KANSAS GEOLOGICAL SOCIETY
500 East Murdock
Wichita, Kansas

JAN 16 1971

5-9-20W
NE NW SW

15-163-20310

Elev. 2107' KB

Dry hole

DRILLER'S LOG

COMPANY: Landes Exploration Co., 416 Union Center Bldg., Wichita, Kansas 67202
CONTRACTOR: Hellar Drilling Company, Inc., Wichita, Kansas 67202
LEASE: #1 Arpin
LOCATION: NE NW SW 5-9S-20W, Rooks County, Kansas
COMMENCED: November 20, 1970
COMPLETED: December 20, 1970
CASING: Set 8 5/8" Surface Casing @ 214'/110 sacks cement

0-3	Top Soil
3-24	Clay
24-210	Cement
210-1140	Shale
1140-1360	Sand & Shale
1360-1627	Shale & Red Bed
1627-1672	Anhydrite
1672-2010	Shale & Red Bed
2010-2280	Shale & Lime
2280-3215	Lime & Shale
3215-3303	Lime
3303-3377	Lime & Shale
3377-3666	Lime
3666-3704	Arbuckle & Lime
3704	Rotary Total Depth

D & A

Log Tops

Anhydrite	1626
Heebner	3312
Toronto	3336
LKC	3352
Arbuckle	3654

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

I, D. L. Hellar, do hereby certify that the above and foregoing is a true and correct copy of the log of the #1 Arpin, located in NE NW SW 5-9S-20W, Rooks County, Kansas as reflected by the files of the Hellar Drilling Company, Inc.

HELLAR DRILLING COMPANY, INC.