

Thomas J. Funk  
Petroleum Geologist

**Geologists' Report**  
**Drilling Time and Sample Log**

**OPERATOR** Murfin Drilling Co., Inc  
**LEASE** Kruto  
**WELL NO** #1-29

**FIELD** Wildcat  
**LOCATION** 1896' FSL & 1816' FWL  
**SEC. 29** TWP. 10S RGE. 34W  
**COUNTY** Thomas STATE Kansas

**ELEVATION**  
KB 3258

**DF** GL 3245  
Measurements Are All From **KB**

**CASING RECORD**  
SURFACE 8 5/8" at 268'KB w/225x  
TO TD  
DRILLING TIME KEPT FROM 3900 TO TD  
SAMPLES EXAMINED FROM 3900 TO TD

**CONTRACTOR** Murfin Drilling Co. Rig #25  
**COMM** 2/13/2012  
**RTD** 4/9/15  
**SAMPLES SAVED FROM** 3900 TO TD  
**DRILLING TIME KEPT FROM** 3900 TO TD  
**SAMPLES EXAMINED FROM** 3900 TO TD

**GEOLOGICAL SUPERVISION FROM** 3940 TO TD  
**MUD/UP** 3500  
**TYPE MUD** Chemical

FORMATION	LOG TOP DATUM	SAMPLE TOP DATUM	STRUCTURAL COMP
Anyhite	2764 (-404)	2757 (-4501)	-4
B/Anyhite	2780 (-428)	2785 (-443)	-2
Topoka Sh	3916 (-658)	3925 (-667)	+7
Heebner Sh	4132 (-874)	4143 (-885)	+10
Lansing	4173 (-915)	4184 (-926)	+9
Murcie Creek	4314 (-1056)	4323 (-1065)	+8
Stark Sh	4398 (-1140)	4407 (-1149)	+9
Marmaton	4486 (-1228)	4497 (-1239)	+12
Pawnee	4592 (-1334)	4604 (-1346)	+12
Cherokee Sh	4678 (-1420)	4685 (-1427)	+10
Johnson Zone	4721 (-1463)	4729 (-1471)	+8
Mississippi	4800 (-1542)	4809 (-1551)	+5

**ELECTRICAL SURVEYS**  
Log-Tech  
DIL  
MEL  
CNL/CDL  
BHCS



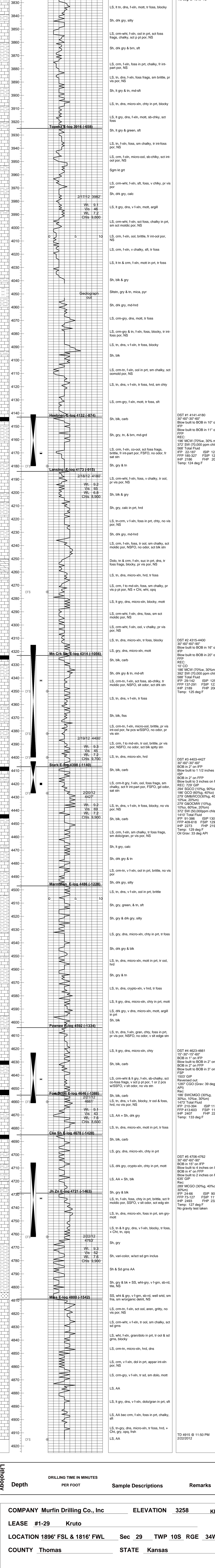
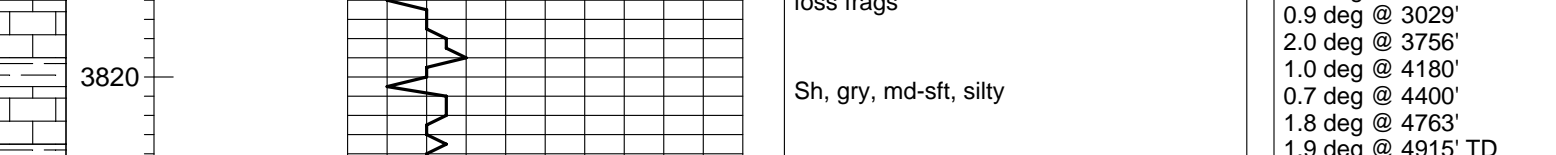
REFERENCE WELL FOR STRUCTURAL COMPARISON: Murfin Drilling Co. #1-28 Urban  
7700' FSL & 2150' FWL sec. 28-10S-34W, Thomas Co. KS

Daily Progress	NO	Size	Make	Type	Depth Out	Feet	Hours
2/13/12	1	12 1/4"	GMS	RR	268	268	3 3/4
2/14/12	2	7 7/8"	Smith	MS1616	3756	3488	53
2/15/12	3	7 7/8"	HTC	GX225	4915	1159	58 1/4
2/16/12							
2/17/12							
2/18/12							
2/19/12							
2/20/12							
2/21/12							
2/22/12							
2/23/12							

**Remarks And Recommendations:**  
Based upon log analysis, DST recovery, and sample examination, it was recommended that casing be run in the #1-29 Kruto for further testing.

Thomas Funk  
Petroleum Geologist

**LEGEND**



**Lithology**

**COMPANY** Murfin Drilling Co., Inc      **ELEVATION** 3258      **KB**  
**LEASE** #1-29      **Kruto**  
**LOCATION** 1896' FSL & 1816' FWL      **Sec 29**      **TWP 10S**      **RGE 34W**  
**COUNTY** Thomas      **STATE** Kansas