



OILFIELD RESEARCH LABORATORIES

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

March 20, 1980

Co-Kan Oil & Gas, Incorporated
(Century Oil Producers)
115 West Main Street
Cherryvale, Kansas 67335

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Blake Lease, Well No. 2, Montgomery County, Kansas, and submitted to our laboratory on March 11, 1980.

The core was sampled and sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP/tem
5 c to Cherryvale, Kansas

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GENERAL INFORMATION & SUMMARY

Company Co-Kan Oil & Gas, Inc.
 (Century Oil Producers) Lease Blake Well No. 2

Location SE $\frac{1}{4}$

Section 10 Twp. 32S Rge. 17E County Montgomery State Kansas

Elevation, Feet

Name of Sand Cattleman

Top of Core 709.0

Bottom of Core 718.3

Top of Sand 709.0

Bottom of Sand (Tested) 717.7

Total Feet of Permeable Sand 8.7

| Distribution of Permeable Sand: Permeability Range Millidarcys | Feet | Cum. Ft. |
|--|------|----------|
| 0 - 10 | 4.5 | 4.5 |
| 10 - 20 | 2.3 | 6.8 |
| 20 & Above | 1.9 | 8.7 |

Average Permeability Millidarcys 13.2

Average Percent Porosity 19.2

Average Percent Oil Saturation 12.0

Average Percent Water Saturation 61.3

Average Oil Content, Bbls./A. Ft. 179.

Total Oil Content, Bbls./Acre 1,554.

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LOG

Co-Kan Oil & Gas, Inc.
Name (Century Oil Producers) Lease Blake Well No. 2

| <u>Depth Interval,</u> <u>Feet</u> | <u>Description</u> |
|---------------------------------------|------------------------------------|
| 709.0 - 711.3 | Gray carbonaceous sandstone. |
| 711.3 - 715.8 | Gray carbonaceous shaly sandstone. |
| 715.8 - 716.7 | Gray carbonaceous sandstone. |
| 716.7 - 717.7 | Light brown sandstone. |
| 717.7 - 718.3 | Grayish brown shaly sandstone. |

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Co-Kan Oil & Gas, Inc.
(Century Oil Producers) Lease Blake Well No. 2

| 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 | 709.5 | 20.1 | 11 | 64 | 75 | 172 | 26. | 1.0 | 1.0 | 172 | 26.00 |
| 2 | 710.5 | 19.0 | 10 | 69 | 79 | 147 | 14. | 1.3 | 2.3 | 191 | 18.20 |
| 3 | 711.5 | 18.3 | 22 | 57 | 79 | 312 | 9.4 | 0.7 | 3.0 | 218 | 6.58 |
| 4 | 712.5 | 18.9 | 12 | 57 | 69 | 176 | 6.3 | 1.0 | 4.0 | 176 | 6.30 |
| 5 | 713.5 | 18.5 | 16 | 56 | 72 | 230 | 4.1 | 1.0 | 5.0 | 230 | 4.10 |
| 6 | 714.5 | 19.2 | 12 | 58 | 70 | 179 | 6.3 | 1.0 | 6.0 | 179 | 6.30 |
| 7 | 715.5 | 17.5 | 6 | 67 | 73 | 82 | 5.8 | 0.8 | 6.8 | 66 | 4.64 |
| 8 | 716.5 | 20.4 | 15 | 57 | 72 | 237 | 26. | 0.9 | 7.7 | 213 | 23.40 |
| 9 | 717.5 | 20.1 | 7 | 64 | 71 | 109 | 19. | 1.0 | 8.7 | 109 | 19.00 |

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Co-Kan Oil & Gas, Inc. (Century Oil Producers) Lease Well No. Blake 2

| Depth Interval, Feet | Feet of Core Analyzed | Average Permeability, Millidarcys | Permeability Capacity Ft. x Md. |
|-------------------------|--------------------------|---|---------------------------------------|
| 709.0 - 717.7 | 8.7 | 13.2 | 114.52 |

| 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 |
|-------------------------|--------------------------|--------------------------------|--------------------------------------|--|---------------------------------------|------------------------------------|
| 709.0 - 717.7 | 8.7 | 19.2 | 12.0 | 61.3 | 179 | 1,554 |