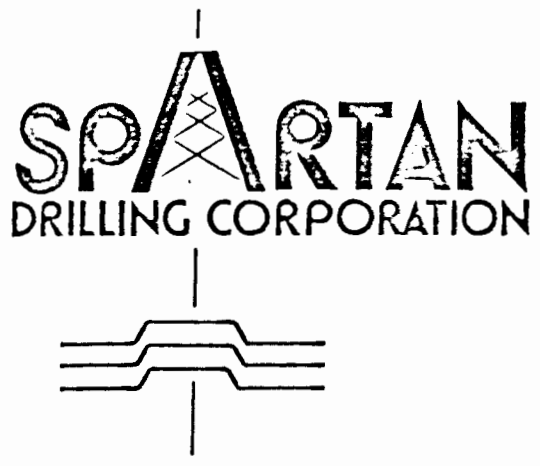


31-33-4w
S/2 SE-SE



State Geological Survey
WICHITA, BRANCH

December 1, 1980

DRILLERS LOG

RE: Gerberding #1
S/2/SE/SE
Sec. 31 T33S-R4W
Sumner County, KS

OPERATOR: Kansas Oil Corporation
CONTRACTOR: Spartan Drilling Corporation
COMMENCED: 10-19-80
COMPLETED: 10-29-80

Surface Pipe 252' 12 1/4" w/230 2% cc 3% Gel

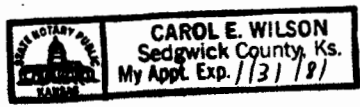
0	1226	Sand & Shale
1226	1765	Shale
1765	2465	Shale - Lime
2465	2760	Shale - Lime Streaks
2760	3532	Lime & Shale
3532	4035	Shale & Lime
4035	4060	Chirty Lime - Shale
4060	4147	Lime & Shale
4147	4216	Chirty Lime - Shale
4216	4410	Lime & Shale

We certify that the above and foregoing is a true and correct copy of the log on the Gerberding #1 in Sumner County, Kansas.

SPARTAN DRILLING CORPORATION

Floyd C. Wilson
President

Subscribed and sworn to before me this 1st day of December, 1980



Carol E. Wilson, Notary Public