

# OILFIELD RESEARCH LABORATORIES

- REGISTERED ENGINEERS -

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January 26, 1962

Layton Oil Company  
P.O. Box 263  
Independence, Kansas

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Krueger Lease, Well No. P-106, Neosho County, Kansas, and submitted to our laboratory on January 24, 1962.

This core was brought in unsealed by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

  
Benjamin R. Pearman

BRP:rf

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## GENERAL INFORMATION & SUMMARY

Company Layton Oil Company Lease Krueger Well No. P-106

Location SW

Section 19 Twp. 27S Rge. 19E County Neosho State Kansas

|                              |   |              |
|------------------------------|---|--------------|
| Name of Sand                 | - | Bartlesville |
| Top of Core                  | - | 735.0        |
| Bottom of Core               | - | 793.0        |
| Top of Sand                  | - | 735.5        |
| Bottom of Sand               | - | 792.5        |
| Total Feet of Permeable Sand | - | 15.4         |
| Total Feet of Floodable Sand | - |              |

| Distribution of Permeable Sand:<br>Permeability Range<br>Millidarcys | Feet | Cum. Ft. |
|--|------|----------|
| 0 - 5  | 4.8  | 4.8      |
| 5 - 10   | 6.0  | 10.8     |
| 10 - 30  | 4.6  | 15.4     |

|   |   |      |
|---|---|------|
| Average Permeability Millidarcys                                | - | 8.8  |
| Average Percent Porosity  | - | 17.1 |
| Average Percent Oil Saturation                                  | - |      |
| Average Percent Water Saturation                                | - |      |
| Average Oil Content, Bbls./A. Ft.                               | - |      |
| Total Oil Content, Bbls./Acre                                   | - |      |
| Average Percent Oil Recovery by Laboratory Flooding Tests       | - |      |
| Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. | - |      |
| Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre     | - |      |
| Total Calculated Oil Recovery, Bbls./Acre                       | - |      |
| Packer Setting, Feet  | - |      |
| Viscosity, Centipoises @  | - |      |
| A. P. I. Gravity, degrees @ 60 °F                               | - |      |
| Elevation, Feet   | - |      |

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LOG

Company Layton Oil Co. Lease Krueger Well No. P-106

Depth Interval, Description  
Feet

735.0 - 735.5 - Laminated sandstone and shale.

735.5 - 738.9 - Brown laminated shaley sandstone.

738.9 - 741.2 - Dark brown slightly shaley sandstone.

741.2 - 782.8 - Drilled.

782.8 - 785.5 - Light brown shaley sandstone.

785.5 - 792.5 - Brown slightly shaley sandstone.

792.5 - 793.0 - Shale.

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## RESULTS OF PERMEABILITY AND POROSITY TESTS

### TABLE I A

Company Layton Oil Co. Lease Krueger Well No. P-106

| Sample No. | Depth, Feet | Permeability Millidarcys | Feet of Core |          | Permeability Capacity Ft. x Md. | Percent Porosity |
|------------|-------------|--------------------------|--------------|----------|---------------------------------|------------------|
|            |             |                          | Ft.          | Cum. Ft. |                                 |                  |
| 1          | 736         | 6.8                      | 1.0          | 1.0      | 6.80                            | 19.4             |
| 2          | 737         | 9.2                      | 1.0          | 2.0      | 9.20                            | 19.0             |
| 3          | 738         | 1.1                      | 1.4          | 3.4      | 1.54                            | 12.7             |
| 4          | 739         | 24.                      | 0.6          | 4.0      | 14.40                           | 19.5             |
| 5          | 740         | 10.                      | 1.0          | 5.0      | 10.00                           | 17.6             |
| 6          | 741         | 1.3                      | 0.7          | 5.7      | 0.91                            | 11.3             |
| 7          | 783         | 1.1                      | 0.7          | 6.4      | 0.77                            | 15.6             |
| 8          | 784         | 1.2                      | 1.0          | 7.4      | 1.20                            | 15.3             |
| 9          | 785         | 1.8                      | 1.0          | 8.4      | 1.80                            | 15.4             |
| 10         | 786         | 7.4                      | 1.0          | 9.4      | 7.40                            | 19.5             |
| 11         | 787         | 6.0                      | 1.0          | 10.4     | 6.00                            | 17.8             |
| 12         | 788         | 11.                      | 1.0          | 11.4     | 11.00                           | 18.5             |
| 13         | 789         | 9.9                      | 1.0          | 12.4     | 9.90                            | 17.4             |
| 14         | 790         | 15.                      | 1.0          | 13.4     | 15.00                           | 17.8             |
| 15         | 791         | 12.                      | 1.0          | 14.4     | 12.00                           | 18.2             |
| 16         | 792         | 28.                      | 1.0          | 15.4     | 28.00                           | 19.1             |

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

| Company                 | Lease                    | Well No.                       |                                      |  |   |                                       |                                    |
|-------------------------|--------------------------|--------------------------------|--------------------------------------|--|---|---------------------------------------|------------------------------------|
| Layton Oil Company      | Krueger                  | P-106                          | Depth Interval,<br>Feet              | Feet of Core<br>Analyzed               | Average<br>Permeability,<br>Millidarcys | Permeability<br>Capacity<br>Ft. x Md. | Total Oil<br>Content<br>Bbls./Acre |
| Depth Interval,<br>Feet | Feet of Core<br>Analyzed | Average<br>Percent<br>Porosity | Average<br>Percent Oil<br>Saturation | Average<br>Percent Water<br>Saturation | Average<br>Oil Content<br>Bbl./A. Ft.   | Total Oil<br>Content<br>Bbls./Acre    |                                    |
| 735.5 - 741.2           | 5.7                      | 16.4                           |                                      |  | 7.5                                     | 42.85                                 |                                    |
| 782.8 - 892.5           | 9.7                      | 17.5                           |                                      |  | 9.6                                     | 93.07                                 |                                    |
| 735.5 - 792.5           | 15.4                     | 17.1                           |                                      |  | 8.8                                     | 135.92                                |                                    |