George E. Petersen, c.p.g.s.
consulting geologist

3223 Mc Clure Rd.
Topeka, Kansas 66614 913-272-4383

GEOLOGISTS REPORT

for

Sedlak #1-85

A.P.I. #15-087-20197

C, NW4, SW4, Sec. 5, T9S, R20E

Jefferson County, Kansas

October 1985

by

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

DEACON GEOLOGY INC.

professional geologists

GEOLOGISTS REPORT

Sedlak #1-85

October 1, 1985: Called to wellsite @ 8 PM.
October 2, 1985: Released from wellsite @ 5:15 PM.

Elevation: 995 G.L. (Topo)

FORMATION TOPS	LOG DEPTH	DATUM	THICKNESS
Base K. C.	716	+279	
Marmaton Gp.	855	+140	91'
Cherokee Gp.	946	+49	496'
"U. McLouth Sd."	1,416	-421	8'
"M. McLouth Sd."	1,424	-429	6'
"L. McLouth Sd."	1,430	-435	6'
Mississippian Lm.	1,442	-447	
RTD	1,485		
LTD	1,483		

Sample returns were examined microscopically from a drilled depth of 800 feet to TD for the presence of visible hydrocarbons. Formation tops and thicknesses were picked from the drilling time log, sample returns, and the Neutron-Density Porosity Log. There was no visible evidence of the presence of hydrocarbons in any of the samples from any of the geologic units above the "McLouth Sands"; however, the log response indicated that there may be gas present in several of the sand intervals in the Cherokee Group.

CHEROKEE GROUP:

There were several clean, porous sand intervals in the Cherokee Group above the "McLouth" section. There was no visible evidence of the presence of hydrocarbons in any of the sample returns from these sand intervals; however, there were indications of a gas effect on the Density-Porosity cross-plot, as well as a very slight cross-over between 1226 and 1228 (log depth).

Log calculations were prepared on location by Mr. Glenn Schmeidler of Log-Tech Inc. for some of these sand intervals and additional calculations were prepared later, after further

study of the logs. The following values were used for all log calculations in this report; M=1.8, Rw= .2 .

Interval	Ø	Rt	Sw
1154-56	10	7	100
56-58	10	13	96
58-60	17	11	65
60-62	17	15	56
62-64	18	12	59
64-66	15	12	76
1190-92	13	9	91
92-94	16	8	80
94-96	19	10	62
96-98	19	9	65
98-1200	18	9	68
1200-02	19	10	62
02-04	18	10	65
04-06	15	9	80
1216-18	10	10	59
18-20	12	12	59
20-22	12	12	70
1226-28	13	30	50
28-30	15	7	91
30-32	18	7	79
32-34	16	13	59
1236-38	12	8	100
38-40	20	8	66
40-42	23	10	54
42-44	19	12	58
1284-86	19	9	65
86-88	16	12	66
88-90	13	15	71
90-92	13	8	97
92-94	13	6	100

All of these sands were fine to coarse grained, poor to well sorted, subrounded white quartz. The drilling mud had not been mixed when these sands were penetrated; therefore, there was undoubtly some invasion of drilling fluids into these zones, which in turn would supress much of any gas effect which might normally have been seen on the logs.

All of these zones should eventually be tested before final abandonment of this well.

The "McLouth Sand" interval was reached at a log depth of 1416 feet (-421). This sand has been divided into an upper sand (1416-1424), a middle sand (1424-1430) and a lower sand (1430-1436) for this report.

The upper and middle sands were composed of a medium to coarse grained, tan, subrounded quartz. There was a good petroleum odor throughout this interval along with a good show of dark brown oil. There was good fluorescence and the application of trichlorethane yielded streaming cuts. Both the upper and middle sands were quite shaly.

The lower sand was a clean coarse grained, subrounded, clear quartz sand. There was a strong petroleum odor and a good show of heavy dark brown oil. Oil spots were also observed on the pit.

There was a good cross-over gas response on the log between 1428 and 1432. It is expected that commercial quantities of gas can be produced from this interval.

MISSISSIPPIAN LIME:

The Mississippian Lime was topped at a log depth of 1442 feet (-447). Sample returns consisted of a tan sandy limestone in the upper three feet of the unit. The remainder of the drilled portion of the Mississippian was composed of white, to light tan, to tan, coarsely crystalline to fragmental limestone with coarse calcite veining. Samples also included white tripolitic chert and abundant pyrite.

There were no shows of hydrocarbons in the drilled interval and there is no potential for production from this portion of the Mississippian in this well.

CONCLUSIONS AND RECOMMENDATIONS:

Based on the calculations prepared from information on the Neutron-Density Porosity Log and the Radiation Guard Log, it appears that there is a good probability of gas being present in the following sand intervals; 1154-66, 1190-1206, 1216-22, 1226-34, 1236-44 and 1284-94. It is suggested that when the next well is drilled on this lease, the mud-up point be raised to 1100 feet to minimize formation damage to these sands by invasion of drilling fluids.

The "McLouth Sands" contained a good oil show and a good gas effect was also observed on the logs. The lower portion of the sands where the cross-over was noted, should produce commercial quantities of gas, and may in time, produce some limited quantities of oil as well as some water.

Sample returns were difficult to correlate back, as there was some difficulties maintaining sufficient pump volumes to bring the samples to the surface. This low volume of mud flow also allowed formation of a heavy mud ring in the lower portion of the hole which also caused problems with the quality of the sample returns.

Should additional information be required, please contact me.

Respectfully submitted,

George E. Petersen C.P.G.S.
DEACON GEOLOGY INC.

mrp/GEP