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GEOLOGISTS REPORT

for

Michael Meyer #1-86

API #15-087-20235

C, SE4, NE4, Sec. 31, T8S, R20E

Jefferson County, Kansas

February 1986

by

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

DEACON GEOLOGY INC.

professional geologists

GEOLOGISTS REPORT

Michael Meyer #1-86

February 8, 1986: Called to wellsite @ 9:30 AM.
February 9, 1986: Released from wellsite @ 3 AM.

Elevation: 1043 G.L. (Topo)

FORMATION TOPS	DEPTH	DATUM	THICKNESS
Base KC	778	+265	
Marmaton	915	+128	93'
Cherokee	1,008	+35	517'
"Upper McLouth Sd."	1,486	-443	6'
"Middle McLouth Sd."	1,492	-449	4'
"Lower McLouth Sd."	1,496	-453	12'
Mississippian Lm.	1,525	-482	
RTD	1,536		
LTD	1,541		

Sample returns were examined microscopically from a drilled depth of 800' to TD for the presence of visible hydrocarbons. Formation tops and intervals for this report were picked from sample returns, drilling time log and the Neutron-Density Porosity Log. There was no visible evidence of oil or oil staining in any of the geologic units above the "McLouth Sands"; however, there is some indication on the logs of the possible presence of gas in some of the middle Cherokee Sands.

CHEROKEE GROUP:

There were several clean coarse to slightly shaly sand intervals within the Cherokee Group that deserve a detailed evaluation and possible attempt at production. The most notable being the sand found at a log depth of 1216 to 1231. This sand has an average porosity of 18% from 1220-1230 and an average Rt value of 14. Using an M of 1.8 and an Rw of .2 the average Sw calculates out to 55%. There is a thick wall cake build-up over this interval which would indicate that there is probably some fluid invasion on the zone which in turn would mask any

gas effect. Other sands should also be carefully examined on the logs.

The "McLouth Sands" were topped at a log depth of 1488 feet (-445). These sands were divided for correlation purposes into an upper (1488-92), middle (1492-96) and lower (1496-1508) sand.

The sand is a medium to coarse grained tan quartz material thru the upper and middle zone grading to a coarse grained, clear quartz sand for the lower unit.

There was a slight show of heavy dark brown oil throughout the interval although there was no noticable odor. Applications of trichlorethane yielded streaming cuts and bright fluorescence.

Log calculations were prepared on location by Log-Tech Inc. personnel using the following values: M=1.8, Rw= .2.

Interval	Ø	Rt	Sw
1486-88	23	15	44
88-90	20	30	34
90-92	23	18	40
92-94	19	16	50
94-96	13	12	80
96-98	16	30	40
98-1500	15	30	45
1500-02	15	14	65
02-40	17	15	58
04-06	14	18	62
06-08	10	10	100

Based on the very slight show of oil in the samples and the favorable Sw calculations, it appears that this well will produce good commercial quantities of gas.

MISSISSIPPIAN LIME:

The top of the Missisippian Lime (Spergen) was reached at a log depth of 1525 feet (-483). The sample returns consisted

of a white to tan fragmental slightly dolomitic limestone. Insoluable residues yielded masses of sponge spicules and bright green clay balls. There was no evidence of the presence of oil or oil staining and there were no indications of gas.

There is no potential for the production of oil or gas from the drilled portion of the Mississippian in this well.

CONCLUSIONS AND RECOMMENDATIONS:

The "McLouth Sands" in this well appear to have the potential to produce commercial quantities of gas. There is also a strong possibility that some of the middle Cherokee sands can also produce gas in commercial quantities. These upper sands should be thoroughly tested before eventual abandonment of the well.

Should additional information be required, please contact me.

Respectfully submitted,

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

DEACON GEOLOGY INC.

mrp/GEP