

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

COMPANY: **SHAKESPEARE OIL CO.**  
 LEASE: **Orkney-5-14**  
 FIELD: **Chalk Buttes**  
 LOCATION: **4000 FNL, 600' FEL**  
 SEC: **14 T1WSP 14S R0E 32W**  
 COUNTY: **Logan STATE Kansas**

CONTRACTOR: **HD Drilling Rig #2**  
 SPUD: **11-16-11 COMP: 11-29-11**  
 RTD: **4560' LTD: 4558'**  
 MUD UP: **3500' TYPE MUD: Chemical**

SAMPLES SAVED FROM: **3600' to RTD**  
 DRILLING TIME KEPT FROM: **3600' to RTD**  
 SAMPLES EXAMINED FROM: **3600' to RTD**  
 GEOLOGICAL SUPERVISION FROM: **3700' to RTD**

GEOLOGIST ON WELL: **Tim Priest**

FORMATION TOPS: **ELECTRIC LOG** SAMPLE  
 Anhydrite: 2272 (-5534) 2272 (-5534)  
 Heebner Shale: 3795 (-967) 3795 (-969)  
 Austburg: 3831 (-1005) 3830 (-1004)  
 SARC: 4078 (-1252) 4081 (-1255)  
 B/K.C.: 4170 (-1344) 4171 (-1345)  
 Fort Scott: 4341 (-1515) 4342 (-1516)  
 Cherokee Shale: 4368 (-1542) 4369 (-1543)  
 Mississippian: 4470 (-1644) 4472 (-1646)

EL ELEVATIONS: **KB 2826'**  
 DF: \_\_\_\_\_  
 GL: **2816'**

Measurements Are All From **KB**  
 CASING CONDUCTION: **N/A**  
 SURFACE: **8-5/8" @ 228'**  
 PRODUCTION: \_\_\_\_\_

By: **Weatherford**

REMARKS: Due to the positive results of DSTs, it was decided to set production casing to further test the well.

Respectfully Submitted,  
 Tim Priest  
 Petroleum Geologist

API #15-109-21035-00-00

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