

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

WELL LOG
Lakeshore Operating, LLC
Sturdivan 3 LOI-5

July 31, 2016

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
3.00	Soil	3.00	
3.00	Clay	6.00	
5.00	Shale	11.00	
5.00	Lime	16.00	
22.00	Shale	38.00	
5.00	Lime	43.00	
134.00	Shale	177.00	
29.00	Lime	206.00	
42.00	Sandstone	248.00	
154.00	Lime	402.00	
22.00	Sandstone	424.00	
43.00	Shale	467.00	
36.00	Lime	503.00	
15.00	Shale	518.00	
156.00	Lime	674.00	
198.00	Shale	872.00	
16.00	Lime	888.00	
38.00	Shale	926.00	
8.00	Lime	934.00	
43.00	Shale	977.00	
8.00	Lime	985.00	
21.00	Shale	1,006.00	
1.00	Lime	1,007.00	
8.00	Shale	1,015.00	
9.00	Top oil sand	1,024.00	
23.00	Shale	1,047.00	
12.00	Broken sand	1,059.00	
5.00	Lime	1,064.00	
19.00	Shale	1,083.00	
2.00	Lime	1,085.00	
7.00	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 8/2/16

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