

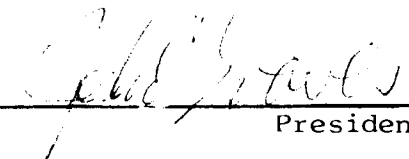
R O T A R Y D R I L L E R S ' L O G

CONTRACTOR:	Graves Drilling Co., Inc. 910 Union Center Wichita, Kansas 67202	DRILLING COMMENCED: Nov. 26, 1977
OPERATOR:	Graves Drilling Co., Inc. 910 Union Center Wichita, Kansas 67202	DRILLING COMPLETED: Dec. 3, 1977
CASING RECORD:	5 Jts. 218' 8-5/8 used cemented with 175 sacks 111 Jts. 4421' 4 1/2" new cemented with 75 sacks	LOCATION: Frank No. 1 NE SW NW Section 3-32S-9W Harper County, Kansas

0 - 218 Red Bed
218 - 1118 Red Bed & Shale
1118 - 2366 Shale & Lime
2366 - 2730 Shale & Lime
2730 - 3692 Shale & Lime
3692 - 4405 Lime & Shale
4405 - 4423 Chert
4423 Rotary Total Depth

I hereby certify the foregoing statements to be true and correct to the best of my knowledge.

Graves Drilling Co., Inc.

By 
President

STATE OF KANSAS)

EDGWICK COUNTY) ss

Subscribed and sworn to before me, a Notary Public, this 27th day of **Novem-**