

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

WELL LOG
Lakeshore Operating, LLC
Sturdivan 3 LOI-3

September 1, 2016

<u>Thickness</u> <u>of Strata</u>	<u>Formation</u>	<u>Total</u>
3.00	Soil	3.00
3.00	Clay	6.00
3.00	Shale	9.00
12.00	Lime	21.00
16.00	Shale	37.00
5.00	Lime	42.00
136.00	Gray shale	178.00
78.00	Lime	256.00
30.00	Shale	286.00
112.00	Lime	398.00
19.00	Shale	417.00
21.00	Lime	438.00
29.00	Shale	467.00
9.00	Lime	476.00
46.00	Shale	522.00
66.00	Lime	588.00
41.00	Shale	629.00
8.00	Lime	637.00
278.00	Shale	915.00
4.00	Lime	919.00
8.00	Shale	927.00
4.00	Lime	931.00
15.00	Shale	946.00
22.00	Lime	968.00
36.00	Shale	1,004.00
4.00	Lime	1,008.00
3.00	Oil sand	1,011.00
3.00	Shale	1,014.00
3.00	Oil sand	1,017.00
25.00	Shale	1,042.00
2.00	Lime	1,044.00
4.00	Oil sand	1,048.00
3.00	Shale	1,051.00

8.00	Oil sand	1,059.00
29.00	Shale	1,088.00
1.00	Lime	1,089.00
3.00	Shale	1,092.00

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 9/7/16

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