

**KIM B. SHOEMAKER**  
 CONSULTING GEOLOGIST  
 316-684-9709 \* WICHITA, KS

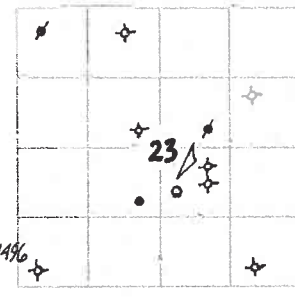
**GEOLOGIST'S REPORT**  
 DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.  
 LEASE \* 2-23 NICKELSON  
 FIELD COOK SW  
 LOCATION 1774' FSL & 2310' FEL  
 SEC 23 TWP 11s RGE 33w  
 COUNTY LOGAN STATE KANSAS  
 CONTRACTOR L. D. DRILLING, INC.  
 SPUD 11-13-13 COMP 11-23-13  
 RTD 4750 LTD 4750  
 MUD UP 3580 TYPE MUD CHEMICAL

ELEVATIONS  
 KB 3132  
 DF \_\_\_\_\_  
 GE 3127  
 Measurements Are All From 3132 KB  
 CASING SURFACE 8 5/8 @ 347'  
 PRODUCTION 1 1/2" @  
 ELECTRICAL SURVEYS  
 DUAL IND., DENS.-N. MICRO, SONIC

SAMPLES SAVED FROM 3800 TO 4750  
 DRILLING TIME KEPT FROM 3500 TO 4750  
 SAMPLES EXAMINED FROM 3800 TO 4750  
 GEOLOGICAL SUPERVISION FROM 3900 TO 4750  
 GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2622+510	2625+507
B/ANK.	2648+484	2650+482
STOTLER	3690-558	3693-561
HEEBNER	4048-916	4048-916
LANSING	4086-954	4088-956
STARK	4305-1173	4305-1173
MARMATON	4392-1260	4393-1261
FORT SCOTT	4561-1429	4560-1428
JOHNSON	4630-1498	4628-1496
MISSISSIPPI	4688-1556	4688-1556



REMARKS

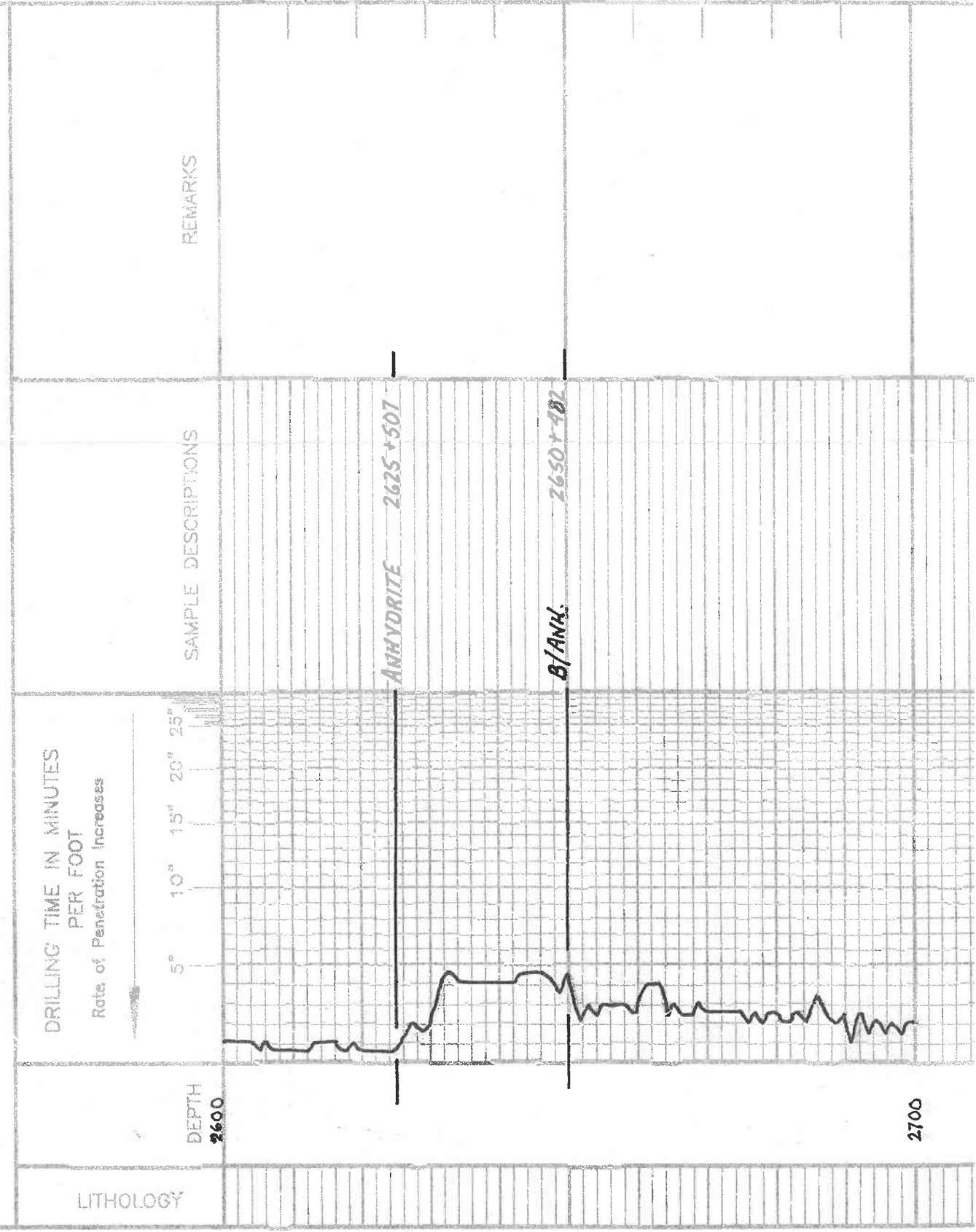
11-13-13 5PUD  
 11-14 @ 347'  
 11-15 @ 1610'  
 11-16 @ 2630'  
 11-17 @ 3240'  
 11-18 @ 3795'  
 11-19 @ 4235'  
 11-20 @ 4340'  
 11-21 @ 4585'  
 11-22 @ 4660'  
 11-23 @ 4750'

API: 15-109-21217

**LEGEND**

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Coal Lims
- Chert
- Dolomite

SHOE01-06





3500

3600

3700

STOTLER 3693-561

VIS: 48  
MT: 86  
WL: 72  
CW: 2200

Samples are Lagged  
5 h. Gyr.

