - - -

795.0

Top of Sand - - - - - (Tested) - -

755.7

Bottom of Sand - - - - -

779.0

Total Feet of Permeable Sand - - - - -

22.0

Total Feet of Floodable Sand - - - - -

0

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 5
5 - 10
20 - 30
30 - 100
100 - 110

12.7
4.1
2.3
2.2
0.7

12.7
16.8
19.1
21.3
22.0

Average Permeability Millidarcys - - - - -

13.2

Average Percent Porosity - - - - -

15.3

Average Percent Oil Saturation - - - - -

29.4

Average Percent Water Saturation - - - - -

50.4

Average Oil Content, Bbls./A. Ft. - - - - -

361.

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

7,947.

Average Percent Oil Recovery by Laboratory Flooding Tests - - - - -

0

Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. - - - - -

0

Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre - - - - -

0

Total Calculated Oil Recovery, Bbls./Acre - - - - -

0

-2-

The core was sampled by a representative of Oilfield Research Laboratories. Fresh water mud was used as a drilling fluid. The core was reported to be from a non-virgin area.

Since the core did not respond to floodpot testing, no calculated recovery is given.

FORMATION CORED

The detailed log of the formation cored is as follows:

<u>Depth Interval, Feet</u>	<u>Description</u>
755.0 - 755.4	Brown sandstone.
755.4 - 755.7	Gray shale.
755.7 - 756.0	Brown sandstone.
756.0 - 759.3	Brown and gray laminated sandstone and shale.
759.3 - 761.7	Brown sandstone.
761.7 - 763.6	Brown and gray laminated sandstone and shale.
763.6 - 764.8	Brown sandstone.
764.8 - 771.0	Brown and gray laminated sandstone and shale.
771.0 - 771.9	Brown slightly shaly sandstone.
771.9 - 773.5	Brown sandstone.
773.5 - 779.0	Brown and gray laminated sandstone and shale.
779.0 - 783.7	Gray shale.
783.7 - 784.3	Coal.
784.3 - 795.0	Gray shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company P & H Oil Company Lease Wilson Well No. 0-3

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	755.8	18.9	36	38	74	528	6.5	0.3	0.3	158	1.95
2	756.5	12.0	16	72	88	149	0.24	1.0	1.3	149	0.24
3	757.5	17.2	36	37	73	480	0.45	1.0	2.3	480	0.45
4	759.5	18.6	30	39	69	433	26.	0.7	3.0	303	18.20
5	760.5	18.8	31	40	71	452	21.	1.0	4.0	452	21.00
6	761.5	18.7	32	42	74	464	101.	0.7	4.7	325	70.70
7	762.5	11.1	14	81	95	121	8.0	1.0	5.7	121	8.00
8	763.5	17.4	38	44	82	513	6.1	0.9	6.6	462	5.49
9	764.5	17.7	34	46	80	467	31.	1.2	7.8	560	37.20
10	765.5	15.9	34	36	70	419	3.5	1.2	9.0	503	4.20
11	766.5	17.2	36	40	76	480	1.1	1.0	10.0	480	1.10
12	767.5	11.9	12	76	88	111	3.8	1.0	11.0	111	3.80
13	768.5	16.8	27	46	73	352	6.9	1.0	12.0	352	6.90
14	769.5	14.7	29	59	88	331	2.4	1.0	13.0	331	2.40
15	770.5	12.9	16	70	86	160	4.7	1.0	14.0	160	4.70
16	771.5	15.9	40	44	88	493	9.9	0.9	14.9	444	8.91
17	772.5	19.9	47	24	71	726	73.	1.0	15.9	726	73.00
18	773.4	17.3	33	32	65	443	21.	0.6	16.5	266	12.60
19	774.7	10.5	38	57	95	310	2.6	1.5	18.0	465	3.90
20	775.5	16.1	40	31	71	500	2.5	1.0	19.0	500	2.50
21	776.5	11.9	22	66	88	203	1.1	1.0	20.0	203	1.10
22	777.5	14.0	19	57	76	206	1.7	1.0	21.0	206	1.70
23	778.5	13.6	18	60	78	190	1.0	1.0	22.0	190	1.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Well No.	
P & H Oil Company		Wilson		0-3	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
755.7 - 779.0	22.0	13.2	291.04		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
755.7 - 779.0	22.0	15.3	29.4	50.4	7,947

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company		P & H Oil Company		Lease		Wilson		Well No.		O-3	
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation		Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water			
1	755.8	18.8	36	525	0	0	36	60	44	0.90	50
2	756.5	12.5	15	145	0	0	15	80	0	Imp.	-
3	757.5	17.6	34	464	0	0	34	50	0	Imp.	-
4	759.5	18.3	30	426	0	0	30	68	16	0.60	50
5	760.5	18.8	31	452	0	0	31	67	18	0.30	50
6	761.5	18.5	33	474	0	0	33	65	3	0.15	50
7	762.5	11.6	12	108	0	0	12	83	0	Imp.	-
8	763.5	17.9	37	514	0	0	37	56	0	Imp.	-
9	764.5	17.7	34	467	0	0	34	63	12	0.15	50
10	765.5	16.3	32	405	0	0	32	60	0	Imp.	-
11	766.5	16.9	36	472	0	0	36	50	0	Imp.	-
12	767.5	12.0	12	112	0	0	12	80	0	Imp.	-
13	768.5	17.0	27	356	0	0	27	66	4	0.15	50
14	769.5	15.3	28	332	0	0	28	63	10	0.22	50
15	770.5	13.4	14	146	0	0	14	78	0	Imp.	-
16	771.5	15.7	40	487	0	0	40	48	0	Imp.	-
17	772.5	19.4	48	722	0	0	48	40	0	Imp.	-
18	773.4	17.1	34	451	0	0	34	39	0	Imp.	-
19	774.7	11.0	37	316	0	0	37	59	0	Imp.	-
20	775.5	15.8	42	515	0	0	42	46	0	Imp.	-
21	776.5	12.3	21	200	0	0	21	69	0	Imp.	-
22	777.5	13.8	20	214	0	0	20	67	0	Imp.	-
23	778.5	13.7	18	191	0	0	18	71	0	Imp.	-

Notes: cc—cubic centimeter.

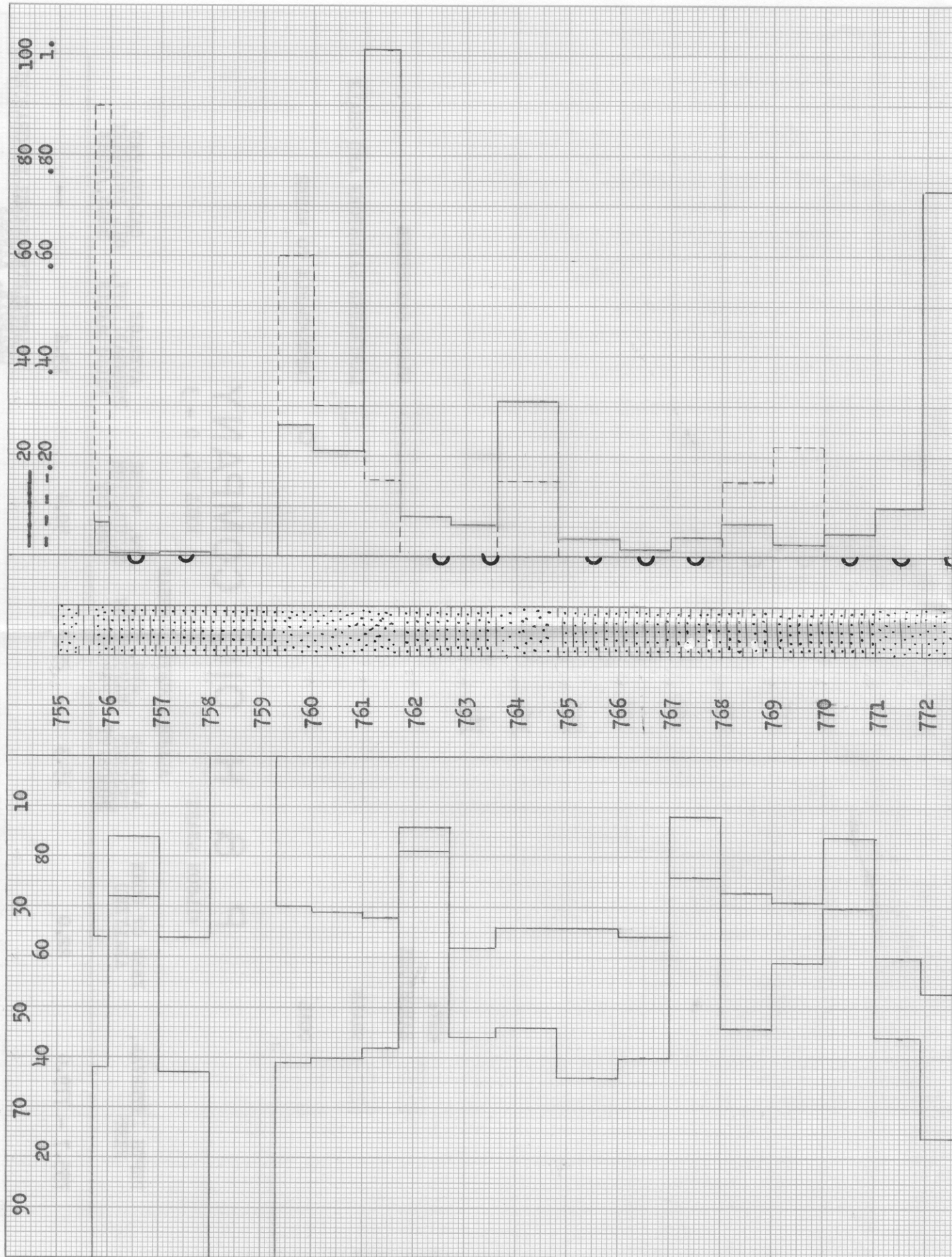
*—Volume of water recovered at the time of maximum oil recovery.

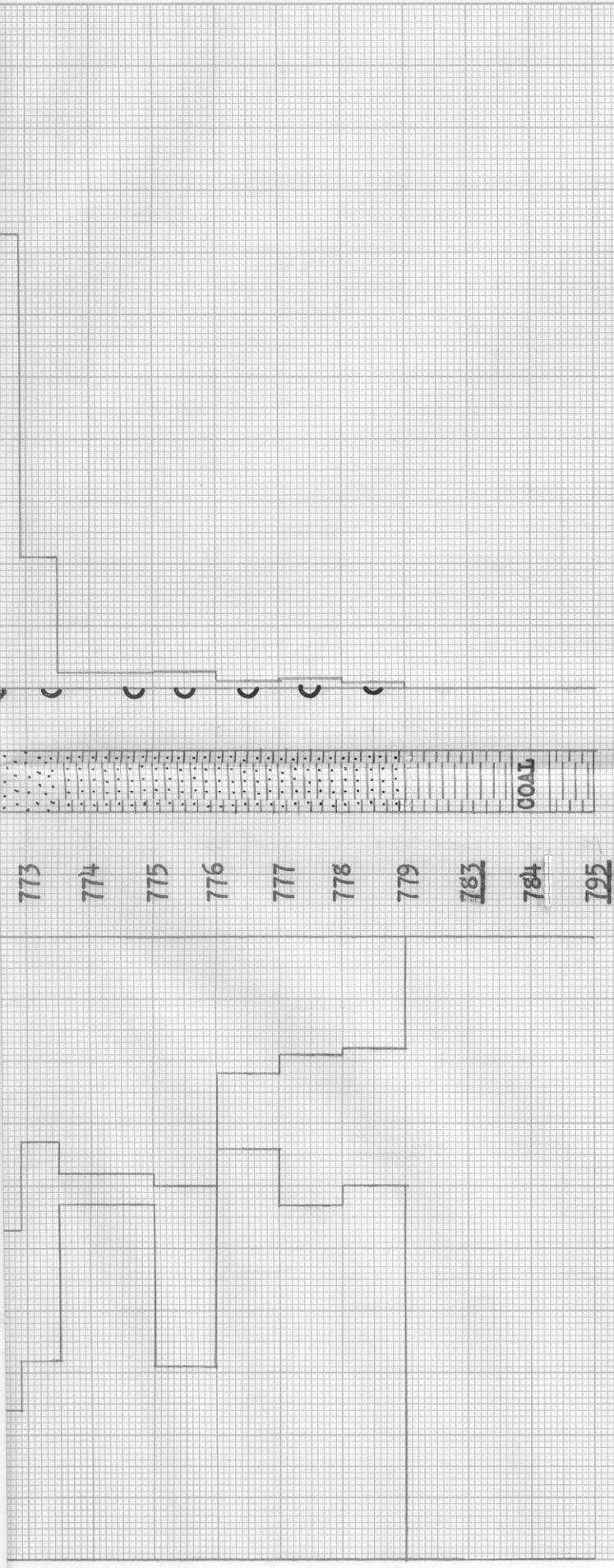
**—Determined by passing water through sample which still contains residual oil.

WATER SAT., PERCENT $\longrightarrow$ OIL SAT., PERCENT $\longleftarrow$

PERMEABILITY, IN MILLIDARCS

--- EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCS





KEY:

SANDSTONE

SHALE

COAL

SHALY SANDSTONE

LAMINATED SANDSTONE AND SHALE

○ IMPERMEABLE TO WATER

P & H OIL COMPANY

WILSON LEASE

ALLEN COUNTY, KANSAS

WELL NO. 0 - 3

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCS	CALCULATED OIL RECOVERY BELS./ACRE
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755.7 - 779.0	22.0	15.3	29.4	50.4	13.2	--
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OILFIELD RESEARCH LABORATORIES
CHANDLER, KANSAS
FEBRUARY, 1980 HR