



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

Well Name: NANCY JOSSERAND # 1-8 (SW)
API: #15-069-20,477-00-00
Location: NW-SW-NE-SW 1/4 of SEC. 8 - 28 S. - 30 W.
License Number: KCC # 5316
Spud Date: 08/13/2014
Surface Coordinates: 1750' FSL & 1370' FWL

Region: GRAY CO., KS.
Drilling Completed: 8/21/2014

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2822' **K.B. Elevation (ft):** 2832'
Logged Interval (ft): 1000' **To:** 5576' **Total Depth (ft):** 5576'
Formation: MISSISSIPPIAN "SALEM (SPERGEN)
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 3211'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Falcon Exploration, Inc. KCC KCC. # 5316
Address: 125 North Market Street, Ste. #1252
Wichita, Kansas 67202

GEOLOGIST

Name: David P. Williams, P.G.
Company: DW Energy, LLC (DWE)
Address: 312 North Broadview Street
Wichita, Kansas 67208

Casing & Deviation Surveys Taken

Surface Casing: Spud at 2:30 AM on 08/13/14. Drilled 12-1/4" to 1890'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 1867'. Set at 1884' KB. Welded straps on GS & bottom 3 joints, then tack welded all collars. Cemented with 460 sks A-Conn; 3% CC, 1/4# FS. Tailed with 150 sks Class A, 2% CC. Cement did circulate. Plug down at 11:00 AM on 03/19/14. Basic Energy Svcs Cementing ticket #9767. Centralozers (5) 1,3,6,32,38. Baskets (2) #3 & #24'. Cement fell 40' below GL. Filled annulus with 13 sks Premium Plus Cement.

Deviation Surveys: @ 890' = 3/4 degree; @ 5112' = 4 degrees (Miss-Run); @ 5165' = 1 degree; @ 5355' = 2 degrees; @ 5570' = 1 degree.

DSTs

~~DST # 1~~ Interval: 5102'-5165'. Times: 5"-60"-30"-90"; Blow: IF= Weak Surface Blow. No Blow Back. FF= No Blow (Flushed Tool @ 10" Good Surge & Died). No Blowback.

Recovery: 10' M (100% M).

Pressures: IH=2438#; FH=2405#; IF=8-11#; FF=12-22#; ISIP=60#; FSIP=35#; Temp= 121 degrees F..


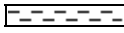

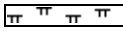
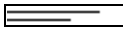
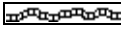




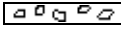







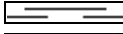

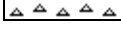


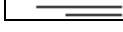

~~DST # 2~~ Interval: 5307'-5355'. Times: 5"-60"-30"-90"; Blow: IF= Weak Surface Blow. No Blow Back. FF= No Blow (Flushed Tool @ 10" Good Surge & Died). No Blowback.

Recovery: 5' M (100% M).

Pressures: IH=2576#; FH=2554#; IF=8-10#; FF=10-17#; ISIP=1439#; FSIP=1270#; Temp= 123 degrees F..

















Comments














ROCK TYPES

 Anhy	 Clyst	 Gry shale	 Mrlst	 Shgy
 Bent	 Coal	 Gyp	 Red shale	 Sltst
 Brec	 Congl	 Igne	 Salt	 Ss
 Carb sh	 Dol	 Lmst	 Shale	 Till
 Cht	 Grn sh	 Meta	 Shcol	 Top line

ACCESSORIES











MINERAL





	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	Dol
	Feldspar
	Ferrpel
	Ferr
	Glau
	Gyp

	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff












FOSSIL

	Algae
	Amph












	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin
	Fish
	Foram
	Fossil
	Fuss
	Gastro
	Oolite
	Oomold
	Ostra
	Pelec

	Pellet
	Pisolite
	Plant
	Strom

STRINGER








	Anhy
	Arg
	Bent
	Coal
	Dol
	Grysh
	Gyp
	Ls
	Mrst
	Sltstrg
	Ssstrg

TEXTURE

	Boundst
	Chalky
	Cryxln
	Earthy
	Finexln
	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackst

OTHER SYMBOLS

POROSITY





	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic
	Pinpoint

<input type="checkbox"/>	Ø
<input checked="" type="checkbox"/>	Vuggy

SORTING

	Well
	Moderate
	Poor

ROUNDING



	Rounded
	Subrnd
	Subang
	Angular

OIL SHOW

	Gas show
---	----------

	Even
	Spotted
	Ques
	Dead

INTERVAL

	Dst
	Dst_alt

EVENT

	Rft
	Sidewall

Curve Track 1

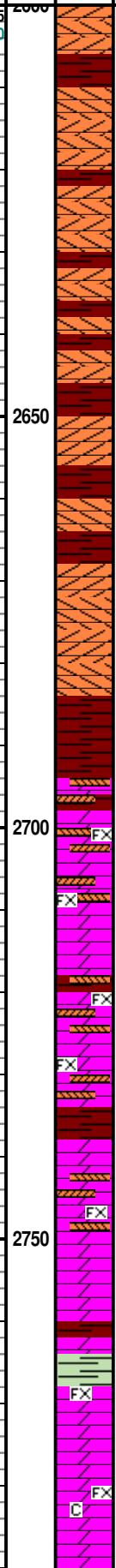
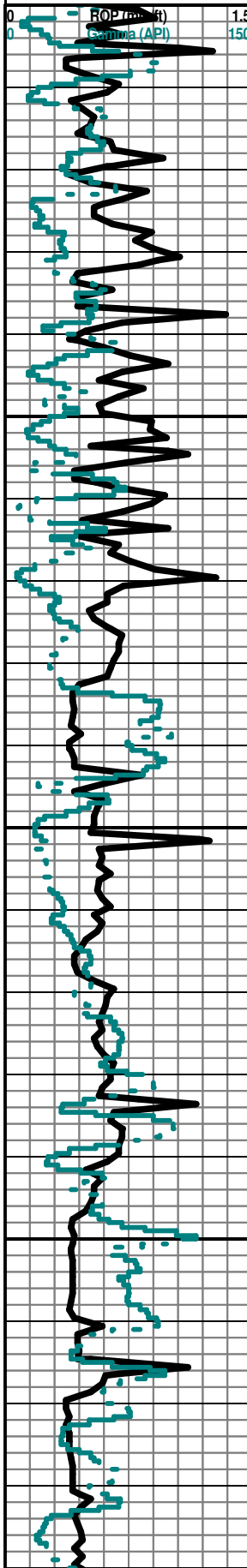
ROP (min/ft) ———
 Gamma (API) - - - - -

Depth (ft)

Oil Shows

Geological Descriptions

TG, C1-C5
 TG (Units) ———
 C1 (units) - - - - -
 C2 (units) - - - - -
 C3 (units) - - - - -
 C4 (units) - - - - -



FALCON EXPLORATION, INC.
NANCY JOSSERAND # 1-8 (SW)
 NW-SW-NE-SW 1/4
 1750' FSL & 1370' FWL
 SEC. 8 - 28 S. - 30 W.
 GRAY COUNTY, KANSAS
 A.P.I. #15-069-20,477-00-00
 ELEVATION : 2832' K.B. ; 2822' G.L
CONTRACTOR: STERLING DRILLING RIG # 2
GEOLOGIST: DAVID P. WILLIAMS, P.G
 Geologist On Location @ 2785' @ 4:45 PM 08-15-2014
 Stone Coral Anhydrite Sample Top = 1848' (+984)
 Stone Coral Anhydrite Sample Base = 1863' (+969)

Deviation Surveys Taken: @ 890' = 3/4 degree; @ 5112' = 4 degrees (Miss-Run); @ 5165' = 1 degree; @ 5355' = 2 degrees; @ 5570' = 1 degree.

Note: All Samples Have Been Lagged To Depth By Calculated Time.

Kelly Down Sample Examination Starts @ 2770'

CHASE GROUP 2694' (+ 138)

Sh Red-Char V Abd Dolo/ Ls Cm FxIn Micrite Anhy/Gyp AA No Odor No Stn No Flor NS

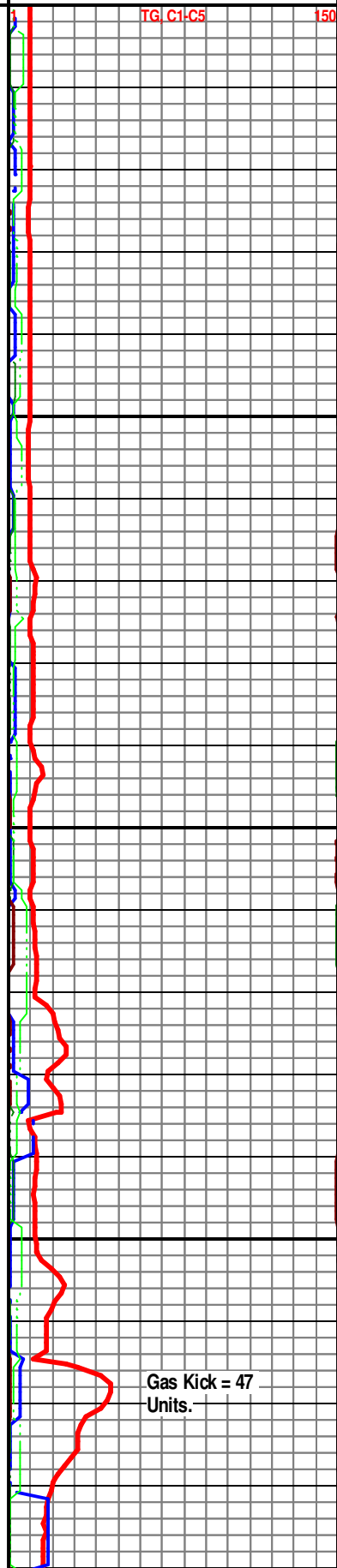
HERRINGTON 2720' (+112)

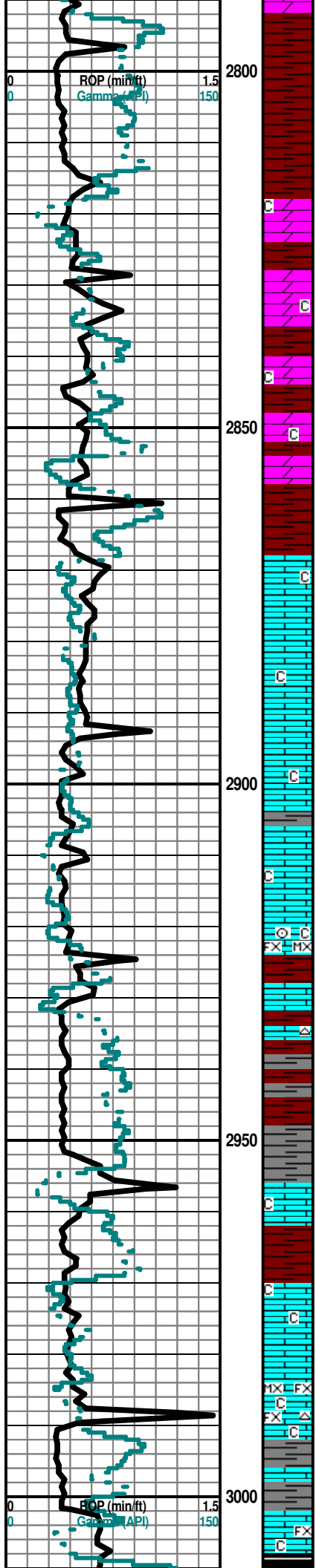
KRIDER 2728' (+ 104)

Sh Red-Char V Abd Dolo/ Ls Cm FxIn Micrite Anhy/Gyp AA No Odor No Stn No Flor NS

WINFIELD 2762' (+ 70)

Sh Gry-Red Soft (Wash Red V Abd) Dolo/Ls Cm-Gry Poor IxIn Por Dns Micrite Chalky No Odor No Stn No Flor NS





TOWANDA 2818' (+ 14)

Sh Gry-Red Soft (Wash Red) Dolo/Ls Crm-Gry Poor IxIn Por Dns Micrite
Chalky No Odor No Stn No Flor NS

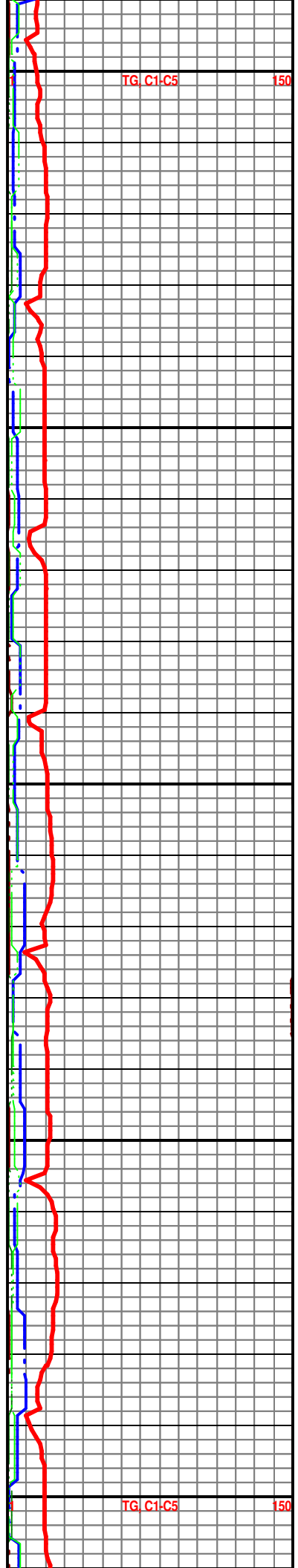
Sh Gry-Red Soft (Wash Red Abd) Ls Crm-Gry Poor IxIn Por Dns Micrite
Chalky No Odor No Stn No Flor NS

FORT RILEY 2869' (- 37)

Ls Crm-Gry Poor IxIn Por Dns Micrite Chalky Sh Gry-Red Soft AA No Odor
No Stn No Flor NS

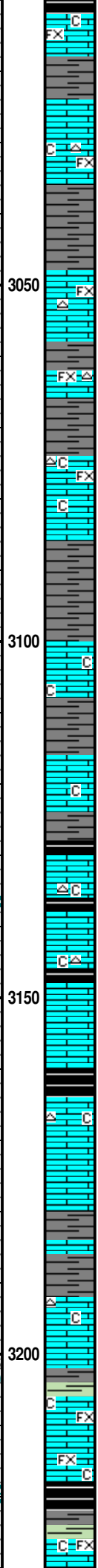
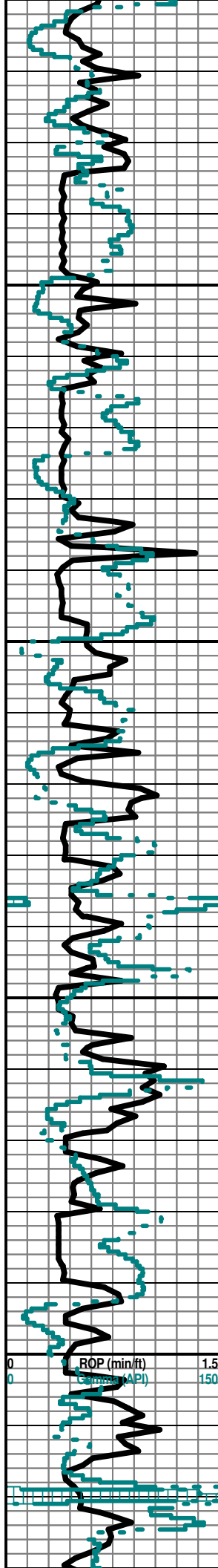
Ls Crm-Gry FxIn-MicroIxIn Poor-Fair IxIn Por Tr Gran Grad Poor Dns Micrite
Cht Gry (w/Brn Includ) Fos (Crin) Chalky Sh Gry-Red Soft No Odor No Stn
No Flor NS

Ls Crm-Gry FxIn-MicroIxIn Poor-Fair IxIn Por Tr Gran Grad Poor Dns Micrite
Cht Wht Op Shp Vit Chalky Abd Sh Gry-Red Soft No Odor No Stn No Flor
NS



TG C1-C5 150

TG C1-C5 150



Ls Crm-Wht Fxln Poor Ixln Por Dns Micrite Cht Wht Op Shp Vit Chalky Sh
Gry-Red Soft No Odor No Stn No Flor NS

3050

Ls Crm-Wht Fxln Poor Ixln Por Dns Micrite Cht Wht Op Shp Vit Chalky Sh
Gry-Red Soft No Odor No Stn No Flor NS

3100

Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Chalky Sh Gry- Red-Maroon
Soft No Odor No Stn No Flor NS

COTTONWOOD 3131' (-299)

3150

Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Cht Gry Op Shp Vit Chalky
Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Cht Gry Op Shp Vit Chalky
Sh Gry-Red-Maroon Soft (Wash Red) No Odor No Stn No Flor NS

NEVA 3192' (- 360)

3200

TG C1-C5

150

MUD DISPLACEMENT @ 3211'

Ls Wht-Crm-Gry Fxln Poor Pin-Pt Ixln Por Chalky Sh Red-Maroon -Gry
Soft-Fissil No Odor No Flor No Stn NS

3250

3300

3350

3400

3450



Ls Wht-Crm-Gry Fxln Poor Pin-Pt Ixln Por Chalky Sh Red-Maroon -Gry
Soft-Fissil No Odor No Flor No Stn NS

FORAKER 3291' (- 459)

Ls Wht-Crm-Gry Fxln Poor Pin-Pt Ixln Por Cht Wht Chalky Sh Red-
Maroon-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Fxln Poor Ixln Por Dns Micrite Cht Wht Transp-Op Shp Vit
Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn No Flor
NS

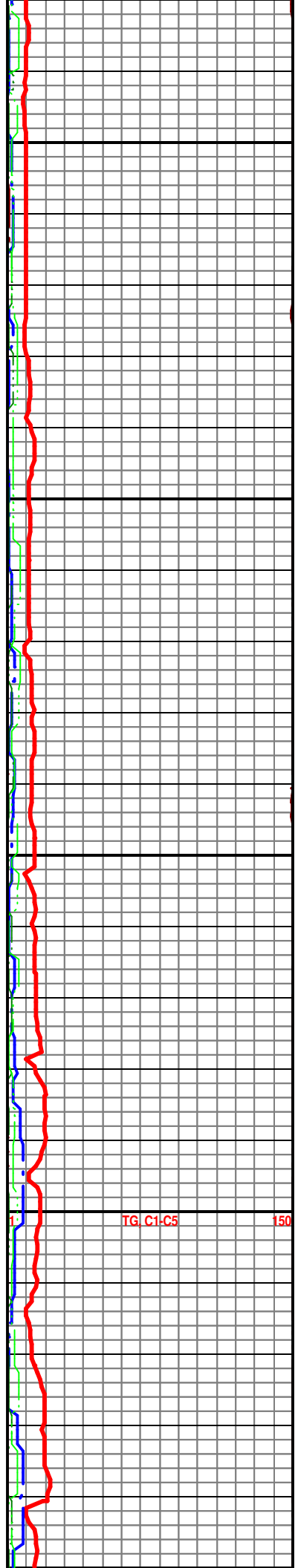
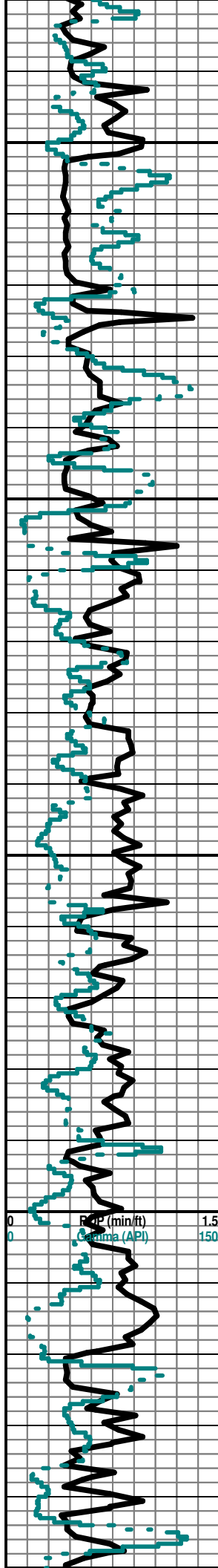
Ls Wht-Crm-Gry Fxln Poor Ixln Por Dns Micrite Cht Wht-Clear Transp- Op
Shp Vit Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn
No Flor NS

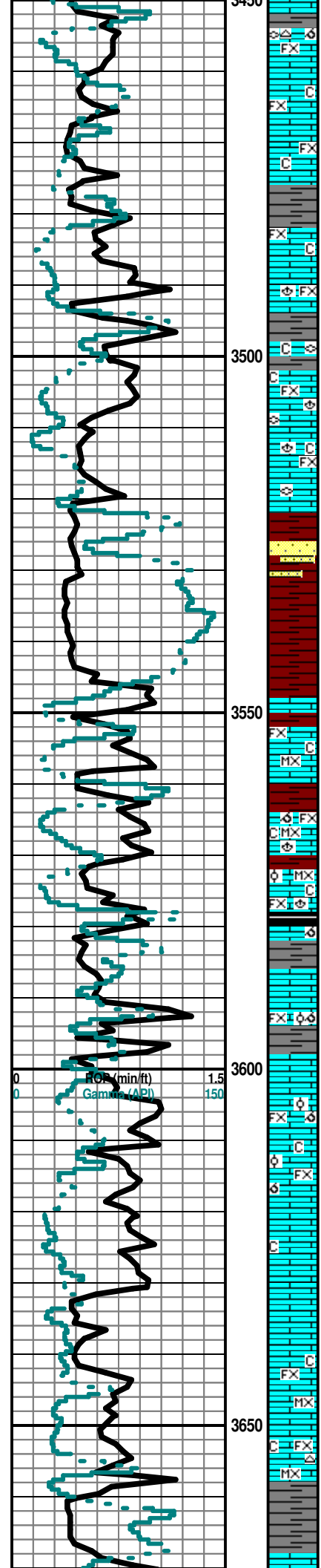
Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Cht Wht-Clear Transp-Op
Shp Vit Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn
No Flor NS

FALL CITY 3425' (- 593)

ROP (min/ft) 1.5
Gamma (API) 150

TG C1-C5 150





Ls Wht-Crm-Gry FxIn Grad Pin-Pt Por Fair-Med IxIn Por Grad Poor OOM Por
 Poor Dissolu Poor Leaching Cht Gry Op Shp Vit Fos (Fuss) Chalky Sh
 Char-Gry Fissil No Odor No Stn No Flor NS

LS Crm-Gry FxIn IxIn Por Micritic Dsn No Vis Por Barren Sh Grn- Red Soft
 Fissil Fos (Brach, Fuss) Chalk No Odor No Flor No Stn Fair ? Min Flor (Lt
 Grn) NS

ROOT SHALE 3522' (- 690)

Sh Grn-Red Soft Fissil LS Crm-Gry FxIn IxIn Por Micritic Dsn No Vis Por
 Barren Fos (Brach, Fuss) Chalk No Odor No Flor No Stn No Flor NS

STOTLER 3548' (- 716)

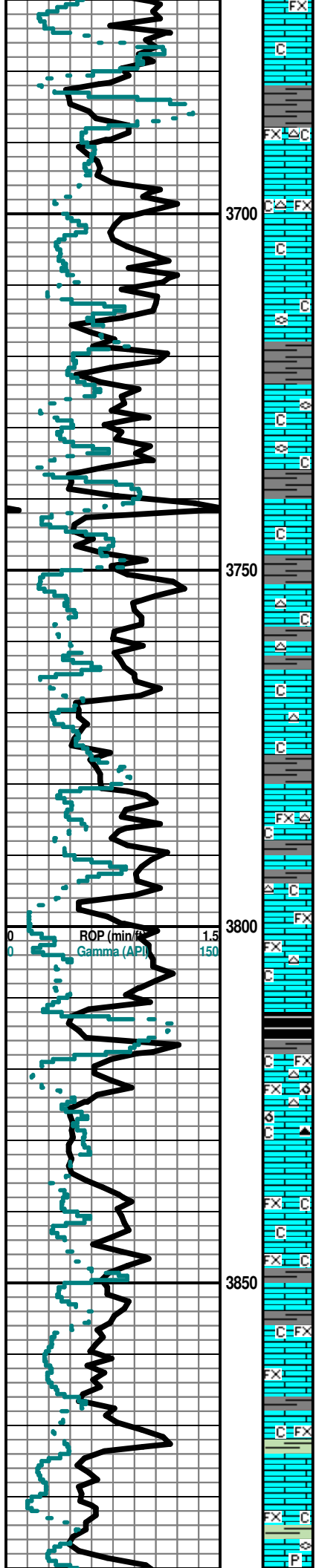
LS Wht-Crm-Gry MicroIxIn-FxIn IxIn Por Micritic Dsn Barren Grad Tr/Fair
 OOM Por w/OOL (Small) in pl Fair InterOOM/OOL Por Fair Leaching Fair
 Disolu Sh Grn-Red Soft Fos (Brach) Chalk No Odor No Flor No Stn NS

TARKIO 3598' (- 766)

Ls Wht-Crm-Grn/Crm FxIn Poor IxIn Por Grad Dns Micrite Sh Grn- Red-Char
 Soft Fissil Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

Ls Gry-Crm-Wht MicroIxIn-FxIn IxIn Por Micritic Dsn Barren Chalk Cht Gry
 Op-Shp-Vit Sh Gry-Char-Brn Soft No Odor No Flor No Stn NS

TG C1-C5 150



BERN 3688' (- 856)

Ls Crm-Gry-Wht Fxln Tr/Poor lxln Por Micritic Dns Barren Chalk
 Cht-Wht-Tan Op Shp Vit Sh Gry-Char No Odor No Flor No Stn NS

3700

Ls Wht-Crm Fxln Tr/Poor lxln Por Micritic Dsn Barren Chalk Wht Fos (Fuss)
 Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

3750

Ls Wht-Crm-Gry Fxln Poor lxln Por Micritic Dsn Barren Chalk Cht Wht Op
 Shp Vit Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS

3800

ROP (min/hr) 1.5
 Gamma (API) 150

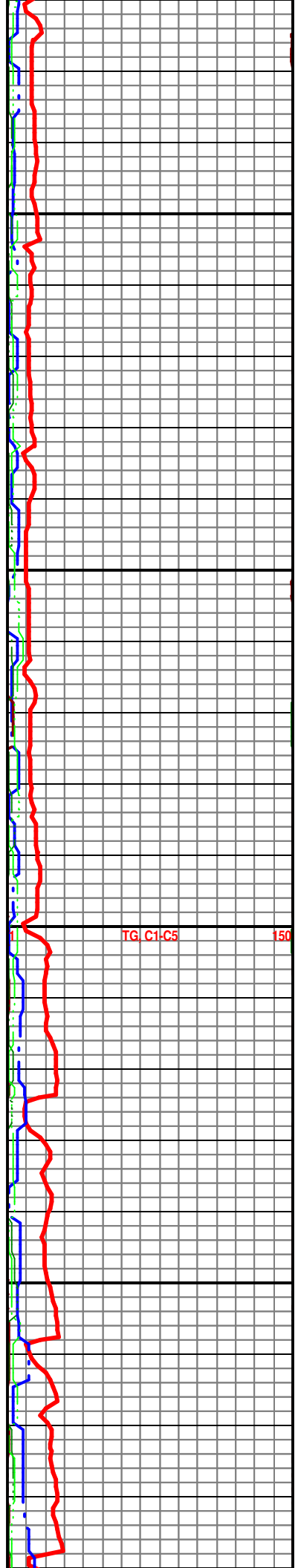
TG C1-C5 150

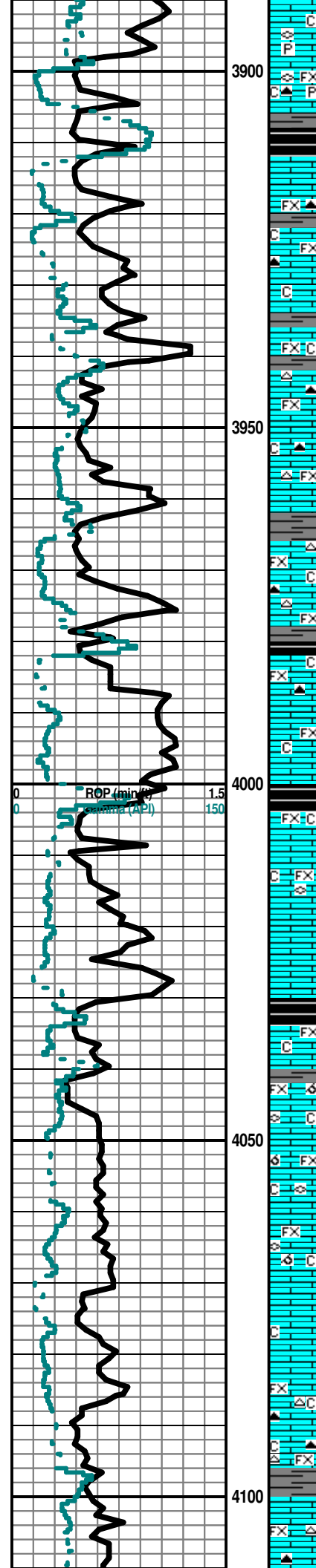
TOPEKA 3818' (- 986)

Ls Wht-Crm Fxln Poor lxln Por Micritic Dsn Barren Grad Poor Pin-Pt OOM
 Por Barren Chalk Cht Wht=Drk Gry Op Shp Vit Sh Blk Carb-Char-Grn Fissil
 Soft No Odor No Flor No Stn NS

3850

Ls Wht-Crm Fxln Poor lxln Por Micritic Dsn Barren Chalk Sh Char Fissil No
 Odor No Flor No Stn NS





Ls Wht-Crm FxIn Poor IxIn Por Micritic (w/Pyr Inklus)Chalk Cht Drk-Gry
 Transl-Op Shp Vit Fos (Fuss) Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor IxIn Por Micritic Dsn Barren Chalk Cht Tan- Drk Gry
 Transl-Op Shp Vit Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Micritic Dsn Barren Chalk Cht Tan- Drk Gry
 Transl-Op Shp Vit Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS

Sh Char-Drk Gry Carb- Soft-Fissil Ls Wht-Crm-Gry FxIn Dns Micrite Grad
 Poor Pin-Pt IxIn Por Chalk Fos (Fuss) No Odor No Flor No Stn NS

LeCOMPTON 4034' (- 1202)

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn & OOM Por Chalk
 Fos (Fuss) Sh Gry-Char Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Cht Wht- Gry - Drk
 Blk Op Shp Vit Chalk Fos (Fuss) Sh Blk Carb-Gry-Char Soft-Fissil No Odor
 No Flor No Stn NS

TG C1-C5 150

PLATTSMOUTH 4132' (- 1300)

Ls Wht-Crm Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Cht Wht- Gry - Drk Blk Op Shp Vit Chalk Abd Fos (Fuss) Sh Blk Carb-Gry- Char Soft-Fissil No Odor No Flor No Stn NS

Vis= 53;
WT= 9.25;
PV= 15;
YP= 17;
WL= 12.4;
Cake= 1;
Chl= 3400;
Cal = 20;
Sol= 6.3%
LCM= 1#;
DMC=\$5,827.45;
CMC=\$9,961.05.

HEEBNER 4162 (- 1330)

Sh Blk Carb (w/SSG)-Gry-Char-Lt Grn Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Chalk No Odor No Flor No Stn GSG in Blk Sh

SH GAS KICK = 51 UNITS.

TORONTO 4184' (- 1352)

DOUGLAS 4198' (- 1366)

Sh Blk Carb--Drab Grn-Aqua-Gry Soft-Fissil Ls Wht-Crm Fxln Dns Micrite Poor Ixln Por Chalk Cht Wht Transl-Op Shp Vit Sh Blk Carb- Char-Grn Fissil No Odor No Stn No Flor NS

SH GAS KICK = 42 UNITS.

TG C1-C5 150

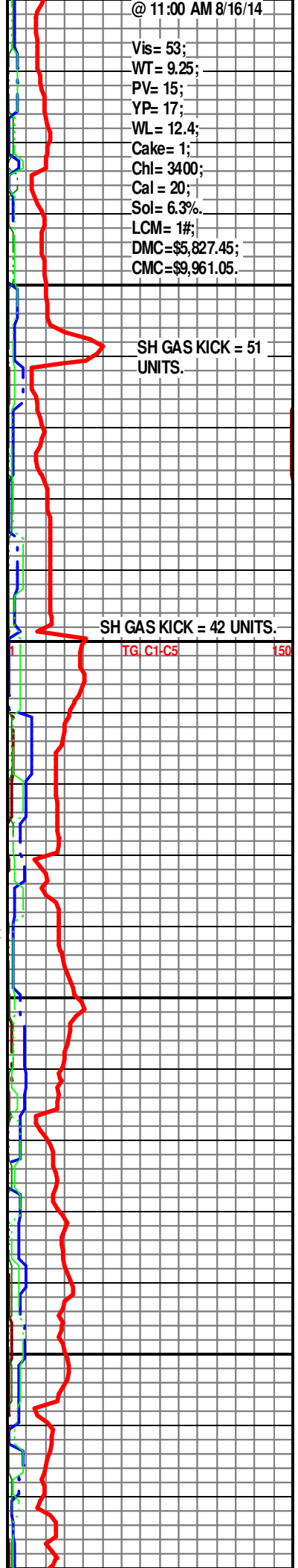
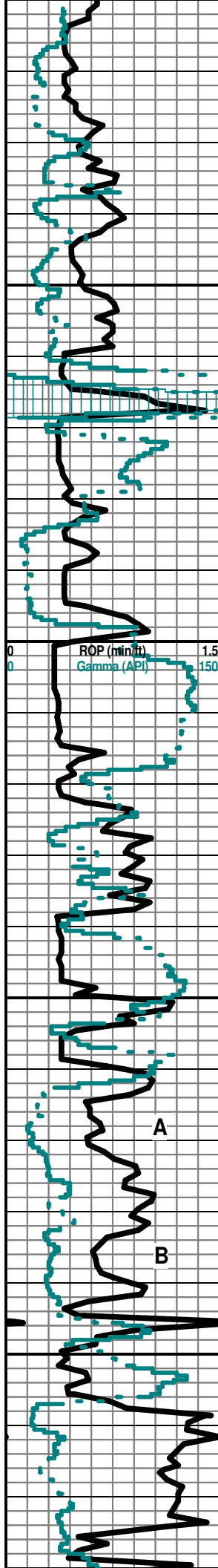
Sh Char-Gry Fissil Ls Crm-Gry Fxln Dns Micrite Poor Ixln Por Chalk Cht Wht Transl-Op Shp Vit No Odor No Stn No Flor NS

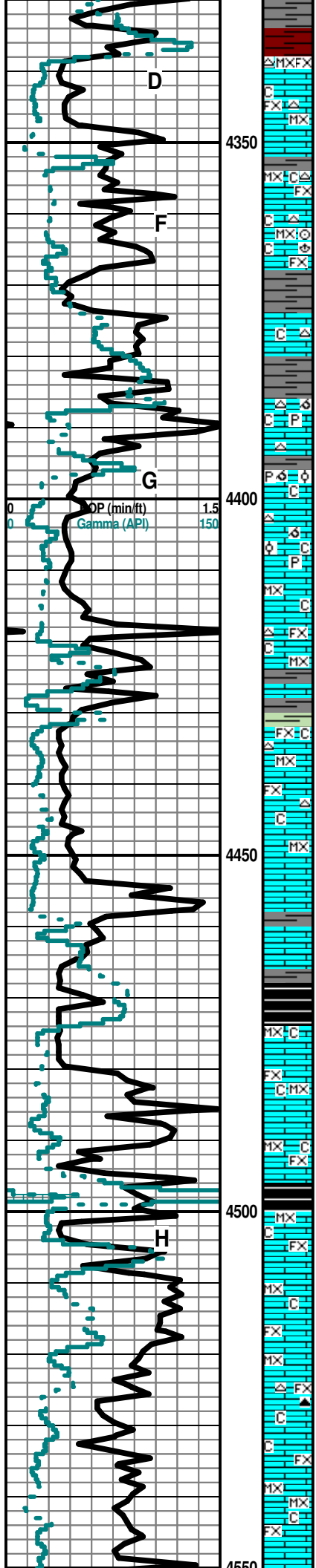
IATAN (BROWN LIME) 4254' (- 1422)

LANSING 4262' (- 1430)

Ls Crm-Gry Microxln-Fxln Poor Ixln Pin-Pt Ixln Por Grad Micritic Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS

Sh Char-Gry (w/Pyr Inklus) Fissil Ls Crm-Gry Microxln-Fxln Poor Ixln Por Grad Micritic Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS





Ls Wht-Crm-Gry MicroIn-FxIn Poor IxIn Por Micritic Cht Wht-Gry Banded
Op Shp Vit Chalk Fos (Brach, Crin) Sh Blk Carb-Char-Gry Fissil No Odor No
Stn ? Sli Min Flor NS

Ls Wht-Crm-Tan OOM Por w/OOL (Small-Med Ooids) Poor Inter-OOM/OOL
Por Poor Develop Poor Leaching (w/Pyr Includ) Cht Wht Op Shp Vit Sh
Char-Gry Fissil No Odor No Flor No Stn NS

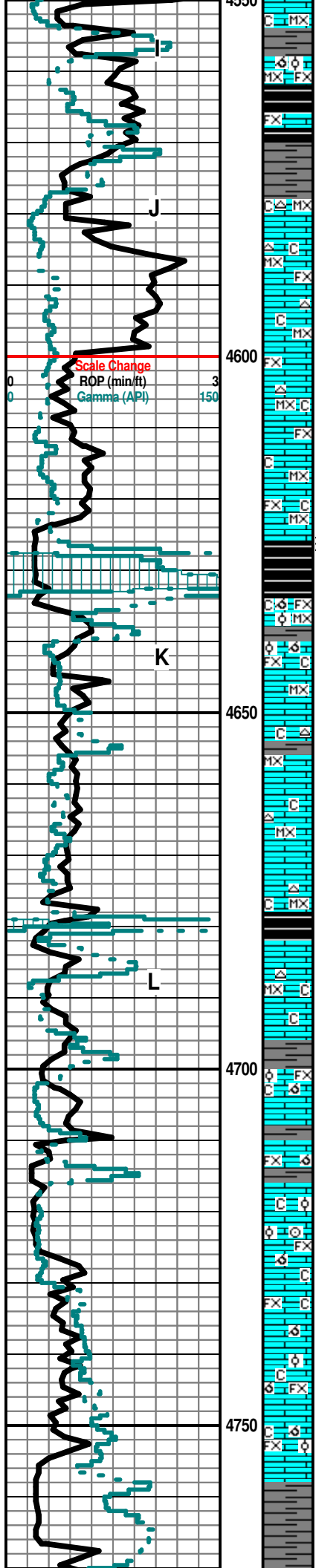
Ls Gry-Crm MicroIn-FxIn Poor IxIn Por Micrite Grad Poor-Fair OOM Por
(w/Small OOids in pl) Cht Wht-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry
Fissil No Odor No Stn Tr ? Min Flor NS

MUNCIE CREEK 4464' (- 1632)

Ls Tan-Crm MicroIn-FxIn Good Vug OOM Por Grad Micrite Baren Poor IxIn
Por Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Gry-Crm MicroIn-FxIn Poor IxIn Por Grad Micritic Cht Gry-Drk Gry Op
Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

TG C1-C5 150



Chalk Wht Abd Ls Crm-Gry Microxln-Fxln Dns Micrite Poor lxln Por Grad
 Poor OOM Por Poor InterOOM Poor Leaching Poor Develop Cht Lt Gry Op
 Shp Vit Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln-Fxln Dns Micrite Cht Lt Gry Op Shp Vit Chalk Sh
 Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

STARK SHALE 4627' (-1795)

KANSAS CITY "SWOPE" (K) 4632' (-1800)

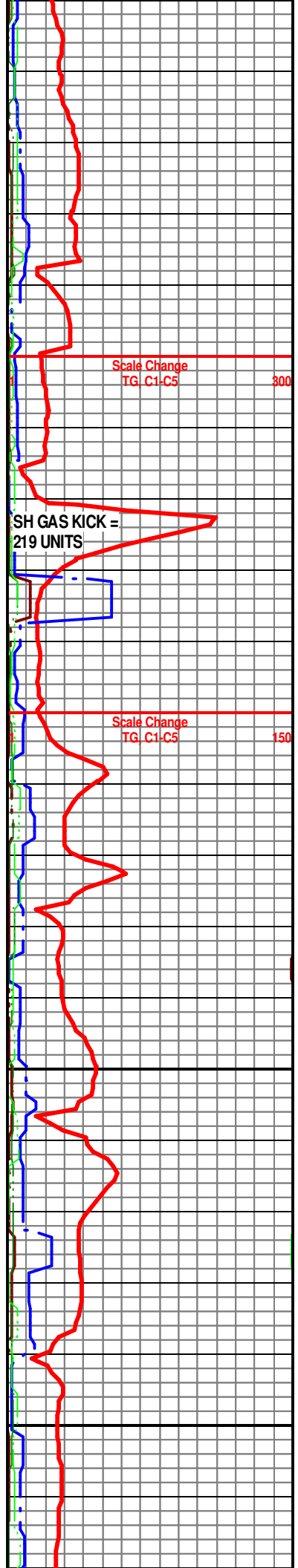
Ls Crm-Tan Microxln-Fxln Dns Micrite Grad (Tr 1 Pc) Good Vug OOM Por
 Med-Good OOM Por (Poor InterOOM Por) Good Leaching Good Develop
 Chalk Dec Sh Char-Gry (Tr Only) Fissil No Odor No Stn Tr ? Min Flor NS

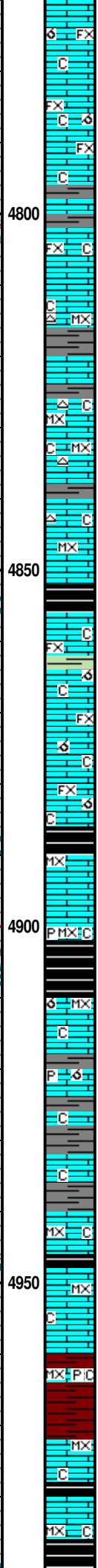
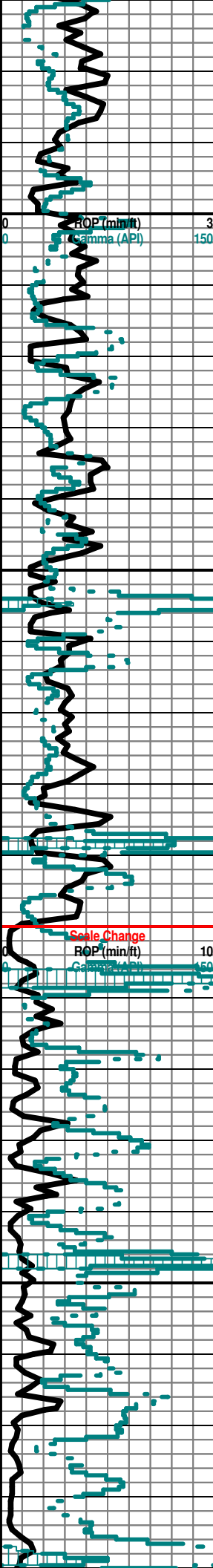
HUSHPUCKNEY 4678' (-1846)

Ls Crm-Gry Microxln Dns Micrite Cht Wht Gry Op Shp Vit Chalk Sh
 Char-Gry-Aqua Fissil No Odor No Stn Tr ? Min Flor NS

Ls Wht-Tan-Crm-Gry Fxln Dns Micritic Grad Good OOM Por (w/Lg Vug
 Leaching w/Med-Lg OOids in pl) Good Dissolu Fos (Crin) Sh
 Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

MARMATON 4770' (-1938)





Sh Char-Gry Fissil Ls Wht-Tan-Crm-Gry FxIn Dns Micritic Grad Good OOM Por (w/Lg Vug Leaching w/Med-Lg OOids in pl) Good Dissolu Chalk No Odor No Flor No Stn NS

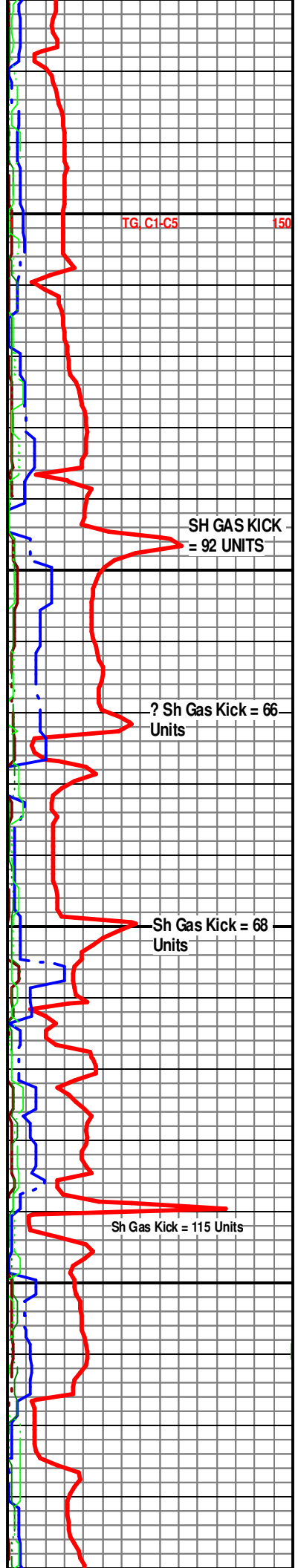
Ls Crm-Wht-Gry FxIn Poor IxIn Por Micritic Dns Barren Chalk Inc Sh Gry/Grn Fissil No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Cht Gry Translu-Op Shp Vit Chalk Sh Char-Gry-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns Barren Grad Poor Pin-Pt IxIn Por Grad Poor OOM Por No-Poor Leaching Chalk Abd Cht Lt Gry Op Shp Vit Sh Blk Carb Fissil No Odor No Flor No Stn NS

Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Wht-Tan (w/Pyr Inclus) MicroxIn Dns Micrite Grad Fair-Med OOM Por Good InterOOM Por Barren Chalk No Odor No Stn No Flor NS

Sh Maroon-Red-Char (w/Pyr Inclus)-Gry-Blk Carb-Aqua Fissil Ls Crm-Wht-Tan MicroxIn Dns Micrite Barren Chalk No Odor No Stn No Flor NS



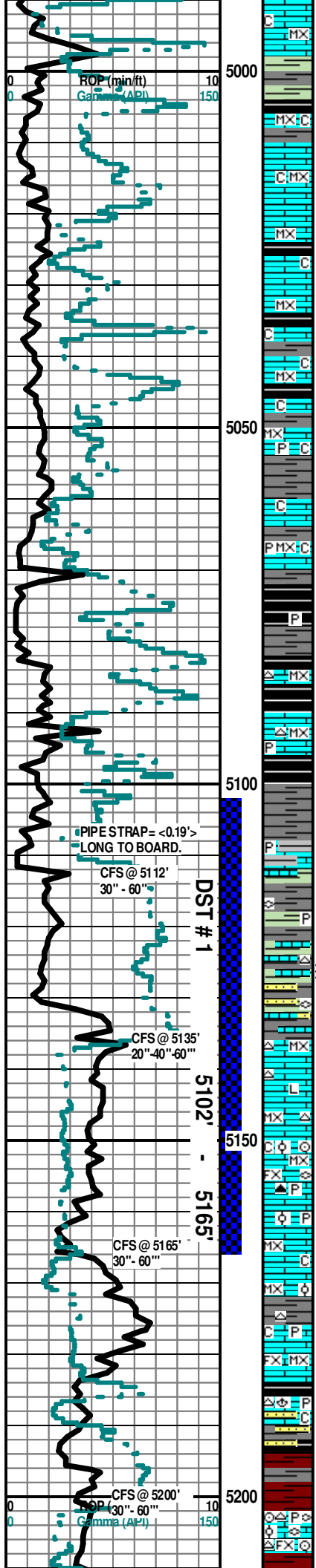
PAWNEE 4856' (- 2024)

LABETTE 4886' (- 2054)
FORT SCOTT 4890' (- 2058)

CHEROKEE 4902' (- 2070)

SECOND CHEROKEE SHALE 4946' (- 2114)

THIRD CHEROKEE SHALE 4986' (- 2154)



Sh Char (w/Pyr Includ)-Gry-Blk Carb-Aqua-Maroon-Red Fissil Ls
Crm-Wht-Tan Microxln Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Wht-Tan Microxln Dns Micrite
Barren Chalk No Odor No Stn No Flor NS

30" CFS @ 5112' Sh Char-Gry-Blk Carb (w/Pyr Includ)-Aqua Fissil Ls
Tan-Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit Chalk No
Odor No Stn No Flor NS

10' SAMPLE EXAMINATION BEGIN AT 5112'

MORROW SHALE 5096' (- 2264)

60" CFS @ 5112' Sh Char-Gry-Blk Carb (w/Pyr Includ)-Aqua Fissil Ls
Tan-Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit No Odor No
Stn No Flor NS

20" CFS @ 5135' Sh Char Carb-Gry Carb-Blk Carb)-Aqua Fissil V Abd Ls
Tan-Crm-Wht-Brn Microxln Dns Micrite Fos (Fuss) Pyr Mass No Odor No Stn
No Flor NS

40" CFS @ 5135' Sh Char Carb-Gry Carb-Blk Carb)-Aqua Fissil V Abd Ls Tan-Crm-Wht-Brn
Microxln Dns Micrite Cht Tan Translu Shp Vit Qtz Ss Wht FGrn Poor Sort (? SG & SSFO (1
Droplet w/Broken-1 Pc)) No Odor No Stn No Flor ? SG & SSFO

60" CFS @ 5135' Sh Char Carb-Gry Carb-Blk Carb)-Aqua Fissil V Abd Ls Tan-Crm-Wht-Brn
Microxln Dns Micrite Cht Tan Translu Shp Vit No Odor No Flor No Stn NS

Sh Char Carb-Gry Carb-Blk Carb)-Aqua-Blue Fissil V Abd Ls Tan-
Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit No Odor No Flor
No Stn NS

30" CFS @ 5165' Ls Wht-Crm-Tan Microxln-Fxl'n Dns Micrite (w/Pyr Includ) Grad Poor
Ixln/Igran "Sandy OOL Por (w/V Small-Med Pelletal OOids in pl)" Cht Wht-Drk Gy Op Shp Vit
Chalk Fos (Crin, Fuss) Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

60" CFS @ 5165' Ls Wht-Crm-Tan-Gry Microxln-Fxl'n Dns Mostly Micrite (w/Pyr Includ) Poor
Igran "Sandy OOL Por (w/V Small OOids in pl) Dec" Cht Gry Op Shp Vit Chalk Pyr Mass Sh
Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan Microxln-Fxl'n Dns Micrite Grad Poor Ixln (w/Poor-Fair Pelletal OOids & Fos
(Crin, Fuss) Includ in pl)" Cht Wht-Gry Op Shp Vit Chalk Pyr Mass Sh Char-Gry Soft-Fissil No
Odor No Flor No Stn NS

Ls Crm-Gry-Tan-Wht Microxln-Fxl'n Dns Mostly Micrite Grad Poor Ixln Por Cht Gry Op Shp Vit
Chalk Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5200' Ls Crm-Tan-Wht-Aqua Microxln-Fxl'n Dns Mostly Micrite Grad Poor-Fair Ixln
Por Cht Wht Op Shp Vit Qtz Ss Aqua/Grn VFGn Well-Sort Fos (Brach) Chalk Pyr Mass Sh Blk
Carb-Char-Gry Soft-Fissil No Odor No Flor No Stn NS

60" CFS @ 5200' Ls Crm-Tan-Wht-Aqua Microxln-Fxl'n Dns Mostly Micrite Grad Poor-Fair Ixln
Por Cht Wht Op Shp Vit Qtz Ss Aqua/Grn VFGn Well-Sort Fos (Crin, Fuss) Chalk Pyr Mass Sh
Blk Carb-Char-Gry-Maroon Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5220' Sh Varicolored Red-Maroon-Blk Carb-Char-Aqua (Wash Red) Fissil Ls
Wht-Crm Microxln Dns Micrite Grad Poor Pin-Pt Ixln & Igran & InterOOL Por (w/V Small OOids
& Fos Includ) Barren Cht Tan-Gry Translu Op Shp Vit Pry Mass No Odor No Stn No Flor NS

60" CFS @ 5220' Sh Varicolored Red-Maroon-Blk Carb-Char-Aqua (Wash Red) Fissil Ls
Wht-Crm Microxln Dns Micrite Grad Poor Pin-Pt Ixln & Igran & InterOOL Por (w/V Small OOids
& Fos Includ) Barren Cht Tan-Gry Translu Op Shp Vit Pry Mass No Odor No Stn No Flor NS

TG C1-C5 150

Sh Gas Kick = 43 Units

Mudco Ck @ 5112'
@ 11:50 AM 8/17/14

Vis= 48;
WT= 9.1;
PV= 14;
YP= 15;
WL= 9.2;
Cake= 1;
Chl= 1900;
Cal= 20;
Sol= 5.6%
LCM= 2#;
DMC=\$3,318.35;
CMC=\$13,279.40.

Mudco Ck @ 5165'
@ 12:25 M 8/18/14

Vis= 57;
WT= 9.1;
PV= 17;
YP= 19;
WL= 9.2;
Cake= 1;
Chl= 3,000;
Cal= 20;
Sol= 5.6%
LCM= 2#;
DMC=\$ 849.60;
CMC=\$14,129.00.

ATOKA 5070' (- 2238)

@ 5112' TOH To Replace PDC
With Button Bit.

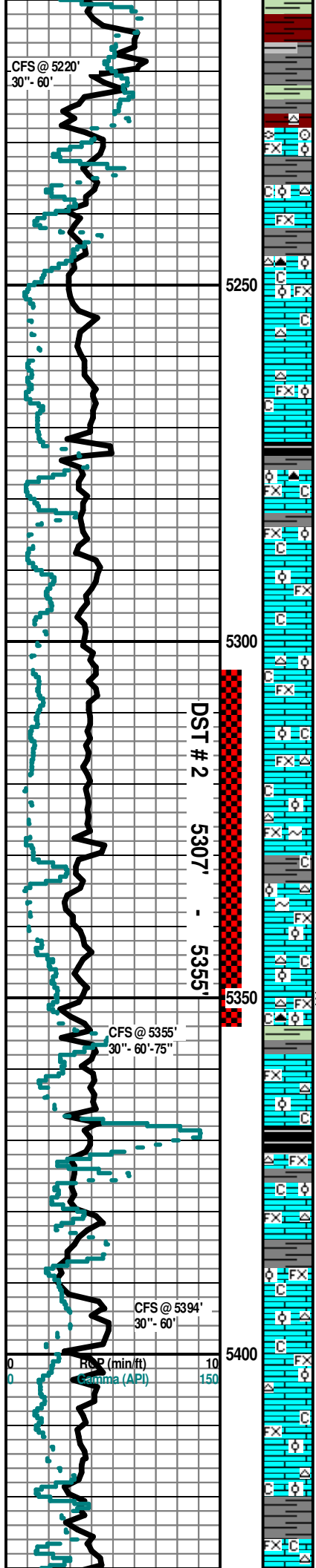
~DST # 1~
Interval: 5102'-5165'.
Times: 5"-60"-30"-90";
Blow: IF= Weak
Surface Blow. No
Blow Back. FF= No
Blow (Flushed Tool @
10" Good Surge &
Died). No Blowback.
Recovery: 10' M
(100% M).

Pressures:
IH = 2438#;
FH = 2405#;
IF = 8-11#;
FF = 12-22#;
ISIP = 60#;
FSIP = 35#;
Temp= 121
degrees F..

SH GAS KICK = 51 UNITS.

SH GAS KICK =
60 UNITS.

Scale Change
TG C1-C5 75



Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Cht Wht-Gry (w/Fos (Crin & OOL (Tr Drk Gry-Blk Gillsontic Includ) Chalky Sh Varicolored Soft Fissil No Odor No Stn No Flor NS

MISSISSIPPIAN "STE. GEN" 5228' (- 2396)

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry FxIn Dns Micrite Cht Gry Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Cht Peach-Org Op Shp Vit Chalky Sh AA-Red-Maroon Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Chalky Cht Wht-Peach Op Shp Vit Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry FxIn Dns Micrite Cht Lt-DrkTan Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

MISS. ST. LOUIS 5326' (- 2494)

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Red-Org Speck Op Shp Vit Chalky Sh Varicolored-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Chalky Sh AA-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Chalky Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Tan Op Shp Vit Chalky Sh AA-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Gry Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Gry Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

MISS. "ST. LOUIS LOWER B Ø' 5334' (- 2502)

Ls Wht Fair-Med OOL Por (w/Small-Med OOids in pl) Friable Fair InterOOL Por (w/Tr Drk Brn-Blk Stn on Edges of InterOOL Por) VSSG & VSSO (w/VSSFO When Broken in Wtr Under Heat) Tr Glacu Includ Cht Wht-Peach Op Shp Vit Chalky V Abd Poor-Fair Odor No Flor SSG & SSO

Ls Wht Med OOL Por (w/Med OOids in pl) Friable Fair-Med InterOOL Por (w/Tr Drk Brn-Blk Stn in Pin-Pt InterOOL Por) SSG & SSO (w/SSFO When Broken in Wtr Under Heat) Tr Glacu Includ Cht Wht-Peach Op Shp Vit Chalky V Abd Fair Odor No Flor SSG & SSO

30" CFS @ 5355' Ls Wht-Crm FxIn Poor OOL Por AA (w/Dec VSSG & VSSO AA) Grad Dns Micrite Cht Wht-Peach-Gry (w/ Blk Includ) Abd Translu-Op Shp Vit Chalk Dec ? Faint Odor No Flor Sli ? Tr SG & SO AA Mostly NS

60" & 75" CFS @ 5355' Ls Wht-Crm FxIn Poor OOL Por AA (w/1 Pc w/Good Lg OOids & FSG & FSFO When Broken in Wtr Under Heat) Grad Dns Micrite Cht Wht-Peach-Org Gry (w/ Blk Includ) Translu-Op Shp Vit Chalk No Odor No Flor Sli ? SG & SO

Ls Wht-Crm FxIn Poor OOL Por (w/Small-Med-Lg OOids in pl) Grad Dns Micrite Cht Wht-Gry (w/Blk Includ) Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor OOL Por (w/Small-Med-Lg OOids in pl) Grad Dns Micrite Cht Wht-Gry (w/Blk Includ) Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

30" CFS @ 5394' Ls Wht-Crm FxIn Poor OOL Por (w/Small-Med OOids) Grad Dns Micrite Cht Wht-Gry (w/ Blk Includ) Abd Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

60" CFS @ 5394' Ls Wht-Crm FxIn Med OOL Por (w/Small-Med-Lg OOids in pl) Barren Cht Wht-Gry (w/Blk Includ) Translu-Op Shp Vit Chalky Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Med OOL Por (w/Small-Med-Lg OOids in pl) Barren Cht Wht-Gry (w/Blk Includ) Translu-Op Shp Vit Chalky Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor OOL Por (w/Small-Med OOids) Grad Dns Micrite Cht Wht-Gry (w/ Blk Includ) Abd Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Med OOL Por (w/Small-Med OOids in pl) Barren Cht Wht-Gry (w/Blk Includ) Translu-Op Shp Vit Chalky Calcite Xls (Tr) Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

~DST # 2~

Interval: 5307'-5355'
Times: 5"-60"-30"-90";
Blow: IF= Weak Surface Blow. No Blow Back.
FF= No Blow (Flushed Tool @ 10" Good Surge & Died). No Blowback.
Recovery: 5' M (100% M).

Pressures:
IH = 2576#;
FH = 2554#;
IF = 8-10#;
FF = 10-17#;
ISIP = 1439#;
FSIP = 1270#;
Temp = 123 degrees F..

Mudco Ck @ 5355' @ 12:50 PM 8/19/14

Vis= 72;
WT= 9.2;
PV= 20;
YP= 24;
WL= 10.4;
Cake= 1;
ChI= 3,700;
Cal = 20;
Sol= 6.2%.
LCM= 2#;
DMC=\$1,254.80;
CMC=\$15,383.80.

CHANGEOUT EXTRACTOR FILTER @ 5343' & GAS TEST. 127-UNITS OBSERVED ON TEST.

Gas Kick = 29 Units

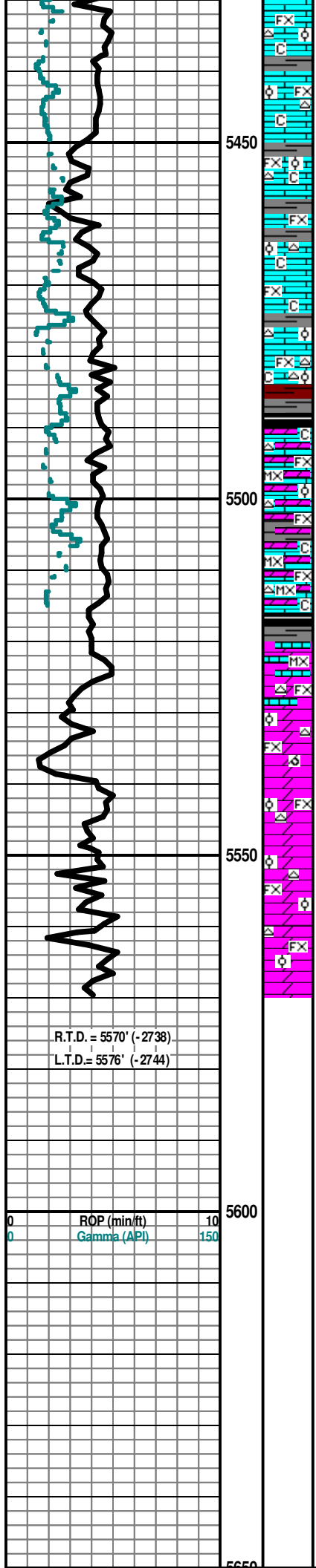
Gas Kick = 28 Units

Gas Kick = 30 Units

Gas Kick = 26 Units

TG C1-C5 75

Mudco Ck @ 5466' @ 11:00 AM 8/20/14



Ls Wht-Crm Fxln Med OOL Por (w/Smal OOids (w/Chlorite Includ) in pl) Barren Grad Poor Dns Micrite Cht Wht-Tan Op Shp Vit Chalky Sh
 Maroon-Aqua-Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Med OOL Por (w/Smal OOids in pl) Barren Grad Poor Dns
 Micrite Cht Wht-Gry (w/OOL inclus)-Peach Translu- Op Shp Vit Chalky Sh
 Blk Carb-Maroon- Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Med OOL Por (w/V Smal OOids in pl) Barren Grad Poor
 Dns Micrite Cht Wht-Gry (w/OOL inclus) Translu- Op Shp Vit Chalky Sh Blk
 Carb-Maroon- Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Fair OOL Por (w/V Smal OOids in pl) Barren Grad Poor
 Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Maroon-
 Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Fair OOL Por (w/V Smal OOids in pl) Barren Grad Poor
 Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Maroon-
 Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Poor-Fair OOL Por (w/V Smal OOids in pl) Barren Grad
 Poor Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk
 Carb-Maroon- Fissil No Odor No Flor No Stn NS

SALEM (SPERGEN) 5490' (- 2658)

Ls/Dolo Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht
 Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls/Dolo Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht
 Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls/Dolo Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht
 Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Dolo/Ls Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht
 Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Dolo Crm-Drk Tan Fxln Poor InterOOL Por (w/Small-Med OOids in pl) Poor
 Dissolution Fair Develop Grad Poor OOm Por Poor InterOOM (w.Med Vug
 Por) Cht Wht-Tan-Gry Op Shp Vit Sh Char-Gry- Aqua Fissil No Odor No Stn
 No Flor NS

Dolo Crm-Lt Tan Fxln Poor InterOOL Por (w/Small-Med OOids in pl) Poor
 Dissolution Fair Develop Cht Wht-Tan Op Shp Vit Sh Char- Gry-Aqua Fissil
 No Odor No Stn No Flor NS

30" CFS @ 5570' Dolo Crm-Lt Tan-Gry Fxln Poor InterOOL Por (w/Med
 OOids in pl) Poor Dissolution Fair Develop Cht Wht-Tan Op Shp Vit Sh
 Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

60" CFS @ 5570' Dolo Crm-Lt Tan-Gry Fxln Poor InterOOL Por (w/Med
 OOids in pl) Poor Dissolution Fair Develop Cht Wht-Tan Op Shp Vit Sh
 char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Vis= 48;
 WT= 9.25;
 PV= 15;
 YP = 16;
 WL= 10.4;
 Cake= 1;
 Chl= 3,000;
 Cal = 20;
 Sol= 6.3%.
 LCM= 2#;
 DMC=\$1,373.35;
 CMC=\$16,757.15.

R.T.D. = 5570' (-2738)
 L.T.D. = 5576' (-2744)

ELECTRIC LOGS RUN BY HALLIBURTON LOGGING: DUAL INDUCTION;
 COMPENSATED DENSITY-NEURTON; MICROLOG, SONIC & CASED HOLE
 GAMMA RAY-NEUTRON.

Geologist Left Location at: 11:00 AM 8/21/2014

ROP (min/ft) 10
 Gamma (API) 150

TG, C1-C5 75