

Geologic Report  
**Aaron L. Young**

Drilling Time and Sample Log

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

Well Name: Albin "I" #3  
API: 15-063-22296  
Location: Section 28 - T14S - R27W  
License Number: 5123  
Spud Date: 10 / 31 / 2016  
Surface Coordinates: 1505' FSL and 1675' FWL  
Approx. S2 - SW - NE - SW  
Region: Gove Co., KS  
Drilling Completed: 11 / 12 / 2016  
Bottom Hole Coordinates:  
Ground Elevation (ft): 2470' K.B. Elevation (ft): 2477'  
Logged Interval (ft): 3400' To: 4305' Total Depth (ft): 4305'  
Formation: Mississippian  
Type of Drilling Fluid: Chemical - Andy's Mud & Chemical Co.

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

**OPERATOR**

Company: Pickrell Drilling Co., Inc  
Address: 100 S Main Ste 505  
Wichita, KS 67202

**GEOLOGIST**

Name: Aaron L. Young, M. S.  
Company: Pickrell Drilling Co., Inc  
Address: 100 S Main Ste 505  
Wichita, KS 67202

**General Info**

**CONTRACTOR:** Pickrell Drilling, Rig #10

**BIT RECORD:**

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	RR	15-15-15	212'	205'	NA
2	7-7/8	HA 20JQ	16-20-Plug	4078'	3866'	98.5
3	7-7/8	JZ F39613	15-15-15	4305'	227'	15.75

**SURVEYS:** 212'-0, 718'-.5, 1218'-.5, 1811'-.75, 2218'-.75, 3907'-.75

**GENERAL DRILLING AND PUMP INFORMATION:**

Drilling with 38,000 -42,000 lbs. on bit and approx 65-70 RPM.  
Running 8 stands of collars; 458'  
Pumping approx 875-900 psi at standpipe.

## Daily Status

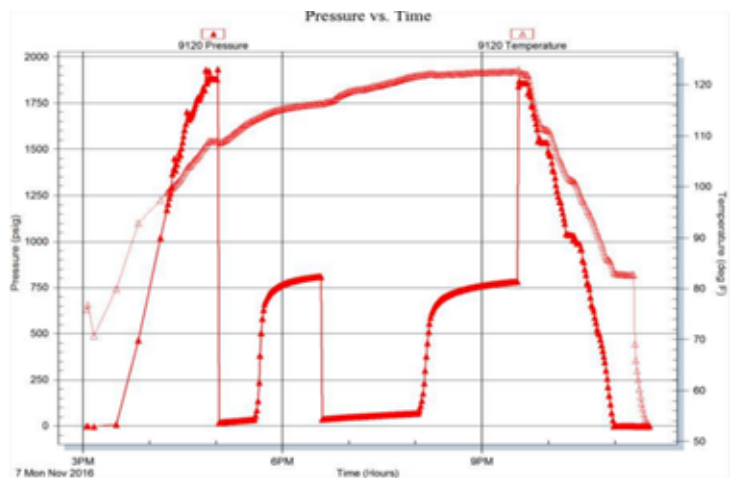
11/1/16 - Spud @ 5:00pm, Depth 212', ran 5 jts of used 8 5/8" 20# surface casing set @ 207', cemented w/ 150 sx. Common, 2% gel & 3% CC  
 11/2/16 - WOC, @ 212'  
 11/3/16 - Drilling, @ 1561'  
 11/4/16 - Drilling, @ 2536'  
 11/5/16 - TD 3157', SD for repairs on draw-works shaft  
 11/6/16 - Drilling, @ 3483'  
 11/7/16 - Running Short trip @ 3907', DST #1  
 11/8/16 - Drilling, @ 3957' DST #2  
 11/9/16 - Drilling, @ 4085' DST ##  
 11/10/16 - Drilling, @ 4216', DST #4  
 11/11/16 - TIH for DST #5, RTD 4305'  
 11/12/16 - Ran 103 jt of new 4 1/2" 10.5# prod csg. set @ 4299' (tally 4300'), Port collar @ 1920', cem bottom w/ 125 sx 60-90 poz mix followed by 75 sx common w/ 10% salt

**DST #1 LKC 'J' 3878'-3907'**  
30"-60"-90"-90"

**IF:** Weak blow; built to 6"  
**ISI:** No return  
**FF:** Very weak blow; built to 2"  
**FSI:** No return

**Rec': 5' OWCM (30% O, 30% W, 40% M), 120' MW (40% M, 60% W)**

**SIP: 809-783# FP: 28-44#, 61-78# HP: 1909-1881#**

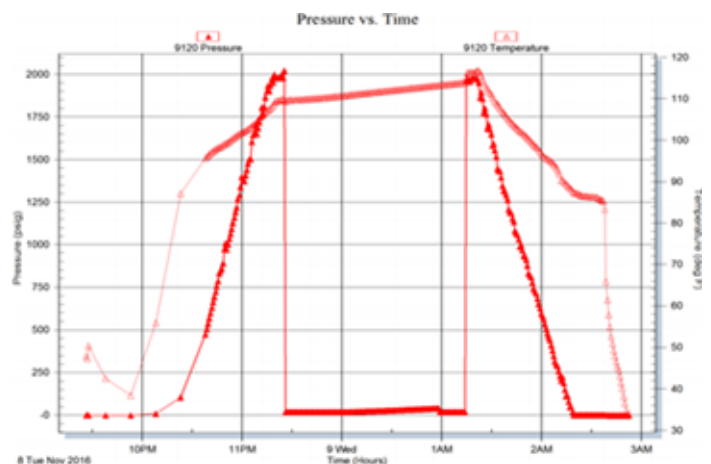


**DST #2 Altamont 4040'-4078'**  
30"-60"-10" pulled tool

**IF:** Very weak surface blow, built to 1/4"  
**ISI:** No return  
**FF:** No blow; pulled tool after 10"

**Rec': 20' Mud (100% M)**

**SIP: 37# FP: 29-30#, 29# HP: 2020-2009#**

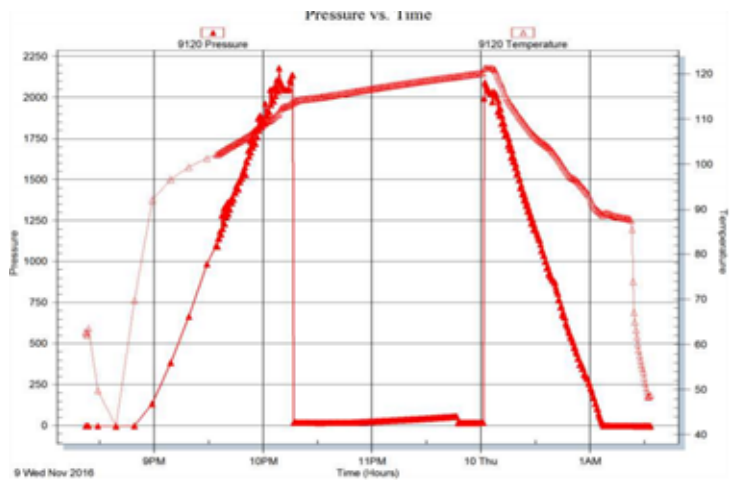


DST #3 Ft. Scott 4172'-4194'  
30"-60"-17" pulled tool

IF: Very weak surface blow, built to 3/4"  
ISI: No return  
FF: No blow; pulled tool

Rec': 3' Mud (100% M)

SIP: 53# FP: 27-23#, 24# HP: 2139-2090#

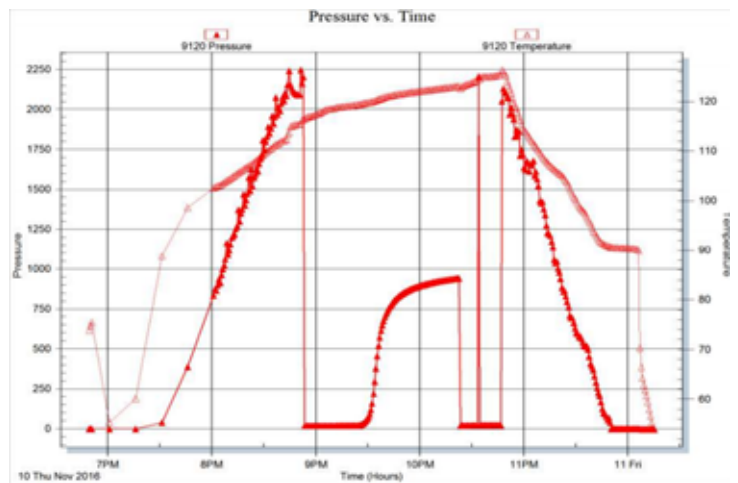


DST #4 Mississippian 4271'-4288'  
30"-60"-15" pulled tool

IF: Very weak surface blow; built to 1"  
ISI: No return  
FF: No blow, flushed tool, no blow, pulled tool

Rec': 1' MCO (5% M, 95% O), 20' Mud (100% M)

SIP: 941# FP: 25-25#, 29# HP: 2204-2124#

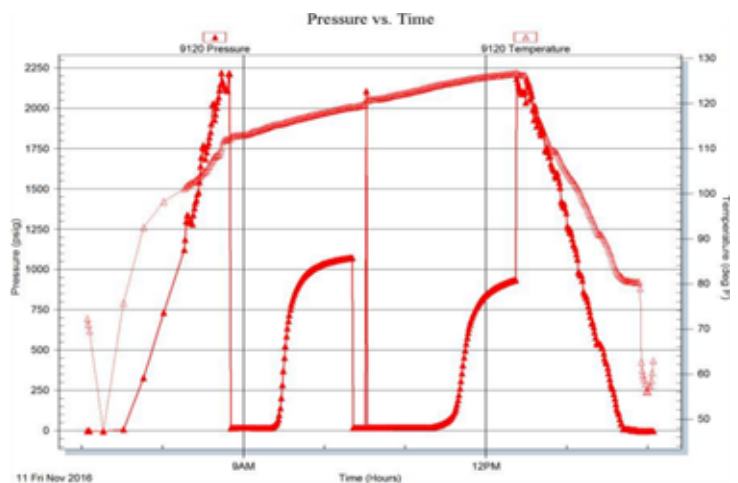


DST #5 Mississippian 4288'-4305'  
30"-60"-60"-60"

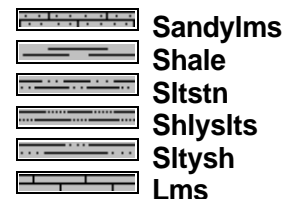
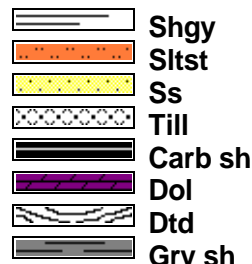
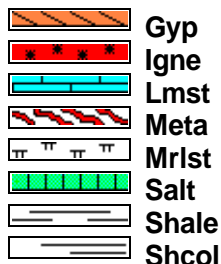
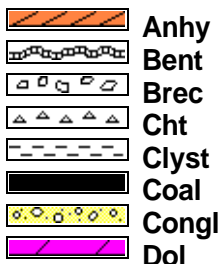
IF: Very weak surface blow; built to 1"  
ISI: No return  
FF: No blow; flushed tool, no blow  
FSI: No return

Rec': 10' OCM (5% O, 95% M)

SIP: 1071-933# FP: 25-23#, 26-27# HP: 2223-2178#



### ROCK TYPES



### ACCESSORIES

#### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- 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

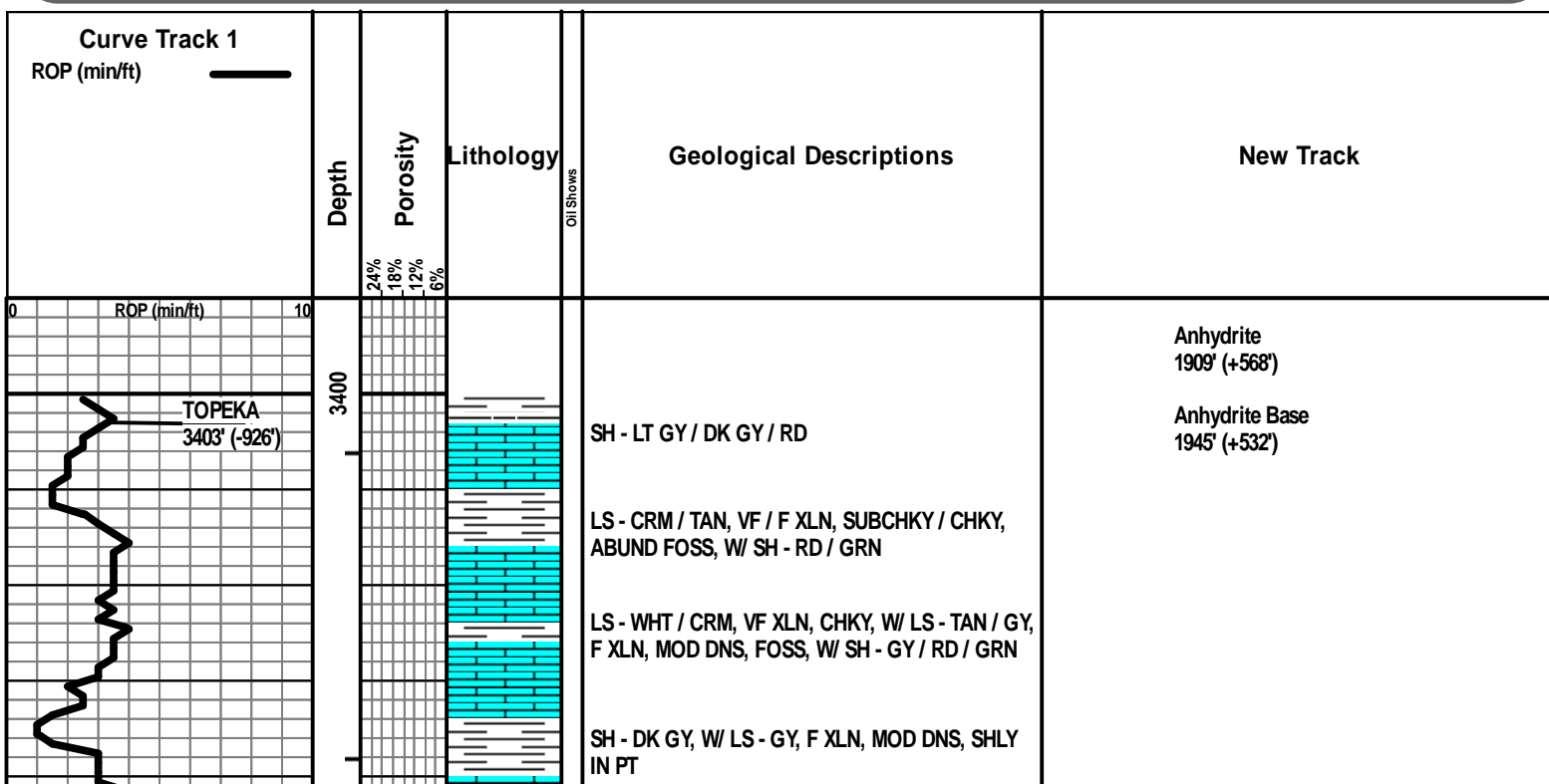
- Core
- Dst

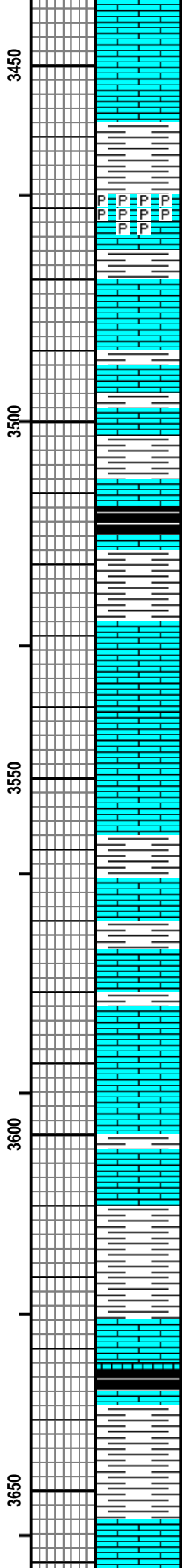
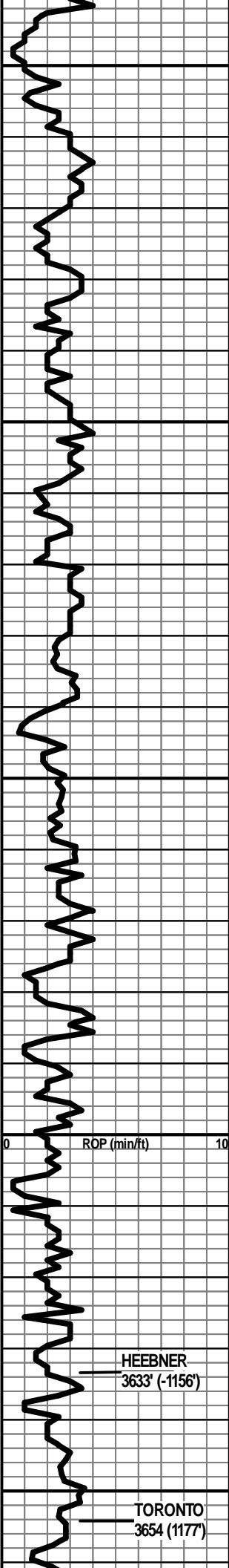


Dst

#### EVENTS

- Rft
- Sidewall
- Conn





LS - GY, F XLN, MOD DNS / DNS, ABUND FOSS

SH - LT GRN, V SOFT

SH - RD / GRN / GY, SOFT

PYRITE, GLD / GY, W/ LS- TAN, F XLN, DNS

SH - RD / GY, GRN IN PT

LS - TAN / LT BRN, VF / F XLN, MOD DNS, ABUND FOSS, W/ LS - GY, VF / F XLN, DNS, SHLY

LS - CRM / TAN, VF / F XLN, SUBCHKY / MOD DNS, ABUND FOSS, W/ SH - LT GY

SH - TURQ / GRN / GY

SH - DK GY / BLK, V SLI CARB

SH - LT GY / LT GRN IN PT, W/ LS - CRM / TAN, VF / F XLN, BRITTLE, ABUND FOSS

LS - LT BRN, VF / F XLN, MOD DNS / DNS, FOSS

LS - CRM / TAN, VF / F XLN, BRITTLE / MOD DNS, ABUND FOSS

LS - CRM / TAN, VF / F XLN, MOD DNS / DNS, FOSS IN PT, W/ SH - GRN / RD / GY, FOSS IN PT

LS - TAN, VF / F XLN, MOD DNS, ABUND FOSS, W/ SH - GY / GRN

LS - CRM / TAN, VF / F XLN, DNS, V CHTY, LT BRN, OPAQUE, DNS, FOSS IN PT

LS - CRM, VF / F XLN, SUBCHKY / MOD DNS, CHKY IN PT

LS - CRM / TAN / LT BRN, VF / F XLN, MOD DNS, ABUND FOSS

SH - GY / GRN / RD, W/ LS - TAN / GY, F XLN, DNS, FOSS

LS - OFF WHT / CRM, VF / F XLN, MOD DNS / DNS, ABUND FOSS

SH - GRN / GY

SH - GRN / RD, W/ LS - TAN, F XLN, DNS, FOSS

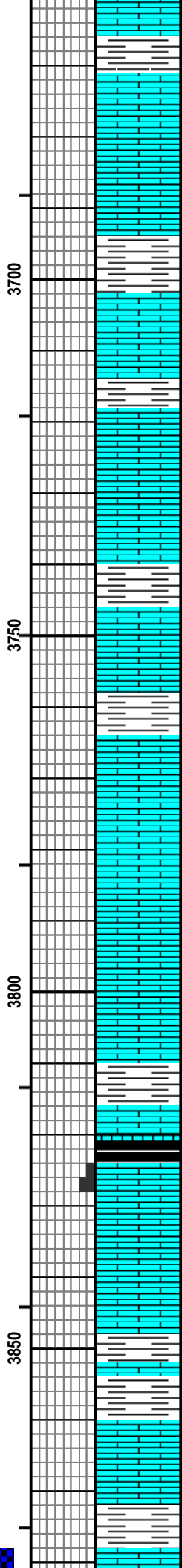
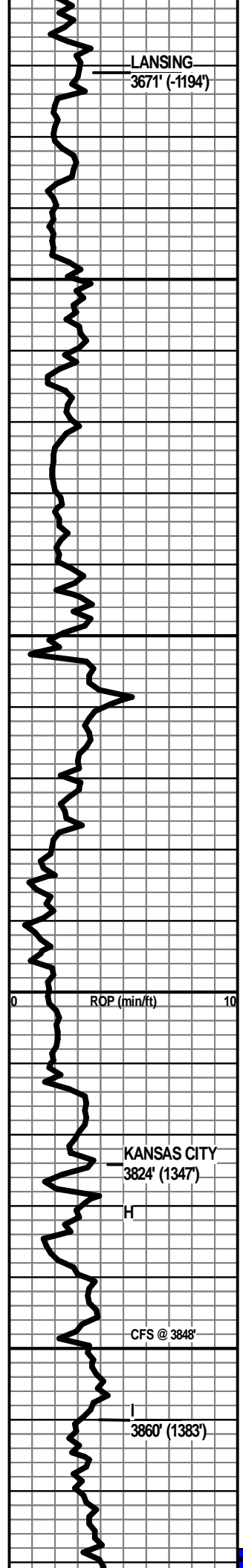
SH - BLK, CARB, W/ LS - CRM, VF XLN, SUBCHKY / CHKY, PYRITIC IN PT, W/ CHT - LT BRN, SLI TRANSLCNT, PRED OPAQUE, FOSS

SH - LT GY / DK GY

LS - TAN / LT BRN, F XLN, DNS, FOSS IN PT, W/ SH - GY / DK GRN

WT 8.9  
VIS 62  
LCM 1#

WT 9.0  
VIS 65  
LCM 1#



LS - PRED CRM / TAN IN PT, VF / F XLN, BRITTLE TO MOD DNS, FOSS  
 SH - GRN / LT GY

LS - TAN / LT GY, F XLN, MOD DNS, FOSS, ABUND FOSS IN PT

LS - OFF-WHT / CRM, VF / F XLN, PRED MOD DNS, CHKY IN PT, FOSS IN PT

LS - TAN, F XLN, MOD DNS / DNS, FOSS, W/ SH - GY / GRN

LS - CRM / TAN, VF / F XLN, BRITTLE / MOD DNS, FOSS

LS - OFF WHT / CRM, VF / F XLN, PRED SUBCHKY / CHKY IN PT, STYLOLITIZED IN PT, FOSS, W/ SH - GRN / RD IN PT

SH - GRN / RD IN PT, W/ LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS

LS - CRM / TAN, F / M XLN, V DNS, FOSS, W/ LS - WHT, VF XLN, V CHKY

SH - GY / GRN, W/ LS - TAN / LT BRN, F XLN, DNS, FOSS

LS - CRM, VF / F XLN, MOD DNS / DNS, ABUND FOSS

SH - DK GRN / DK GY, W/ LS - CRM / TAN, F / M XLN, DNS, FOSS

LS - WHT / CRM, VF / F XLN, SUBCHKY / CHKY, FOSS IN PT

LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS, CHTY IN PT - ORNG / TAN, SLI TRANSLCNT, PRED OPAQUE

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

LS - CRM / TAN, VF / F XLN, MOD DNS / DNS, ABUND FOSS

SH - DK GY / DK GRN / RD IN PT

SH - BLK, CARB

LS - TAN / GY, F XLN, P INTXLN POR, SSFO, LT BRN OIL, SLI ODOR,

LS - TAN, F XLN, V DNS, NO VIS POR, NS, NO ODOR, NO FLUOR

SH - LT GRN / GY / RD

LS - CRM, VF / F XLN, SUBCHKY / CHKY, NO VIS POR, NS

LS - CRM / TAN / LT GY, VF / F XLN, SUBCHKY / MOD DNS, NO VIS POR, NS

SH - RD / GRN / GY, W/ LS - TAN / LT BRN / LT GY, F XLN, DNS, NO POR, NS

LS - TAN / LT BRN, F XLN, DNS, NO VIS POR, NS.

WT 9.1  
VIS 59

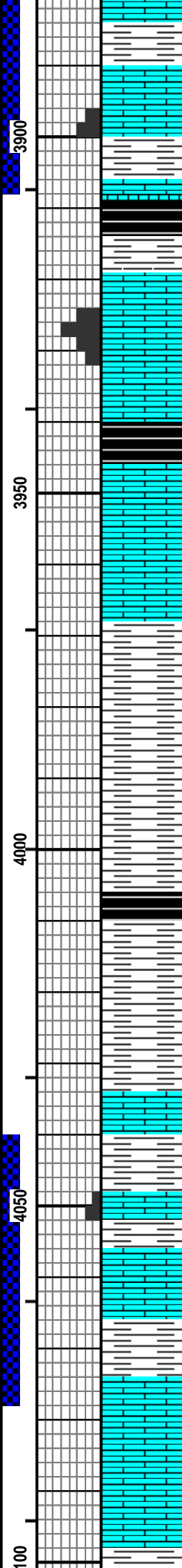
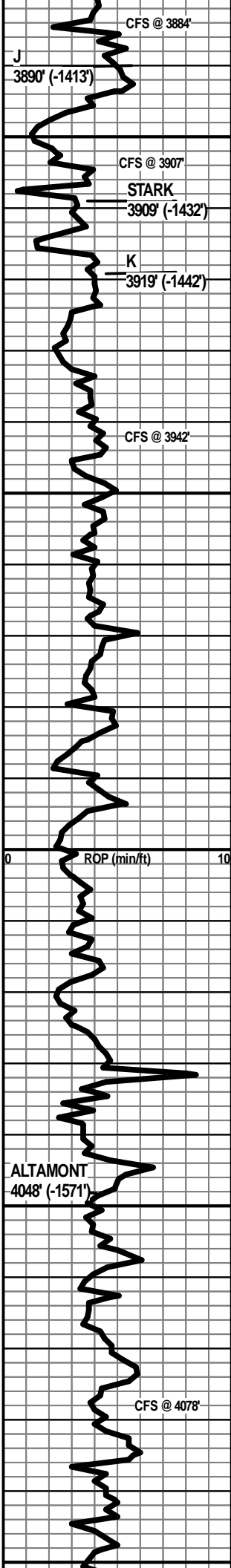
WT 9.1  
VIS 48  
LCM 2#

WT 9.3  
VIS 48  
LCM 3#

WT 9.3  
VIS 50  
LCM 3#

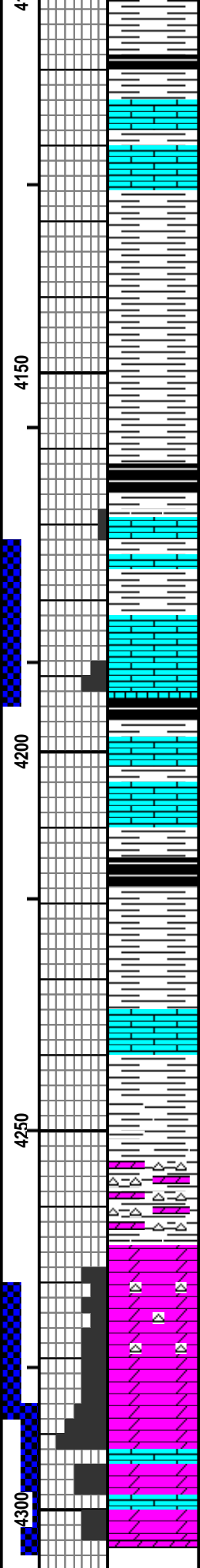
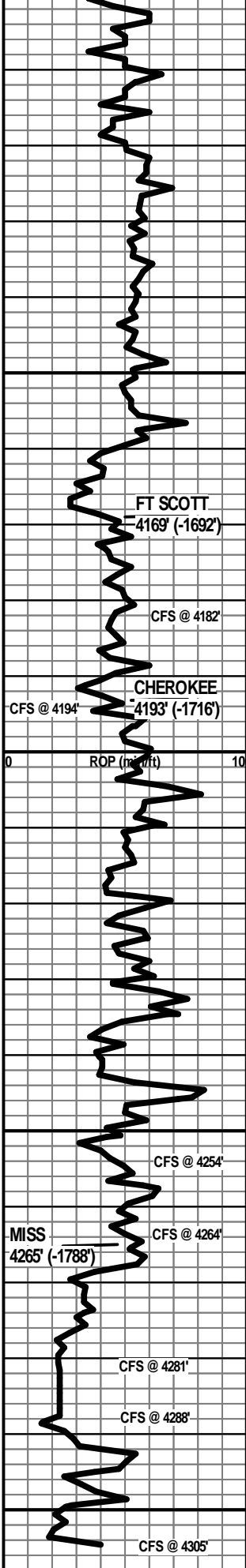
DST #1  
LKC 'J'  
3878'-3907'  
30"-60"-90"-90"

IF: Weak blow; built to 6"  
 ISI: No return  
 FF: Very weak blow; built to 2"



NO ODOR, W/ SH - MAR / RD / GRN / GY  
 SH - DK GRN / GY  
 LS - CRM, VF / F XLN, SUBCHKY / MOD DNS, FOSS, NO VIS POR, NS, NO ODOR  
 LS - CRM, F XLN, F / G INTXLN + VUG POR, FSFO, LT BRN OIL, F ODOR, FS GAS BUBB, BRI YEL-GRN FLUOR, ABUND FOSS  
 LS - CRM / TAN, F XLN, MOD DNS / DNS FOSS, NO POR, NS  
 SH - BLK, CARB  
 SH - GY  
 LS - CRM / TAN, F XLN, F / G INTXLN + VUG POR, SSFO, LT BRN OIL, ABUND OIL SHEEN, ABUND FOSS, F ODOR, BRI YEL-GRN FLUOR  
 SH - GY / GRN / RD, W/ LS - CRM, VF / F XLN, SUBCHKY / CHKY, FOSS IN PT, NO VIS POR, NS  
 SH - BLK, CARB, W/ SH - GY  
 LS - TAN / BRN, F XLN, DNS, NO VIS POR, NS  
 LS - GY, F XLN, MOD DNS / DNS  
 SH - GY, SLTY IN PT  
 SH - RD / GRN / GY  
 SH - PRED GRN / GY IN PT  
 SH - GRN / GY  
 SH - DK GY / BLK, CARB  
 SH - MAR / GRN / GY  
 SH - GRN / GY / RD IN PT  
 LS - CRM / TAN, VF / F XLN, PRED DNS, MOD DNS IN PT, FEW FOSS IN PT, W/ SH - RD / MAR / GRN  
 LS - CRM / TAN, VF / F XLN, P / F INTXLNT POR, VUG POR IN PT, SSFO, ABUND OIL SHEEN, SLI YEL-GRN FLUOR, F ODOR  
 SH - GRN / RD / GY  
 SH - RD / GRN  
 LS - CRM / TAN, VF / F XLN, MOD DNS / SUBCHKY  
 LS - CRM, VF / F XLN, SUBCHKY

FSI: No return  
 Rec: 5' OWCM (30% O, 30% W, 40% M), 120' MW (40% M, 60% W)  
 IH: 1909# WT 9.2  
 IF: 28#-44# VIS 60  
 ISI: 809# LCM 3#  
 FF: 61#-78#  
 FSI: 783#  
 FH: 1881#  
 WT 9.1  
 VIS 48  
 LCM 2#  
 WT 9.2  
 VIS 48  
 LCM 1#  
 WT 9.1  
 VIS 47  
 LCM 2#  
 DST #2  
 Altamont  
 4040'-4078'  
 30"-60"-10" pulled tool WT 9.3  
 VIS 55  
 IF: Very weak surface blow, built t LCM 2#  
 ISI: No return  
 FF: No blow; pulled tool after 10"  
 Rec: 20' Mud (100% M)  
 IH: 2020# WT 9.4  
 IF: 29#-30# VIS 67  
 ISI: 37# LCM 2#  
 FF: 29#  
 FH: 2009#  
 WT 9.3  
 VIS 71  
 LCM 2#  
 WT 9.4  
 VIS 56  
 LCM 2#



SH - LT GY / DK GY, V SLI CARB

SH - BLK, CARB, W/ SH - GY, V SLI CARB IN PT

LS - CRM / TAN, VF / F XLN, PRED DNS / SUBCHKY IN PT, W/ SH - GR / GRN / GY

SH - MAR / GRN / RD-ORNG

SH- GRN / GY, W/ LS - CRM / TAN, VF / F XLN, MOD DNS / SUBCHKY, STYLOLITIZED IN PT

SH - GRN / RD

SH - DK GY / BLK, CARB

LS - TAN / LT BRN, VF XLN, V DNS, V PINTXLN POR IN PT, SLI OIL STN IN PT, NSFO, SLI ODOR, SLI YEL-GRN FLUOR

SH - PRED GY / RD / GRN, W/ SHLY LS - DK BRN, V DNS, NS

SH - GY, SLTY IN PT

LS - CRM / TAN, VF / F XLN, P / F INTXLN POR, SSFO, ABUND OIL SHEEN, SHO OF GAS BUBB, F ODOR, BRI YEL-GRN FLUOR

SH - BLK, CARB

LS - TAN / GY, F XLN, MOD DNS / DNS, W/ SH - RD / GRN / GY

SH - DK GY / BLK, CARB, W/ LS - CRM / TAN, VF / F XLN, MOD DNS / SUBCHKY

SH - GY / GRN / MAR / RD / RD-ORNG

LS - CRM, VF / F XLN, MOD DNS / SUBCHKY, W/ SH - RD / GRN / GY

SH - MAR / GRN / GY

CHT - ORNG / TAN / LT GY IN PT, SLI TRANSLCNT, PRED DNS, VP WEATH POR IN PT, SLI OIL SAT, OIL SHEEN, NSFO, NO ODOR, NO FLUOR, W/ SH - RD / GRN / GY

SH - RD / GRN / YEL, GY, W/ DOLO - CRM, VF XLN, NO VIS POR, NS, W/ CHT - GY / YEL / TAN / ORNG, FRSH, SLI TRANSLCNT

DOLO - SLI CHTY - CRM / TAN / LT BRN, VF / F XLN, P / F INTXLN POR, VUG POR IN PT, FSFO, LT BRN OIL, SHO GAS BUBB, G ODOR, BRI YEL-GRN FLUOR

DOLO - CRM / TAN / LT BRN, VF / F XLN, P / F / G INTXLN POR, VUG POR IN PT, GSFO, LT BRN OIL, SHO GAS BUBB, G ODOR, BRI YEL-GRN FLUOR

LS - WHT / CRM, VF XLN, SUBCHKY / CHKY / VCHKY, W/ DOLO - CRM / TAN, F XLN, F INTXLN POR, GSFO, G ODOR, BRI YEL-GRN FLUOR

DOLO - CRM / TAN / LT BRN, SLI CHTY IN PT, P / F / G INTXLN POR, GSFO, LT BRN OIL, G ODOR, BRI YEL GRN FLUOR

WT 9.4  
VIS 46  
LCM 1.5#

DST #3  
Ft. Scott  
4172'-4194'  
30"-60"-17" pulled tool

WT 9.3  
VIS 53  
LCM 3#

IF: Very weak surface blow, built to 3/4"  
ISI: No return  
FF: No blow; pulled tool

WT 9.2  
VIS 60  
LCM 3#

Rec: 3' Mud (100% M)

IH: 2139#  
IF: 27#-23#  
ISI: 53#  
FF: 24#  
FH: 2090#

WT 9.2  
VIS 60  
LCM 1#

DST #4  
Mississippian  
4271'-4288'  
30"-60"-15" pulled tool

WT 9.3  
VIS 71  
LCM 3#

IF: Very weak surface blow; built to 1"  
ISI: No return  
FF: No blow, flushed tool, no blow, pulled tool

WT 9.2  
VIS 52  
LCM 1#

Rec: 1' MCO (5% M, 95% O), 20' Mud (100% M)

IH: 2204#  
IF: 26#-25#  
ISI: 941#  
FF: 29#  
FH: 2124#

WT 9.3  
VIS 65  
LCM 2#

DST #5  
Mississippian  
4288'-4305'  
30"-60"-60"-60"

WT 9.3  
VIS 60  
LCM 2#

IF: Very weak surface blow; built to 1"  
ISI: No return  
FF: No blow; flushed tool, no blow  
FSI: No return

Rec: 10' OCM (5% O, 95% M)

IH: 2223#  
IF: 25#-23#  
ISI: 1071#  
FF: 26#-27#  
FSI: 933#  
FH: 2178#

RTD 4305'