

# GEOLOGICAL REPORT

Larry A. Nicholson

NAD 83  
38 88153631  
100.60084566

COMPANY & WELL		Murfin Drilling Co. Lundgren #3-36			
		API #	15-063-2240	FIELD	Lundgren
LEASE		Lundgren		WELL # #3-36	
LOCATION		NE SE SW SE		500' FSL 1400' FEL	
SURVEY		500' TWP 14S RGE 30W		500' TWP 14S RGE 30W	
SECTION		14S		14S	
COUNTY		Gove		STATE Kansas	
CONTRACTOR		Murfin Drilling Company, Inc. g# 21		ELEVATIONS	
SPUD		3:15 pm 10-08-14		K.B. 2665	
RTD		10:40 am 10-16-14 LTD. 4439		D.F. 2665	
MUD UP AT		3200		G.L. 2654	
MUD TYPE		Chemical, Morgan Mud		All measurements from K.B. 2665	
SAMPLES SAVED					
DRILLING TIME					
SAMPLES EXAMINED					
GEOLOGICAL SUPERVISION					
WELLSITE GEOLOGIST		LARRY A. NICHOLSON			
ELECTRICAL SURVEYS Pioneer, Den, Dual, Micro, Sonic					
FORMATION TOPS & STRUCTURAL POSITION					
FORMATION	SAMPLE TOPS	SUBSEA DATUM	ELEC TOPS	SUBSEA DATUM	REFERENCE WELL
Anhydrite	2071	+594	2071	+594	A 2096 +598 -1
B/Anhydrite	2102	+563	2102	+563	B 2127 +567 -4
Topeka	3450	-785	3450	-785	C 3470 -777 -8
Heebner Sh	3677	-1012	3677	-1012	D 3696 -1002 -10
Lansing	3714	-1049	3714	-1049	E 3732 -1038 -11
Stark Sh	3958	-1293	3958	-1293	F 3980 -1284 -11
Pawnee	4144	-1479	4144	-1479	G 4170 -1478 -3
Fort Scott Ls	4205	-1540	4205	-1540	H 4235 -1541 +1
Cherokee Sh	4232	-1567	4232	-1567	I 4262 -1568 +1
Johnson Zone	4278	-1613	4278	-1613	J 4309 -1615 +2
Miss	4306	-1641	4306	-1641	K 4338 -1643 -2
RTD	4441	-1776	4441	-1776	L 4450
LTD	4439	-1774	4439	-1774	M 4448
REFERENCE WELLS	A: Murfin Drilling Company Lundgren #1-36, 1800' FSL 330' FEL, Sec 36 T14S R30W KB 2694				
	B: Murfin Drilling Company Lundgren #2-36, 1215' FSL 865' FEL, Sec 36 T14S R30W KB 2695				

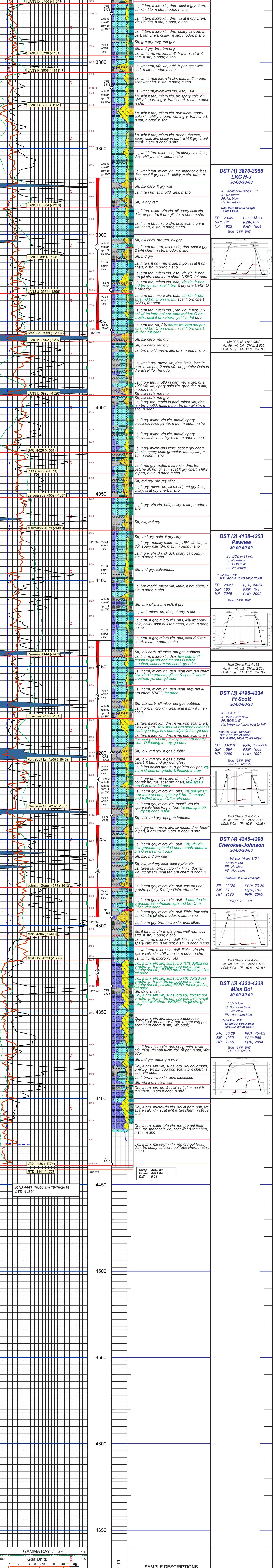
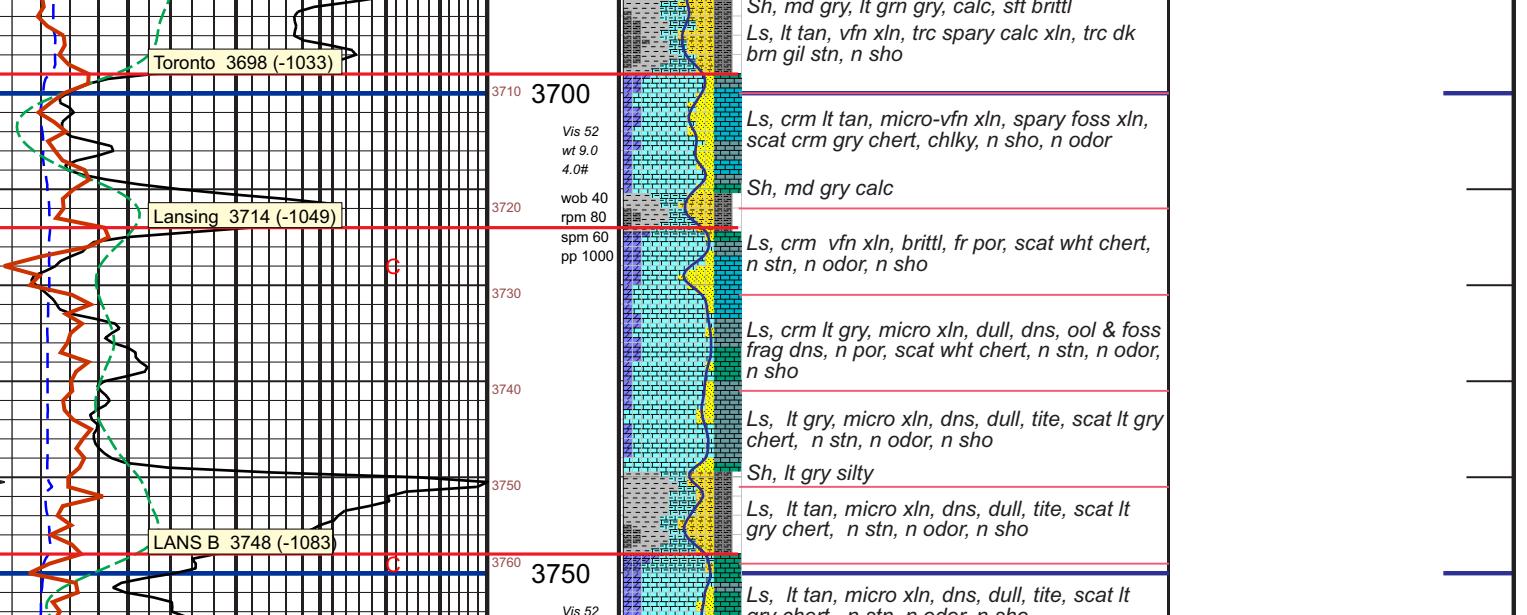
**REMARKS & RECOMMENDATIONS:**

Based on dST results and sample shows: 5 1/2 csg was set.

\*NOTE: ROP, DSTs, Circ, Conn, Lag, Shows have been move 3 ft up to match Elg depth. Depth error in collar measurement.

LAN 792, Modified 5/05, 11/11, 4/12 Hanover, KS 66945 1inch = 25.4mm 8.5 x 97.5 216 mm x 2460 mm

### LEGEND



COMPANY		Murfin Drilling Company, Inc.		ELEVATIONS	
LEASE		Lundgren #3-36 NE SE SW SE		K.B. 2665	
LOCATION		500' FSL 1400' FEL sec. 36 twp 14S rge 30W		D.F. 2665	
COUNTY		Gove STATE KS		G.L. 2654	
CONTRACTOR				All measurements from K.B. 2665	