DRILLER'S LOG

FARM NAME: BATES "A" #2

LOCATION: S/2 SW/4 NW/4 Sec 31-30S-1W
Sumner County, Kansas

CONTRACTOR: Shawver Armour, Inc.

ELEVATION: 1299 KB

OWNER: Beardmore Drilling Co.

COMMENCED: July 6, 1966

COMPLETED: July 17, 1966

CASING RECORD: 439' 8 5/8" w/300 sx HAS
Set 5½" @ 3724 w/75 sx cement

FORMATION:	
Shale & Clay	150
Shale & Shells	250
Salt	350
Anhydrite	575
Lime & Shale	880
Shale & Lime	1070
Lime & Shale	1525
Shale & Lime	2400
Lime & Shale	2690
Shale & Lime	2740
Stalnaker Sand	2765
Lime & Shale	3009
Kansas City Lime	3301
Lime & Shale	3713
Chert	3723
Core #1	3732
Rotary Total Depth	3732

TOPS:	
Kansas City	3058
Base Kansas City	3309
Cherokee	3553
Mississippi Chert	3713
Mississippi Lime	3722

STATE OF KANSAS)
) ss
SEDGWICK COUNTY)

I, James M. Armour, do hereby certify that the above log is a true and correct copy of the above captioned well as shown on the daily drilling reports.

SHAWVER ARMOUR, INC.

BY James M. Armour
James M. Armour

Subscribed and sworn to before me this 21st day of July, 1966.

Claire Jones
Claire Jones, Notary Public

My commission expires Dec 10, 1967