

JACKSON BR. ARMSSTRONG  
 COMPANY MULL DRILLING COMPANY  
 FIELD HBW UNIT NO. 1-23  
 COUNTY HODGEMAN STATE KANSAS  
 COORDINATE 23 TWP 21S RING 22W  
 SECTION 36  
 WELL NO. 4500  
 DATE 6-1-11  
 LOGGERS J. M. WILSON, J. M. WILSON  
 SUPERVISOR J. M. WILSON  
 DRILLER J. M. WILSON  
 TIME 8:00-7:00  
 DEPTH 4500  
 LOG SHEET NO. 1

FORMATION	SAMPLE	LOG	DATUM	FORMATION	SAMPLE	LOG	DATUM
ANHYDRITE	7	1200	+981				
HEBERNER	3756	3745	-1500				
TORONTO	3772	3761	-1525				
LANSING	3809	3801	-1562				
STARK	4107	4098	-1859				
BIRKBECK CITY	4223	4220	-1981				
MARMATON	4238	4230	-1991				
PAWNEE	4263	4255	-2010				
FORT SCOTT	4326	4320	-2086				
CHEROKEE SHALE	4381	4384	-2105				
MISS WASSAW	4402	4406	-2167				
OSAGE	4460	4447	-2190				
TOTAL DEPTH	4500	4444	-2255				

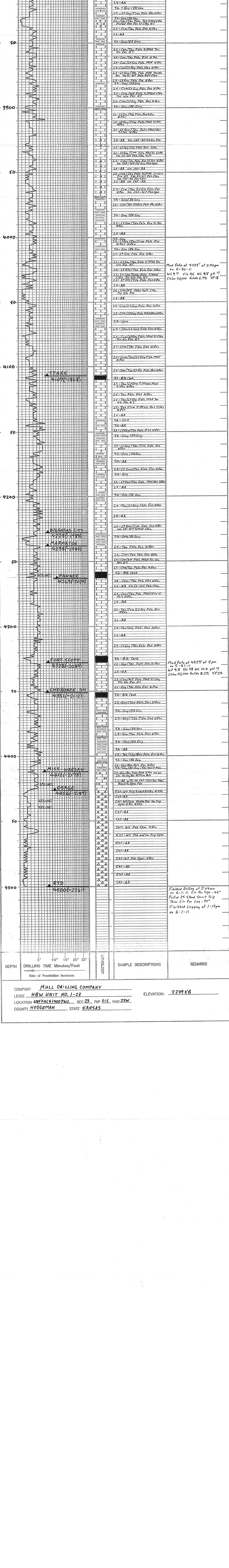
BIT RECORD  
 Size & Type: 6 1/2" 2 1/2" R8  
 Weight: 125 SPM 1000' 793200  
 79 SPM 1000' 591798  
 14-14-15  
 230 2495  
 230 2495  
 4500 87

REMARKS: DUE TO THE LACK OF SHOWS AND THE EXCESS CALCULATIONS IT WAS DECIDED TO PLUG THIS TEST WELL.

\* Structural Position to: AURORA GASLINE COMPANY GREENSTREET NO. 1 SW SE SEC 10 T21S R22W

**LEGEND**  
 Anhydrite Salt Sandstone Shale Carb. sh. Limestone Ool. Limestone Chert Dolomite

**SCALE** 1" = 100'  
 DRILLING TIME IN MINUTES PER FOOT  
 Rate of Penetration Increases



DEPTH	DRILLING TIME MINUTES	SAMPLE DESCRIPTIONS	REMARKS
3600	5	LS - Tan. Fels. Dst. N.P.	Coal on Loc at 3550' at 2145 pm on 5-29-11
3700	10	LS - Tan. Fels. Dst. N.P.	Mud Program: Mud Gel / Sandstone / Slurry / Hydro Gel
3800	15	LS - Tan. Fels. Dst. N.P.	Sample Cuttings: KGS Well Sample Library
3900	20	LS - Tan. Fels. Dst. N.P.	Deviation: 230' - 4"
4000	25	LS - Tan. Fels. Dst. N.P.	1240' - 3"
4100	30	LS - Tan. Fels. Dst. N.P.	2240' - 3"
4200	35	LS - Tan. Fels. Dst. N.P.	3616' - 3"
4300	40	LS - Tan. Fels. Dst. N.P.	4500' - 1"
4400	45	LS - Tan. Fels. Dst. N.P.	
4500	50	LS - Tan. Fels. Dst. N.P.	

COMPANY: MULL DRILLING COMPANY  
 LEASE: HBW UNIT NO. 1-23  
 LOCATION: 68°E N140°E W1/4 SEC 23 TWP 21S RING 22W  
 COUNTY: HODGEMAN STATE: KANSAS  
 ELEVATION: 2297 KB