API #15-065-24172

Saman Sharifaie

Petroleum Geologist

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

OPERATOR:	Saman Sharifaie Petroleum Geologist
LEASE:	Ben Ellis
WELL #:	1
COUNTY:	Graham
STATE:	Kansas
CONTRACTOR:	Southwind Drilling, Inc. Rig #1
SPUD:	09/16/19
COMP:	09/20/19
TOTAL DEPTH:	4000'
CASING:	8 5/8" @ 219' w/ 150 sks Class A
ELEVATION:	KB: 2255' GL: 2247'
ELECTRICAL SURVEY:	Southwind Drilling, Inc.
DRILLING TIME KEPT FROM:	3500' to TD
GEOLOGICAL SUPERVISION FROM:	3500' to TD
DRILLING MUD:	Chemical
DRILLING TIME:	1 min/ft
SAMPLES SAVED FROM:	3500' to TD
SAMPLES SHOWN:	Dry Samples
DRILLING TIME KEPT BY:	Driller
GEOLOGICAL SUPERVISION BY:	Wellsite Geologist

DRILLING TIME & SAMPLE LOG

Formation	Sample Tops	X-Log Tops
Anhydrite	1130 (+1125)	1128 (+1127)
Base Anhydrite	1160 (+1095)	1158 (+1097)
Topeka	3446 (-1186)	3444 (-1188)
Heebner	3667 (-1407)	3665 (-1409)
Toronto	3685 (-1425)	3683 (-1427)
Lansing	3705 (-1445)	3703 (-1447)
Stark	3986 (-1726)	3984 (-1728)
Mkc	4000 (-1740)	4000 (-1744)
RTD	4000 (-1740)	
LTD		4000 (-1744)

DST RECOVERIES

DST #1	30' Mud
DST #2	30' Mud
DST #3	30' Mud
DST #4	30' Mud
DST #5	30' Mud

REMARKS: Due to her 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,
Saman Sharifaie
Petroleum Geologist

API #15-065-24172

*Trips have been adjusted to electric logs.

Curve Track 1
ROP (min/ft)
Gamma (API)
Caliper (inches)

Curve Track 2
ROP (min/ft)
Gamma (API)
Caliper (inches)

Depth | Lithology | Geological Descriptions | Engineering Data

Stone Corral 1970 (+286)

Base 2010 (+246)

Topeka 3446 (-1186)

DAILY PENETRATION
@ 1,150 MF
09/16/19 - Spudded at 3:30 PM
09/17/19 - Drilling at 1,150'
09/18/19 - Drilling at 2,630'
09/19/19 - Drilling at 3,587'
09/20/19 - Drilling at 3997'
09/21/19 - Testing at 3700'
09/22/19 - Testing at 3700'
09/23/19 - Drilling at 3997'
09/24/19 - Logging at 4000'

MudCo @ 3320'
Vis: 53
Wt: 9.2
WL: 8.6
Chl: 1,000
LCM: 2#

Rig running @ 3,997. 1.5ft Long to Short Needle Bearing. 1°

Deer Creek 3555 (-1345)

Lecompton 3571 (-1315)

Kansas City 3600 (-1344)

Heebner 3667 (-1407)

Toronto 3685 (-1425)

Lansing 3705 (-1445)

Stark 3986 (-1726)

Mkc 4000 (-1740)

RTD 4000 (-1740)

DST #1
(Toronto LKC A)
3446'-3500'

30-60-60-60
IF: Blow built to 2"
FF: Blow built to 2"
ISI: 1,000 in 15 mins
FSI: 0,0 in 15 mins
IFP: 24 - 24
FFP: 24 - 24
ISIP: 1,000
FSIP: 987
HP: 1,730
FHP: 1,730
BHT: 100°F
Gravity: 34 API
RW: .733 @ 54° F
Chl: 12,000 PPM

DST #2
(LKC B-G)
3700'-3740'

15-45-15-60
IF: BOB in 35 secs
FF: BOB in 1 min
ISI: BOB 10 mins
FSI: BOB in 1 min
IFP: 24 - 24
FFP: 24 - 24
ISIP: 1,023
FSIP: 1,023
HP: 1,730
FHP: 1,730
Gravity: 41 API
RW: .733 @ 54° F
Chl: 16,000 PPM

DST #3
(LKC H-J)
3780'-3840'

30-60-60-60
IF: Blow built to 5 mins
FF: Blow built to 2"
ISI: BOB in 17 mins
FSI: Blow built to 1"
IFP: 24 - 24
FFP: 24 - 24
ISIP: 1,023
FSIP: 987
HP: 1,730
FHP: 1,730
BHT: 100°F
Gravity: 39.6 API
RW: .733 @ 54° F
Chl: 16,000 PPM

DST #4
(LKC M-O)
3914'-3980'

30-60-60-60
IF: Blow built to 1"
FF: Blow built to 1"
Rec: 200' MW (GFM, TFVLM)
IFP: 23 - 109
FFP: 112 - 184
ISIP: 994
FSIP: 1,023
HP: 1,957
FHP: 1,957
BHT: 100°F
Gravity: 39.6 API
RW: .733 @ 54° F
Chl: 16,000 PPM

DST #5
(LKC R-U)
3980'-4000'

30-45-30-60
IF: BOB in 5 mins
FF: BOB in 10 mins
FSI: BOB in 1 min
FSI: BOB in 30 mins
IFP: 24 - 24
HP: 2,040 (GFM, TFVLM, TFVL)
FHP: 2,040 (GFM, TFVLM, TFVL)
ISIP: DOCW (TFVLS, FFVLS, EFVLM)

FFP: 118 - 237
FSIP: 248 - 308
Gravity: 41 API
HP: 1,957
FHP: 1,957
BHT: 100°F
Gravity: 39.6 API
RW: .733 @ 54° F
Chl: 16,000 PPM

Deviation Survey @ 1,150': 1°

Deviation Survey @ 3,587': 1°

Deviation Survey @ 4000': 1°

Curve Track 1: ROP (min/ft), Gamma (API), Caliper (inches)

Curve Track 2: ROP (min/ft), Gamma (API), Caliper (inches)