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

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

GEOLOGISTS REPORT

for

Lloyd Noll 4-89

API No. 15-103-21115

SE, SW, SW, Sec. 3, T9S, R20E

Leavenworth County, Kansas

April 1989

by

George E. Petersen C.P.G.

DEACON GEOLOGY INC.

professional geologists

GEOLOGISTS REPORT

Lloyd Noll 4-89

April 26, 1989: Called to well @ 9pm, on location @ 10:30, drlg @ 1046'.
April 27, 1989: Released from wellsite @ 2:45 pm upon completion of logging.

ELEVATION: 1033.4 G.L. (All measurements from G.L.)

FORMATION TOPS	LOG DEPTH	DATUM	THICKNESS
Base KC	754	+279	----
Marmaton	886	+147	96'
Cherokee	982	+51	504'
Coal Marker	1,400	-367	3'
"U. McLouth Sd."	1,438	-405	12'
"M. McLouth Sd."	1,450	-417	19'
"L. McLouth Sd."	1,469	-436	9'
Mississippian	1,486	-453	----
RTD	1,515		
LTD	1,513		

Sample returns were examined microscopically from a drilled depth of 1100' to T.D. for the presence of visible hydrocarbons. Formation tops and intervals for this report were picked from sample returns, the drilling time log and the Neutron Density-Porosity Log.

There was no visible evidence of the presence of hydrocarbons in any of the geologic units above the "McLouth Sands".

CHEROKEE GROUP:

The clean sand sequences noted in the samples and on the logs between 1190 and 1280 need to be carefully evaluated before eventual abandonment of the well. There was no visible evidence in the samples that oil or gas was present. The fair to good porosity values and increased resistivity values give calculated Sw's of 67 to 80%. There was also a good wall cake build up over these zones. All of these things may indicate the presence of some unknown quantities of gas. It is not suggested that these intervals be tested at the

present time but at some future time before the well is to be abandoned.

The "McLouth Sands" were divided into upper (1438-1450), middle (1450-69), and lower (1469-1478) units for mapping and correlation purposes.

The upper unit and upper half of the middle unit are generally very shaly sands or shale, have low porosity values, and little or no shows of hydrocarbons in the samples. It does not appear that oil or gas can be produced in commercial quantities from these intervals.

The lower middle and lower "McLouth Sands" (1462-1478) are a medium to coarse grained, subrounded, clear quartz sand with some shale. There was a good show of medium brown free oil in both the samples and on the pit along with a strong petroleum odor.

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

INTERVAL	Ø	Rt	Sw
1462-64	14	20	58
64-66	17	40	34
66-68	13	40	41
68-70	13	15	68
1470-72	13	23	54
72-74	12	18	70
74-76	13	30	47

The calculations appear to be on the very conservative side. No attempt has been made to correct for any shale effect.

The log from this well compares very similarly to Noll #3-89 with the sand being somewhat cleaner. All indications are that this well will produce good quantities of oil from this lower interval.

MISSISSIPPIAN:

The top of the Mississippian was reached at a log depth of 1486 feet (-453). Sample returns indicated the presence of heavy dark brown to black oil in the upper 15 feet in fracture porosity and in some poorly developed vug porosity. There was a moderate odor.

Due to the lack of success in producing from the upper Mississippian in this area no attempt at production is recommended.

CONCLUSIONS AND RECOMMENDATIONS:

Based on the successful completion and production of oil from the Noll no's 1-87, 2-88 and 3-89 and the similarity of this zone to that found in these wells, it appears that commercial amounts of oil are capable of being produced from the "McLouth Sands".

As was the case in the #2-88 and 3-89, oil was dumped in the pits along with the drilling water. This did make sample examination more difficult and it was very difficult to determine the amount of show on the pit. This problem needs to be addressed with the water suppliers.

Should additional information be required, please contact me.

Respectfully submitted,

George E. Petersen C.P.G.

DEACON GEOLOGY INC.

mp/GEP