

Saman Sharifaie

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: **Martin Drilling Co., Inc.**
LEASE: **Frishie "B" #1-16**

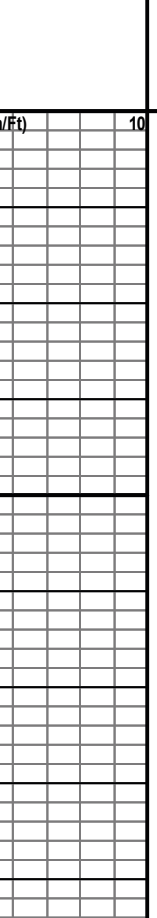
FIELD: **Wildcat**
LOCATION: **9007 ESL & 1980 FWR**
SEC: **16 TWPSP 2S RGE 35W**
COUNTY: **Rainbow STATE Kansas**
CONTRACTOR: **Martin Drilling #3**
RUD: **02/27/19 COMP 491/0.19**
SPUD: **4/9007** TYPE MUD: **Chemical**
MUD UP: **3300'**

SAMPLES SAVED FROM: **3860'** TO RTD
DRILLING TIME KEPT FROM: **3860'** TO RTD
SAMPLES EXAMINED FROM: **3660'** TO RTD

CONDUCTOR: **8-5/8" at 3022'**
SURFACE: **5-1/2" at 4896'**
PRODUCTION: **5-1/2" at 4896'**

GEOLOGICAL SUPERVISION FROM: **3560'**
CND: **D.L. MEL. Somic**
REFERENCE WELL: **MDCI - Frishie "B" #1-15**
Flower Hrefline

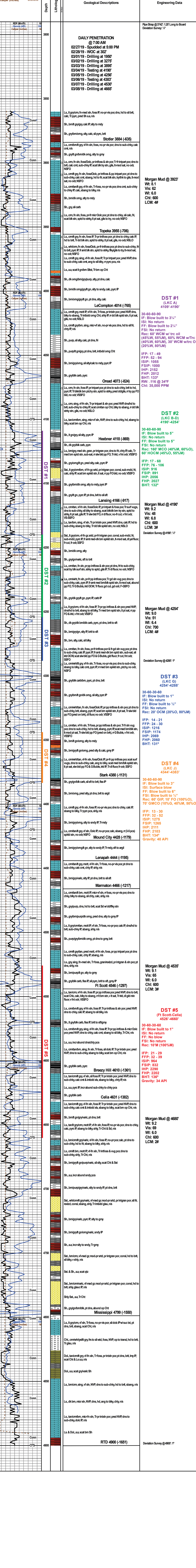
Formation	Sample Tops	E-log Tops	Pos.
Anhydrite	3092 (+157)	3095 (+154)	-7
Base Anhydrite	3133 (+116)	3130 (+119)	-7
Oil Seal	4076 (+827)	4073 (+824)	-4
Leakoff	4166 (+917)	4166 (+917)	-4
Starts	4388 (+137)	4380 (+131)	-1
Normal Cvt	4452 (+185)	4428 (+129)	-1
FT Seals	4454 (+185)	4546 (+297)	Frst
OKREV	4626 (+377)	4624 (+375)	-3
MISSISSIPPI	4802 (+553)	4799 (+550)	-2



REMARKS: Due to poor to fair shows of oil in multiple 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,
Saman Sharifaie
Petroleum Geologist

*Tops have been adjusted to electric logs



Depth (ft)	Geological Descriptions	Engineering Data
3095 (+154)	Anhydrite 3095 (+154)	
3130 (+119)	Base 3130 (+119)	
3860	DAILY PENETRATION @ 7:00 AM 02/28/19 - Spudded at 5:00 PM 03/01/19 - Drilling at 1950' 03/02/19 - Drilling at 3275' 03/03/19 - Drilling at 3895' 03/04/19 - Drilling at 4190' 03/05/19 - Drilling at 4256' 03/06/19 - Drilling at 4333' 03/07/19 - Drilling at 4530' 03/08/19 - Drilling at 4665'	
3884 (-635)	Stotler 3884 (-635)	
3955 (-706)	Topoka 3955 (-706)	Morgan Mud @ 3923' Wt: 8.1 Vis: 62 WI: 6.0 CHI: 600 LCM: 4#
4014 (-765)	LeCompton 4014 (-765)	DST #1 (LKC A) 4109'-4190' 30-60-60-90 IF: Blow built to 3 1/4" ISI: No return FF: Blow built to 2 1/4" FSI: No return Rec: 60' WCM w/ trc oil (45%W, 55%M), 60% WCM w/Trc O (40%W, 60%M), 30' WCM w/Trc O (20%W, 80%M) IFP: 17 - 49 FFP: 52 - 94 ISIP: 1055 FSP: 1000 IHP: 2152 BHT: 2012 RW: .116 @ 34°F Chi: 35,000 PPM
4073 (-824)	Oread 4073 (-824)	DST #2 (LKC B-D) 4190'-4254' 30-60-60-90 IF: Blow built to 5" ISI: No return FF: Blow built to 5" FSI: No return Rec: 160' MCO (40%M, 60%O), 60' HOCM (45%O, 55%M) IFP: 17 - 68 FFP: 76 - 106 ISIP: 891 FSP: 816 IHP: 2056 BHT: 2027 BHT: 132°
4118 (-869)	Heebner 4118 (-869)	Morgan Mud @ 4190' Wt: 9.2 Vis: 48 WI: 6.8 CHI: 300 LCM: 3# Deviation Survey @ 4190': 1/2"
4166 (-917)	Lansing 4166 (-917)	Morgan Mud @ 4254' Wt: 9.0 Vis: 51 WI: 6.4 CHI: 700 LCM: 4# Deviation Survey @ 4288': 1/2"
4380 (-1131)	Stark 4380 (-1131)	DST #3 (LKC G) 4254'-4288' 30-60-30-60 IF: Blow built to 1" ISI: No return FF: Blow built to 1/2" Rec: 20' OCM (20%O, 80%M) IFP: 14 - 21 FFP: 24 - 30 ISIP: 1216 FSP: 1174 IHP: 2069 BHT: 2060 BHT: 131°
4428 (-1179)	Mound City 4428 (-1179)	DST #4 (LKC J) 4344'-4383' 30-60-30-60 IF: Blow built to 3" ISI: Surface blow FF: Blow built to 6" FSI: Blow built to 1/2" Rec: 60' GIP, 10' FO (100%O), 70' GCMO (10%G, 40%M, 50%O) IFP: 13 - 30 FFP: 32 - 52 ISIP: 1275 FSP: 1265 IHP: 2113 BHT: 2100 BHT: 134° Gravity: 40 API
4444 (-1195)	Lenaph 4444 (-1195)	Morgan Mud @ 4535' Wt: 9.1 Vis: 65 WI: 6.0 CHI: 300 LCM: 3#
4466 (-1217)	Marmaton 4466 (-1217)	DST #5 (FT Scott-Celia) 4526'-4660' 30-60-30-60 IF: Blow built to 1" ISI: No return FF: No blow FSI: No return Rec: 10' W (100%M) IFP: 21 - 29 FFP: 32 - 39 ISIP: 964 FSP: 832 IHP: 2290 BHT: 2202 BHT: 136° Gravity: 34 API
4546 (-1297)	Ft Scott 4546 (-1297)	Morgan Mud @ 4680' Wt: 9.2 Vis: 69 WI: 6.0 CHI: 600 LCM: 2# Deviation Survey @ 4800': 1/2"
4610 (-1361)	Breezy Hill 4610 (-1361)	
4631 (-1382)	Celia 4631 (-1382)	
4900	RTD 4900 (-1651)	