

OILFIELD RESEARCH LABORATORIES

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

March 10, 1981

Ponderay International, Inc.
Drawer "D"
Chanute, Kansas 66720

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Campbell A Lease, Well No. 3, located in Wilson County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on February 27, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Chanute, Kansas

- REGISTERED ENGINEERS -

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

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Ponderay International, Inc. Lease Campbell A Well No. 3
 Location NW $\frac{1}{4}$
 Section 2 Twp. 28S Rgs. 16E County Wilson State Kansas

Elevation, Feet	-
Name of Sand	Squirrel
Top of Core	870.0
Bottom of Core	884.5
Top of Sand (Tested) . . .	872.3
Bottom of Sand	884.5
Total Feet of Permeable Sand	7.3

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	3.9	3.9
1 & Above	3.4	7.3

Average Permeability Millidarcys	1.5
Average Percent Porosity	11.8
Average Percent Oil Saturation	34.3
Average Percent Water Saturation	54.2
Average Oil Content, Bbls./A. Ft.	363.
Total Oil Content, Bbls./Acre	4,789.

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LOG

Name Ponderay International, Inc. Lease Campbell A Well No. 3

<u>Depth Interval, Feet</u>	<u>Description</u>
870.0 - 871.0	Hard light brown fossiliferous limestone.
871.0 - 875.3	Brown and gray laminated sandstone and shale.
875.3 - 876.0	Brown shaly sandstone.
876.0 - 877.8	Brown and gray laminated sandstone and shale.
877.8 - 878.9	Grayish brown very shaly sandstone.
878.9 - 879.6	Brown shaly sandstone.
879.6 - 884.5	Grayish light brown very shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company	Ponderay International, Inc.	Lease	Campbell A	Well No.	3
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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	870.5	4.1	16	70	86	51	Imp.	1.0	1.0	51	0.00
2	872.6	10.8	20	74	94	168	0.48	1.0	2.0	168	0.48
3	873.6	12.8	40	52	92	397	0.18	1.0	3.0	397	0.18
4	874.5	14.7	45	44	89	513	1.7	1.0	4.0	513	1.70
5	875.5	13.3	52	31	83	537	3.0	0.7	4.7	376	2.10
6	876.5	15.3	59	23	82	700	3.1	1.0	5.7	700	3.10
7	877.5	14.0	35	47	82	380	0.68	0.8	6.5	304	0.54
8	878.8	12.5	59	35	94	572	0.63	1.1	7.6	629	0.69
9	879.5	12.8	66	20	86	655	3.1	0.7	8.3	459	2.17
10	880.5	9.6	20	61	81	447	Imp.	1.0	9.3	447	0.00
11	881.5	10.4	12	80	92	149	Imp.	1.0	10.3	149	0.00
12	882.5	11.2	22	68	90	190	Imp.	1.4	11.7	266	0.00
13	883.5	12.3	23	70	93	220	Imp.	1.5	13.2	330	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

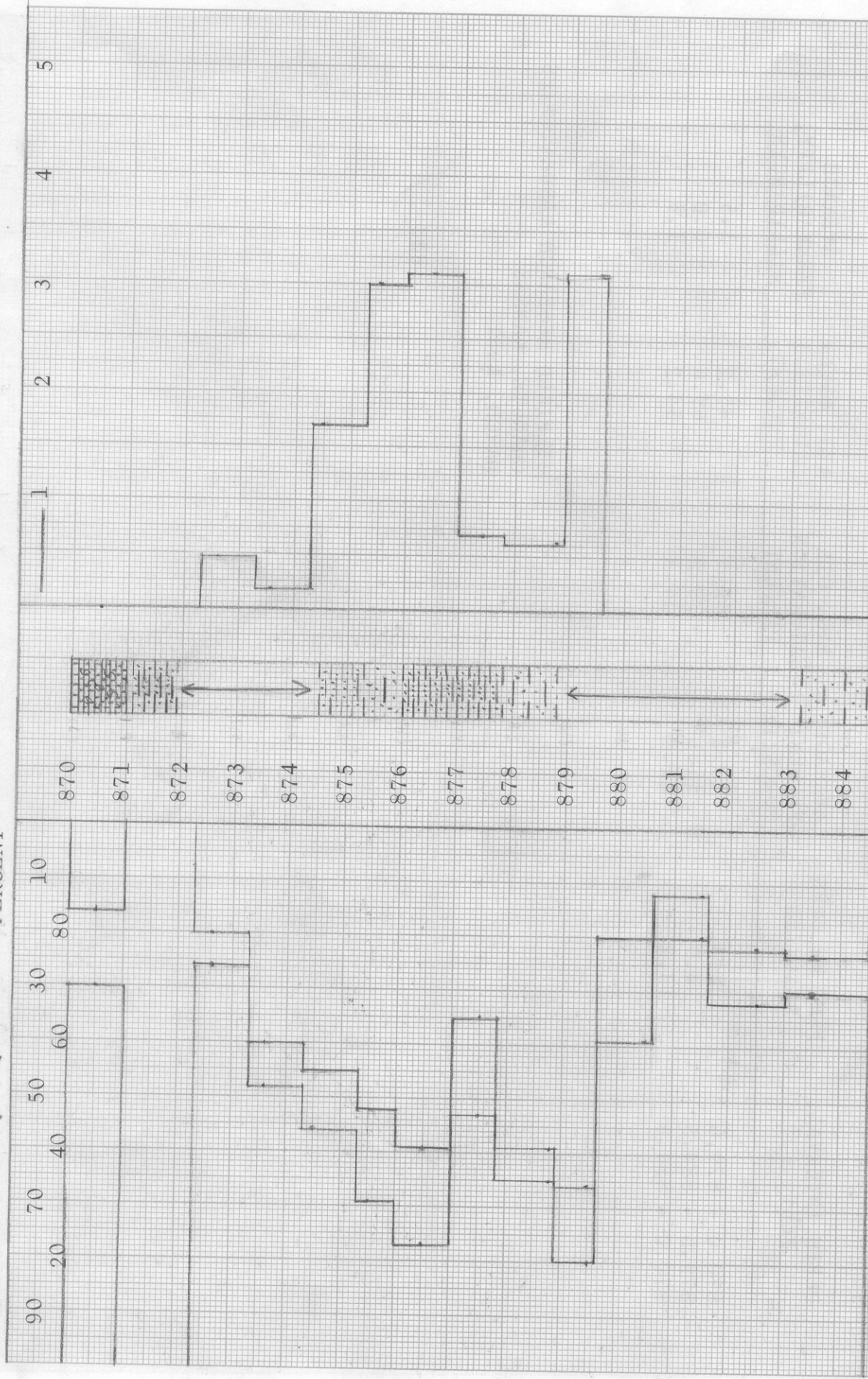
TABLE III

Company		Ponderay International, Inc.		Lease		Campbell A		Well No.		3	
Depth Interval, Feet		Feet of Core Analyzed		Average Permeability, Millidarcys		Permeability Capacity Ft. x Md.					
870.0 - 879.6		7.3		1.5		10.96					
879.6 - 884.5		0.0		0.0		0.00					
870.0 - 884.5		7.3		1.5		10.96					

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	
870.0 - 879.6		8.3		12.2		42.8		45.2		433		3,597	
879.6 - 884.5		4.9		11.1		19.9		69.6		243		1,192	
870.0 - 884.5		13.2		11.8		34.3		54.2		363		4,789	

WATER SAT., PERCENT → ← OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCYS



KEY:



FOSSILIFEROUS LIMESTONE



SHALY SANDSTONE

PONDERAY INTERNATIONAL, INC. CAMPBELL A LEASE WELL NO. 3

WILSON COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE		AVG. OIL		AVG. WATER		AVERAGE	
		PERCENT	POROSITY	SATURATION	PERCENT	SATURATION	PERCENT	PERMEABILITY, MILLIDARCYS	
870.0 - 879.6	8.3	12.2		42.8		45.2		1.5	
879.6 - 884.5	4.9	11.1		19.9		69.6		0.0	
870.0 - 884.5	13.2	11.8		34.3		54.2		1.5	

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 CHANUTE, KANSAS
 MARCH, 1981