

# OILFIELD RESEARCH LABORATORIES

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

July 24, 1981

Pancana Resources, Ltd.  
Box 112  
Bronson, Kansas 66716

Gentlemen:

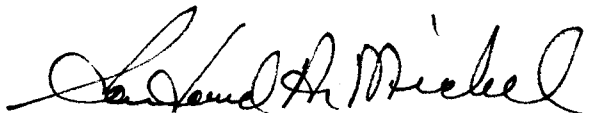
Enclosed herewith are the results of tests run on the rotary cores taken from the Peutz Lease, Well No. 26, located in Woodson County, Kansas.

The cores were sampled and sealed in plastic bags by a representative of the client and were submitted to our laboratory on July 21, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/kas

7 c to Bronson, Kansas

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

Company Pancana Resources, Ltd. Lease Puetz Well No. 26  
 Location 150' S & 1150' E of the NW Corner SW $\frac{1}{4}$   
 Section 13 Twp. 24S Rge. 15E County Woodson State Kansas

Elevation, Feet .....		
Name of Sand .....	Upper Squirrel	Lower Squirrel
Top of Core .....	1100.0	1144.0
Bottom of Core .....	1117.7	1152.6
Top of Sand .....	1100.0	1144.0
Bottom of Sand .....	1116.1	1152.6
Total Feet of Permeable Sand .....	9.8	8.0

Distribution of Permeable Sand:  
 Permeability Range  
 Millidarcys

Feet

Cum. Ft.

UPPER SQUIRREL SAND

0 - 10	1.8	1.8
10 - 20	4.0	5.8
20 - 40	3.0	8.8
40 - 50	1.0	9.8

LOWER SQUIRREL SAND

0 - 10	2.4	2.4
10 - 20	2.9	5.3
40 - 50	2.7	8.0

Average Permeability Millidarcys .....	19.5	22.5
Average Percent Porosity .....	18.6	18.6
Average Percent Oil Saturation .....	45.2	55.5
Average Percent Water Saturation .....	26.0	26.1
Average Oil Content, Bbls./A. Ft. ....	652.	809.
Total Oil Content, Bbls./Acre .....	6,393.	6,470.

## OILFIELD RESEARCH LABORATORIES

LOGName Pancana Resources, Ltd. Lease Peutz Well No. 26

<u>Depth Interval, Feet</u>	<u>Description</u>
	<u>UPPER SQUIRREL SAND</u>
1100.0 - 1102.2	Grayish brown slightly calcareous shaly sandstone.
1102.2 - 1107.0	Brown slightly calcareous sandstone.
1107.0 - 1110.7	Gray and brown alternate layers slightly calcareous shale and sandstone.
1110.7 - 1113.2	Gray slightly sandy shale.
1113.2 - 1116.1	Black slightly calcareous slightly carbonaceous sandstone.
1116.1 - 1117.7	Gray shale.
	<u>LOWER SQUIRREL SAND</u>
1144.0 - 1149.7	Dark brown slightly calcareous slightly carbonaceous sandstone with shale partings.
1149.7 - 1150.3	Gray shale.
1150.3 - 1151.2	Black slightly calcareous slightly carbonaceous sandstone.
1151.2 - 1152.6	Gray shaly sandstone.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Pancana Resources, Ltd.

Lease Peutz

Well No. 26

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			Ft.	Cum. Ft.		
<u>UPPER SQUIRREL SAND</u>										
1	1100.6	18.9	33	47	80	4.0	1.0	1.0	484	4.00
2	1102.4	18.2	42	31	73	9.2	0.8	1.8	474	7.36
3	1103.9	18.7	52	19	71	20.	1.0	2.8	754	20.00
4	1104.6	18.5	45	26	71	16.	1.0	3.8	646	16.00
5	1105.5	18.5	48	24	72	16.	1.0	4.8	689	16.00
6	1106.5	18.3	48	25	73	20.	1.0	5.8	682	20.00
7	1108.2	19.7	42	27	69	11.	1.0	6.8	642	11.00
8	1109.9	17.6	39	24	63	18.	1.0	7.8	533	18.00
9	1114.2	20.0	47	19	66	43.	1.0	8.8	729	43.00
10	1115.3	17.8	55	19	74	36.	1.0	9.8	760	36.00
<u>LOWER SQUIRREL SAND</u>										
11	1144.3	18.5	55	23	78	17.	1.0	1.0	789	17.00
12	1145.7	20.1	62	21	83	47.	1.5	2.5	1451	70.50
13	1147.4	19.7	61	20	81	46.	1.2	3.7	1118	55.20
14	1148.4	19.2	67	21	88	14.	1.0	4.7	998	14.00
15	1149.4	18.1	62	23	85	9.4	1.0	5.7	871	9.40
16	1150.6	17.5	61	27	88	14.	0.9	6.6	745	12.60
17	1152.5	16.4	28	44	72	0.82	1.4	8.0	498	1.15

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

26

Well No.

Lease

Company

Pancana Resources, Ltd.

Peutz

Permeability Capacity  
Ft. x Md.

Average Permeability,  
Millidarcys

Feet of Core Analyzed

Depth Interval,  
Feet

UPPER SQUIRREL SAND

1100.0 - 1103.0	1.8	6.3	11.36
1103.0 - 1116.1	8.0	22.5	180.00
1100.0 - 1116.1	9.8	19.5	191.36
1144.0 - 1152.6	8.0	22.5	179.85

LOWER SQUIRREL SAND

Total Oil Content  
Bbls./Acre

Average Oil Content  
Bbl./A. Ft.

Average Percent Water Saturation

Average Percent Oil Saturation

Average Percent Porosity

Feet of Core Analyzed

Depth Interval,  
Feet

UPPER SQUIRREL SAND

1100.0 - 1103.0	1.8	37.0	39.9	532	958
1103.0 - 1116.1	8.0	47.0	22.9	679	5,435
1100.0 - 1116.1	9.8	45.2	26.0	652	6,393
1144.0 - 1152.6	8.0	55.5	26.1	809	6,470

LOWER SQUIRREL SAND

PERMEABILITY, IN MILLIDARCYS

UPPER SQUIRREL SAND

LOWER SQUIRREL SAND

WATER SAT., PERCENT

90 70 20 10 30 60 50 40

OIL SAT., PERCENT

10 80 30 60 50 40

1100

1101

1102

1103

1104

1105

1106

1107

1108

1109

1110

1113

1114

1115

1116

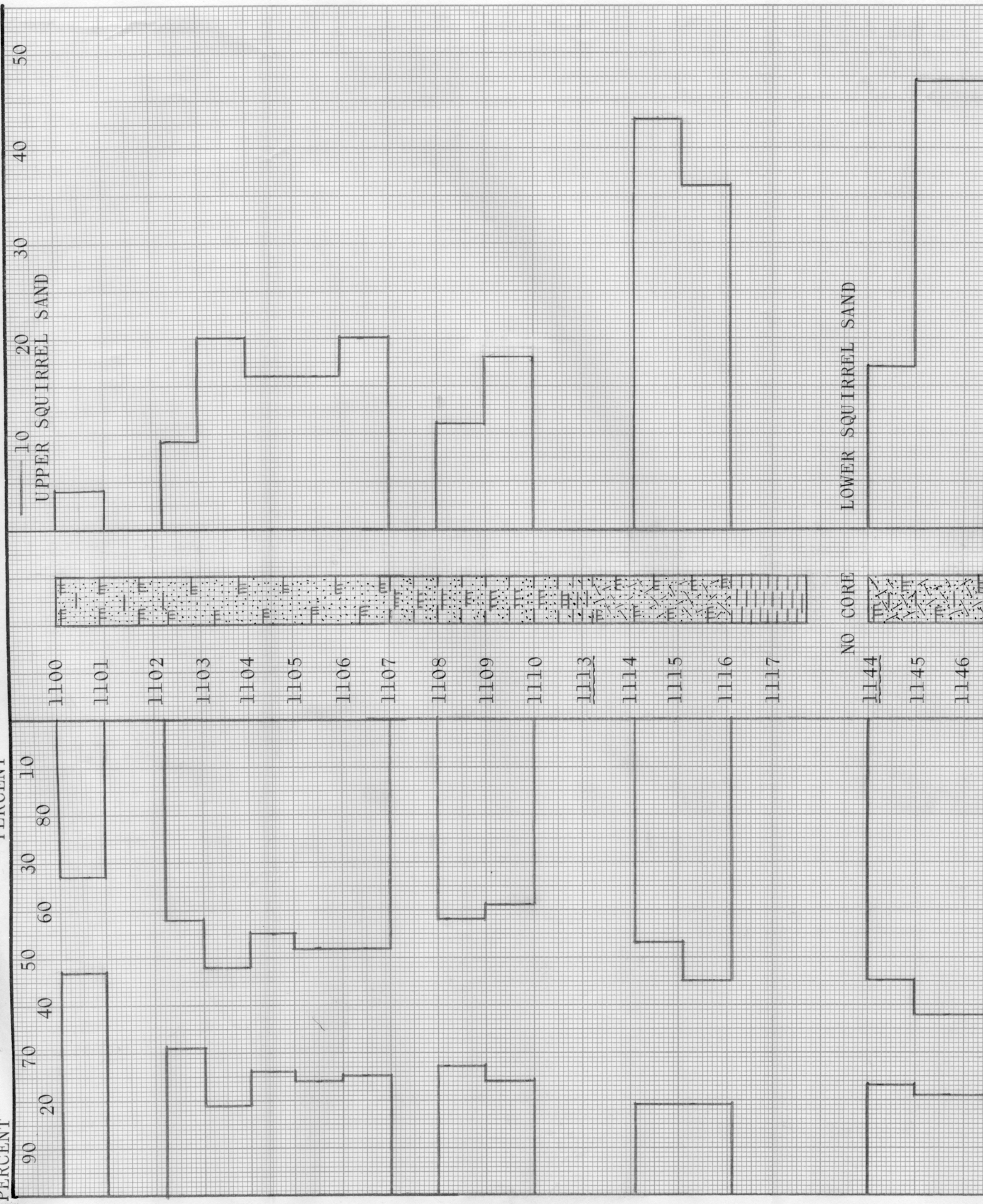
1117

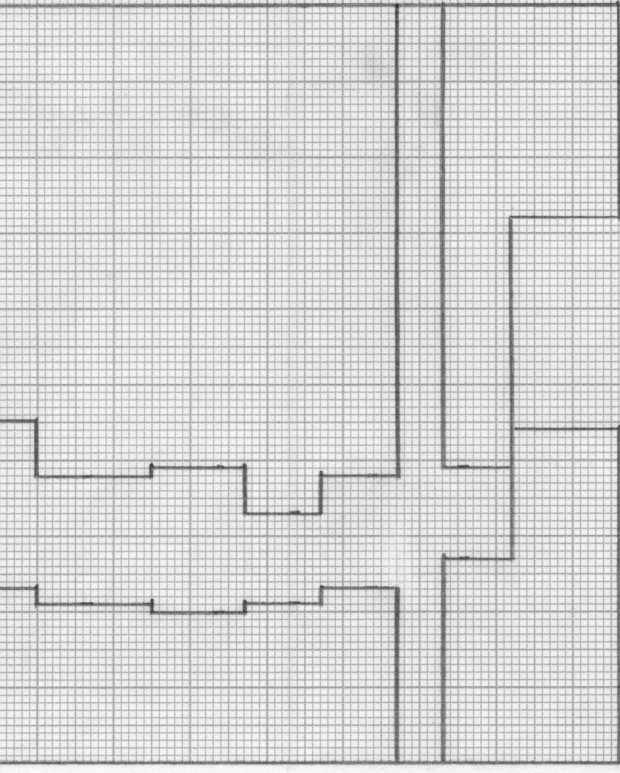
NO CORE

1144

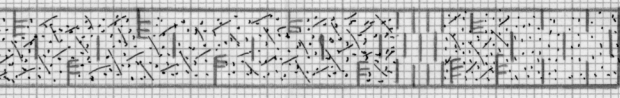
1145

1146



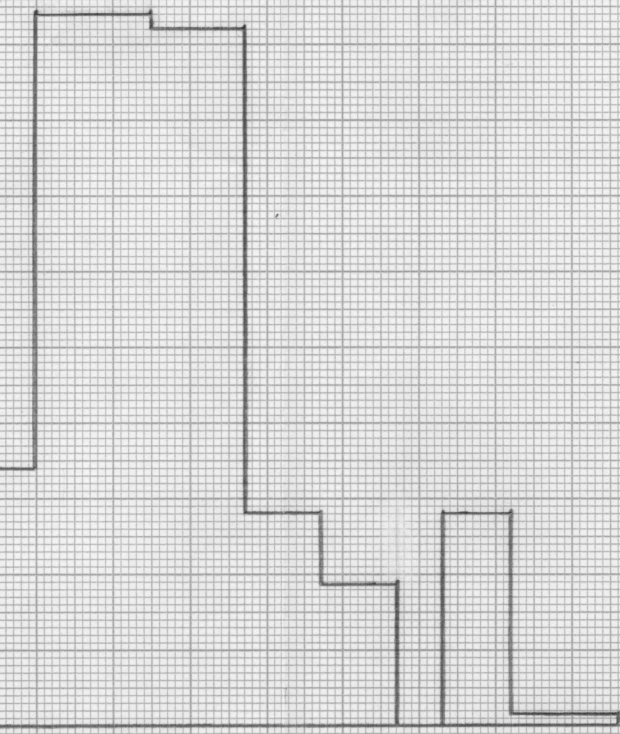


1145  
1146  
1147  
1148  
1149  
1150  
1151  
1152



KEY:

-  CALCAREOUS SANDSTONE
-  SHALE
-  SANDY SHALE
-  SHALY SANDSTONE

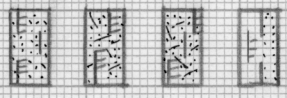


SHALY CALCAREOUS SANDSTONE

CARBONACEOUS CALCAREOUS SANDSTONE

CARBONACEOUS CALCAREOUS SANDSTONE WITH  
SHALE PARTINGS

ALTERNATE LAYERS OF CALCAREOUS SHALE  
AND SANDSTONE



# PANCANA RESOURCES, LTD.

PEUTZ LEASE

WOODSON COUNTY, KANSAS

WELL NO. 26

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCS
1100.0 - 1103.0	1.8	18.6	37.0	39.9	6.3
1103.0 - 1116.1	8.0	18.6	47.0	22.9	22.5
1100.0 - 1116.1	9.8	18.6	45.2	26.0	19.5
1144.0 - 1152.6	8.0	18.6	55.5	26.1	22.5

UPPER SQUIRREL SAND  
LOWER SQUIRREL SAND

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CHANUTE, KANSAS  
JULY, 1981

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