

# Jeff Christian

## PETROLEUM GEOLOGIST

Wichita, Kansas

### GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **MURFIN DRILLING CO., INC.**  
 LEASE **BIXENMAN # 1-23**  
 LOCATION **990' FSL & 2310' FEL**

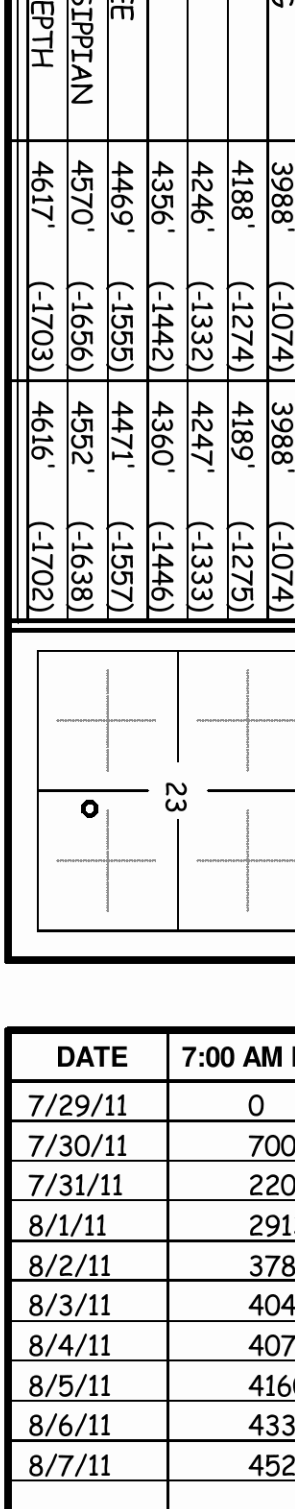
ELEVATIONS  
 KB **2914'**  
 CL **2909'**

SEC. **23** TWP. **9 S** RANG. **30 W**  
 COUNTY **SHERIDAN** STATE **KANSAS**  
 FIELD **LAGER**

API **15-179-21284**

CONTRACTOR **MURFIN DRILLING** RIG NO. **8**  
 DRILLING STARTED **7/29/2011** COMPLETED **8/27/2011**  
 MUD DISPLACED **32255** MUD TYPE **CHEMICAL**  
 DRILLING TIME KEPT FROM **3590** TO RTD  
 SAMPLING SAVED FROM **3590** TO RTD  
 SAMPLES EXAMINED FROM **3590** TO RTD  
 GEOLOGICAL SUPERVISION FROM **3581** TO RTD

FORMATION NAME	TOP	DATUM	TOP	SAMPLE	DATUM
ANHYDRITE	2517'	(+397)	2517'	(+397)	(-818)
TOPEKA	3732'	(-818)	3732'	(-818)	(-1037)
HEEBNER	3949'	(-1035)	3949'	(-1035)	(-1074)
LANSING	3988'	(-1074)	3988'	(-1074)	(-1275)
STARK	4188'	(-1274)	4189'	(-1275)	(-1446)
BKC	4246'	(-1332)	4247'	(-1333)	(-1446)
PAWNEE	4396'	(-1442)	4360'	(-1446)	(-1557)
CHEROKEE	4469'	(-1555)	4471'	(-1557)	(-1658)
MISSISSIPPIAN	4570'	(-1656)	4592'	(-1658)	(-1702)
TOTAL DEPTH	4617'	(-1703)	4616'	(-1702)	



DATE	7:00 AM	DEPTH	REMARKS
7/29/11	0		SPUD 8:00 am
7/30/11	700'		dev. 1/4 deg. @ 263'
7/31/11	2200'		DRLG.
8/1/11	2913'		DRLG.
8/2/11	3780'		DRLG.
8/3/11	4040'		TIH for DST # 1 dev. 1 1/4 deg.
8/4/11	4076'		TOH w/ DST # 2
8/5/11	4160'		DRLG.
8/6/11	4330'		DRLG.
8/7/11	4520'		DRLG. RTD 4616' @ 1:15 pm dev. 1 3/4 deg.

**Remarks**

5 1/2" production casing run to the Anhydrite for salt water disposal well.

Electric log measurements correlate about 1' to 2' high compared to rotary measurements.  
 Sample tops adjusted to the electric log.

Samples deposited at the Kansas Geological Survey.

Respectfully Submitted,  
*Jeff Christian*  
 Jeff Christian

