



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

Well Name: WP Unit #4-7 - Carmen Schmitt, Inc.
API: 15-195-23033-00-00
Location: SE-NW-SE-SW Section 7-14S-25W
License Number: KCC # 6569
Spud Date: December 04, 2017
Surface Coordinates: 775' FSL & 1690' FWL,
of Section
Bottom Hole Vertical Wellbore
Coordinates:
Ground Elevation (ft): 2430 Ft. K.B. Elevation (ft): 2435 Ft.
Logged Interval (ft): 3400 Ft. To: 4360 Ft. Total Depth (ft): RTD 4360 Ft. LTD 4360 Ft.
Formation: Mississippian at Total Depth
Type of Drilling Fluid: Chemical
Region: Trego County, Kansas
Drilling Completed: December 12, 2017
Results: 5-1/2" Casing Set
Field: NA

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

Operator

Company: Carmen Schmitt, Inc.
Address: PO Box 47
Great Bend, Kansas 67530-0047

Geologist

Name: M. Bradford Rine
Company: Consulting Geologist, Kansas Lic. #204, Wyo #189, AAPG Cert. #2647
Address: 100 South Main, Suite #415
Wichita, Kansas 67202

Remarks

Based on sample observations, drill stem test results, and electric log evaluation, it was the decision of the Operator, to set production casing on the "WP Unit #4-7, on December 12, 2017.

M. Bradford Rine
geologist

Carmen Schmitt, Inc.
"WP Unit #4-7"
Section 07-14S-25W, Trego County, Kansas



Drilling Information

Rig: Murfin Drlg, Rig #16
Pump: Emsco D375 6x14
Drawworks: Cardwell Royale
Collars: 533' 2-1/4 x 6-1/4 +/-
Drillpipe: 4-1/2" 16.6# XH
Toolpusher: Andrew Dinkel

Mud: Mudco (Gary Schmidtberger)
Gas Detector: None
Drill Stem Tests: Trilobite (Ray Schwager)
Logs: Pioneer (J. Henrickson)
Water: Harvey Lease Irrigation Well (Walker Tank)
Company Representatives:
Office: Carmen Schmitt
Field: Curtis Hitchmann

Daily Drilling Status

Date: **Operations/Depth/Comments**
 12-04-17 **MIRT, RU, Spud @ 0'**
 12-05-17 **Drilling @ 370'**
 12-06-17 **Drilling @ 2160'**
 12-07-12 **Drilling @ 3120'**
 12-08-17 **Circulating for Samples @ 3880'**
 12-09-17 **On Bottom with DST #2 @ 3996'**
 12-10-17 **On Bottom with DST #4 @ 4001'**
 12-11-17 **Make Up Tool for DST #5 @ 4235'**
 12-12-17 **TIH with Bit After logs @ 4360'**

	Results: Oil			(Well A) Oil		(Well B) Oil			
	Carmen Schmitt, Inc.			Carmen Schmitt, Inc.		Carmen Schmitt, Inc.			
	WP Unit #4-7			WP Unit #3-7		Lipp Harvey #1-12			
	775'FSL & 1690'FWL			1750'FNL & 1575'FWL		330'FSL & 2450'FEL			
	Sec. 7-14S-25W			Sec. 7-14S-25W		Sec. 12-14S-26W			
	2435	KB		2434	KB	2464	KB	Well A	Well B
Formations	Sample	E-Log	Datum	E-Log	Datum	E-Log	Datum	Comparison(s)	
Anhydrite	1891	1888	547	1884	550	1924	540	-3	7
B/Anhydrite	1929	1926	509	1922	512	1963	501	-3	8
Tarkio	NA	3280	-845	3273	-839	3318	-854	-6	9
Heebner Sh.	3672	3668	-1233	3661	-1227	3706	-1242	-6	9
Toronto	3691	3688	-1253	3680	-1246	3726	-1262	-7	9
Lansing	3712	3708	-1273	3700	-1266	3744	-1280	-7	7
Muncie Creek Sh.	3853	3852	-1417	3843	-1409	3892	-1428	-8	11
Stark Sh.	3933	3934	-1499	3923	-1489	3974	-1510	-10	11
B/Kansas City	3992	3988	-1553	3980	-1546	4028	-1564	-7	11
Marmaton	4036	4034	-1599	4020	-1586	4074	-1610	-13	11
Altamont	4059	4056	-1621	4045	-1611	4096	-1632	-10	11
Pawnee	4140	4136	-1701	4125	-1691	4174	-1710	-10	9
Ft. Scott	4200	4198	-1763	4188	-1754	4236	-1772	-9	9
Cherokee Sh.	4224	4221	-1786	4212	-1778	4261	-1797	-8	11
Mississippian	4278	4279	-1844	4275	-1841	4344	-1880	-3	36
Total Depth	4360	4360	-1925	4358	-1924	4340	-1876	-1	-49

Casing Record, Bit Record, Deviation Surveys

CASING:

Conductor: None

Surface: Ran 5 jts, 211.2', 8-5/8" 23# Csg. Set @ 218 ft. (Quality) Cement with 150 sx, 80/20 Comm, 3%CC, 2%gel. Plug down at 7:45 pm on 12-04-17. Cement did circulate.

Production: Ran 104 joints new 5-1/2" Csg, set at 4350 ft. (Swift) Cement with 500 gal mud flush, 20 bbls KCL water. Plugged RH with 30 sx and MH with 20 sx. Pumped 400 sx SMD cement at 11.2 ppg, followed by 150 sx EA2 cement at 15.5 ppg. Displaced 105 bbls. Lift pressure 1100#, landed plug at 1500#. Plug Held. Circulated 50 sx cement to pit. Plug down @ 5:45 pm.

BITS:

No.	Size	Make	Model	Depth In	Depth Out	Hours
1	12-1/4	Varel	TC11rr	0	218	2.75
2	7-7/8	HTC	GX20C	218	4360'	93.00

DEVIATION SURVEYS:

Deviation:	Depth:	Deviation:	Depth:
0.25*	218'	0.25*	3880'
0.25*	2465'	0.75*	4235'
		1.00*	4360'

DST #1: 3846-3880 (LKC "H")

Times: 15-30-60-90

**Initial Open: Fr, Blow built to 9" i.b.,
no return blow**

**Final Open: Stg, Blow b.o.b. 35 min,
weak surface return blow**

Rec: 215' Total Fluid, 465' gas in pipe

65' Oil: 100%o (29* gravity)

90' MGCO: 10%g 70%o 20%m

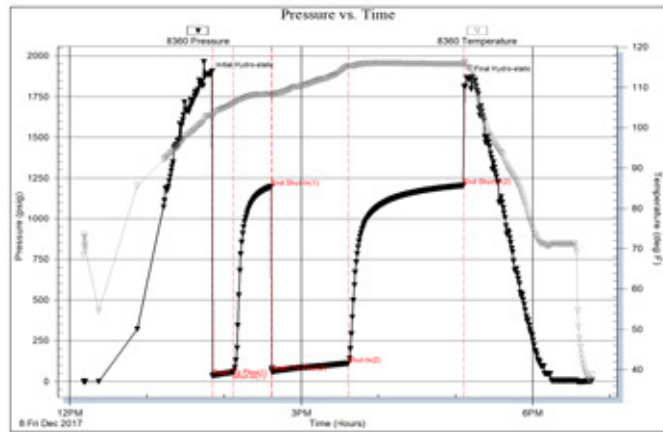
60' GOCM: 10%g 30%o 60%m

IHP: 1885 FHP: 1860

IFP: 33-56 FFP: 61-110

ISIP: 1197 FSIP: 1204

BHT: 115°F



DST #2: 3883-3936 (LKC "I" "J")

Times: 15-30-15-out

Initial Open: Wk, Blow built to 1/2" i.b.

Final Open: Wk surf blow died 5 min

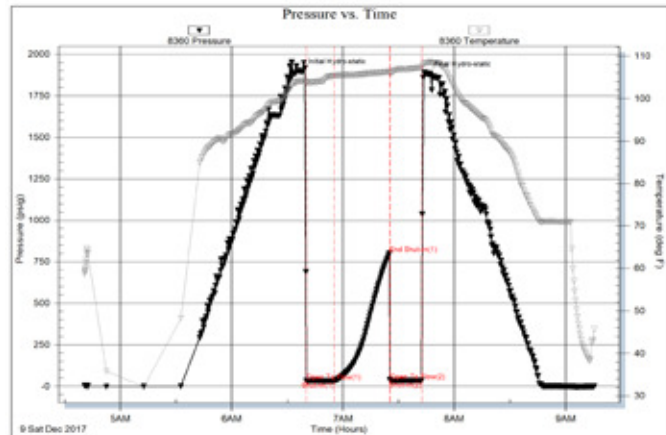
Rec: 20 SOCM: 5%o 95%m

IHP: 1896 FHP: 1881

IFP: 33-32 FFP: 34-32

ISIP: 799 FSIP: NA

BHT: 107°F



DST #3: 3946-3965 (LKC "K")

Times: 15-30-45-60

**Initial Open: Stg, built to b.o.b. 6 min,
no return blow**

**Final Open: Stg, built to b.o.b. 5 min,
weak surface return blow**

Rec: 245' Total Fluid, 1365' gas in pipe

155' Oil: 100%o (38* gravity)

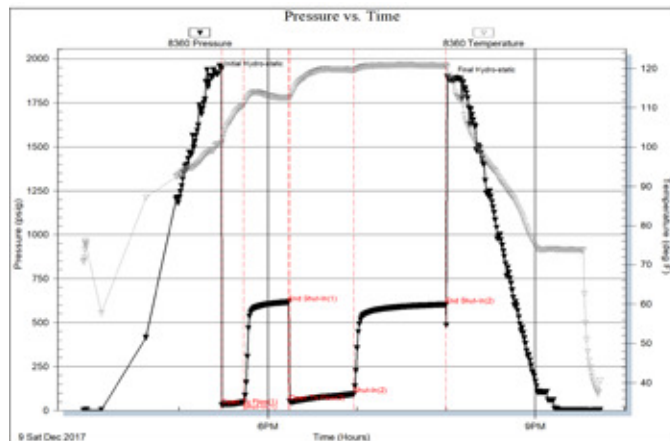
90' GMCO: 30%g 58%o 12%m

IHP: 1912 FHP: 1879

IFP: 29-46 FFP: 51-93

ISIP: 615 FSIP: 602

BHT: 120°F



DST #4: 3965-4001(LKC "L")

Times: 15-30-30-30

Initial Open: Weak Surface Blow Throughout

Final Open: Weak Surface Blow Throughout

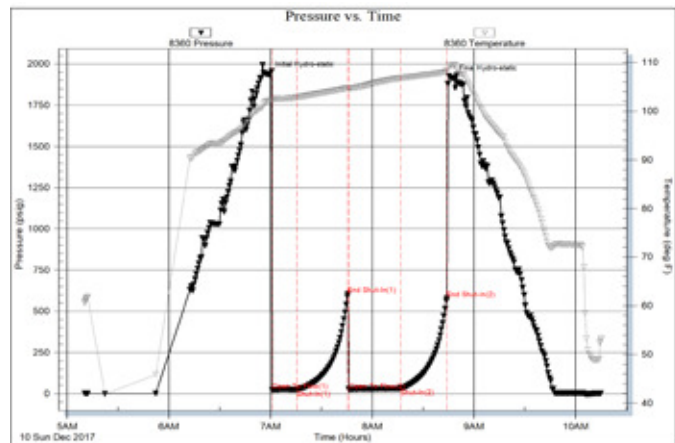
Rec: 35' HOCM: 30%o 70%m

IHP: 1935 FHP: 1913

IFP: 22-25 FFP: 22-32

ISIP: 605 FSIP: 577

BHT: 108°F



DST #5: 4166-4235 (Ft. Scott)

Times: 15-30-10-out

Initial Open: Wk Blow, built to 1/8" i.b., died in 12 min.

Final Open: No Blow

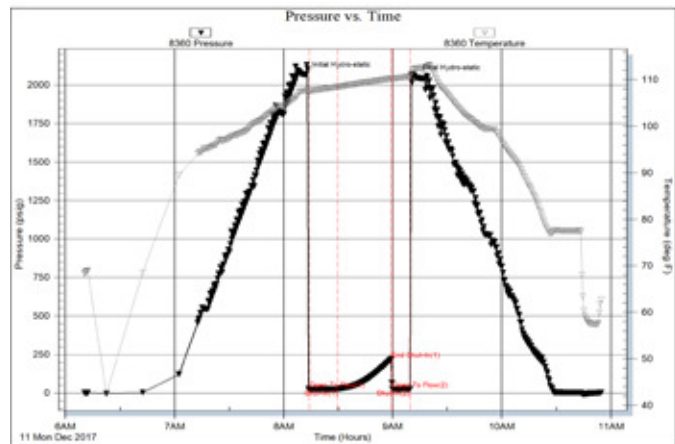
Rec: 1 ft mud with sli show of oil

IHP: 2066 FHP: 2046









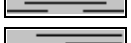
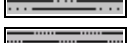



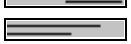
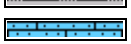
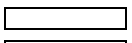
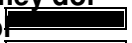



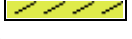
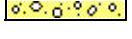
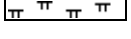





IFP: 26-26 FFP: 26-26

ISIP: 221 FSIP: NA




















BHT: 110°F



Rock Types

	Congl granite wash		Bent		Dol		Salt		Till
	dol ls limey		Brec		Gyp		Shale		Siltysh
	New symbol		Cht		Igne		Shcol		Shlysiltst
	Dolom ls limey		Clyst		Lmst		Shgy		Sandyls
	New symbol		Black shale		Meta		Siltst		
	Anhy		Congl		Mrlst		Ss		

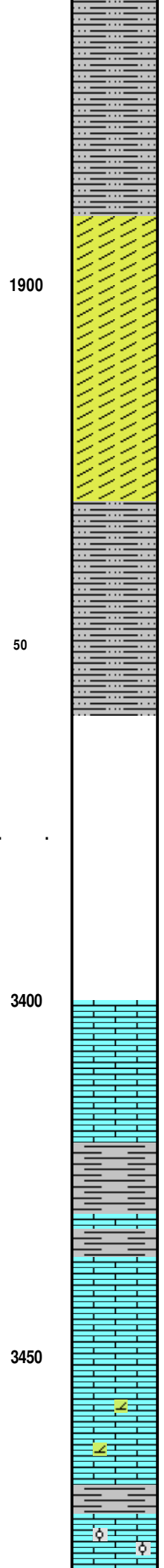
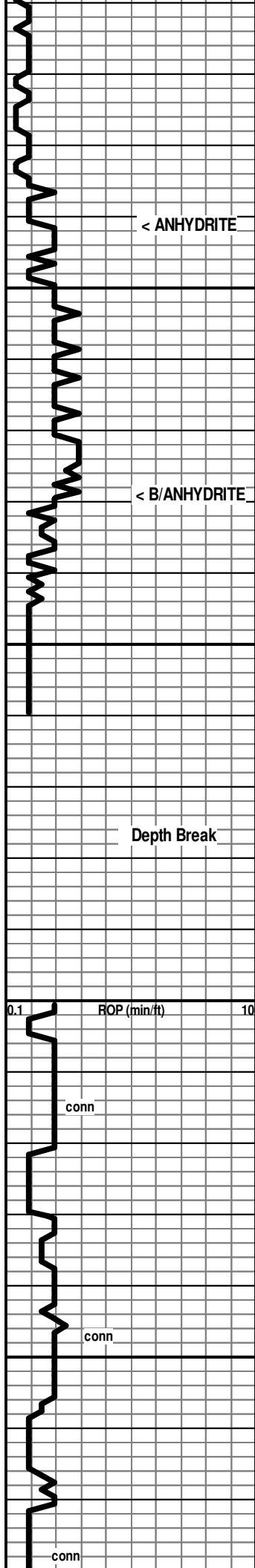
Accessories

MINERAL		Gyp	FOSSIL		Ostra		Siltstrg
	Anhy		Hvymin		Pelec		Ssstrg
	Arggrn		Kaol		Pellet	TEXTURE	
	Arg		Marl		Pisolite		Boundst
	Bent		Minxl		Plant		Chalky
	Bit		Nodule		Strom		Cryxln
	Brecfrag		Phos	STRINGER			Earthy
	Calc		Pyr		Anhy		Finexln
	Carb		Salt		Shale		Grainst
	Chtdk		Sandy		Bent		Lithogr
	Chtlt		Silt		Coal		Microxln
	Dol		Sil		Dol		Mudst
	Feldspar		Sulphur		Gyp		Packst
	Ferrpel		Tuff		Ls		Wackest
	Ferr				Mrst		
	Glau						

Other Symbols

OIL SHOW		Even		Dead	INTERVAL
	Oil & gas show		Spotty-patchy		Gas
	Gas show		Trace show		Core
					Dst

ROP (min/ft)		Depth	Lithology	Geological Descriptions	Remarks
ROP (min/ft)	ROP (min/ft)				
0.1	10	1800			
		50			



1891 (+544)

1929 (+506)

Ls cr-gy, fn xln, pr xln por in pt, subchalky in pt, foss to abund foss

Sh gy-dk gy, subsilty in pt

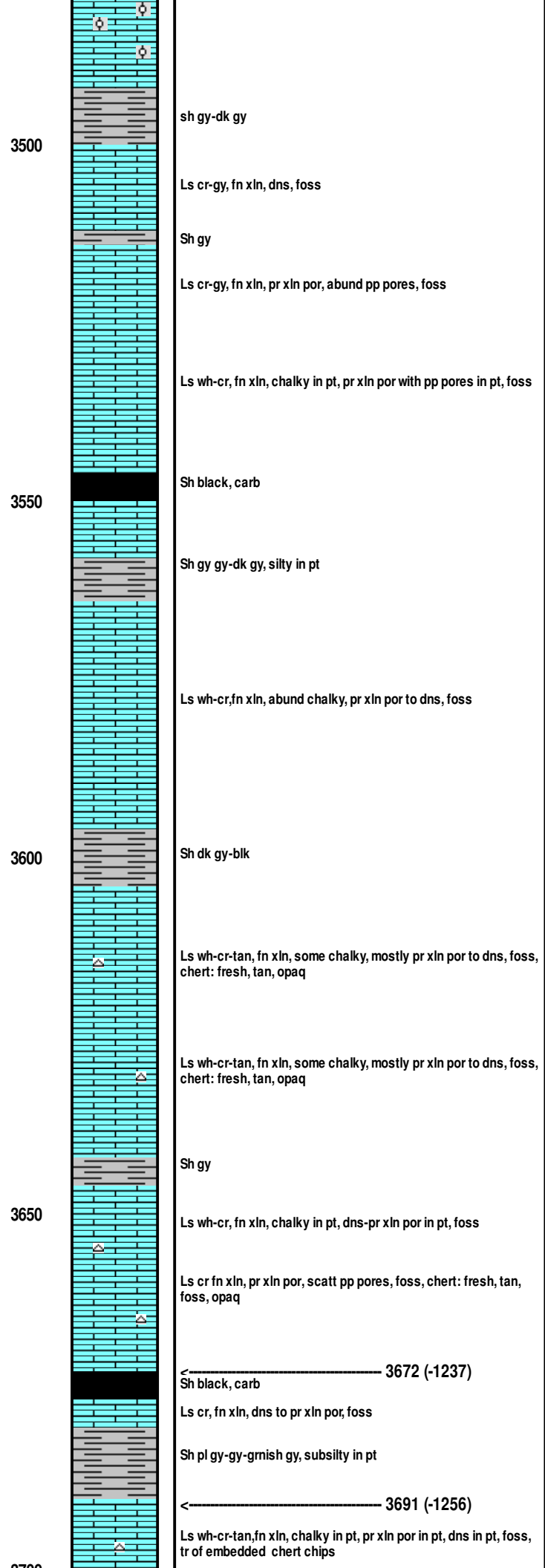
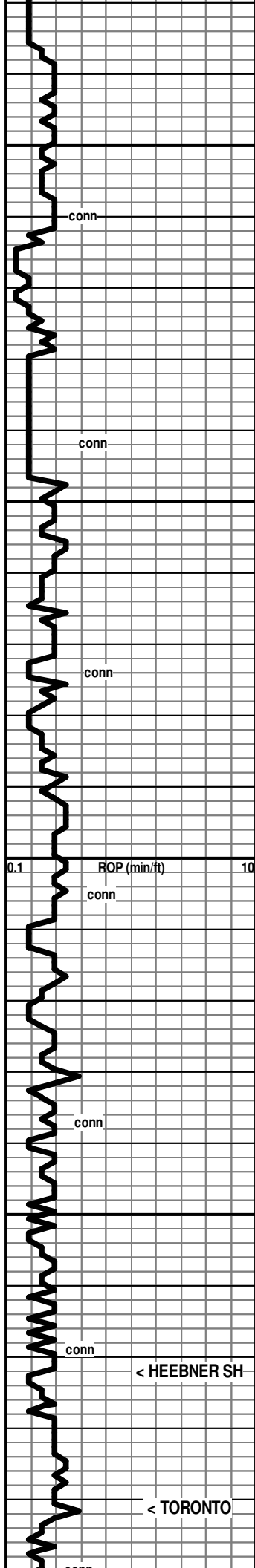
Ls cr-gy-dk gy, fn xln, pr xln por to dns, foss

Ls cr, fn xln, pr-fr xln por, subsucr in pt, foss

Sh gy-dk gy

Ls cr, fn xln, pr-fr xln por, ool-oom (fine), fr-gd oom por

* Displace and Mudup @ 3250'



3500

sh gy-dk gy

Ls cr-gy, fn xln, dns, foss

conn

Sh gy

Ls cr-gy, fn xln, pr xln por, abund pp pores, foss

conn

Ls wh-cr, fn xln, chalky in pt, pr xln por with pp pores in pt, foss

3550

Sh black, carb

Sh gy gy-dk gy, silty in pt

conn

Ls wh-cr,fn xln, abund chalky, pr xln por to dns, foss

3600

Sh dk gy-blk

Ls wh-cr-tan, fn xln, some chalky, mostly pr xln por to dns, foss, chert: fresh, tan, opaq

conn

Ls wh-cr-tan, fn xln, some chalky, mostly pr xln por to dns, foss, chert: fresh, tan, opaq

conn

Sh gy

3650

Ls wh-cr, fn xln, chalky in pt, dns-pr xln por in pt, foss

Ls cr fn xln, pr xln por, scatt pp pores, foss, chert: fresh, tan, foss, opaq

conn

< HEEBNER SH

<----- 3672 (-1237)
Sh black, carb

Ls cr, fn xln, dns to pr xln por, foss

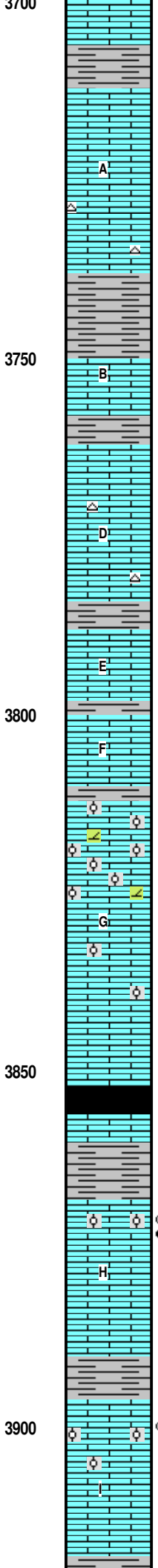
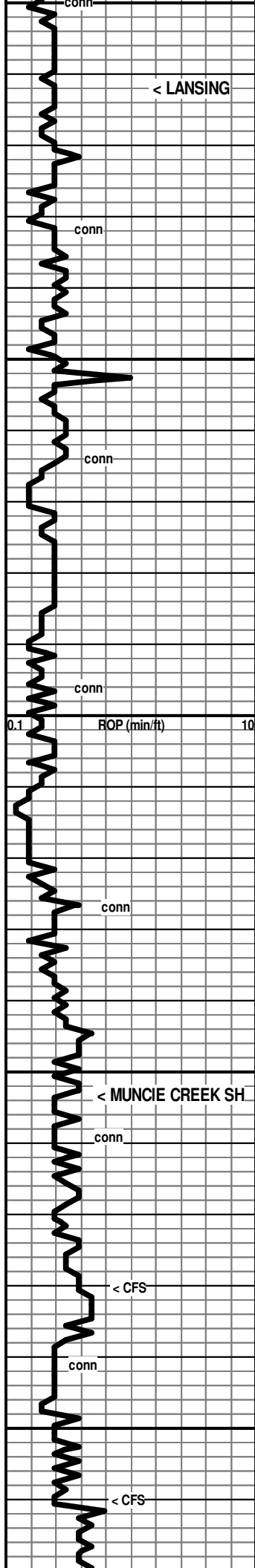
Sh pl gy-gy-grmish gy, subsilty in pt

< TORONTO

<----- 3691 (-1256)

Ls wh-cr-tan,fn xln, chalky in pt, pr xln por in pt, dns in pt, foss, tr of embedded chert chips

3700



Sh gy
 ← 3712 (-1277)
 Ls wh-cr,fn xln, dns-pr xln por in pt, chalky & soft in pt, foss

A
 Ls wh-cr,fn xln, dns-pr xln por in pt, chalky & soft in pt, foss, cherty

Sh gy

B
 Ls wh-cr,fn xln, dns-pr xln por in pt, chalky & soft in pt, foss

D
 Ls wh-cr, fn xln, abund chalky, pr xln por to dns in pt, sli foss, Chert: fresh, cr, subopaq

Sh gy-grmish

E
 Ls wh-cr-pl gy, fn xln, chalky & soft in pt, dns to pr-fr xln por in pt, foss (washes white)

Sh gy

F
 Ls wh-cr-pl gy, fn xln, chalky & soft in pt, dns to pr-fr xln por in pt, foss (washes white)

Sh gy

Ls cr-tan, fn xln, pr-fr xln por, dolom in pt, ool-oom in pt with scatt gd oom por

G
 Ls wh-cr, fn xln, chalky in pt, pr xln por in pt, ool in pt

Ls cr, vfn-fn xln, dns

← 3853 (-1418)
 Sh black, carb
 Ls cr-tan, fn xln, dns to pr xln por, foss

Sh gy-grmish

Ls cr-tan, fn xln, pr xln por with Fr am't of patches of pp-vuggy pores, foss to ool, becomes dns with depth
 [Mod Odor, abund pcs with spotty-patchy mod-brt Fluor, abund pcs with spotty to patchy brn-dk brn stn & Rr even tan stn, Sli-Fr shows of gassy dk brn FO & NVL oil on brk]
 Ls wh-cr,fn xln, subchalky & softer to dns & firm

H
 Sh gy

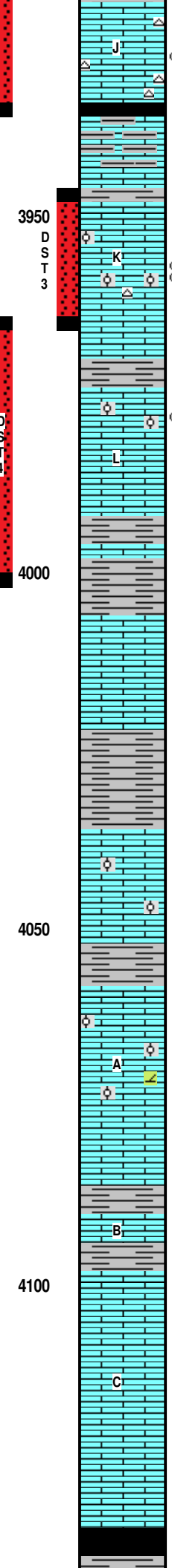
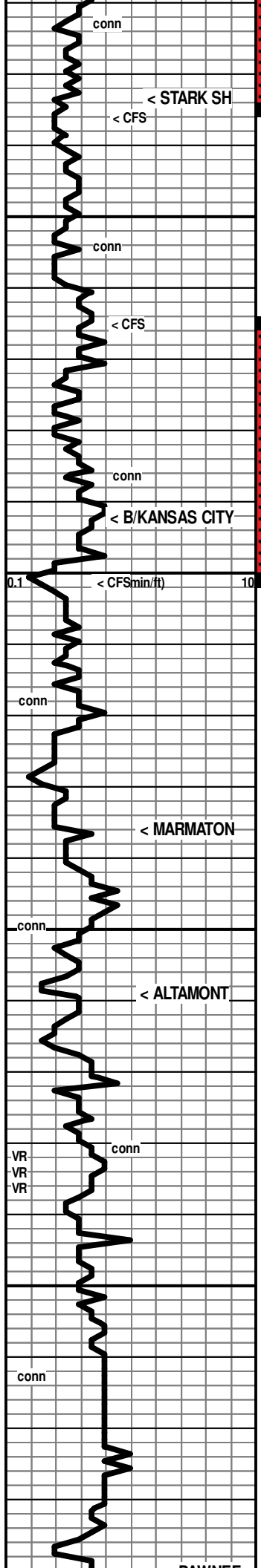
Ls wh-cr-tan, fn xln, chalky-subchalky in pt, dns & firm in pt, scatt embedded transl calcite patches, foss in pt, some ool pcs (well cem)
 [No Odor, few pcs total with trace spots of fluor with trace micro-spots of brn deadish to FO on crush]

I
 Sh gy-grmish gy-grn, subsilty text in pt

DST #1: 3846-3880 (LKC "H")
 Times: 15-30-60-90
 Initial Open: Fr, Blow built to 9" i.b., no return blow
 Final Open: Stg, Blow b.o.b. 35 min, weak surface return blow
 Rec: 215' Total Fluid, 465' gas in pipe
 65' Oil: 100%o (29* gravity)
 90' MGCO: 10%g 70%o 20%m
 60' GOCM: 10%g 30%o 60%m
 IHP: 1885 FHP: 1860
 IFP: 33-56 FFP: 61-110
 ISIP: 1197 FSIP: 1204
 BHT: 115°F

Mud Check: CTCH @ 3880':
 Vis Wt WL LCM PV YP
 60 9.0 6.8 2 16 26
 Chl Hd pH Solids
 1200 Tr 11.0 4.9
 7:00 AM, December 08, 2017

DST #2: 3883-3936 (LKC "I" "J")
 Times: 15-30-15-out
 Initial Open: Wk, Blow built to 1/2" i.b.
 Final Open: Wk surf blow died 5 min
 Rec: 20 SOCM: 5%o 95%m
 IHP: 1896 FHP: 1881
 IFP: 33-32 FFP: 34-32
 ISIP: 799 FSIP: NA
 BHT: 107°F



Ls cr-tan, fn xln, dns, sli foss

Ls wh-cr, fn xln, mostly dns to pr xln por with mod am't of scatt pp pores and sm vugs, foss & foss molds, chert: fresh, cr-tan, subopaq

3933 (-1498)

Sh black, carb

Ls & Limey Shale, cr-gy, shales subsilty text in pt

Ls wh-cr-tan, abund chalky & soft pcs, pr xln por to dns in great pt, Rr pcs with scatt pp pores & sm vugs, ool in pt to abund foss, Tr of embedded pyr patches, Tr of fresh spiculitic chert

[V Fnt Odor, V low % pcs with spotty-patchy dull fluor, pores & vugs contain dk brn stn of deadish to NVL oil and traces of dk brn FO]

Ls cr-tan, fn xln, dns, foss

Sh gy-black,

Ls wh-cr-tan-pl gy, fn xln, some chalky, some dns-pr xln por, some pcs ool with scatt interool pores, foss in pt

[V Fnt odor, Mod % pcs with dull-mod fluor. mod % pcs with scatt spotty to patchy brn stn, where stn'd-Tr to Sli shows of gassy brn FO on crush]

Ls cr-tan, vfn-fn xln, dns, sli foss

3992 (-1557)

Sh pl gy-gy-grmish, subsilty-silty in pt

Sh pinkish-reddish, soft, earthy to silty to sdy text (washes pinkish)

Ls wh-cr-tan-pl gy, vfn-fn xln, some chalky & soft, some dns & firm, grainy in pt

Ls cr-tan-pl gy, vfn-fnxln, dns, foss

Sh gy-red, soft to subfirm, mushy in pt

.4050' spl: Sh red soft to mushy, silty in pt (washes reddish)

4036 (-1601)

Ls wh-cr-tan, fn xln, much soft chalky, some dns

.4060' spl: Ls wh, fn xln, subchalky-chalky to dns, abund ool (well cemented)

.4070' spl: Sh mostly gy-grmish, some reddish, silty in pt, soft to subfirm, some white ls in spls

4059 (-1624)

.4080' spl: Ls wh-cr, fn xln, chalky to dns, abund ool (well cemented)

Ls wh-cr, vfn-fn xln, dns & pseudoxln in pt, subsucr text in pt (dolom), chalky in pt, ool & foss in pt

.4100' spl: 50% Shales, gy-grmish-pink, mushy to soft; 50% Ls wh-cr, vfn-fn xln, dns with some chalky, foss to ool, some pink-orange grainy-fresh chert

Ls cr-tan-gy, vfn xln, pseudoxln in pt, grainy/sdy in pt, some subchalky ls

LS wh-cr-gy, vfn-fn xln, dns & firm in pt, chalky in pt, sdy/grainy text in pt

Sh dk gy-black,carb in pt, calc in pt

[J zn: Fnt Odor, Mod am't of dull-mod fluor, Mod am't pcs with spotty-patchy brn to dk brn stn with mostly sli shows brn FO-NVL oil, some Fr show gassy FO, some dk deadish oil]

7:00 AM, December 09, 2017

Pipe Strap @ 3936': 1.29 ft long

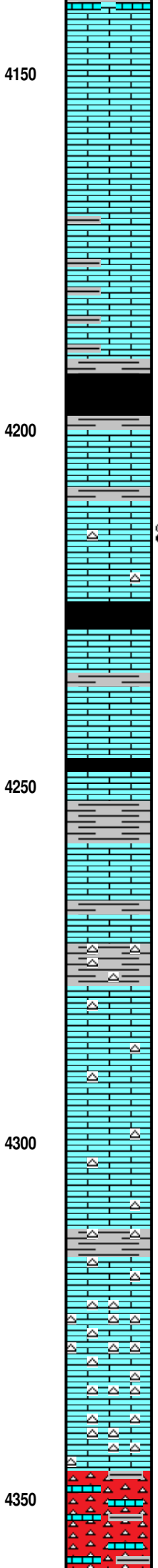
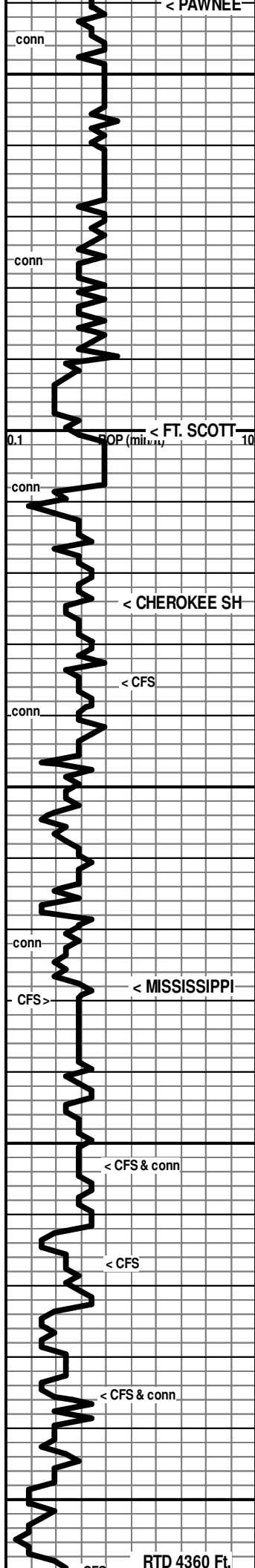
Mud Check: TIH/Bit @ 3936':
 Vis Wt WL LCM PV YP
 54 9.1 6.8 2 18 24
 Chl Hd pH Solids
 1000 Tr 11.0 5.7

DST #3: 3946-3965 (LKC "K")
 Times: 15-30-45-60
 Initial Open: Stg, built to b.o.b. 6 min, no return blow
 Final Open: Stg, built to b.o.b. 5 min, weak surface return blow
 Rec: 245' Total Fluid, 1365' gas in pipe
 155' Oil: 100%o (38* gravity)
 90' GMCO: 30%g 58%o 12%m
 IHP: 1912 FHP: 1879
 IFP: 29-46 FFP: 51-93
 ISIP: 615 FSIP: 602
 BHT: 120°F

7:00 AM, December 10, 2017

DST #4: 3965-4001(LKC "L")
 Times: 15-30-30-30
 Initial Open: Weak Surface Blow Throughout
 Final Open: Weak Surface Blow Throughout
 Rec: 35' HOCM: 30%o 70%m
 IHP: 1935 FHP: 1913
 IFP: 22-25 FFP: 22-32
 ISIP: 605 FSIP: 577
 BHT: 108°F

Mud Check: TOOH/DST4 @ 4001':
 Vis Wt WL LCM PV YP
 57 9.0 6.4 2 18 26
 Chl Hd pH Solids
 900 Tr 10.5 4.9



4140 (-1/05)
 Ls cr-tan-pl gy,vfn-fn xln, dns & firm

Ls cr-tan-pl gy, vfn-fn xln, dns, some subchalky to subgrainy text

Ls cr-gy, fn xln, dns with some subchalky in patches & pcs, shaley in pt

Sh gy-dk gy-black, carb in pt

4200 (-1765)
 Ls cr-tan, vfn-fn xln, dns, sli foss

Ls cr fn xln, pr xln por in pt with scatt interfoss pp pores, dns in pt, foss, Chert: fresh, tan, spiculitic, subtransl

[Mild Odor, Low % pcs with dull-mod fluor, spotty-patchy-even tan-lt brn stn with sli shows of tan-brn gassy FO & NVL oil]

4224 (-1789)
 Sh black, carb

Ls cr, fn xln, dns, foss

Ls wh-cr, fn xln, mostly dns, some soft & chalky pcs

Sh black, carb

Sh gy-dk gy-gmish gy

Ls wh-cr, fn xln, mostly dns & firm, some soft & chalky, foss in pt, some embedded sd grains

Ls wh-cr-tan, fn xln, mostly dns & firm, some soft & chalky, foss in pt, some embedded sd grains

Mix of Shales & Chert & Ls: Shales red-grn-gy-yell, silty-sdy in pt, subwaxy in pt mushy in pt (washes pl red); Chert fresh to subgrainy, cr-tan-or-red, subtransl-subopaq; Ls wh chalky to dns

4278 (-1843)
 [4390' spl: Predominantly Ls wh-cr, fn xln, dns, cherty; lesser amount of shales and chert as above

[4300' spl: 65% Ls wh-cr, fn-md xln, chalky in pt, foss, scatt crs xls, some lace with dk red shale; 35% shales and cherts as above

[4303' 20 min spl: 90% Ls wh-cr, fn xln, mostly dns-pr xln por, some chalky, some crs, some grainy text, some fresh chert & shale

[4317' spl: 90% Ls wh-cr, fn xln, mostly dns-pr xln por, some chalky, some crs, some grainy text, some fresh chert (foss in pt) & shale

[4317' circ spls: Ls wh-cr, fn xln, mostly dns-pr vis xln por, some chalky, abund crs/blocky, some grainy text, incr in fresh chert (foss in pt)

[No Show]

Ls wh-cr, fn xln, mostly dns-pr vis xln por, some chalky, abund crs/blocky, some grainy text, some red shale filled pores & reddish mushy chalky, additional incr in fresh chert (foss in pt) (spl washes pl red)

[No Show]

Ls wh-cr, fn xln, chalky and soft to dns & firm, abund red shale stn'g, V Cherty, fresh, cr-tan-or, foss/spic in pt

4360' Circ spls: 30% Shales red-grn-gy; 30% Ls wh-cr, fn xln, dns in pt, chalky in pt; 40% Chert fresh, cr-tan and mostly white, fresh to weath'd, opa-q-transl, foss/spic in pt

[No Show]

DST #5: 4166-4235 (Ft. Scott)
 Times: 15-30-10-out
 Initial Open: Weak Blow, built to 1/8" i.b., died in 12 min.
 Final Open: No Blow
 Rec: 1 ft mud with sli show of oil
 IHP: 2066 FHP: 2046
 IFP: 26-26 FFP: 26-26
 ISIP: 221 FSIP: NA
 BHT: 110°F

7:00 AM, December 11, 2017

Mud Check: TOO/DST5 @ 4235':

Vis	Wt	WL	LCM	PV	YP
53	9.2	6.8	1	15	22
Chl	Hd	pH	Solids		
900	Tr	10.5	6.4		

RTD 4360 Ft.

< CFS

LTD 4360 Ft.

RTD 4360 ft. at 11:00 PM,
December 11, 2017

0.1 ROP (min/ft) 10

4400