DRILLER'S LOG

FARM NAME: BATES "A" #1 Bates B1-1

LOCATION: W/2 SE NW Sec 31-30-1W Sumner County, Kansas

CONTRACTOR: Shawver Armour, Inc.

ELEVATION: 1304 K B

OWNER: BEARDMORE DRILLING CO.

COMMENCED: May 20, 1966

COMPLETED: May 31, 1966

CASING RECORD: Set 434' 8 5/8" w/280 sacks cement
Set 3735' 5½" w/75 sacks cement

FORMATION:	
Soil & clay	25
Shale & Lime	390
Anhydrite	434
Anhydrite & Lime	690
Lime & Shale	1415
Shale & Lime	1985
Lime & Shale	2330
Shale & Lime	2500
Lime & Shale	2735
Stalnaker Sand	2765
Lime & Shale	2780
Shale & Lime	2815
Sand	2855
Lime & Shale	3085
Kansas City Lime	3121
Lime	3321
Shale	3385
Lime & Shale	3490
Shale & Lime	3565
Lime & Shale	3691
Shale	3725
Lime	3734
Core #1	3740
Rotary Total Depth	3740

TOPS:	
Stalnaker	2735
Kansas City	3085
B. Kansas City	3321
Cherokee	3563
Mississippi Chert	3723
Mississippi Lime	3732

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 8th day of June, 1966.

My commission expires Dec 10, 1967

Claire Jones
Claire Jones, Notary Public