

CLARK A. ROACH  
PETROLEUM GEOLOGIST

416 UNION CENTER BUILDING  
WICHITA, KANSAS 67202

(316) 267 - 1434

GEOLOGICAL REPORT

EUREKA DRLG. CO. & WESTRAN PET. CO.

NO. 1 WARREN

SW SW NW SEC. 25-T20S-R14E

COFFEY CO., KANSAS

CLARK A. ROACH  
PETROLEUM GEOLOGIST

416 UNION CENTER BUILDING  
WICHITA, KANSAS 67202

(316) 267 - 1434

GEOLOGICAL REPORT

EUREKA DRLG. CO. & WESTRAN PET. CO.  
NO. 1 WARREN  
SW SW NW SEC. 25-T20S-R14E  
COFFEY CO., KANSAS

ELEVATIONS: 1085 Kelly Bushing (Estimated)  
1080 Ground Level  
CONTRACTOR: Eureka Drlg. Co.  
COMMENCED: June 22, 1973  
COMPLETED: July 6, 1973  
ROTARY TOTAL DEPTH: 2002 feet  
SURFACE PIPE:  
PRODUCTION PIPE: 4 1/2 inch  
HOLE SIZE: 6 3/4 inch from to 2002 feet  
TYPE OF LOG: Welex: Gamma Ray-Neutron  
Not available for this report

REMARKS:

All measurements were taken from the kelly bushing.

One foot drilling time was plotted and samples examined from 800 ft. to the T.D.

Only one crew was used to operate the rig. All drilling and testing was done during the daylight hours.

Due to the prolonged drilling, the drilling was under my supervision from 1960 to the total depth. A trip was made to the well for the drill stem test in the Mississippian and also to pick the Osage formation in order to give instructions before penetrating the Pre-Kinderhook.

One drill stem test was taken in the Mississippian and another in the Simpson.

Casing was set above 1700 feet to test the Mississippian through perforations.

GEOLOGICAL REPORT  
NO. 1 WARREN  
PAGE TWO

FORMATIONS:

Following are the depths and datums of the tops of the formations as determined by sample analysis.

<u>Formation</u>	<u>Samples</u>	<u>Datum</u>
Base Kansas City	944	+ 141
Marmaton	1106	(- 21)
Cherokee	1253	(-168)
Squirrel Sand	1288	(-203)
Base Sand	1310	(-225)
Mississippian	1597	(-512)
Osage	1723	(-638)
Northview Shale	1844	(-759)
Kinderhook Shale (Boice)	1920	(-835)
Chattanooga	1986	(-901)
Simpson Sand	1995	(-910)
Rotary Total Depth	2002	(-917)

RESERVOIRS AND DRILL STEM TESTS:

A geological log is included with this report and is considered a part of it. Refer to it for sample descriptions.

DST #1  
1633-1637      Open 45 minutes, fair blow decreasing at the end;  
Shut in 45 minutes. No second opening or shut in time.  
Recovered: 50 ft. slightly oil cut mud  
            120 ft. of heavily oil cut emulsified mud  
            ground out 20% oil  
The Initial shut-in pressure was 640 psi.  
The Initial flow pressures were 40 and 105 psi.

DST #2  
1996-2002      Open 30 minutes, good blow; Shut in 45 minutes.  
Open 30 minutes, good blow; Shut in 45 minutes.  
Recovered: 480 ft. of salt water  
The Initial shut-in pressure was 696 psi.  
The Final shut-in pressure was 696 psi.  
The Initial flow pressure was 30 and 120 psi.  
The Final flow pressure was 133 and 194 psi.

GEOLOGICAL REPORT  
NO. 1 WARREN  
PAGE THREE

RECOMMENDATIONS AND CONCLUSIONS:

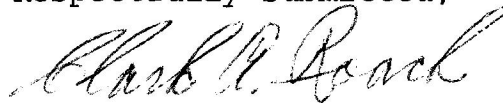
The No. 1 Warren is regionally higher on all the formations than the nearby dry holes. However it is considerably lower than the producing wells in section 8,9,10, 11 of T21S-R14E.

The drill stem test of the Simpson indicated a good reservoir. With the shows of oil found in the Simpson, I am of the opinion another test should be drilled to try to find the Simpson Sand structurally higher.

The Squirrel Sand appeared to have streaks of porosity carrying oil in the top section of the Sand. Before the hole is abandoned the top section of the sand should be tested through perforations, unless condemned by future testing in the offset wells.

It was recommended that 4 1/2 inch casing be cemented at approximately 1694 feet and the Mississippian be tested through perforations.

Respectfully submitted,



CLARK A. ROACH  
Consulting Geologist

CAR:jad