

Geologic Report  
**Aaron L. Young**

Drilling Time and Sample Log

**Scale 1:240 (5"=100') Imperial  
Measured Depth Log**

Well Name: Stice-Hill Unit #1-28  
Location: Section 28 - T6S - R20W  
License Number: API: 15-163-24165  
Spud Date: 2 / 19 / 2014  
Surface Coordinates: 150' FSL and 1950 FEL  
Approx. SW - SE - SW - SE  
Region: Rooks Co., KS  
Drilling Completed: 2 / 28 / 2014  
Bottom Hole Coordinates:  
Ground Elevation (ft): 2234' K.B. Elevation (ft): 2239'  
Logged Interval (ft): 3300' To: 3780' Total Depth (ft): 3780'  
Formation: Arbuckle  
Type of Drilling Fluid: Chemical - Mud-Co

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

Company: Trek AEC, LLC  
Address: 155 N Market, Suite 710  
Wichita, KS 67202

**GEOLOGIST**

Name: Aaron L. Young  
Company:  
Address: 155 N. Market, Suite 710  
Wichita, Kansas 67202

**General Info**

CONTRACTOR: Mallard Drilling, Rig #1

**BIT RECORD:**

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	RR	-----	248	243	12.04
2	7-7/8	Smith F27	14-14-14	4780	4532	60

SURVEYS: 248'-.75, 3780'-1

**GENERAL DRILLING AND PUMP INFORMATION:**

Drilling with 35,000 lbs. on bit and approx 60 RPM.  
Running 8 stands of collars; 537.04'  
Pumping approx 800-900 psi at standpipe.

## Daily Status

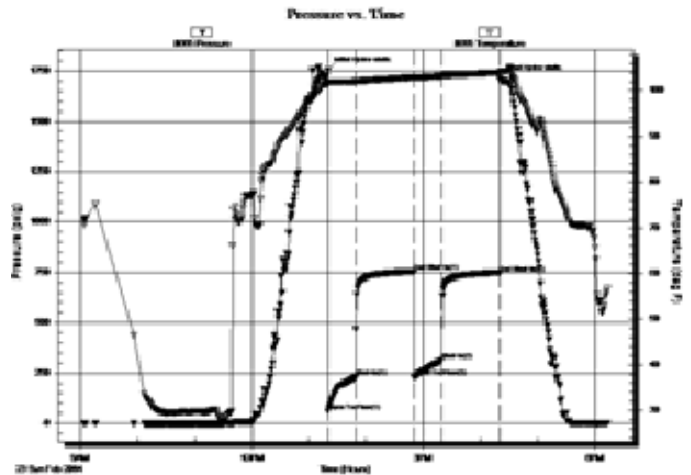
2/19/14 - Spud  
 2/20/14 - @ 248' WOC  
 2/21/14 - Drilling @ 2107'  
 2/22/14 - Drilling @ 2880'  
 2/23/14 - DST #1 3353'-3426'  
 2/24/14 - DST #2 3450'-4474'  
 2/25/14 - DST #3 3487'-3508'  
 2/26/14 - DST #4 3592'-3618'  
 2/27/14 - DST #5 3524'-3654'  
 2/28/14 - DST #6 3684'-3708', Reached TD @ 3780', Logged, Set casing

**DST #1 Topeka 3,353'-3,426'**  
30"-60"-30"-60"

**IF:** BOB in 7min  
**ISI:** No blow  
**FF:** BOB in 15min  
**FSI:** Surface Blow for 5min and then died

**Rec':** 403' ft MW (50% M, 50% W), 124' WM (20% W, 80% M)

**SIP:** 754-746; **FP:** 62-229, 232-312; **HP:** 1755-1712

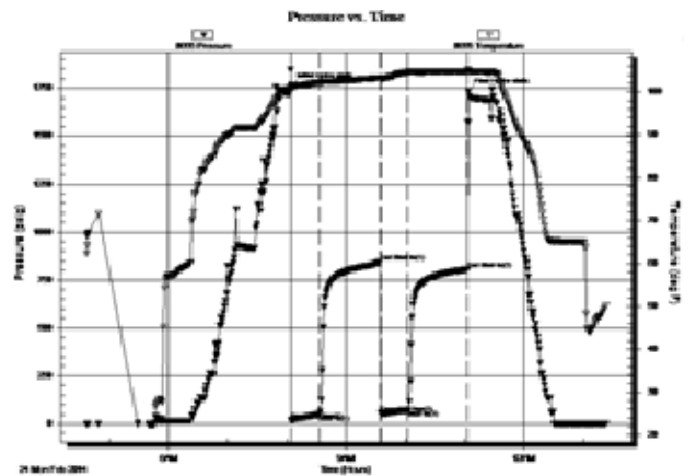


**DST #2 Toronto / LKC "A" 3,450'-3,474'**  
30"-60"-30"-60"

**IF:** 6.5" blow  
**ISI:** No return  
**FF:** 4" blow  
**FSI:** No return

**Rec':** 124' ft HOCM (40% M, 60% O), 31' GO (10% G, 90% O), 286' GIP

**SIP:** 843-846; **FP:** 20-47, 52-71; **HP:** 1762-1734

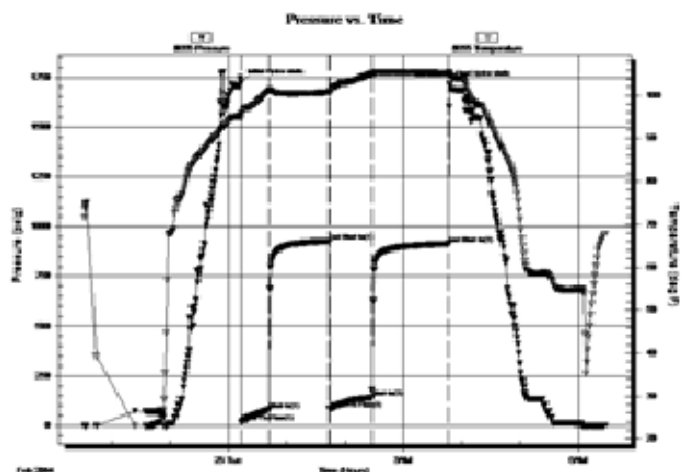


**DST #3 LKC "C" 3,487'-3,508'**  
30"-60"-45"-75"

**IF:** 6" blow  
**ISI:** Surface return, died in 35min  
**FF:** 8" blow  
**FSI:** Surface return

**Rec':** 62' WM (40% W, 60% M), 186' MW w/ oil spots (30% M, 70% W), 5' Free Oil (100% O)

**SIP:** 927-915; **FP:** 17-80, 84-141; **HP:** 1726-1716

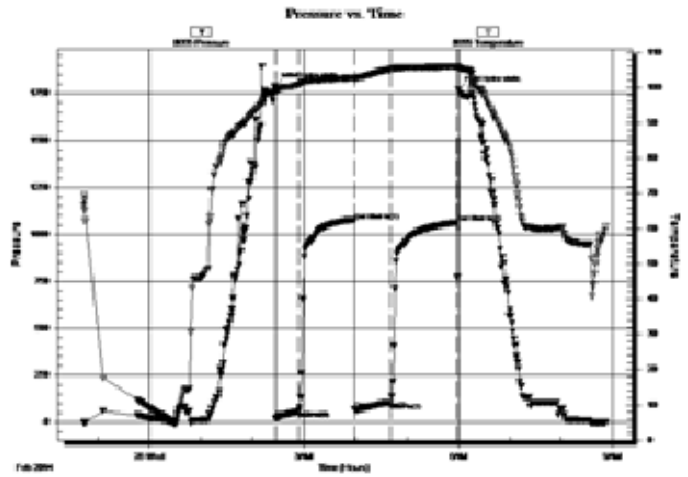


DST #4 LKC "H" & "I" 3,592'-3,618'  
30"-60"-45"-75"

IF: 7" blow  
ISI: No return  
FF: BOB in 28 min  
FSI: 1/4" return

Rec': 62' OCM (25% O, 75% M), 186' GO (30% G, 70% O), 186' GIP

SIP: 1073-1064; FP: 19-59, 70-106; HP 1791-1771

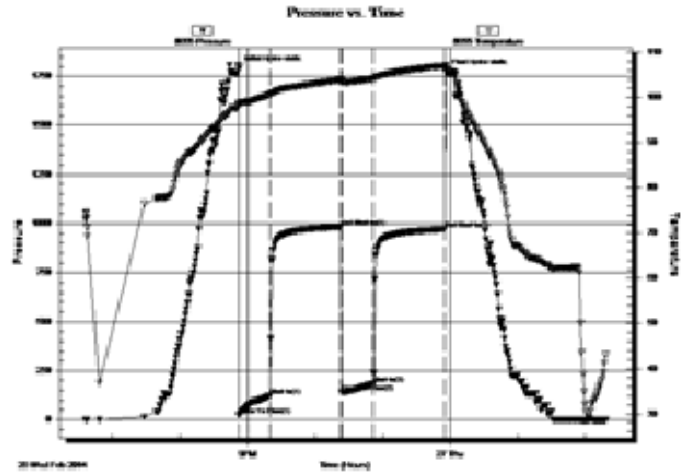


DST #5 LKC "J" & "K" 3,624'-3,654'  
30"-60"-30"-60"

IF: BOB in 5min  
ISI: BOB in 27min  
FF: BOB in instantly  
FSI: 8" return

Rec': 31' GHOCM (20% G, 30% O, 50% M), 434' GO (30% G, 70% O), 465' GIP

SIP: 983-972, FP: 24-122, 141-184; HP: 1787-1772

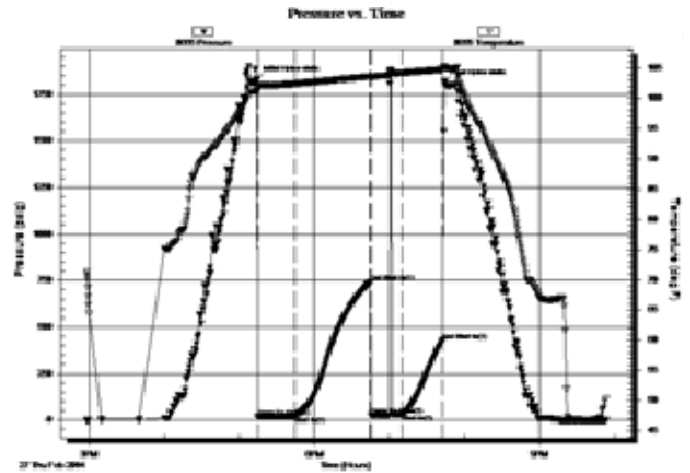


DST #6 Arbuckle 3,684'-3,708'  
30"-60"-30"-30"

IF: 1 3/4" blow  
ISI: No return  
FF: No blow, waited 20" & flushed, surged and died  
FSI: No return

Rec': 15' OCM (20% O, 80% M)

SIP: 740-428; FP: 18-22, 27-31; HP: 1831-1814



Anhy  
Bent  
Brec  
Cht  
Clyst  
Coal  
Congl  
Dol

Gyp  
Igne  
Lmst  
Meta  
Mrlst  
Salt  
Shale  
Shcol

### ROCK TYPES

Shgy  
Sltst  
Ss  
Till  
Carb sh  
Dol  
Dtd  
Gry sh

Sandylms  
Shale  
Sltstn  
Shlyslts  
SltysH  
Lms

### ACCESSORIES

#### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brefrac
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr



- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Slty

#### FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram



- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

#### STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh



- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

#### TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

### OTHER SYMBOLS

#### POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

#### SORTING

- Well
- Moderate
- Poor

#### ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

#### OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

#### INTERVALS

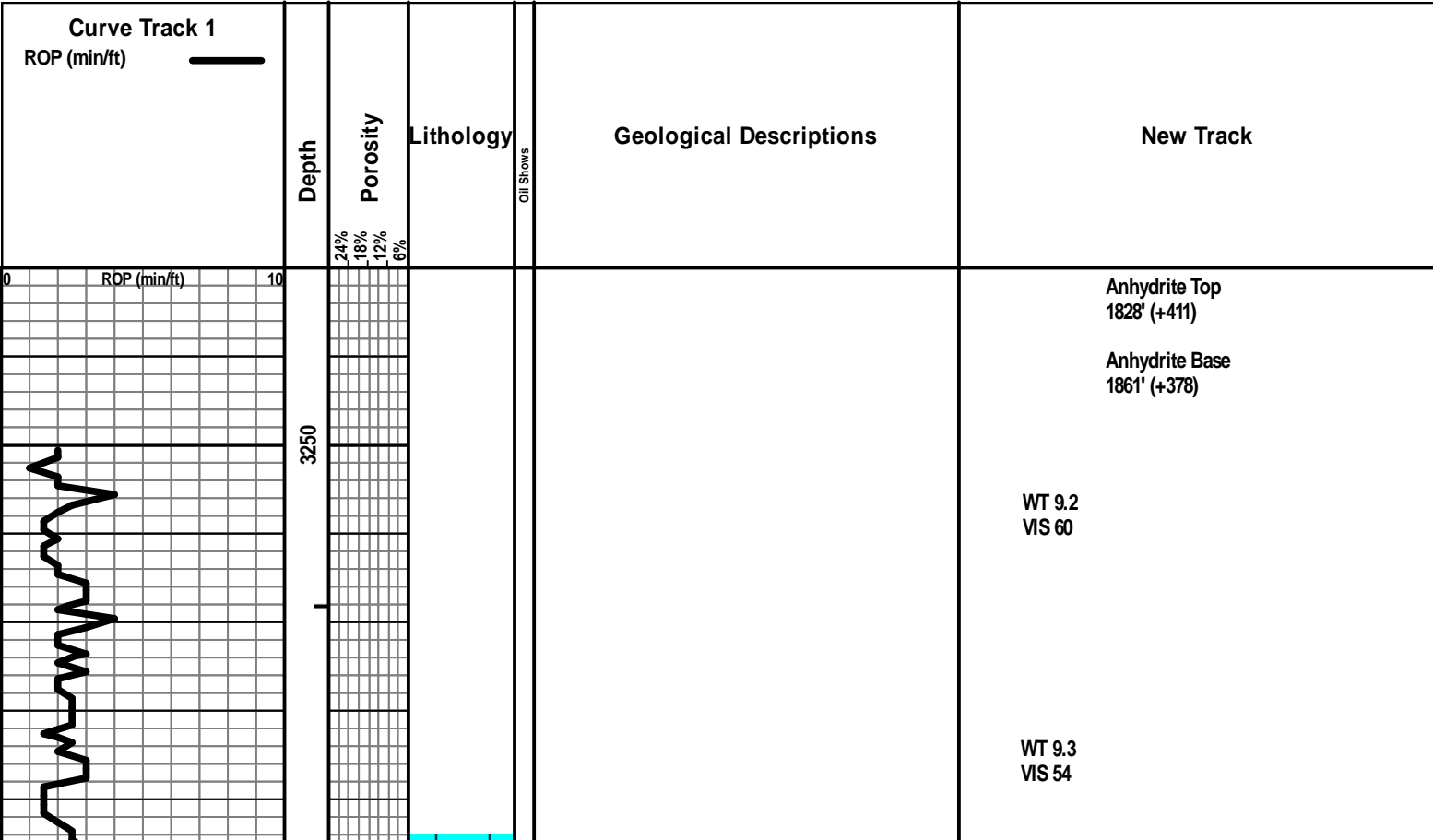
- Core
- Dst

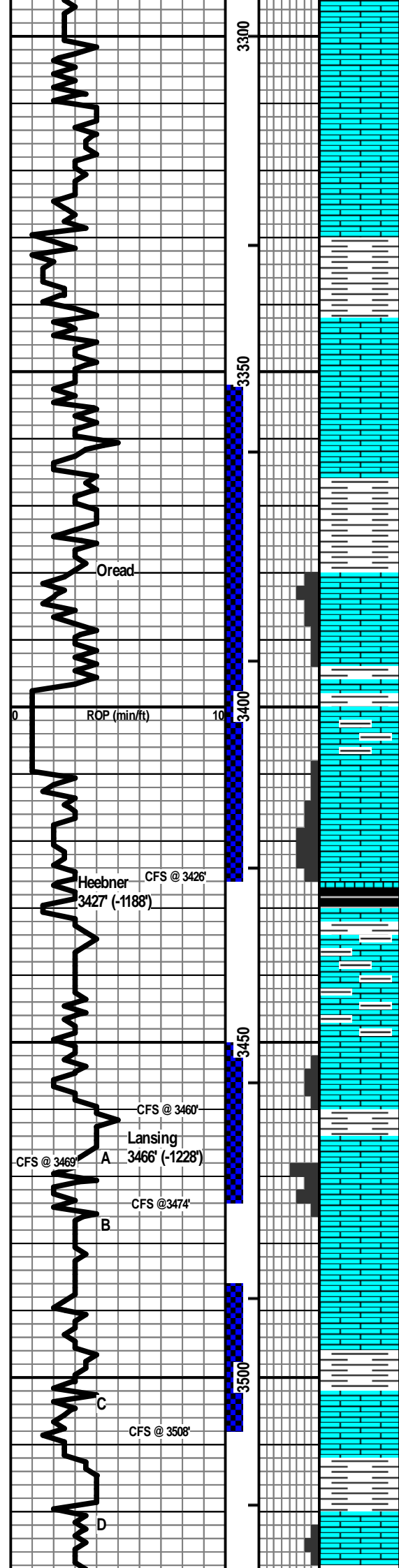


Dst

#### EVENTS

- Rft
- Sidewall
- Conn





LS - CRM / TAN, VF / F XLN, PRED MOD DNS, SUBSHCKY IN PT, W CHT - BRN OPQ

LS - CRM / TAN, VF XLN, SUBCHKY / CHKY

LS - TAN / GY, VF XLN, DNS, FOSS (CRI), STYLOLITIZED

LS - TAN, F XLN, DNS, FOSS (FUSUL, BRYZO), W SH - GRN / GY

SH - RD, W LS - TAN, F XLN, DNS, PYRITIZED IN PT

LS - WHT / CRM, VF XLN, CHKY

LS - CRM / TAN, F XLN, DNS, FOSS (FUSUL)

SH - GY / GRN / RD

LS - CRM / TAN, F XLN, F / G INTXLN POR, FSFO, SLI ODOR, LT BRN OIL, OIL SHEEN, SLI YEL FLUOR

LS - TAN, F XLN, P / F INTXLN POR, NS  
SH - GRN, LMY, W LS - TAN / GY, F XLN, DNS, FOSS

LS - TAN, F XLN, P INTXLN + VUG POR, FSFO, SLI ODOR, LT BRN OIL, OIL SHEEN, SLI YEL FLUOR

LS - TAN, F XLN, DNS, FOSS, NS

LS - TAN, F XLN, F / G INTXLN POR, SLI SFO, V SLI ODOR, LT BRN OIL, OIL SHEEN, V G YEL FLUOR

SH - BLK, CARB W SH - GY, GRN, MAR, ORNG-RD, W LS - WHT / CRM / GY, VF XLN, V CHKY

LS - WHT / CRM / GY, VF XLN, V CHKY, SHLY

SH - GRN, MAR, RD

LS - TAN / BRN, F XLN, P / F INTXLN POR, FSFO, LT BRN OIL, FOSS, SLI ODOR, SLI YEL FLUOR

LS - WHT / CRM, F XLN, F / G INTXLN + VUG POR, GSFO, LT BRN OIL, SLI YEL FLUOR

LS - CRM, VF XLN, SUBCHKY / CHKY, NS

LS - CRM / TAN, F XLN, PRED DNS, SUBCHKY IN PT, NS

SH - GY / GRN / RD, LMY IN PT

LS - CRM / TAN, F XLN, P / F / G INTXLN + VUG POR, GSFO, LT BRN OIL, OOL IN PT, SLI ODOR, G YEL FLUOR

60" LS - CRM / TAN, F XLN, DNS, NS, NO ODOR

SH - GY / GRN / RD

SH - RD

LS - CRM / TAN, F XLN, P / F INTXLN + VUG POR, FSFO, SLI ODOR, NO FLUOR

Drilling with 8 stands of collars and 35,000# of WOB @ 60 RPM with approx. 800-900 psi at standpipe

WT 9.1  
VIS 52  
LCM 1#

DST #1  
Topeka  
3353'-3426'  
30"-60"-30"-60"

IF: BOB in 7min  
ISI: No blow  
FF: BOB in 15min  
FSI: Surface Blow for 5min and then died

Rec: 403' ft MW (50% M, 50% W), 124' WM (20% W, 80% M)

IH: 1755#  
IF: 62#-229#  
ISI: 754#  
FF: 232#-312#  
FSI: 746#  
FH: 1712#

WT 9.1  
VIS 52  
LCM 1#

DST #2  
Toronto / LKC "A"  
3450'-3474'  
30"-60"-30"-60"

IF: 6.5" blow  
ISI: No return  
FF: 4" blow  
FSI: No return

Rec: 124' ft HOCM (40% M, 60% O), 31' GO (10% G, 90% O), 286' GIP

IH: 1762#  
IF: 20#-47#  
ISI: 843#  
FF: 52#-71#  
FSI: 806#  
FH: 1734#

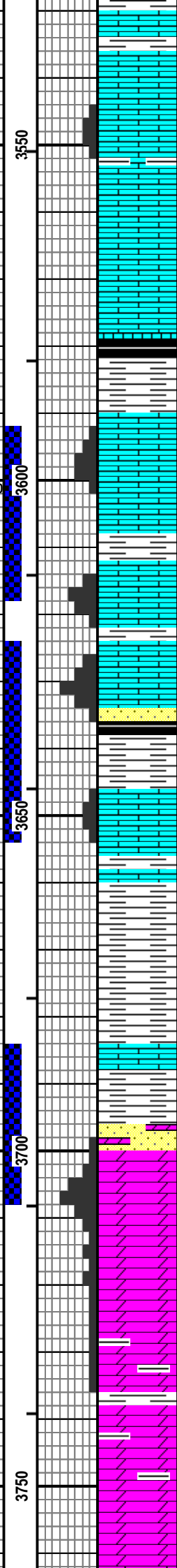
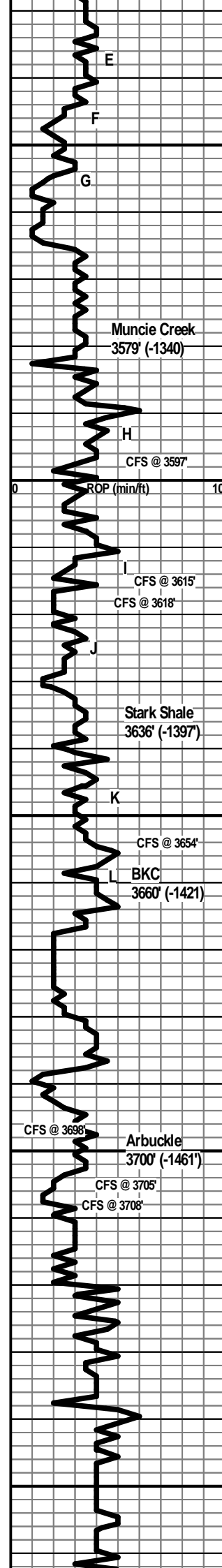
WT 9.1  
VIS 50  
LCM 1#

DST #3  
LKC "C"  
3487'-3508'  
30"-60"-45"-75"

IF: 6" blow  
ISI: Surface return, died in 35min  
FF: 8" blow  
FSI: Surface return

Rec: 62' WM (40% W, 60% M), 186' MW w/ oil spots (30% M, 70% W), 5' Free Oil (100% O)

IH: 1726#  
IF: 17#-80#  
ISI: 927#  
FF: 84#-141#  
FSI: 915#



LS - CRM / TAN, F XLN, DNS, FOSS, NS

LS - CRM, VF / F XLN, P / F INTXN POR IN PT, SUBCHKY IN PT, SLI SFO, SLI ODOR, YEL FLUOR IN PT

LS - WHT / CRM, VF XLN, V CHKY, NS, NO ODOR

LS - TAN / GY, F XLN, DNS, ABUND FOSS (BRACH, CRI)

SH - BLK, CARB, W/LS - GY / LT BRN, VF / F XLN, SHLY

LS - CRM / TAN, F XLN, F / G INTXN POR, FSFO, LT BRN OIL, G STN, YEL FLUOR

LS - CRM / TAN, F XLN, DNS, NS

SH - BLK / GY / GRN / MAR / RD

LS - CRM / TAN, F XLN, P / F / G INTXN + VUG POR, XLCNT INTXN POR IN PT, GSFO, G SAT, LT BRN OIL, G SAT, F ODOR, G YEL-GRN FLUOR

SH - GY / GRN, LMY

LS - WHT / CRM, VF XLN, CHKY

LS - TAN / LT BRN, F XLN, F / G / XLCNT POR, GSFO, COMP SAT, DK BRN OIL, V SLI YEL FLUOR

SS - F QTZ GR, W RND, LOOSE GR, NO SIGN OF CEMENT, ALL LOOSLY CONSOLIDATED

SH - BLK CARB, W SH - GY / GRN / RD

LS - CRM / TAN / LT GY, F XLN, P / F INTXN POR IN PT, FSFO, F ODOR, NO FLUOR

LS - CRM / TAN, VF / F XLN, SUBCHKY IN PT, ABUND FOSS IN PT, NS

SH - GY / GRN / RD

LS - CRM / TAN, VF / F XLN, PRED DNS, FOSS, SUBCHKY IN PT

SS - CLR, VF / F GR, W SRTD, W RND, DOLOMITIC IN PT, GLAUC IN PT

DOLO, TAN / LT BRN, F XLN, SNDY IN PT, DNS IN PT, P / F INTXN POR IN PT, GSFO, SLI YEL FLUOR, F ODOR

3708' - DOLO, TAN / LT BRN, F XLN, SLI RHOMBIC IN PT, PRED SUC, G / XLCNT INTXN POR, VGSFO, COMP OIL SAT, DK BRN OIL, G ODOR, SLI YEL FLUOR

DOLO - WHT / CRM / TAN, PRED DNS, P / F INTXN POR IN PT, FSFO, SPTY STN, V SLI ODOR, SLI YEL FLUOR

DOLO - CRM / TAN / GY, F XLN, DNS, SLI SPTY STN IN PT, NSFO, NO ODOR

SH - RD, DOLOMITIC IN PT

DOLO - CRM / TAN, F XLN, DNS, NS, NO ODOR

FH: 1716#

WT 9.0  
VIS 48  
LCM 1#

DST #4  
LKC "H" & "I"  
3592'-3618'  
30"-60"-45"-75"

IF: 7" blow  
ISI: No return  
FF: BOB in 28 min  
FSI: 1/4" return

Rec: 62' OCM (25% O, 75% M), 186' GO (30% G, 70% O), 186' GIP

IH: 1791#  
IF: 19#-59#  
ISI: 1073#  
FF: 70#-106#  
FSI: 1064#  
FH: 1771#

DST #5  
LKC "J" & "K"  
3624'-3654'  
30"-60"-30"-60"

IF: BOB in 5min  
ISI: BOB in 27min  
FF: BOB in instantly  
FSI: 8" return

Rec: 31' GHOCM (20% G, 30% O, 50% M), 434' GO (30% G, 70% O), 465' GIP

IH: 1787#  
IF: 24#-122#  
ISI: 983#  
FF: 141#-184#  
FSI: 972#  
FH: 1772#

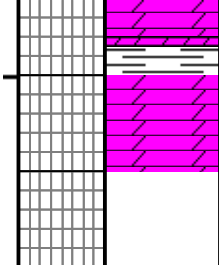
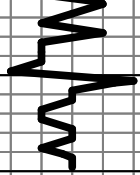
WT 9.0  
VIS 51  
LCM 1#

DST #6  
Arbuckle  
3684'-3708'  
30"-60"-30"-30"

IF: 1 3/4" blow  
ISI: No return  
FF: No blow, waited 20" & flushed, surged and died  
FSI: No return

Rec: 15' OCM (20% O, 80% M)

IH: 1831#  
IF: 18#-22#  
ISI: 740#  
FF: 27#-31#  
FSI: 428#  
FH: 1814#



DOLO - YEL-TAN, F XLN, DNS, NS, W/SH - GY / GRN

RTD 3780'

WT 9.3  
VIS 57  
LCM 1#