

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

WELL LOG
 Lakeshore Operating, LLC
 Sturdivan 3 LO-42

June 10, 2016

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
9.00	Soil/clay	9.00	
6.00	Lime	15.00	
163.00	Shale	178.00	
6.00	Lime	184.00	
54.00	Limestone	238.00	
194.00	Lime	432.00	
14.00	Sand	446.00	
230.00	Lime	676.00	
304.00	Shale	980.00	
12.00	Coal	992.00	
6.00	Lime	998.00	
5.00	Shale	1,003.00	
2.00	Lime	1,005.00	
6.00	White shale	1,011.00	
2.00	Lime	1,013.00	
11.00	Oil sand	1,024.00	
29.00	Shale	1,053.00	
1.00	Lime	1,054.00	
8.00	Oil sand	1,062.00	Good bleed
1.00	Sandy Shale	1,063.00	
5.00	Oil sand	1,068.00	Good bleed
2.50	Oil sand	1,070.50	Light bleed
11.50	Sandy shale	1,082.00	
18.00	Shale	1,100.00	TD

Drilled a 9 7/8" hole to 39'7"

Drilled a 5 7/8" hole to 1100'

Set 40' of 7" surface casing cemented with 10 sacks of portland cement

Ran 1091' of 2 7/8"

2 cores

Seating nipple @ 1044'

Cemented on 6/15/16

Sturdivan 3 LO-42

F103

Replacement Chart M3181-X

(12 HOUR)

LLF18103

Mining Services Chart

CHANGE CHARTS AT 8:00 A.M. AND 8:00 P.M.

OPERATION *in Ketchikan*
NO. *20115* LEASE *Sturdivant 3*

LOC _____ SEC _____ T. _____ R. _____
COUNTY *Woodson* STATE *KS*
DATE ON *6-10-76* T. D. OFF _____
TIME ON 8 A M 8 P M T. D. ON _____

DR LG TIME DR LG OPERATIONS

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T.D. 1100
1099 of 278
Sealing nipple @ 1044
Completed on
6-15-16

