

Saman Sharifaie

Petroleum Geologist

GEOLOGIST'S REPORT

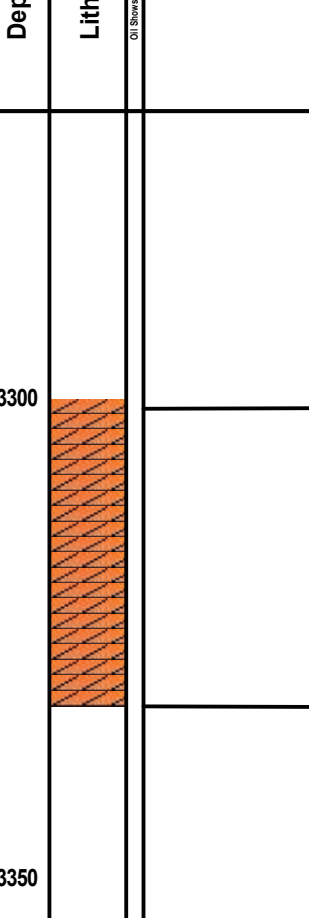
DRILLING TIME AND SAMPLE LOG

COMPANY: **Marlin Drilling Co., Inc.**
LEASE: **Smith "A" #2-21**
FIELD: **Wildcat**
LOCATION: **2101 FSL & 340' FFL**
SEC: **21 TWPSE 2S RGE 37W**
COUNTY: **Cherokee STATE Kansas**
CONTRACTOR: **Marlin Drilling #3**
RTPD: **06/27/19 COMP 07/07/19**
SPUD: **5100' LTD 5103'**
MUD UP: **3000' TYPE MUD Chemical**
SAMPLES SAVED FROM: **4020' TO RTD**
DRILLING TIME KEPT FROM: **4000' TO RTD**
SAMPLER EXAMINED FROM: **4020' TO RTD**

ELEVATIONS
KB 3416'
DF _____
GL 3411'
Measurements Are All From Kelly Bushing
CASING
CONDUCTOR 8-5/8" at 369'
SURFACE 5-1/2" at 396'
PRODUCTION 5-1/2" at 396'

ELECTRICAL SURVEYS
CND, DIL, MEL, SWIR
REFERENCE WELL: MDCT - Banister "A" #3-22
Fluorinel Wireline

Formation	Sample Tops	E-log Tops	Strat Pos.
Anhydrite	3298 (+118)	3301 (+115)	-3
Base Anhydrite	3332 (+84)	4118 (-702)	-1
Topsak	4262 (+846)	4263 (+847)	-8
Overbed	4329 (+223)	4340 (+21)	-2
Siltstone	4359 (+146)	4361 (+147)	+1
Start	4614 (+198)	4614 (+198)	+1
Mound City	4742 (+1326)	4742 (+1326)	+2
Oriskany	4817 (+1401)	4816 (+1400)	+1



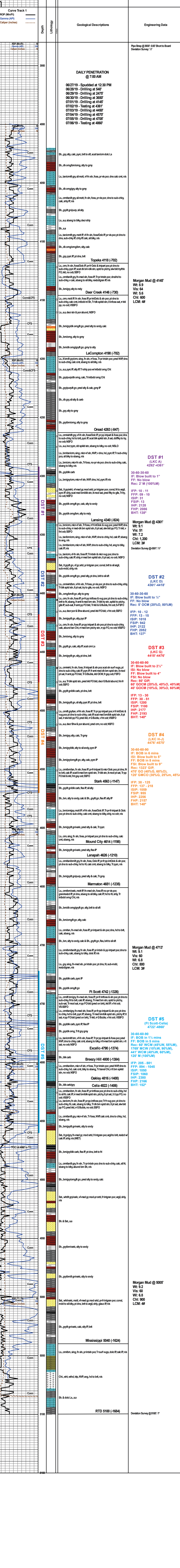
REMARKS Due to fair to good shows of oil in multiple potential pay zones and positive DST results, it is recommended and agreed upon by all parties that production casing be set to further evaluate this well.

Respectfully Submitted,

API #15-023-21517

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*Tops have been adjusted to electric logs



Geological Descriptions

Engineering Data

DST #1 (LKC A) 4292-4361'
Wt: 8.9
Vis: 64
Chl: 600
LCM: 4#
30-60-30-60
IF: Blow built to 1"
FF: No blow
Rec: 2' M (100%M)
IFP: 10 - 11
FFP: 09 - 10
ISIP: 31
FSIP: 13
IHP: 2128
FHP: 2086
BHT: 138°

DST #2 (LKC D) 4361-4418'
30-60-30-60
IF: Blow built to 1/2"
FF: No blow
Rec: 5' OCM (20%O, 80%M)
IFP: 10 - 12
FFP: 13 - 15
ISIP: 1018
FSIP: 942
IHP: 2122
FHP: 2052
BHT: 137°

DST #3 (LKC G) 4418-4476'
30-60-60-90
IF: Blow built to 2 1/2"
FF: No blow
Rec: 80' GIP
60' GOCM (20%G, 40%O, 40%M),
40' GOCM (10%G, 30%O, 60%M)
IFP: 13 - 30
FFP: 30 - 51
ISIP: 1200
FSIP: 1100
IHP: 2177
FHP: 2193
BHT: 140°

DST #4 (LKC H-J) 4476-4570'
30-60-60-90
IF: BOB in 6 mins
IS: Blow built to 5"
FF: BOB in 8 mins
FSI: Blow built to 9"
Rec: 1323' GIP
470' GO (40%G, 60%O),
120' GCMO (30%G, 25%O, 45%O)
IFP: 38 - 125
FFP: 137 - 218
ISIP: 1059
FSIP: 955
IHP: 2256
FHP: 2157
BHT: 148°

DST #5 (Ft Scott-Celia) 4722-4860'
30-60-60-90
IF: BOB in 1 1/2 mins
FF: BOB in 5 mins
Rec: 60' WCM (45%W, 55%M),
1769' MCW (10%W, 90%M),
441' WCM (40%W, 60%M),
120' M (100%M)
IFP: 205 - 881
FFP: 894 - 1045
ISIP: 1050
FSIP: 1060
IHP: 2380
FHP: 2166
BHT: 152°

Morgan Mud @ 4361'
Wt: 9.1
Vis: 60
Chl: 600
LCM: 4#

Morgan Mud @ 4713'
Wt: 9.1
Vis: 60
Chl: 600
LCM: 4#

Morgan Mud @ 5005'
Wt: 9.2
Vis: 60
Chl: 600
LCM: 4#

Deviation Survey @ 5100: 1°