

32-21-22W
C. SW. SW

GEOLOGICAL REPORT

O. A. Sutton #1 Hamilton
C SW SW Section 32-21S-22W
Hodgeman County, Kansas

Surface Casing

8-5/8" casing was set at 356.7 feet with 250 sacks cement on August 2, 1974.

Samples & Drilling Time

20-foot samples from 1300 to 1500 feet
"Joint" samples from 1500 to 2500 feet
10-foot samples from 2500 to 4350 feet
5-foot samples from 4350 to 4516 feet (rotary total depth)

5-foot drilling time from 1300 to 1500 feet
5-foot drilling time from 2300 to 3400 feet
1-foot drilling time from 3400 feet to rotary total depth

Elevation

Kelly Bushing: 2226'
Derrick Floor: 2223'
Ground: 2221'

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(All measurements were made from the Kelly bushing)

Two drill stem tests were run. Drill stem tests, sample and electric log evaluation condemned hole for commercial production of hydrocarbons. Well was plugged and abandoned on August 16, 1974.

Electric Log Data

<u>Formation</u>	<u>Electric Log tops</u>	<u>Datum</u>
Anhydrite	1397	(plus 827)
Heebner	3770	-1544
Lansing	3824	-1598
Ft. Scott	4353	-2127
Mississippian	4445	-2219
Log TD	4514	-2288
RTD	4516	-2290

Sample Descriptions of Objective FormationsLansing-Kansas City

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- 3848-3856 Limestone, gray to white, buff, dense to fine-medium crystalline, no shows.
- 3880-3886 Limestone, buff, gray to off-white, dense to medium crystalline, slightly fossiliferous, no show.
- 3936-3950 Limestone, gray to white oolitic; no show.
- 4000-4010 Limestone, gray to mottled gray and white, chalky to dense, no show.
- 4050-4066 Limestone, tan to gray oolitic; no show.
- 4094-4100 Limestone, buff to white, chalky to dense to medium crystalline with some oolitic limestone, no show.
- 4136-4142 Limestone, buff, dense to medium crystalline and tight; no show.

Basal Pennsylvanian

- 4216-4226 Limestone, white to buff, dense to medium crystalline, slightly fossiliferous; no show.
- 4266-4274 Limestone, mottled buff, dense to medium crystalline, partly fossiliferous; no show.
- 4284-4294 Limestone, mottled gray-buff, dense to medium crystalline with occasional piece of white opaque sharp chert.

(Ft. Scott)

- 4353-4376 Limestone, tan, dense to tan, cream, finely sucrosic to fine vugular dolomitic limestone with show free oil and medium to dark stain. Appears tight in dry sample with zone probably about two feet thick.

DST No. 1, 4358-4382', (test corrected uphole 2 feet by drilling time-electric log correlation) open 30 min., SI 30 min., open 48 min., SI 30 min., weak blow 20 minutes and died; recovered 35 feet mud with oil specks; IBHP 1221#, FBHP 1124#; IFP 23-23#; FFP 23-35#.

(Cherokee)

- 4380-4400 Limestone, white to gray, platy, dense to chalky; no show.
- 4407-4414 Limestone, gray, chalky, mealy and shaly; no show.
- 4422-4445 Vari-colored sharp chert, pink, brown, tan, maroon with green to gray shales; no shows.

Mississippian

- 4445-4466 (Warsaw) Dolomite, buff to gray-white, glauconitic with worm-hole to medium to coarse vugular porosity. No shows of free oil, no staining. Porosity was totally barren.
- DST No. 2, 4447-4464' (test corrected uphole 2 feet by drilling time-electric log correlation), open 30 min., SI 30 min., open 1 hour, SI 1 hour; good blow and building throughout, recovered 260 feet salt water, no show; IBHP 839#, FBHP 746#; IFP 23-71#, FFP 83-119#.
- 4466-4482 Dolomite, gray to white, medium to coarse vugular, some greenish cast, possibly silty with increase of greenish-gray shale in sample. All porosity barren of any show.
- 4482-4499 (Osage) Dolomite, buff to grayish white, sugary, finely sucrosic, glauconitic with scattered pieces of white to gray chert. No show.
- 4499-4514 (Log TD) Dolomite as above, with abundant sharp, fresh, white chert. No show.

Summary

Only show encountered in hole was in Ft. Scott limestone, which proved to be tight on drill stem test. Mississippian drill stem tested salt water. All porosity below was barren of show and calculated 86 to 100 percent water on electric log.

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RME:jst
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