GEOLOGISTS REPORT

for

KRAMER#1

2141' FNL , 4036 FEL
sec 6, T9S, R20E
JEFFERSON COUNTY, KANSAS

JULY,1996

by

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Deacon Geology Inc.

GEOLOGISTS REPORT
KRAMER # 1
2141' FNL, 4036 FEL, sec 6. T9S,R20E, Jefferson County, Ks

July 17,1996: Called to location @ 10 PM , drlg @ 1200'.
July 18,1996: Released from location at 6:30 PM .

ELEVATION: 1042.7 GL (all measurements from GL, round up 1043')

FORMATION	SAMPLE DEPTH	LOG DEPTH	DATUM	THICKNESS
Base KC	794	792	+251	
Mamaton	932	930	+113	94'
Cherokee	1024	1024	+ 19	514'
Coal marker	1439	1438	-395	3'
U. McLouth Sd	1490	1488	-445	6'
M. McLouth Sh		1494	-451	8'
L.McLouth Sd	1503	1502	-459	18'
Miss. Lm	1538	1538	-495	--
LTD		1568		
RTD	1570			

Sample returns were examined microscopically from a drilled depth of 1000 feet to TD for the presence of visible hydrocarbons. Formation tops and thicknesses were picked from the sample returns, the drilling time log and the Neutron-Density /Porosity Log.

The primary zone of interest in this well is the McLouth Sand sequence found just above the Mississippian Lime. There were some other un-named sand intervals above the Mclouth that will be discussed in the Cherokee Section in this report. Although these intervals may not have commercial quantities of gas at todays prices, there may be justification to test them before eventual abandonment of the well.

CHREOKEE GROUP:

The first un-named sand interval that warrents further study is found between 1236 and 1249. This was a clean sand that had no visible shows of hydrocarbons present in the samples. The logs show moderate porosity and some decent Rw values. Further log analysis should be done on this interval.

The second sand interval, 1416-1434 contains a coal stringer at the top and at 1424-26. During the drilling of this interval, gas was observed bubbling out of the mud stream in the pit. Again, as with the sand between 1236 and 1249; these sands have 15 to 16% porosity values and Rw values from 12 to 20. Carefull consideration should be given to testing these sands before the well is abandoned.

The McLouth sequence is divided into an upper sand (1488-94), a middle shale (1494-1502), and a lower sand which is a clean unit from 1502 to 1520 . The interval between 1520 and the top of the Mississippian (1538) varies from an moderately clean to shaly sand to a shale. This is probably a part of the Mclouth also but was not included in the part of the lower unit that is of interest.There was a faint to strong petroleum odor present as the unit was penetrated. When the logging tools were removed from the hole there was an oily film on the tools.

The upper McLouth is a medium to coarse grained , subrounded, white to clear, quartz sand . There was a slight show of light to medium brown free oil present in the samples. The application of trichlorethane yielded bright streaming cuts . The upper portion of the Lower McLouth appeared very similar to the upper sand. There was a more pronounced petroleum odor present as additional sand was drilled. The sand between 1520 and the top of the Mississippian was a coarse grained white to clear quartz sand that contained a heavy tar like oil residue.

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

INTERVAL	POROSITY	Rt	Sw%
1502-04	20%	40	29%
1504-06	15%	25	49%
1506-08	15%	9	81%
1508-10	17%	9	71%
1510-12	20%	20	42%
1512-14	19%	15	52%
1514-16	18%	15	53%
1516-18	17%	15	55%

A gas cross-over effect was indicated on the log between 1438 and 1440 and between 1501 and 1504. Although the zone appears to be limited in thickness in the lower McLouth further study of the logs need to be made. It is very possible that the porosity and resistivity values between 1504 and 1510 may have been adversly affected by some mineralization that was not readily apparent in the sample returns.

MISSISSIPPIAN LIME:

The top of the Mississippian Lime was reached at a depth of 1538 feet. Sample returns consisted of light to medium tan , very coarsely crystalline limestone along with white tripolitic chert and bright green shale. There were no shows of hydrocarbons visible in the sample returns .

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

CONCLUSIONS AND RECOMMENDATIONS:

The upper three feet of the lower McLouth sand appears to have the potential to produce commercial quantities of gas . Extreme care should be taken to keep production rates lower than in wells to the south to minimize the production of water. It is possible that the actual gas cap may be thicker than just the interval indicated by the cross-over on the log. It is very possible that something in the formation has adversly affected the log response between 1505 and 1510.

As was stated previously in this report, there are two zones of sand above the Mclouth Sands that need to be carefully evaluated and possibly tested.

Based on the sand thickness and structural position of these sands to surrounding wells, it appears that additional well locations to the East may prove to be productive.

At some point , thought must be given to drilling a deeper test that could be used as a disposal well. The ability to economically dispose of water will prolong the commercial life of many of these wells.

DISCLOSURE:

Services rendered on the Kramer #1 were done without any biasing influence, intentional or unintentional from any official of Horizontal Development and Production Inc. In this report I am an independent Petroleum Geologist and not an employee of the referenced company. I will not receive any financial benefit from the positive completion of this well.

The enclosed Geologic Log is considered an intergal part of this report and is not to be separated from the same.

The recommendations made herein shall not be construed as absolute and are made without any assumption of liability and are statements of observations, research, training, and opinion only.

Should additional information be required , please contact me.

Respectfully submitted,

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Deacon Geology Onc.