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Computer Inventoried

GEOLOGISTS REPORT

for

Van Gossen #1-84

330' FSL, 3140' FEL, Sec. 8, T9S, R20E

Jefferson County, Kansas

September 1984

by

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

DEACON GEOLOGY INC.



professional geologists

GEOLOGISTS REPORT

Van Gossen #1-84

August 29, 1984: Called to location 6:30 PM.

August 31, 1984: Delivered logs to V. Dow 3 AM.

August 31, 1984: Returned to location 11 AM, Released
from location 9 PM.

Elevation: 1022' GL (All measurements from GL)

Formation Tops	Log Depth(GL)	Datum	Thickness
Base K. C. Gp.	718	+304	
Marmaton Gp.	811	+211	143'
Cherokee Gp.	954	+68	502'
Upper McLouth Sd.	1416	+394	14'
Base U. McLouth Sd.	1430	-408	
Lower McLouth Sd.	1450	-428	6'
Base L. McLouth Sd.	1456	-434	
Mississippian Lm.	1456	-434	
"Osage Porous Zn."	1537	-512	11'
Burlington Keokuk	1635	-613	
LTD	1527		
RTD	1661		

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 drilling time log, sample returns and the Neutron-Density, Porosity Log. There was no evidence of the presence of visible hydrocarbons in any of the geologic units above the "McLouth Sands".

CHEROKEE GROUP:

The "Upper McLouth Sand" was reached at a logged depth of 1416' and had a thickness of 14'. Samples from this interval consisted of a medium grained, gray, dirty, poorly sorted sandstone containing slight shows of free oil. There was a very faint odor and weak fluorescence.

The "Lower McLouth Sand" was found from 1450' to 1456'. This sand was a cleaner, medium to coarse, clear quartz sandstone. There appeared to be some shalyness in the samples of sandstone.

There were minor shows of free oil in the samples, a faint odor and traces of fluorescence.

Log calculations for these two intervals were prepared on location by Glenn Schmeidler of Great Guns. The following values were used for the calculations: $R_w=.2$, $M=1.8$.

Interval	ϕ	R_t	S_w
1416-18	17	8	80
18-20	15	7	92
20-22	11	7	100
22-24	15	7	80
24-26	20	6	78
26-28	12	6	100
28-1430	8	6	100
1450-52	12	8	100
52-54	15	50	35

There were no apparent indications of gas on the logs or in the samples; however, the shaley appearance of the samples may have reduced any chance that a cross over might be observed on the logs.

Based on the log results, and the poor show in the samples the upper sand does not appear to have any potential for the commercial production of hydrocarbons.

The lower sand calculated very good from 1452 to 1454 but the sample returns had very poor shows of oil and there were no visible shows of gas either. Based on the limited thickness of the lower sand, it does not appear that commercial quantities of oil or gas can be produced from this interval.

MISSISSIPPIAN LIME:

The Mississippian was topped at a logged depth of 1456 (-434). The lime consisted of a white to light tan, very finely crystalline limestone containing no shows in the upper 14'. Traces

of a heavy asphalt was observed from 1470-80 and from 1490 to 1530. These asphaltic residues were found on fracture faces and on some pin hole type porosity. No moveable free oil was observed and there was no apparent odor.

The "Osage Porous Zone" was reached at 1537 (-512) where a brown sucrosic limestone or dolomitic limestone was found. There was a slight show of very heavy asphalt like material in a vuggy chert. The zone had a thickness of approximately 19' and has no potential for production in this well.

The "Burlington-Keokuk" was topped at a drilled depth of 1635 (-613) where a vuggy, sucrosic light brown dolomite or limy dolomite with abundant white chert was found. There were no shows of hydrocarbons in the drilled interval. Based on the drilling time break and sample returns the best porosity occurred between 1635 and 1647. This interval is not considered sufficient to be utilized as a disposal zone.

There is no potential for production of hydrocarbons from the Mississippian section in this well.

CONCLUSIONS AND RECOMMENDATIONS:

This well is structurally higher than either the Noll or Zacharia wells. Favorable sand development is very possible in other locations on this lease as the Mississippian appears to drop off to the north and west. This may cause the lower McLouth to thicken in these areas and thus become potentially productive.

Any additional wells drilled on this lease should attempt to reach the "Burlington Keokuk" as a disposal well becomes more and more of a necessity.

Should further information be required, please contact
me.

Respectfully submitted,

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DEACON GEOLOGY INC.

mrp/GEP