

Jackman Oilfield Services
1 West Mulberry St.
Colony, KS 66015
620-852-3350

WELL LOG
Lakeshore Operating, LLC
Sturdivan 3 LOI-8

August 16, 2016

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
3.00	Soil	3.00	
3.00	Clay	6.00	
3.00	Shale	9.00	
3.00	Lime	12.00	
11.00	Broken lime	23.00	
15.00	Gray shale	38.00	
4.00	Lime	42.00	
137.00	Shale	179.00	
16.00	Lime	195.00	
15.00	Sandstone	210.00	
48.00	Lime	258.00	
6.00	Sandstone	264.00	
11.00	Lime	275.00	
8.00	Shale	283.00	
134.00	Lime	417.00	
9.00	Shale	426.00	
70.00	Lime	496.00	
26.00	Shale	522.00	
136.00	Lime	658.00	
341.00	Shale	999.00	
2.00	Lime	1,001.00	
7.00	Shale	1,008.00	
7.00	Oil sand	1,015.00	
31.00	Shale	1,046.00	
1.00	Lime	1,047.00	
11.00	Oil sand	1,058.00	
22.00	Shale	1,080.00	
2.00	Lime	1,082.00	
10.00	Shale	1,092.00	TD

Drilled a 9 7/8" hole to 39.5'
Drilled a 5 7/8" hole to 1092'

Set 40' of 7" surface casing cemented with 10 sacks of portland cement
Ran 1085' of 2 7/8"
No cores
No seating nipple
Cemented on 8/19/16

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