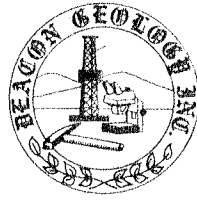


Computer Inventoried

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GEOLOGISTS REPORT

for

Sedlak #1-84

NE, NE, SW, SEC. 5, T9S, R20E

Jefferson County, Kansas

October 1984

by

George E. Petersen C.P.G.S.

DEACON GEOLOGY INC.



*professional geologists*

# GEOLOGISTS REPORT

Sedlak #1-84

October 25, 1984: Called to well @ 8:15 PM.

October 26, 1984: Released from location @ 7:00 PM.

Elevation: 1035 G.L. (est'd from topo)

| Formation Tops       | Log Depth G.L. | Datum | Thickness |
|----------------------|----------------|-------|-----------|
| Base Kansas City Gp. | 754            | +281  | ---       |
| Marmaton Gp.         | 844            | +191  | 142'      |
| Cherokee Gp.         | 986            | +49   | 497'      |
| U. McLouth Sd.       | 1,442          | -407  | 24'       |
| L. McLouth Sd.       | 1,474          | -439  | 9'        |
| Mississippian Lm.    | 1,483          | -448  | ---       |
| RTD                  | 1,520          |       |           |
| LTD                  | 1,527          |       |           |

Sample returns were examined from a drilled depth of 600' to TD for the presence of visible hydrocarbons. Formation tops and intervals for this report were picked from the R.A. Guard Log. There was no evidence of the presence of visible hydrocarbons in any of the geologic units above the Cherokee Group.

## CHEROKEE GROUP

The log interval from 1268 to 1274 should be looked at as a possible gas bearing zone before this well is eventually plugged. There was no visible indications of the presence of gas; however, the density-porosity log may indicate the possible presence of gas.

The "McLouth Sands" have been separated into an "upper" and "lower" zone for this report. The "Upper McLouth Sand" was reached at a logged depth of 1442' (-407) and had a thickness of 24'. The upper 11' is a cleaner sand than the lower 13'; however, good shows of black to dark brown oil and good fluorescence were observed throughout the "Upper McLouth Sand". The sand is composed of medium to coarse, poorly sorted, subrounded quartz fragments. Visible porosity appeared fair to good and

this is also shown on the density-porosity logs. The upper eleven feet on the density-porosity cross-plot does not cross-over but the two curves lie almost on top of one another and this zone appears to have the potential to produce gas and possibly some oil.

The "Lower McLouth Sand" was found from a log depth of 1474 (-431). It has a thickness of 9 feet. The sand has a greater shale content than the "Upper McLouth". The sand is a medium to coarse grained, quartz sand. There was a poor to fair show of heavy free oil, with slight fluorescence and a very faint odor. The oil is a very dark brown to black heavy oil.

Log calculations for the two sand intervals were prepared on location by Mr. Bill Saric of Great Guns. The following values were used for the calculations:  $R_w = .2$ ;  $M = 1.8$ .

| Interval | $\emptyset$ | Rt. | Sw  |
|----------|-------------|-----|-----|
| 1442-44  | 12          | 12  | 87  |
| 44-46    | 18          | 20  | 46  |
| 46-48    | 15          | 10  | 77  |
| 48-50    | 17          | 18  | 51  |
| 50-52    | 22          | 22  | 38  |
| 52-54    | 11          | 8   | 100 |
| 54-56    | 12          | 11  | 90  |
| 56-58    | 12          | 9   | 100 |
| 58-60    | 12          | 15  | 78  |
| 60-62    | 16          | 15  | 60  |
| 62-64    | 20          | 24  | 38  |
| 64-1466  | 13          | 11  | 85  |
| 1474-76  | 13          | 10  | 90  |
| 76-78    | 14          | 10  | 83  |
| 78-80    | 13          | 9   | 94  |
| 80-1482  | 12          | 10  | 95  |

The top eleven feet of the "Upper McLouth Sand" appears to have the best potential for gas production in this well. Water will probably be produced from the entire thickness of the

"McLouth Sand".

MISSISSIPPIAN LIME

The Mississippian was reached at a log depth of 1483 (-448) where a medium tan very finely crystalline to semi-lithographic limestone was encountered. A very heavy black oil was observed on the fracture faces. There was no odor and slight fluorescence in these samples. Due to the apparent low gravity of the oil and very low porosity no calculations were prepared for this interval. It is doubtful if production is possible from the upper Mississippian in this well.

CONCLUSIONS AND RECOMMENDATIONS

It appears that this well has the potential to produce gas from the "Upper McLouth" along with a chance of oil and water. This well is structurally comparable to the J. Knoll #1-84 located to the southeast in Sec. 9.

A comparison of this well to other wells recently drilled in the area is given in the following table.

| WELL NAME         | BKC  | Marm. Gp. | Chero.Gp. | Upper McLouth | Lower McLouth | Miss. |
|-------------------|------|-----------|-----------|---------------|---------------|-------|
| J. Zacharia #1-84 | +292 | +154      | +59       | -412          | ---           | -466  |
| J. Noll #1-84     | +293 | +156      | +60       | -409          | ---           | -449  |
| G. Kelly #1-84    | +274 | +130      | +31       | -433          | -471          | -523  |
| *Sedlak #1-84     | +281 | +191      | +49       | -407          | -439          | -448  |

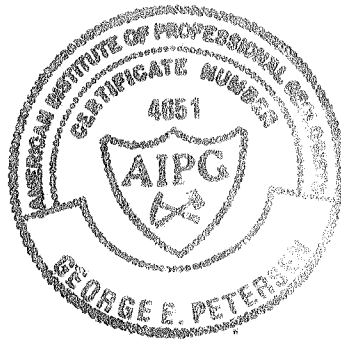
\*This well.

Based on the structural position additional drilling on this lease is recommended.

It is strongly suggested that some sort of clean, dry, heated

work space other than the dog house be provided for the examination of well samples and other work which must be done by the geologist. The present situation is not workable during inclement weather and we are now in a time of year when good weather is an exception. There is no suitable desk space in the dog house and there is a very great danger that damage may occur to the microscope. Hopefully this situation can be resolved before further drilling takes place.

Should additional information be required, please contact me.



Respectfully submitted,

George E. Petersen C.P.G.S.

DEACON GEOLOGY INC.

mrp/GEP