



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

Well Name: GOOSSEN # 2-14
Location: SE-NW-SE-SW 1/4 of SEC. 14 - 28 S. - 30 W.
License Number: A.P.I. #15-069-20,469-00-00
Spud Date: 03/17/2014
Surface Coordinates: 790' FSL & 1720' FWL

Region: GRAY CO., KS.
Drilling Completed:

Bottom Hole Coordinates:
Ground Elevation (ft): 2800' **K.B. Elevation (ft):** 2811'
Logged Interval (ft): SURFACE To: 5475' **Total Depth (ft):** 5475'
Formation: MISSISSIPPIAN "SALEM"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2911'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Falcon Exploration, Inc.; KCC LIC. NO. # 5316
Address: 125 North Market Street, Ste. #1252
Wichita, Kansas 67202

GEOLOGIST

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

CASING & DEVIATION SURVEY'S

Surface Casing: Spud at 10:30 pm on 03/17/14. Drilled 12-1/4" to 1890'. Ran 43 joints of new 24#, 8-5/8" casing. Tallied 1824'. Set at 1842' 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 3:00 pm on 03/19/14 Basic Energy Svcs Cementing ticket #9767. Centralozers (5) 1,3,6,32,38. Baskets (2) 824' & 1830'. Cement fell 100' below GL. Filled annulus with 100 sks "Dry" Class C Cement.

Deviation Survey's: @ 1890' = 3/4 degree; @ 3540' = 3/4 degree; @ 4235' = 3/4 degree; @ 5270' = 1 1/4 degree;

DSTs

~~DST # 1~~ Interval: 3452'-3540'. Times: 5"-90"-120"-180"; Blow: IF=BOB/0.45"& GTS/4.5". No Gauge. FF=GTS/Instant (See Gauge Report Below). Recovery:3040' GIP: 380' TF: 135' M; & 245' SWCM (5% W & 95% M); Chl.=39,000 Ppm; PH=6.0; RW=0.25 @ 66 degrees F.. Pressures: IH=1613#; FH=1612#; IF=51-102#; FF=97-203#; ISIP=877#; FSIP=832#; Temp.=108 deg. F. FF Gas Gauge: @ 10"=288 Mcf; @ 20"=398 Mcf; @ 30"=449 Mcf; @ 40"=473 Mcf; @ 50"=487 Mcf; @ 60"=497 Mcf; @ 70"= 510 Mcf; @ 80"=522 Mcf; @ 90"=522 Mcf; @100"=522 Mcf;@ 110"=522 Mcf; @ 120"=522 Mcf.

~~DST # 2~~Interval: 3537'-3580'. Times: 5"-90"-40"-120"; Blow: IF=BOB/0.45". FF=GTS/Instant. GTS/7" (See Gauge Report Below). Recovery: 3375' GIP: 130' TF: 70' M; & 60' SWCM (7% W & 93% M); Chl.=25,000 Ppm; PH=7.0; RW=0.32 @ 66 degrees F.. Pressures: IH= 1660#; FH= 1657#; IF=23-30#; FF=29-60#; ISIP =929#; FSIP=916#; Temp.=103 deg. F. FF Gas Gauge: @ 10"=21.9 Mcf; @ 20"=19.9 Mcf; @ 30"=15.4 Mcf; @ 40"=12.5 Mcf.

~~DST # 3~~ Interval: 4094'-4142'. Times: 5"-90"-60"-120"; Blow: IF=BOB/0/0.30". FF=BOB/45"(w/GTS @ 20.0"). See Gauge Report Below. Recovery: 2815' GIP: 1245' TF: 165' M; 195' MCW (65% W & 35% M); & 885' VSMCW (95% W & 5% M); Chl.=112,000 Ppm; PH=6.0; RW=0.11 @ 67 degrees F.. Pressures: IH=1955#; FH=1941#; IF=96-140#; FF=176-600#; ISIP=1187#; FSIP=1172#; Temp.=112 degrees F. FF Gas Gauge: @ 20"=2.92 Mcf; @ 30"=8.56 Mcf; @ 40"=9.05 Mcf; @ 50"=8.39 Mcf; @ 60"=7.32 Mcf.

~~DST # 4~~Interval: 4187'-4235'.Times: 5"-90"-60"-120"; Blow: IF=BOB/Instant. GTS /4" TSTM. ISIP = No Blow Back. FF=BOB/Instant. FSIP=1/4" Blow Back. (See Gauge Report Below.) Recovery: 3895' GIP: 260' TF: 195' M; & 65' GSWCM (4% G., 4% W & 92% M). Chl.=27,000 Ppm; PH =7.5; RW=0.38. @ 56 degrees F.. Pressures: IH=2040#; FH =2037#; IF=52-94#; FF=106-211#; ISIP = 1211#; FSIP=1184#; Temp.=116 degrees F. FF Gas Gauge: @ 10"=487 Mcf; @ 20"=581 Mcf; @ 30"=639 Mcf; @ 40"=697 Mcf; @ 50"=732 Mcf; @ 60"=756 Mcf; @ 70"=767 Mcf.

~~DST # 5~~ Interval: 4407'-4429'.Times: 5"-90"-60"-122"; Blow: IF=Weak Surface/1.5". ISIP = No Blow Back. FF= Weak Surface/9.5". FSIP = No Blow Back. Recovery: 260' TF: 10' WCM/Tr.O & 125'MCW (71% W & 29% M); & 125' VSMCW (98% W & 2% M). Chl. 78,000 Ppm; PH=8.0; RW=0.12 @ degrees 64 F. Pressures: IH=2107#; FH=2106#; IF=7-20#; FF=24-126#; ISIP=1289#; FSIP=1282#; Temp=115 degrees F.

~~DST # 6~~Interval: 5198'-5270'. Times: 5"-90"-30"-90"; Blow: IF=Weak Surface/". ISIP = No Blow Back. FF= No Blow & Flushed Tool No Help.. FSIP = No Blow Back. Recovery: 18' M. Pressures: IH=2497#; FH=2497#; IF=8-8#; FF=8-12#; ISIP=154#; FSIP=80#; Temp.= 121 degrees F.

Comments

After review of all geologic samples as examined, combined with the fluid and pressures results from all drill stem tests taken and analysis from the electric logs run, it was determined by all parties that production casing should be run in order to further evaluate this well.

Respectfully submitted,

David P. Williams, P.G

ROCK TYPES

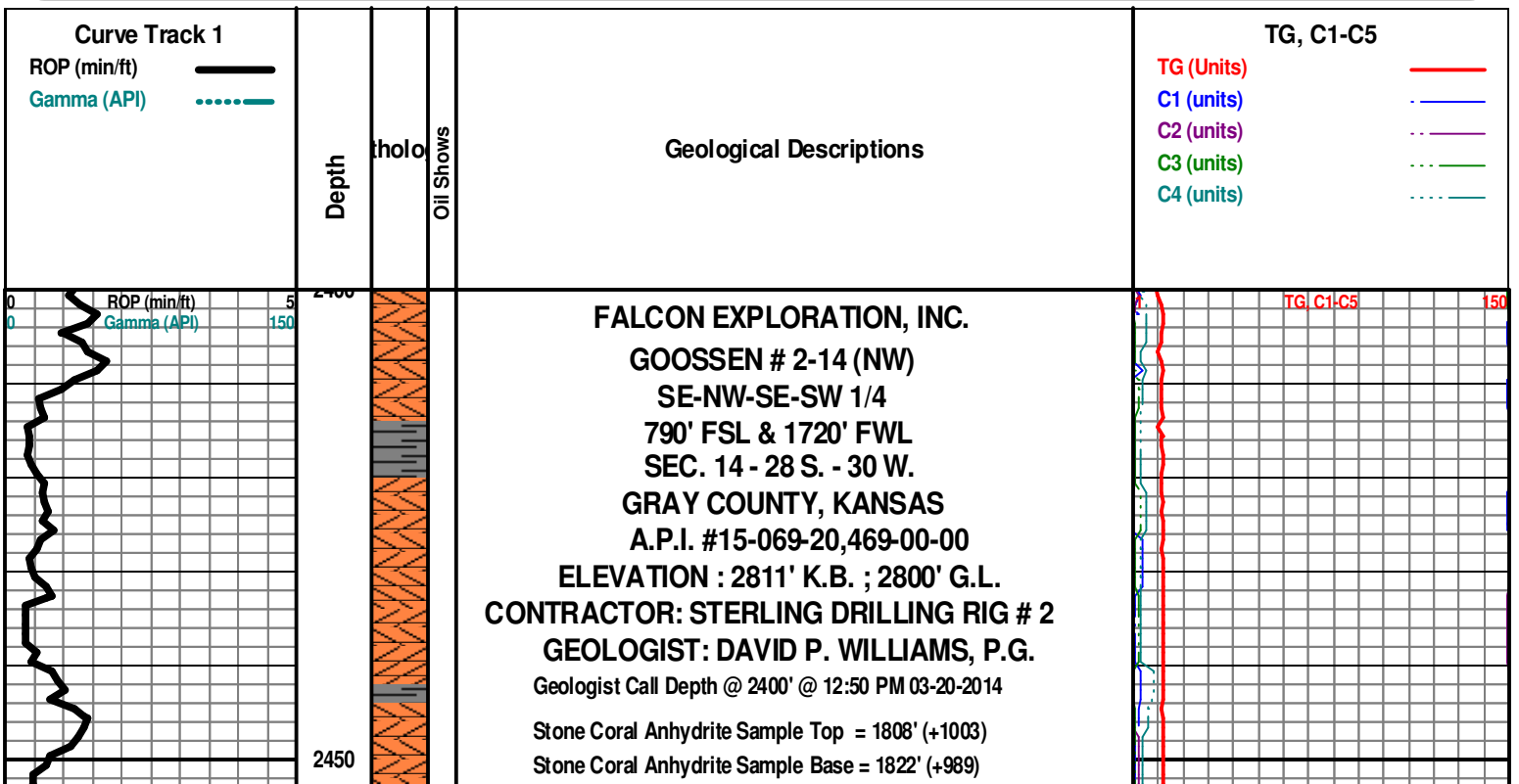
Anhy	Clyst	Gry shale	Mrlst	Shgy
Bent	Coal	Gyp	Red shale	Sltst
Brec	Congl	Igne	Salt	Ss
Carb sh	Dol	Lmst	Shale	Till
Cht	Grn sh	Meta	Shcol	

ACCESSORIES

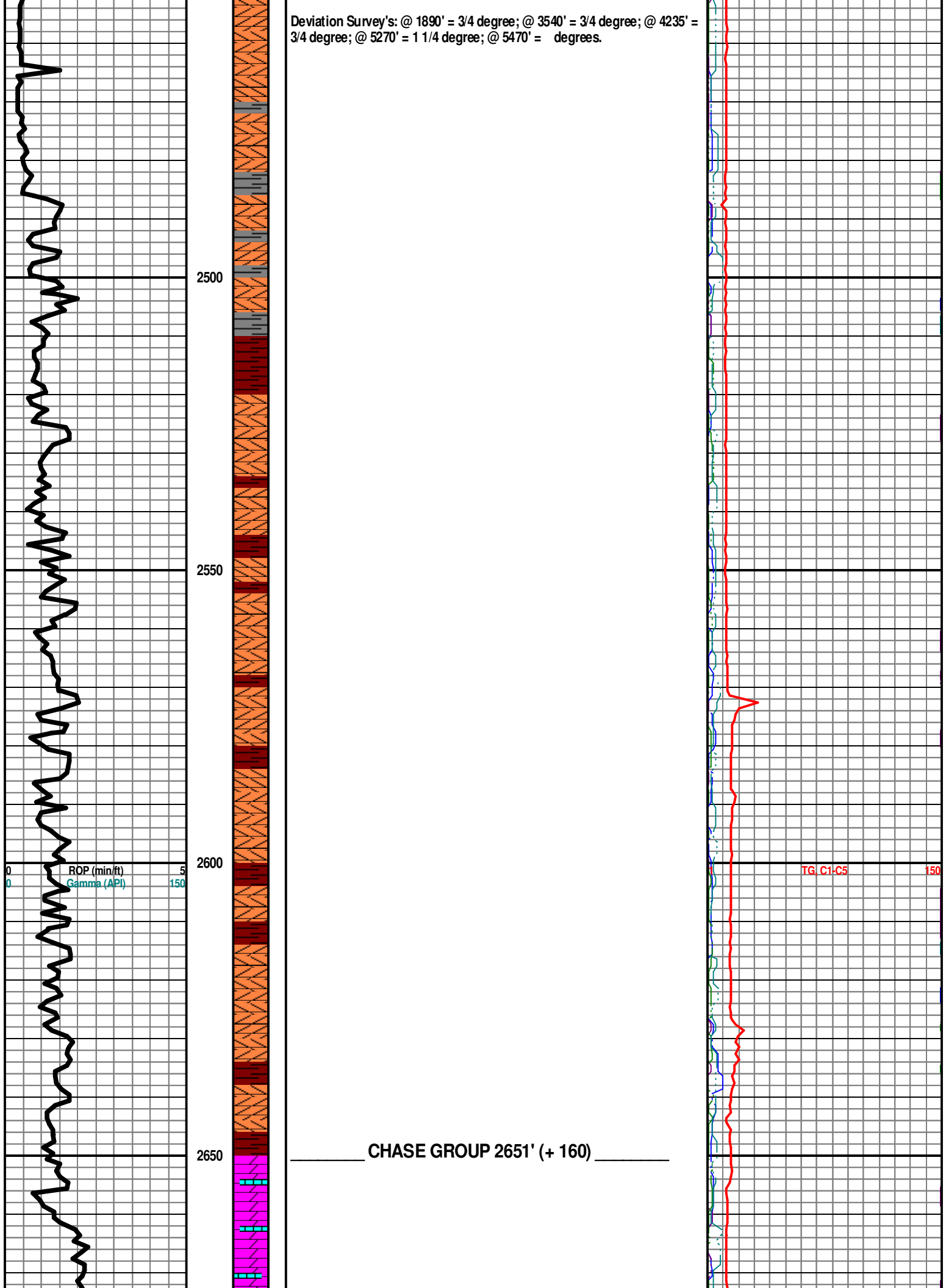
MINERAL	Hvymin	Belm	Pellet	TEXTURE
Anhy	Kaol	Bioclst	Pisolite	Boundst
Arggrn	Marl	Brach	Plant	Chalky
Arg	Minxl	Bryozoa	Strom	Cryxln
Bent	Nodule	Cephal	STRINGER	Earthy
Bit	Phos	Coral	Anhy	Finexln
Brecfrag	Pyr	Crin	Arg	Grainst
Calc	Salt	Echin	Bent	Lithogr
Carb	Sandy	Fish	Coal	Microxln
Chtdk	Silt	Foram	Dol	Mudst
Chtlt	Sil	Fossil	Gyp	Packst
Dol	Sulphur	Fuss	Ls	Wackest
Feldspar	FOSSIL	Gastro	Mrst	
Ferrpel	Algae	Oolite	Sltstrg	
Ferr	Amph	Oomold	Ssstrg	
Glau		Ostra		
Gyp		Pelec		

OTHER SYMBOLS

POROSITY	Vuggy	ROUNDING	Spotted	Core
Earthy	SORTING	Rounded	Gas show	EVENT
Fenest	Well	Subrnd	Ques	Rft
Fracture	Moderate	Subang	Dead	Sidewall
Inter	Poor	Angular	INTERVAL	
Moldic		OIL SHOW	Dst	
Organic		Even	Dst_alt	
Pinpoint				



Deviation Survey's: @ 1890' = 3/4 degree; @ 3540' = 3/4 degree; @ 4235' = 3/4 degree; @ 5270' = 1 1/4 degree; @ 5470' = degrees.



KRIDER 2690' (+ 121)

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

2700

WINFIELD 2726' (+85)

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

2750

TOWANDA 2770' (+41)

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

2800

FORT RILEY 2816' (-5)

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

2850

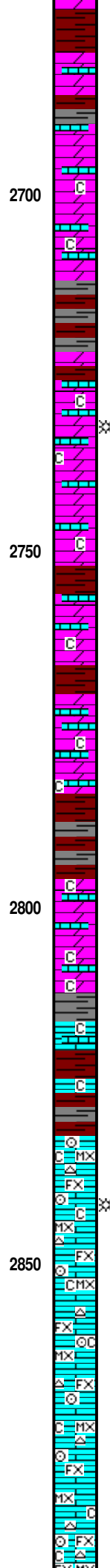
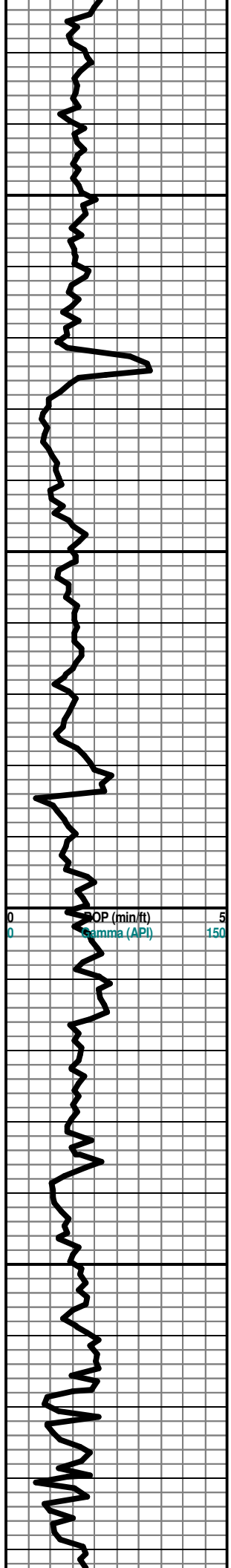
Ls Cm-Gry FxIn-MicroxIn Poor-Fair IxIn Por Tr Granular Grad Poor Dns Micrite Cht Gry (w/Brn Incls) Fos (Crin) Chalky Sh Gry-Red Soft No Odor No Stn No Flor NS

ADJUST ANNULAR VELOCITY TO TOOKE
DAQ @ 2722' = 170.53

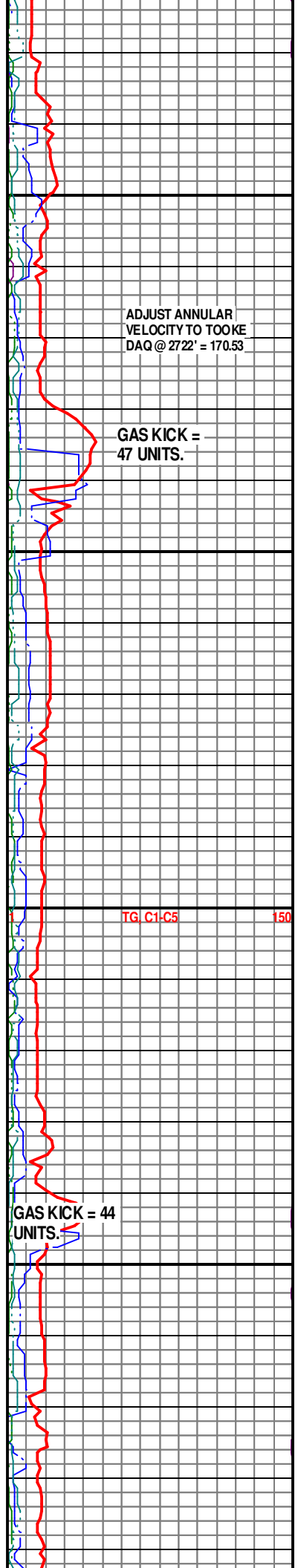
GAS KICK = 47 UNITS.

TG C1-C5 150

GAS KICK = 44 UNITS.



Well log text descriptions for KRIDER, WINFIELD, TOWANDA, and FORT RILEY sections, including lithology and well characteristics.



2900
2950
3000
3050
3100

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

MUD DISPLACEMENT @ 2911'

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

Ls Crm-Wht FxIn Poor IxIn Por Dns Micrite Cht Wht Op Shp Vit Chalky V
Abd "Gummy" Sh Gry-Red Soft No Odor No Stn No Flor NS

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

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

@ 3100' Start Sample Examination - 10' Interval Wet & Dry

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Chalky Dec Sh Gry- Red-
Maroon Soft No Odor No Stn No Flor NS

COTTONWOOD 3084' (-273)

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

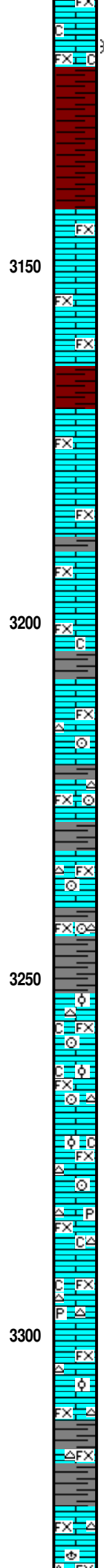
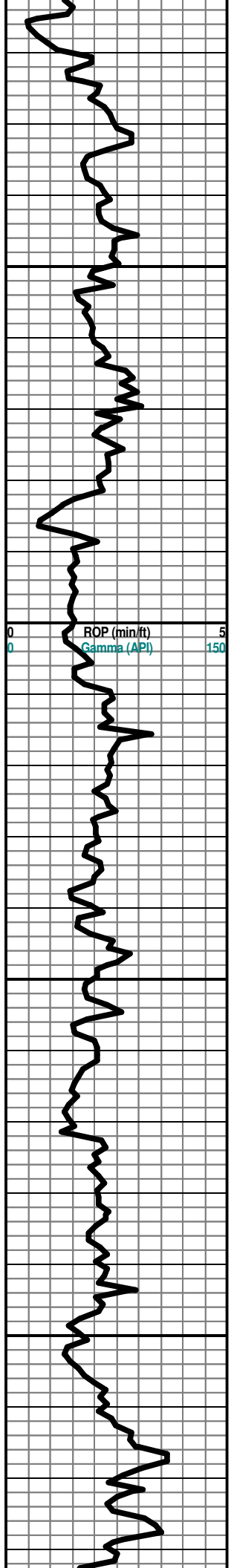
Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky

FP (min/ft)
Gamma (API)

TG C1-C5 150

@ 3046' GAS TEST
@ EXTRACTOR=
102 UNITS
OBSERVED.

Mudco Ck @
3054' @ 8:25 AM
3/21/14
Vis= 49;
WT= 8.65;
PV= 16;
YP= 17;
WL= 7.6;
Cake= 1;
ChI= 2600;
Cal= 20;
Sol= 2.0%
LCM= 2#;
DMC=\$3 606.00;
CMC=\$9,099.10



Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

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

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

NEVA 3144' (-333)

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

RED EAGLE 3174' (- 363')

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

BASE COUNCIL GROVE 3204' (-393)

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Chalk Abd Sh Red-Gry-Grn
Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)
Chalk Abd Sh Red-Gry-Grn-Aqua Soft-Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)
Chalk Abd Sh Red-Gry-Grn-Aqua Soft-Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)
Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)
Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn NS

FORAKER 3253' (- 442)

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Grad Tr Fair OOL Por
(w/Small OOids in pl) Poor-Fair Dissolu Poor-Fair Develop Cht Wht Op Vit
Shp Fos (Crim) Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn
NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Grad Tr Fair OOL Por
(w/Small OOids in pl) Poor-Fair Dissolu Poor-Fair Develop Cht Wht Op Vit
Shp Fos (Crim) Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn
NS

Ls Wht-Crm-Tan FxIn Tr Poor IxIn Por Cht Wht-Peach Translu -Op Vit Shp
Chalk Abd Sh Maroon (w/Pyr Includs)-Gry-Grn Soft-Fissil Dec No Odor No
Stn NS

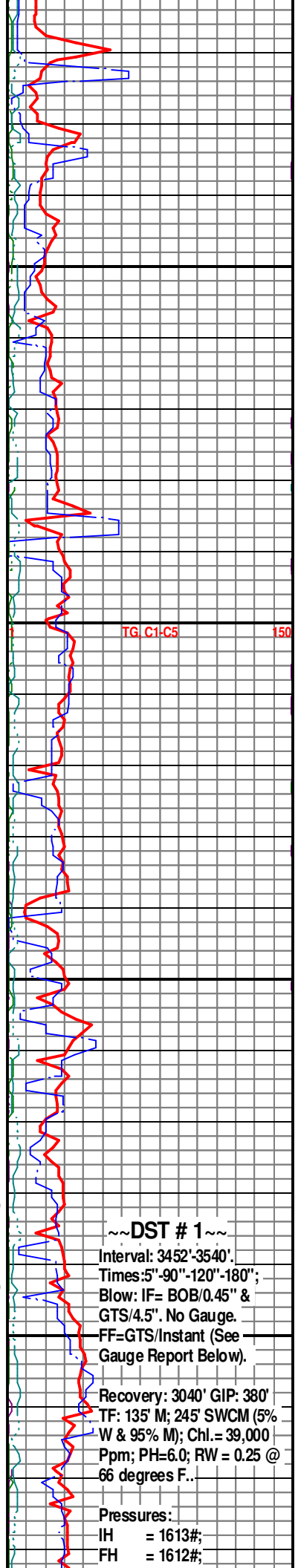
Ls Wht-Crm-Tan FxIn Tr Poor IxIn Por Cht Wht-Peach Translu -Op Vit Shp
Chalk Abd Sh Maroon (w/Pyr Includs)-Gry-Grn Soft-Fissil Dec No Odor No
Stn NS

Ls Wht-Crm-Tan FxIn Tr Poor IxIn-Igran Por Grad Fair OOL Por (w/Small
OOids in pl) Poor-Fair Dissolu Poor-Fair Develop Cht Wht Op Vit Shp
Chalk Abd Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Tan FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach-Gry
Translu-Op Vit Shp Fos (Crim) Chalk Abd Sh Red-Gry-Grn Soft-Fissil No
Odor No Stn NS

ADMIRE GROUP 3328' (- 517)

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach Translu-Op Vit



~DST # 1~

Interval: 3452'-3540'
Times: 5'-90"-120"-180";
Blow: IF= BOB/0.45" &
GTS/4.5". No Gauge.
FF=GTS/Instant (See
Gauge Report Below).

Recovery: 3040' GIP: 380'
TF: 135' M; 245' SWCM (5%
W & 95% M); Chl.= 39,000
Ppm; PH=6.0; RW = 0.25 @
66 degrees F..

Pressures:
IH = 1613#;
FH = 1612#;

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach Translu-Op Vit Shp Fos (Brach) Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach Translu-Op Vit Shp Fos (Brach) Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Crm FxIn Poor OOM Por (w/OOL in pl) Poor-No Dissolu Poor Develop Mostly FxIn Chalk Cht Gry Sh Gry-Char Soft No Odor ? Sli Min Flor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Dns Micrite Cht Wht-Gry Translu-Op Vit Shp Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Dns Micrite Cht Wht-Gry Translu-Op Vit Shp Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Dns Micrite Cht Wht-Gry Translu-Op Vit Shp Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite grad Poor OOM Por (w.Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk Sh Char-Gry-Grn Soft-Fissil No Odor ? Min Flor No Stn NS

Sh Char-Gry-Grn Soft-Fissil Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite Grad Poor OOM Por (w/Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk No Odor ? Min Flor No Stn NS

Sh Char-Gry-Grn Soft-Fissil "Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite Grad Poor OOM Por (w/Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk No Odor ? Min Flor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite grad Poor OOM Por (w/Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk Sh Char-Gry-Grn Soft-Fissil No Odor ? Min Flor No Stn NS

Ls Crm FxIn Poor IxIn Por Micritic Grad Ls FxIn Poor IxIn Por Fos (Fuss, Crin) Chalk ? Min Flor Sh Tr Red (Wash Red)-Char-Gry No Odor No Stn NS

Ls Crm FxIn Poor IxIn Por Micritic Grad Ls FxIn Poor IxIn Por Fos (Fuss, Crin) Chalk ? Min Flor Sh Tr Red (Wash Red)-Char-Gry No Odor No Stn NS

ROOT SHALE 3463' (-652')

Ls Crm FxIn Poor IxIn Por Micritic Grad Ls FxIn Poor IxIn Por Fos (Fuss, Crin) Chalk ? Min Flor Sh Tr Red (Wash Red)-Char-Gry No Odor No Stn NS

Sh Red-Gry-Char Abd Soft (Wash Red) Ls Crm Tr Poor OOM Por Poor Dis Poor Devel Chalk No Odor Sli Tr Min Flor AA No Stn NS

Sh Red-Gry-Char Abd Soft (Wash Red) Ls Crm Tr Poor OOM Por Poor Dis Poor Devel Chalk No Odor Sli Tr Min Flor AA No Stn NS

STOTLER 3488' (-677)

Ls Gry-Crm MicroxIn Dns Micrite Grad Poor-Fair Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalky Sh Gry Soft No Odor Good Flor (Lt Grn-Wht) No Stn SG

Ls Wht-Crm MicroxIn-FxIn Dns Micrite Grad Poor-Fair Pin-Pt IxIn Por (w/Fair-Med SG) Grad Poor OOL (w/OOL in pl) No Dissolu No Leaching Por Cht Wht Op Shp Vit Chalky Sh Gry Soft No Odor Good Flor (Lt Grn-Wht) No Stn SG

Ls Wht-Crm MicroxIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/Med SG) Cht Wht Op Shp Vit Chalky No Odor Good Flor (Lt Grn-Wht) No Stn SG

30" CGS @ 3540' Ls Wht MicroxIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/SSG) Grad Ls Crm-Tan Good Vug OOM Por Good Leaching Good Develop Good InterOOM Por Chalky No Odor Good Flor (Lt Grn-Wht) No Stn SSG

60" CGS @ 3540' Ls Wht-Gry MicroxIn Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky No Odor Sli Tr Flor (Lt Grn-Wht) No Stn NS

Ls Wht-Crm-Gry MixroIn-FxIn Dns Micrite Grad Poor OOL Por (w/OOL in pl) Poor Develop Poor Leaching Cht Drk Gry Translu-Op Shp Vit Chalky Sh Char-Gry-Grn-Red Soft No Odor No Flor No Stn NS

IF = 51-102#;
FF = 97-203#;
ISIP = 877#;
FSIP = 832#;
Temp. = 108 deg. F.

FF Gas Gauge:
@ 10" = 288 Mcf;
@ 20" = 398 Mcf;
@ 30" = 449 Mcf;
@ 40" = 473 Mcf;
@ 50" = 487 Mcf;
@ 60" = 497 Mcf;
@ 70" = 510 Mcf;
@ 80" = 522 Mcf;
@ 90" = 522 Mcf;
@ 100" = 522 Mcf;
@ 110" = 522 Mcf;
@ 120" = 522 Mcf.

~DST # 2~
Interval: 3537'-3580'.
Times: 5"-90"-40"-120";
Blow: IF= BOB/0.45";
FF=GTS/Instant. GTS/7"
(See Gauge Report Below).

Recovery: 3375' GIP: 130'
TF: 70' M; 60' SWCM (7% W & 93% M); Chl.= 25,000
Ppm; PH= 7.0; RW=0.32 @ 66 degrees F..

Pressures:
IH = 1660#;
FH = 1657#;
IF = 23-30#;
FF = 29-60#;
ISIP = 929#;
FSIP = 916#;
Temp. = 103 deg. F.

FF Gas Gauge:
@ 10" = 21.9 Mcf;
@ 20" = 19.9 Mcf;
@ 30" = 15.4 Mcf;
@ 40" = 12.5 Mcf.

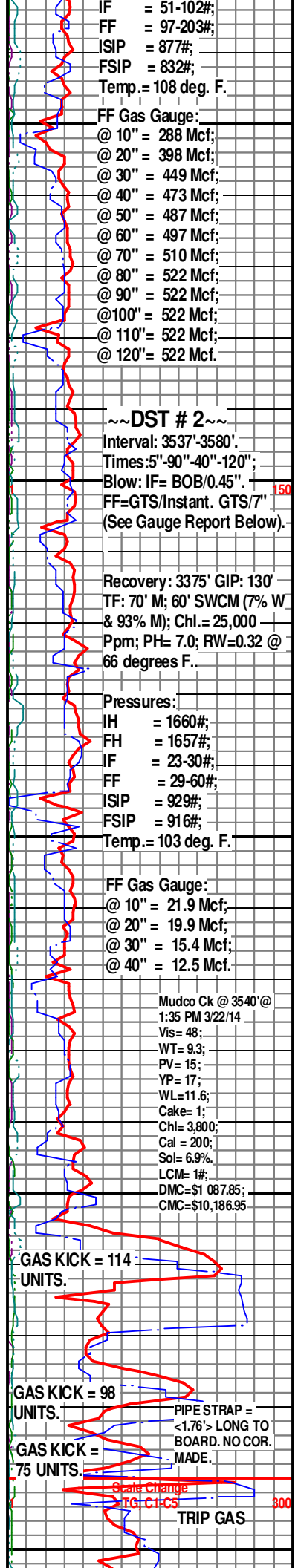
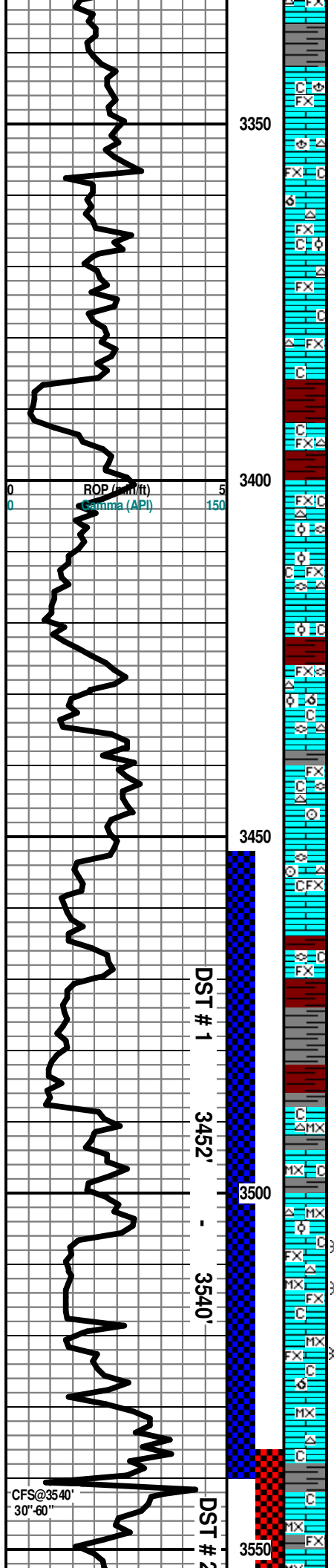
Mudco Ck @ 3540' @
1:35 PM 3/22/14
Vis= 48;
WT= 9.3;
PV= 15;
YP= 17;
WL= 11.6;
Cake= 1;
Chl= 3,800;
Cal= 200;
Sol= 6.9%
LCM= 1#;
DMC=\$1,087.85;
CMC=\$10,186.95

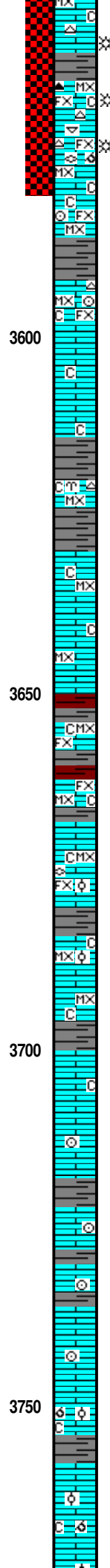
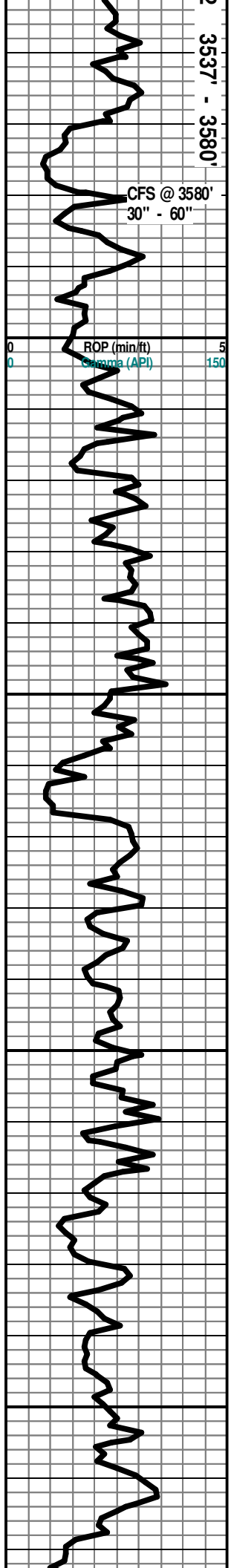
GAS KICK = 114 UNITS.

GAS KICK = 98 UNITS.

GAS KICK = 75 UNITS.

PIPE STRAP = <1.76> LONG TO BOARD. NO COR. MADE.
Slate Change
TRIP GAS





30" CGS @ 3580' Ls Wht-Crm MicroIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/Fair-Med SSG) Cht Wht Op Shp Vit Chalky Faint Odor Sli ? Flor (Lt Grn-Wht) No Stn SSG

TARKIO 3564' (-753)

60" CGS @ 3580' Ls Wht MicroIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/SSG) Grad Ls Crm-Tan Med-Good Vug OOM Por Tr Med-Good Leaching Med-Good Develop Med-Good InterOOM Por Cht Wht-Lt Gry Op Shp Vit Fos (Fuss, Pelec) Chalky ? Faint Odor Sli ? Flor (Lt Grn-Wht) No Stn SSG

Ls Wht-Gry FxIn Poor IxIn Por Micritic Grad FxIn-MicroIn Por (w/Glacu Includ) Fos (Crin) Chalk Cht Wht-Gry Op Shp Vit Scat Flor (Lt Grn) No Odor Sli Flor ? SSG

Ls Wht-Gry FxIn Poor IxIn Por Micritic Grad FxIn-MicroIn Por (w/Glacu Includ) Fos (Crin) Chalk Cht Wht-Gry Op Shp Vit Scat Flor (Lt Grn) No Odor Sli Flor ? SSG

Sh Char-Gry Soft Grad Fissil Ls Crm FxIn Dns Micritic V Abd Chalk No Odor No Flor No Stn NS

Sh Char-Gry Soft Grad Fissil Ls Crm FxIn Dns Micritic V Abd Chalk No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Cht Wht-Drk Gry Op Shp Vit Fos (Bry) Chalk Sh Char-Gry- Maroon Soft-Fissil No Flor No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor No Stn NS

BERN 3678' (- 867)

Ls Gry FxIn Poor IxIn Por Grad MicroIn Fos (Fuss) Abd Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Gry-Crm FxIn-MicroIn Poor IxIn Por Micrite Grad Pin-Pt IxIn Por Barren Grad Poor OOL Por (w/Small Ooids in pl) Poor Develop Poor leaching Barren Chalk Sh Char-Gry Soft-Fissil No Flor No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

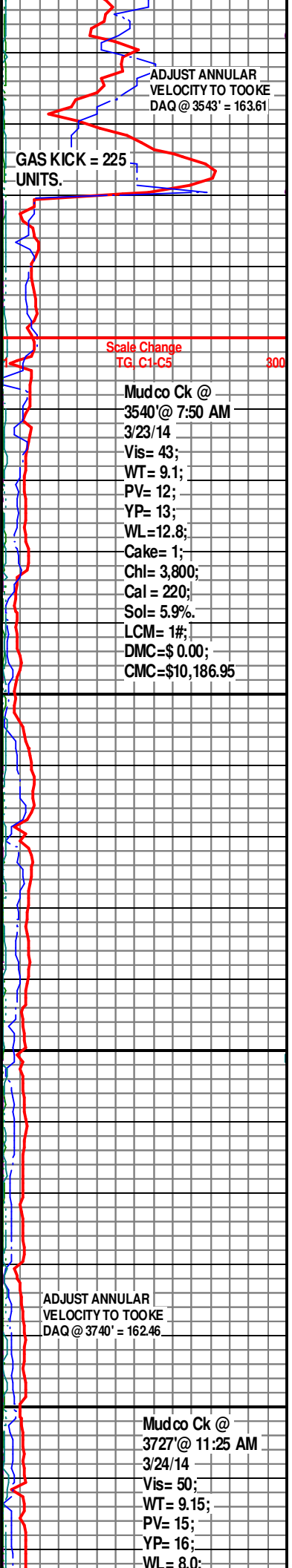
Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

Ls Wht-Crm FxIn Tr/Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOMPelletal Por Tr Poor Dissolu Chalk Wht Sh Char-Red Soft No Odor No Flor No Stn NS

TOPEKA 3758' (- 947)

Ls Wht-Crm FxIn Tr/Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOMPelletal Por Tr Poor Dissolu Chalk Wht Sh Char-Red Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor



ADJUST ANNULAR VELOCITY TO TOOKE DAQ @ 3543' = 163.61

GAS KICK = 225 UNITS.

Scale Change TG C1C5 300

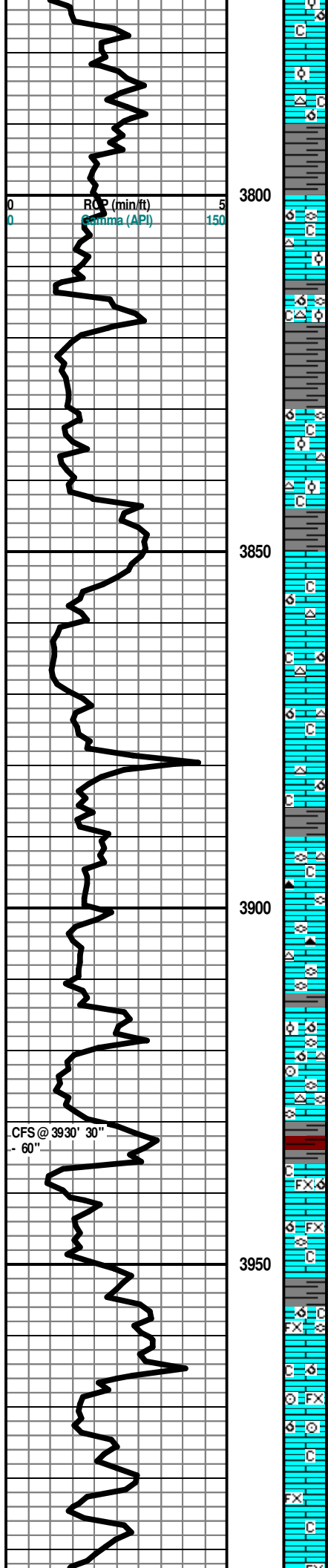
Mudco Ck @ 3540' @ 7:50 AM 3/23/14

Vis= 43;
WT= 9.1;
PV= 12;
YP= 13;
WL=12.8;
Cake= 1;
ChI= 3,800;
Cal = 220;
Sol= 5.9%
LCM= 1#;
DMC=\$ 0.00;
CMC=\$10,186.95

ADJUST ANNULAR VELOCITY TO TOOKE DAQ @ 3740' = 162.46

Mudco Ck @ 3727' @ 11:25 AM 3/24/14

Vis= 50;
WT= 9.15;
PV= 15;
YP= 16;
WL= 8.0;



OOL/OOM Por Poor Dissolu Chalk Wht Soft Cht Wht Op Shp Vit (Tr Only)
Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor
Dissolu Chalk Wht Soft V Abd Cht Wht Op Shp Vit (Tr Only) Sh Gry-Grn Fissil Soft No Odor
No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOL Por w/ OOL in pl Poor Develop Poor
Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No Odor No
Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No
Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No
Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char Fissil No Odor No
Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char Fissil No Odor No
Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor-Fair IxIn Wht Abd Cht Blk-Wht Op Shp Vit Sh
Char Fos (Fuss) Tr/Red Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor-Fair IxIn Wht Abd Cht Blk-Wht Op Shp Vit Sh
Char Fos (Fuss) Tr/Red Fissil No Odor No Flor No Stn NS

30" CFS @ 3930' Ls Wht FxIn Med-Good OOM/OOL/Fos (Fuss) Por
Med-Good InterOOM-InterFos (Crin, Fuss) Por Cht Gry Op Shp Vit Chalky
Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

60" CFS @ 3930' Ls Wht FxIn Med-Good OOM/OOL/Fos (Fuss) Por
Med-Good InterOOM-InterFos (Crin, Fuss) Por Cht Gry Op Shp Vit Chalky
Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

LECOMPTON 3946 (- 1135)

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu Poor
Develop) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu &
Poor Develop) Fos (Fuss) Chalk Sh Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor
NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
(w/Poor-Fair Dissolu & Poor Develop) Fos (Fuss) Chalk Sh Grn-Char Fissil
Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
(w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Char Fissil Scat
? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry AA FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
(w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Char Fissil
Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Chalk Wht Soft V Abd Sh
Char-Grn Fissil No Odor No Stn No Flor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por

Cake= 1;
Chl= 3,300;
Cal = 40;
Sol= 5.6%.
LCM= 2#;
DMC=\$1,644.85;
CMC=\$11,831.80

TG C1:C5 800

Extractor Plugged Off.

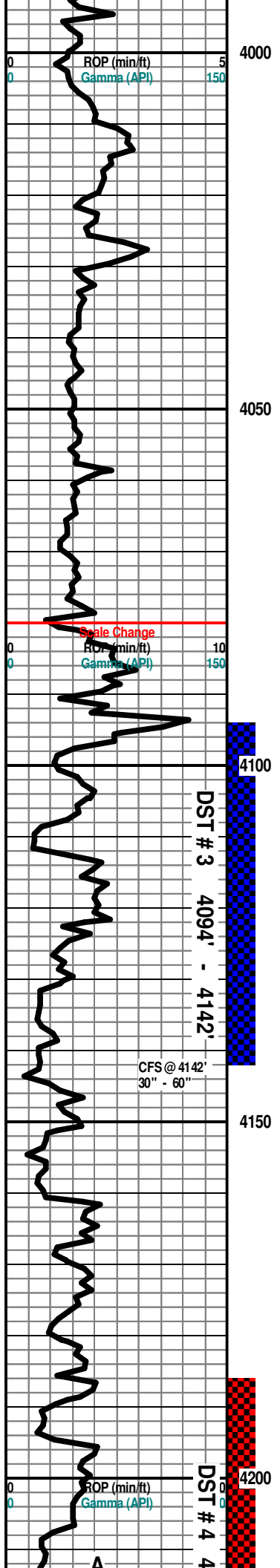
REPLACE EXTRACTOR FILTER @
3860' LAG DEPTH.

ADJUST ANNULAR
VELOCITY TO TOOKE
DAQ @ 3914' = 161.55

ADJUST ANNULAR VELOCITY TO TOOKE
DAQ @ 3970' = 161.28

~DST # 3~

Interval: 4094'-4142'.
Times: 5"-90"-60"-120";
Blow: IF= BOB/0.30". ISIP
= 1" Blow Back.
FF=BOB/45"(w/GTS @ 20").
FOIP= BOB/25"(w/GTS @ 20").



Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
 (w/Poor-Fair Dissolu Poor Develop) Fos (Fuss) Chalk Sh Char Fissil Scat ?
 Min Flor (Dull Wht-Grn) No Odor NS

Ls Crm-Brn Poor OOM Por Poor Develop Poor Leaching Chalk Wht Abd
 Fos (Brach, Crin) Sh Char Fissil No Odor ? Min Faint Flor No Stn NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
 (w/Poor-Fair Dissolu Poor Devel) Fos (Fuss) Chalk Sh Char Fissil Scat ?
 Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
 (w/Poor-Fair Dissolu Poor Devel) Fos (Fuss) Chalk Sh Char Fissil Scat ?
 Min Flor (Dull Wht-Grn) No Odor NS

Ls Crm-Wht Poor OOM Por Poor Develop Poor Poor Leaching Chalk Wht
 V Abd Fos (Brach, Crin) Cht Crm Op Shp Vit Sh Char Fissil No Odor ? Min
 Faint Flor No Stn NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
 (w/Poor-Fair Dissolu Poor Develop) Fos (Fuss) Chalk Sh Char Fissil Scat
 ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por
 (w/Poor-Fair Dissolu) Poor Devel Fos (Fuss) Chalk Sh Char Fissil Scat
 ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Cht Wht-Gry Op Shp Vit Chalk Sh
 Char-Gry Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Cht Wht-Gry Op Shp Vit Chalk Sh
 Char-Gry Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Cht Wht-Gry Op Shp Vit Chalk Sh
 Char-Gry Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Chalk Sh Blk Carb (Tr Only)
 Char-Gry-Aqua Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Chalk Fos (Gastro) Sh Blk Carb-Char-Gry-Aqua
 Soft Fissil No Odor No Stn No Flor NS

HEEBNER 4108' (-1297)
 Sh Blk Carb Fissil Abd Ls Wht-Lt Gry FxIn Poor IxIn Por Grad Micrite
 Barren Cht Wht-Lt Gry Op Shp Vit Chalk No Odor No Stn No Flor NS

30" CFS @ 4142' Ls Wht-Crm-Gry MicroIxIn Micrite Barren Grad Poor Pin-Pt Por Chalky Abd
 Cht Wht-Lt Gry Translu-Up Shp Vit Sh Blk Carb-Char Fissil Faint Odor No Stn Sli Dull (Lt
 Grn) Flor ? Sli SG

TORONTO 4130' (-1319)
 60" CFS @ 4142' Ls Wht-Crm MicroIxIn-FxIn Micrite Barren Grad Poor Pin-Pt Por Grad Tr
 Poor OOM Por Poor Dissolu Poor Leaching Chalky Cht Wht-Lt Gry Translu-Up Shp Vit Fos
 (Fuss) Sh Blk Carb-Char Fissil Faint Odor No Stn Dull (Lt Grn) Flor (50% in Tray) ? Sli SG

Sh Char-Gry-Blk Carb Fissil Ls Tan-Lt Gry MicroIxIn Poor IxIn Por Grad
 Micrite Barren Cht Drk-Gry Op Shp Vit Chalk Fissil Abd No Odor No Stn
 No Flor NS

DOUGLAS 4152' (-1341)
 Sh Char-Gry-Blk Carb Fissil Ls Tan-Lt Gry MicroIxIn Poor IxIn Por Grad
 Micrite Barren Cht Drk-Gry Op Shp Vit Chalk Fissil Abd No Odor No Stn
 No Flor NS

Sh Char-Gry-Grn Soft-Fissil w/ Fos (Fuss) Ls Crm-Wht-Gry FxIn Dns
 Micrite Poor IxIn Por Chalk Wht Soft Abd No Odor No Stn Few Pcs Sli ?
 Min Flor AA Grad No Flor NS

Sh Char-Gry-Grn Soft-Fissil Ls Crm-Wht-Gry FxIn Dns Micrite Poor IxIn
 Por Chalk Wht Soft Abd No Odor No Stn Few Pcs Sli ? Min Flor AA Grad
 No Flor NS

Ls Wht-Crm MicroIxIn-FxIn Poor-Fair IxIn Por Cht Wht-Tan Op Shp Vit
 Chalk Wht Soft Abd Sh Char-Gry-Grn Tr/Blk Carb Fissil No Odor No Stn
 Dec Sli ? Min Flor NS

IATAN 4196' (-1385)
 Ls Wht-Crm-Lt Gry FxIn Poor IxIn Granu Por Grad Micrite Barren Chalk Abd Sh Char (w/Pyr
 Includ)-Gry-Aqua Fissil No Odor No Stn No Flor NS

LANSING 4208 (-1397)
 30" CFS @ 4235' Ls Wht-Crm-Gry MicroIxIn (w/ Poor) Pin-Pt IxIn Por (w/

FSIP = BOB Bibe Back (See
 Gauge Report Below.)

Recovery: 2815' GIP: 1245' 800
 TF: 165' M; 195' MCW (65% W
 & 35% M); 885' VSMCW (95%
 W & 5% M); Chl.= 112,000
 Ppm; PH= 6.0; RW=0.11 @ 67
 degrees F..

Pressures:
 IH = 1955#;
 FH = 1941#;
 IF = 96-140#;
 FF = 176-600#;
 ISIP = 1187#;
 FSIP = 1172#;
 Temp.= 112 degrees F.

FF Gas Gauge:
 @ 20" = 2.92 Mcf;
 @ 30" = 8.56 Mcf;
 @ 40" = 9.05 Mcf;
 @ 50" = 8.39 Mcf;
 @ 60" = 7.32 Mcf.

Mudco Ck @ 4142' @
 8:55 AM 3/25/14
 Vis= 48;
 WT= 9.15#;
 PV= 15;
 YP= 15;
 WL= 8.8;
 Cake= 1;
 Chl= 4,400;
 Cal = 20;
 Sol= 5.5%
 LCM= 2#;
 DMC=\$ 2,684.40;
 CMC=\$14,516.20

SH GAS KICK =
 67 UNITS.

~DST # 4~
 Interval: 4187'-4235'.
 Times: 5"-90"-60"-120";
 Blow: IF=BOB/Instant. GTS
 /4" TSTM. ISIP = No Blow
 Back. FF=BOB/Instant.
 FSIP = 1/4" Blow Back. (See
 Gauge Report Below.)

Recovery: 3895' GIP: 260' TF:
 (195' M; 65' GSWCM (4% G.,
 4% W & 92% M). Chl. 27,000
 Ppm; PH = 7.5; RW=0.38. @ 56
 degrees F..

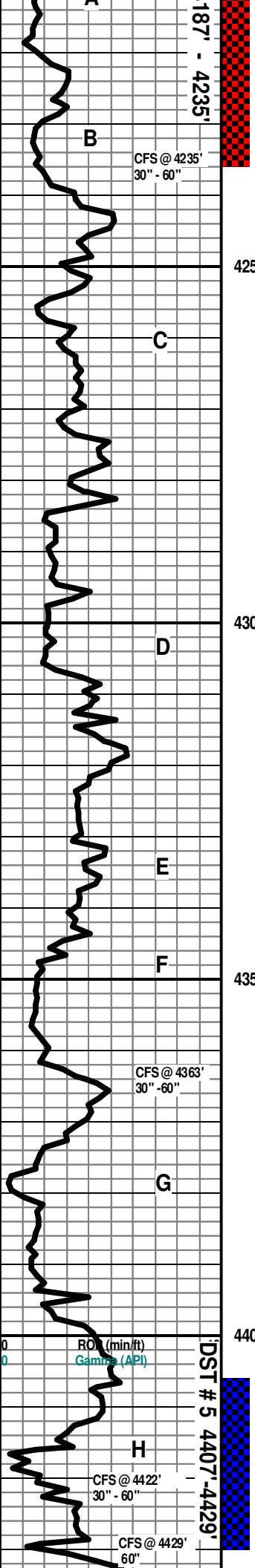
Pressures:
 IH = 2040#;
 FH = 2037#;
 IF = 52-94#;
 FF = 106-211#;
 ISIP = 1211#;
 FSIP = 1184#;
 Temp.= 116 degrees F.

FF Gas Gauge:
 @ 10" = 487 Mcf;
 @ 20" = 581 Mcf;
 @ 30" = 639 Mcf;
 @ 40" = 697 Mcf;
 @ 50" = 732 Mcf;
 @ 60" = 756 Mcf;
 @ 70" = 767 Mcf.

TG C1:C5 800

Mudco Ck @
 4235' @ 11:00 AM
 3/26/14

GAS KICK =



Poor SG (Under Heat) ? Frac Por ? Sat Stn Flor (Lt Grn-Wht- 20% in Tray)
 Cht Wht-Tan Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor SSG

60" CFS @ 4235' Ls Wht-Crm-Gry Microxln (w/ Poor) Pin-Pt Ixln Por (w/
 Poor SG (Under Heat) ? Frac Por ? Sat Stn Flor (Lt Grn-Wht- 60% in Tray)
 Cht Wht-Tan-Gry-Lt Org Translu-Op Shp Vit Chalk Wht Sh Aqua-Char-Gry
 Fissil No Odor SSG

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Por Cht Wht Op Shp
 Vit Sh Char-Gry Fissil Chalk No Odor No Flor No Flor NS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Por Cht Wht Op Shp
 Vit Sh Char-Gry Fissil Chalk No Odor No Flor No Flor NS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Por Cht Wht Op Shp
 Vit Sh Char-Gry Fissil Chalk No Odor No Flor No StnNS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Gran Pin-Pt Por
 Barren Cht Wht Op Shp Vit Fos (Pelec) Chalk Sh Char-Gry Fissil No Odor
 No Flor No Stn NS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Gran Pin-Pt Por
 Barren Cht Tan Op Shp Vit Chalk Abd Sh Char-Gry Fissil No Odor No
 Flor No Stn NS

Ls Crm-Gry Fxln Poor Ixln Por Micritic Grad Good OOM Por Good Dissolu
 Good Leaching Chalk Cht Wht-Drk Gry Translu-Op Shp Op Vit Sh Char No
 Odor No Flor NoStn NS

Ls Crm-Gry Fxln Poor Ixln Por Micritic Grad Good OOM Por Good Dissolu
 Good Leaching Chalk Abd Cht Wht-Drk Gry-Blk Translu- Op Shp Op Vit
 Fos (Crin) Sh Char No Odor No Flor NoStn NS

Ls Crm-Lt Gry-Drk Gry Microxln Poor Ixln Por Micritic Chalk Cht Wht-Drk
 Gry-Blk Translu-Op Shp Op Vit Sh Char No Odor No Flor NoStn NS

Ls Crm-Tan-Lt Gry Microxln Poor Ixln Por Micritic Chalk Cht Wht-Lt Gry
 Translu-Op Shp Op Vit Sh Char-Gry No Odor No Flor NoStn NS

Ls Crm-Tan-Lt Gry Fxln Poor Ixln Por Micritic Grad Poor Granular Pin-Pt
 Ixln Por Chalk Cht Wht Op Shp Op Vit Sh Char-Gry ? Faint Odor No Flor
 NoStn NS

30" CFS @ 4263' Ls Wht-Crm-Lt Gry Fxln Poor Ixln Granular Por (w/Pyr
 Inklus) Grad Poor OOM Por (w/Small OOids in pl w/No-Poor Dissolu Poor
 Develop Poor Leaching) Cht Wht Op Shp Vit Chalk Sh Char-Gry Fissil
 No Flor ? Faint Odor No Stn NS

60" CFS @ 4263' Ls Wht-Crm-Lt Gry Fxln Poor Ixln Granular Por (w/Pyr
 Inklus) Grad Poor OOM Por (w/Small OOids in pl w/No-Poor Dissolu Poor
 Develop Poor Leaching) Cht Wht Op Shp Vit Chalk Sh Char-Gry Fissil
 Good Scat Flor (60% in Tray) No Odor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Gran Por Grad Poor-Fair OOM Por (w/Small
 OOids in pl & Poor Dissolu Poor Develop) Chalk Sh Char-Gry Fissil
 Good Flor (10% in Tray) No Odor No Stn NS

Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Cht Amber
 Translu Shp Vit Chalk Sh Char No Flor No Odor No Stn NS

Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Dec Sh
 Char Fair Inc Flor (20% in Tray) No Odor No Stn NS

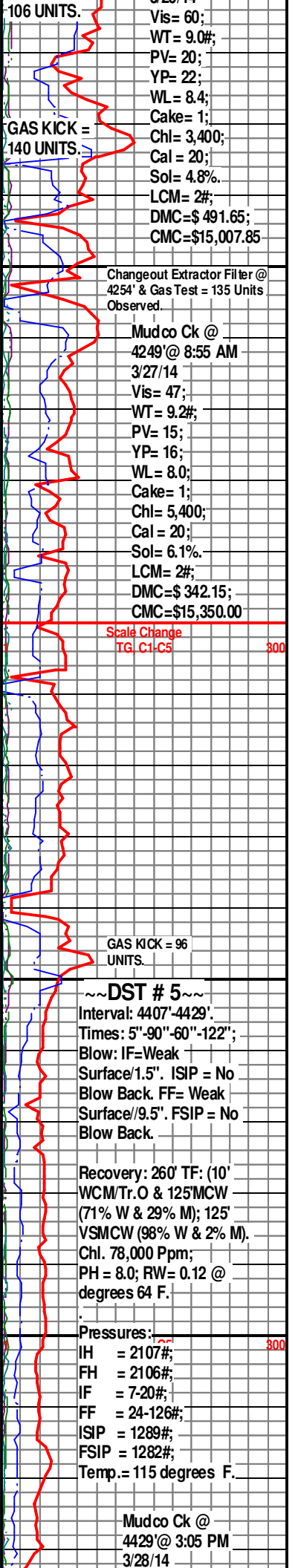
Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Dec Sh
 Char Fair Inc Flor (10% in Tray)No Odor No Stn NS

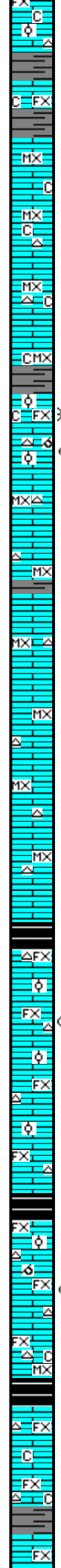
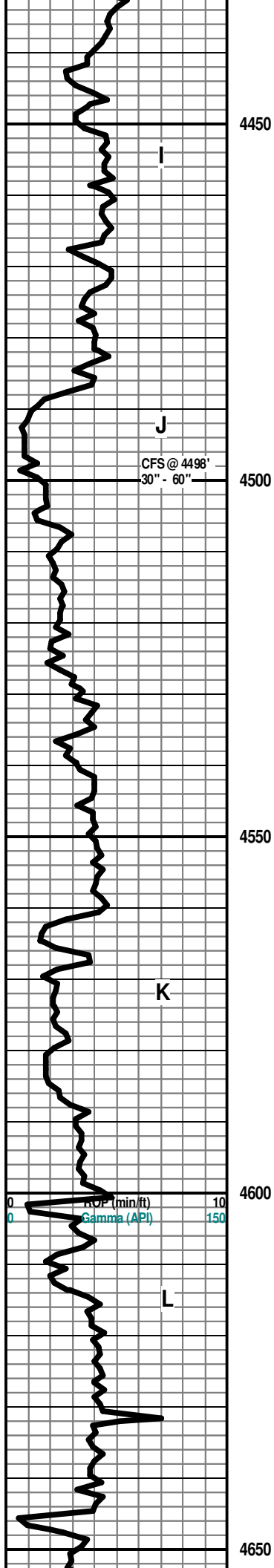
30" CFS @ 4422' Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL
 in pl) Med-Good Dissolu Med-Good Develop Good Vug Leaching Por
 Barren Fos (Brach) Chalk Sh Char Fair-Med Inc Flor(10% in Tray) ? Faint
 Odor No Stn NS

60" CFS @ 4422' Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Sh Char Fair-Med Inc Flor
 (30% in Tray) NoOdor No Stn NS

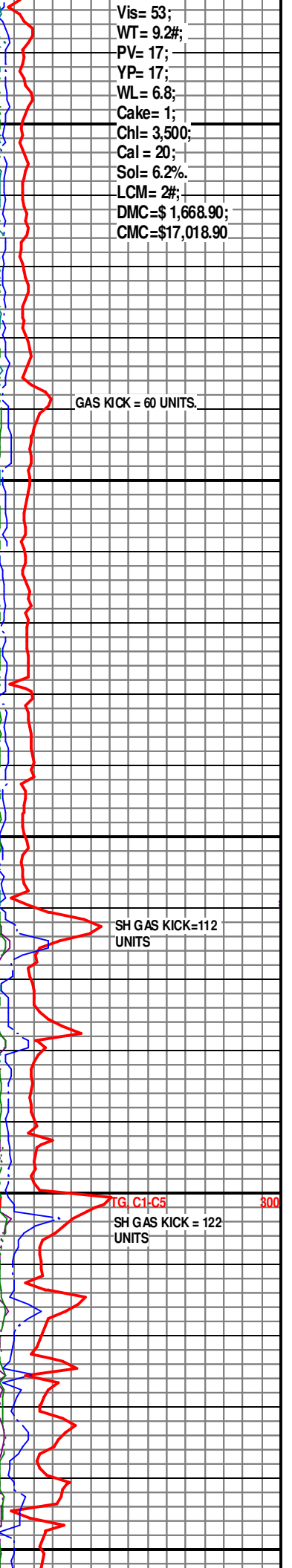
60" CFS @ 4429' Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Sh Char Fair-Med Inc Flor
 (60% in Tray) ? Faint Odor No Stn NS

Ls Wht V Fxln Poor Ixln Por Micritic Grad Ls Gry w/ (Few Pcs) OOL Fair Por (w/ Abd OOL in
 pl) Poor Dissolu Poor-Fair Inter-OOL Por (w/ Poor-Fair Leaching Por Fair-Good Develop) Cht





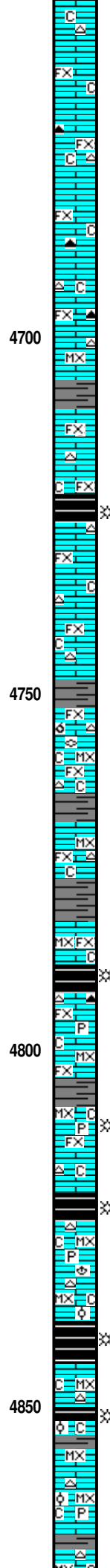
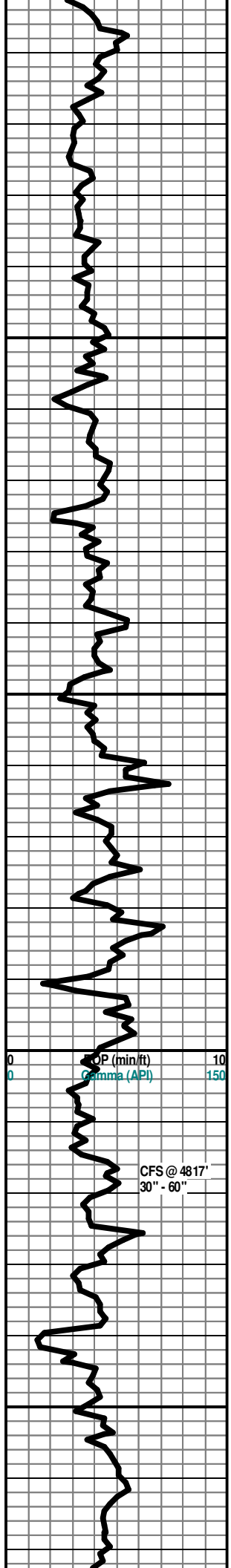
Ls Wht V FxIn w/Poor IxIn Por Micritic Sh Char-Grn-Gry No Odor No Flor NoStn NS
 Ls Wht V FxIn w/Poor IxIn Por Micritic Sh Char-Grn-Gry No Odor No Flor NoStn NS
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Abd Sh Char-Grn-Gry No Odor No Flor NoStn NS
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Translu-Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS
 30" CFD @ 4498' Ls Wht-Crm MicroIn-FxIn Dns Micrite Grad Poor-Fair Pin-Pt IxIn Por Grad Poor-Fair OOL Por (w/Small OOL in pl) Cht Lt Gry Op Shp Vit Chalky Abd Sh Char-Gry Good Hvy Odor No Flor No Stn Sli Inc ? SG
 60" CFD @ 4498' Ls Wht-Crm-Tan FxIn Fair-Med Pin-Pt IxIn Por Grad Fair-Med OOM Por (w/Small OOL in pl) Cht Lt Gry Op Shp Vit Chalky Abd Sh Char-Gry Strong Hvy Odor Sli Flor (Lt Grn) No Stn ? SG
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry-Wht Op Shp Vit Chalk Sh Char-Grn-Gry No Odor Faint Flor No Stn NS
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Abd Sh Char-Grn-Gry No Odor No Flor NoStn NS
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Abd Sh Char-Grn-Gry No Odor No Flor NoStn NS
STARK SHALE 4562' (- 1761)
KANSAS CITY "SWOPE (K)" 4566' (-1765)
 Sh Blk Carb Fissil Ls Crm-Tan FxIn Dns Micrite AA Grad (wGood OOM Por & Good InterOOM Por) Good Leaching Por Good Develop Barren Cht Gry-Chalky ? Sli Flor (3 Pcs)No Odor NS
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS
HUSHPUCKNEY SHALE 4601 (-1790)
KANSAS CITY "HERTHA (L)" 4603' (-1792)
 Sh Blk Carb Fissil Ls Crm-Gry FxIn Grad Micritic Chalky V Abd No Odor No Flor No Stn NS
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS
 Ls Wht-Gry MicroIn-FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Blk Carb-Char-Gry Fissil No Stn No Flor No Odor NS
 Ls Wht-Gry FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns Micrite Barren Chalk Cht Smoky Gry Op Vit Shp Sh Blk Carb-Char Fissil No Stn No Flor No Odor NS
 Ls Wht-Gry FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Char-Blk Carb Fissil No Stn No Flor No Odor NS
 Ls Wht-Gry Tan FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns



CFS @ 4498' 30" - 60"

K

L



Ls Wht-Gry-Tan Fxln Poor Ixln Por Micritic Gran Por Poor Igran Por Dns
 Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Char-Blk Carb
 Fissil No Stn No Flor No Odor NS

Ls Wht-Gry-Tan Fxln Poor Ixln Por Micritic Gran Por Poor Igran Por Dns
 Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Char-Blk Carb
 Fissil No Stn No Flor No Odor NS

Ls Wht-Gry-Tan Fxln Poor Ixln Por Micritic Chalk Cht Gry-Drk Gry
 Translu-Op Vit Shp No Stn No Flor No Odor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Cht Drk-Gry (w/OOL Inclus)
 Op Vit Shp No Stn No Flor No Odor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Cht Drk-Gry (w/OOL Inclus)
 Op Vit Shp No Stn No Flor No Odor NS

MARMATON 4710' (- 1899)

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

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

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

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

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

Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Cht-Lt Gry Op Shp Vit
 Fos (Fuss) Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn No Flor
 NS

Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Cht-Lt Gry Op Shp Vit
 Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Cht-Lt Gry Op Shp Vit
 Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn No Flor NS

PAWNEE 4792 (- 1981)

30" CFS @ 4817' Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Grad
 Fxln Poor-Fair Pin-Pt InterGran Por (w/Pyr Inclus) Cht-Lt Gry-Drk Gry
 Translu-Op Shp Vit Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn ?
 Min Flor (3 Pcs) NS

60" CFS @ 4817' Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Grad
 Fxln Poor-Fair Pin-Pt InterGran Por (w/Pyr Inclus) Cht-Lt Gry-Drk Gry
 Translu-Op Shp Vit Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn ?
 Min Flor (2 Pcs) NS

FORT SCOTT 4825' (- 2014)

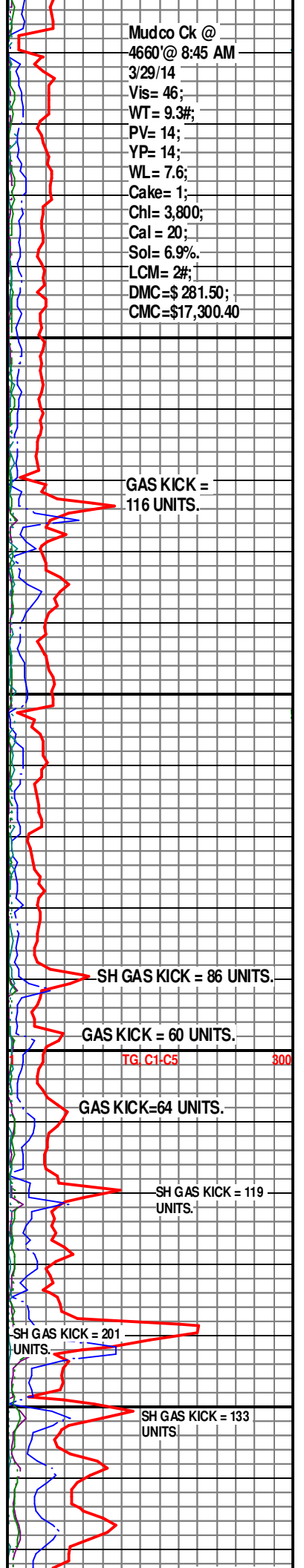
Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) Ls Wht-Crm-Gry Microxin Dns
 Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Inclus) Fos (Brach) Chalk No
 Odor No Stn No Flor NS

CHEROKEE SHALE 4839' (-2028)

Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) Ls Wht-Crm-Gry Microxin Dns
 Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Inclus) Fos (Brach) Chalk No
 Odor No Stn No Flor NS

Ls Wht-Crm-Gry Microxin Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid
 Inclus) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) No Odor No Stn
 No Flor NS

Ls Wht-Crm-Gry Microxin Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid
 Inclus) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) No Odor No Stn
 No Flor NS



Mudco Ck @
 4660' @ 8:45 AM
 3/29/14
 Vis= 46;
 WT= 9.3#;
 PV= 14;
 YP= 14;
 WL= 7.6;
 Cake= 1;
 Chl= 3,800;
 Cal = 20;
 Sol= 6.9%.
 LCM= 2#;
 DMC=\$ 281.50;
 CMC=\$17,300.40

GAS KICK = 116 UNITS.

SH GAS KICK = 86 UNITS.

GAS KICK = 60 UNITS.

TG C1:C5 800

GAS KICK=64 UNITS.

SH GAS KICK = 119 UNITS.

SH GAS KICK = 201 UNITS.

SH GAS KICK = 133 UNITS.

SECOND CCHEROKEE SHALE 4877' (- 2066)

Sh Blk Carb-Char-Aqua/Grn Ls Crm-Tan Microxln Dns Micrite Cht Wht Op Shp Vit Fos (Brach) Chalk Sh Blk Carb- Char- Aqua/Grn (w/Pyr Incls) No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Microxln Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Incls) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Incls)No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Microxln Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Incls) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Incls) No Odor No Stn No Flor NS

Ls Crm-Tan Microxln Dns Micrite No Vis Por Grad Fxln Poor Igran Por Cht Amber-Wht-Tan Translu-Op Shp Vit Chalk Sh Blk Carb - Char- Aqua No Odor No Stn No Flor NS

THIRD CHEROKEE SHALE 4917' (- 2106)

Sh Gry-Char-Blk Carb-Gry Fissil Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren w/Pry Incls Chalk Wht Soft Cht Gry-Wht Transl Shp Fos (Fuss) Vit No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren w/Pry Incls Chalk Wht Soft Cht Gry-Wht Op (w/OOL Incls) Shp Vit Sh Gry-Char-Blk Carb-Gry-Aqua Fissil No Odor No Flor No Stn NS

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

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

Ls Crm-Gry Fxln Poor Ixln Por Micritic Dns Barren Chalk Wht Soft Cht Gry Op Shp Vit Sh Gry-Char-Blk Carb Fissil No Odor No Flor No Stn NS

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

Ls Crm-Wht Fxln Poor Ixln Por Micritic Dns Barren Grad Tr Poor OOL Por (Small Ooids-"Sandy") Grad Tr Dolo Wht-Gry Fxln Tr Granular Chalk Wht Soft Fos (Fuss) Sh Gry-Char Fissil No Odor No Flor No Stn NS

Ls Tan-Crm Microxln Dns Micrite No Vis Por Cht Tan-Amber Translu-Op Shp Vit Chalk Sh Blk Carb-Char (Tr Only) No Odor No Stn No Flor NS

ATOKA SHALE 5001' (-2190)

Ls Tan-Crm Microxln Dns Micrite No Vis Por Cht Tan-Amber Translu-Op Shp Vit Chalk Sh Blk Carb-Char_Drab Grn No Odor No Stn No Flor NS

Ls Crm- Gry Microxln Dns Micrite Inc Cht Drk-Gry Op Shp Vit Sh Blk Carb-Char-Gry-Drab Grn Soft-Fissil V Abd No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry Microxln Dns Micrite Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

MORROW SHALE 5034' (-2223)

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry Microxln Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry Microxln Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry Microxln Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry Microxln Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Ls Wht Fxln Dns Micrite Grad Poor Igran OOL (w/Small OOL in pl) Por AA Pyr Mass Fos (Coral) Sh AA No Odor No Flor No Stn NS

Sh Char-Gry-Drab Grn-Red (Wash Red)-Aqua Soft-Fissil V Abd Ls Wht-Crm-Tan Microxln Dns Micrite Cht Amber Translu Shp Vit Fos (?)

MISSISSIPPIAN "STE. GEN" 5187' (-2376')

Sh Char-Gry-Drab Grn-Red (Wash Red)-Aqua Soft-Fissil V Abd Ls

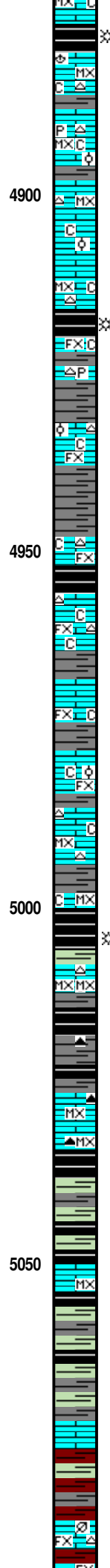
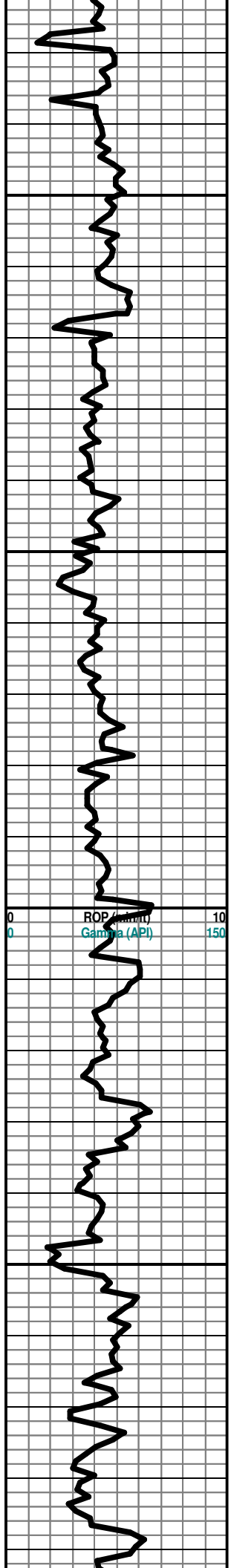
SH GAS KICK = 183 UNITS

Mudco Ck @ 4974' @ 9:45 AM 3/30/14

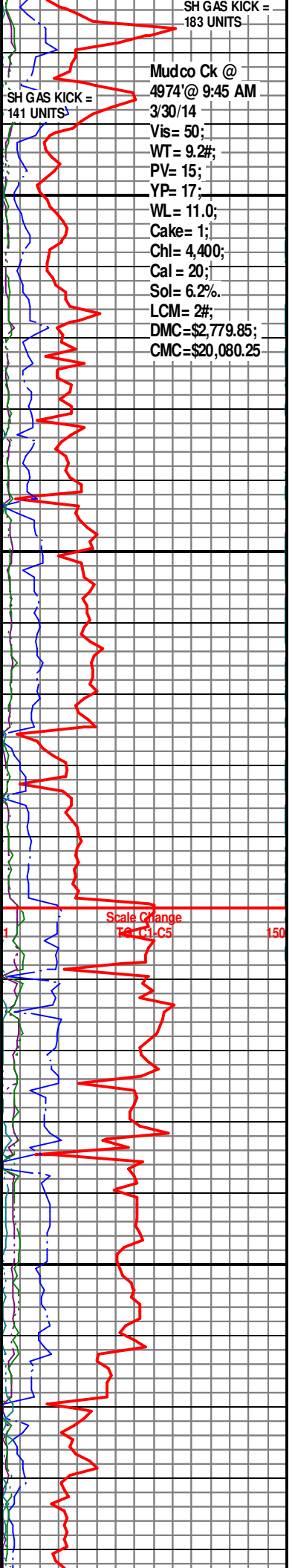
SH GAS KICK = 141 UNITS

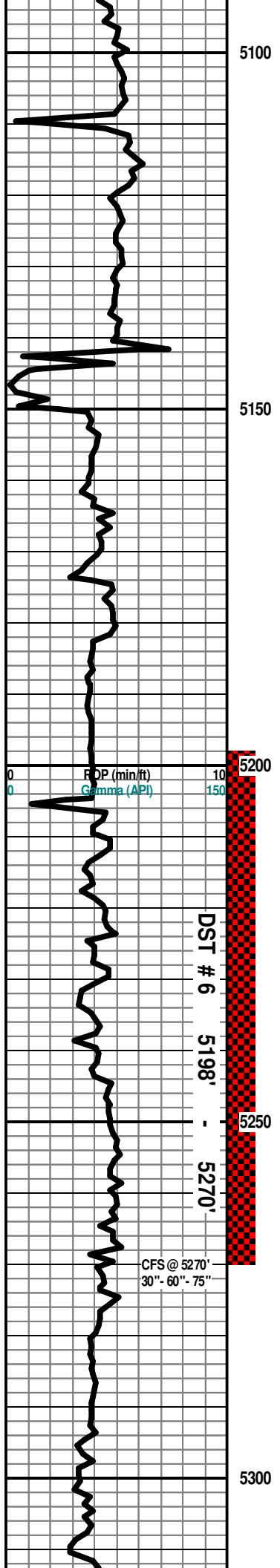
Vis= 50;
WT= 9.2#;
PV= 15;
YP= 17;
WL= 11.0;
Cake= 1;
Chl= 4,400;
Cal = 20;
Sol= 6.2%
LCM= 2#;
DMC=\$2,779.85;
CMC=\$20,080.25

Scale Change
1 150



Vertical text descriptions of rock layers, including lithology and properties, corresponding to the sections above.





Wht-Crm-Ian Microxln Micritic Cht Wht-Gry Op Shp Vit Abd Sh Char-Fissil No Odor No Flor NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Soft Chalk Sh Char-Gry -Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren (Tr Glacu) Soft Chalk Sh Char-Gry- Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren (Tr Glacu) Cht Blk (w/Wht Fos Inclus) Op Shp Vit Sh Char-Gry- Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Blk (w/Wht Fos Inclus) Op Shp Vit Chalk Sh Blk Carb-Char-Gry-Maroon- Aqua-Drab Grn Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Tan-Org Translu-Op Shp Vit Chalk Sh Char-Gry-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char-Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char- Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char- Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Org Translu-Op Shp Vit Chalk Sh Char- Gry-Maroon- Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren (Tr Glacu) Soft Cht Org Translu Shp Vit Chalk Sh Char-Gry- Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char-Gry- Maroon Soft-Fissil Fair-Good Odor No Flor No Stn ? Show

Ls Wht FxIn Poor Igran (w/Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Wht-Gry-Org Translu-Op Shp Vit Abd Chalk Sh Char-Gry- Maroon Soft-Fissil Fair-Good Odor No Flor No Stn ? Show

Ls Wht FxIn Poor Igran (w/Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL (Inc Size Ooids) Por (w/Tr Blk "Dead" Stn) Cht Wht-Gry-Org Translu-Op Shp Vit Abd Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor Sli Tr Drk Blk "Dead" Stn ? Show

Ls Wht-Gry FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor-Fair IntOOL Por Grad Med-Ig Ixln Por (w/SSG & Tr Blk "Dead" Stn) Cht Gry (w/Lt Brn Inclus) Translu-Op Shp Vit Abd Chalk Sh Char-Gry-Aqua Soft-Fissil No Odor No Flor Sli Tr Drk Blk "Dead" Stn SSG

Ls Wht-Gry FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Cht Wht-Peach Translu-Op Shp Vit Chalk Sh Char-Gry- Aqua Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5270' Ls Wht-Gry FxIn (w/Pyr Inclu) Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Cht Wht Op Shp Vit Chalk Sh Char-Gry- Aqua Soft-Fissil No Odor No Flor No Stn NS

60" CFS @ 5270' Ls Wht-Gry FxIn (w/Pyr Inclu) Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Cht Wht Op Shp Vit Chalk Sh Char-Gry- Aqua Soft-Fissil No Odor No Flor No Stn NS

75" CFS @ 5270' Ls Wht-Gry FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Cht Wht- Peach Translu Shp Vit Chalk Sh Char-Gry-Aqua-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Chalk Abd Sh Char-Gry-Aqua-Maroon Soft-Fissil No Odor No Flor No Stn NS

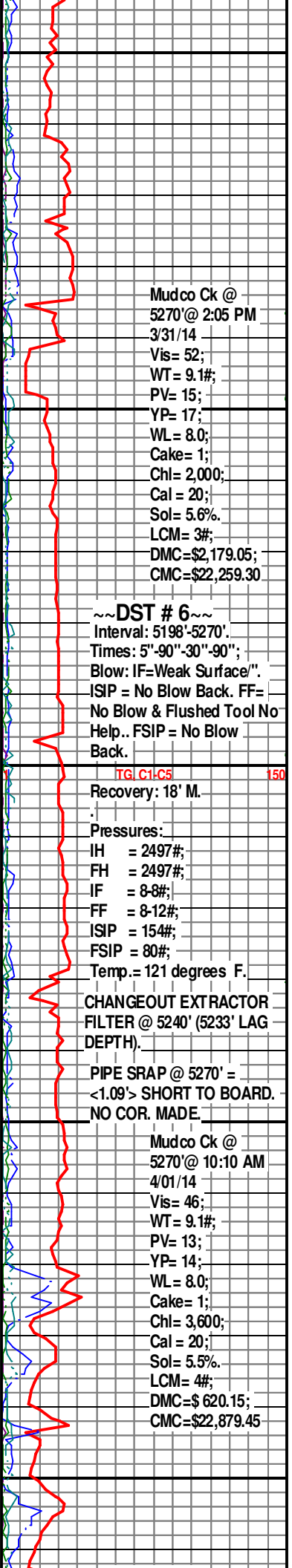
Ls Wht FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Chalk Abd Sh Char-Gry-Aqua-Maroon-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

MISSISSIPPIAN "ST. LOUIS C" 5296' (-2485)

Ls Wht- Gry Microxln Micritic Cht Wht-Gry Op Shp Vit Abd Sh Char-Fissil No Odor No Flor No Stn NS

Ls Wht- Gry Microxln Micritic Cht Wht-Gry Translu-Op Shp Vit Abd Sh Char-Aqua-Maroon-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht- Gry Microxln Micritic Cht Wht-Gry Translu-Op Shp Vit Abd Sh



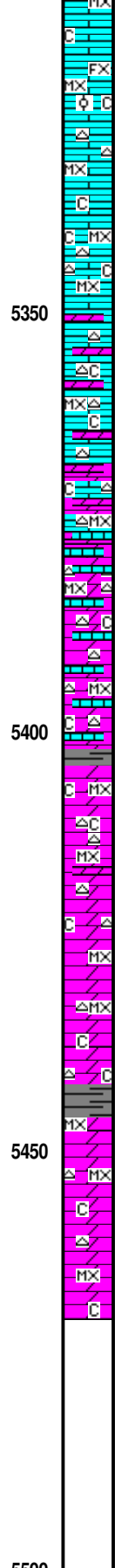
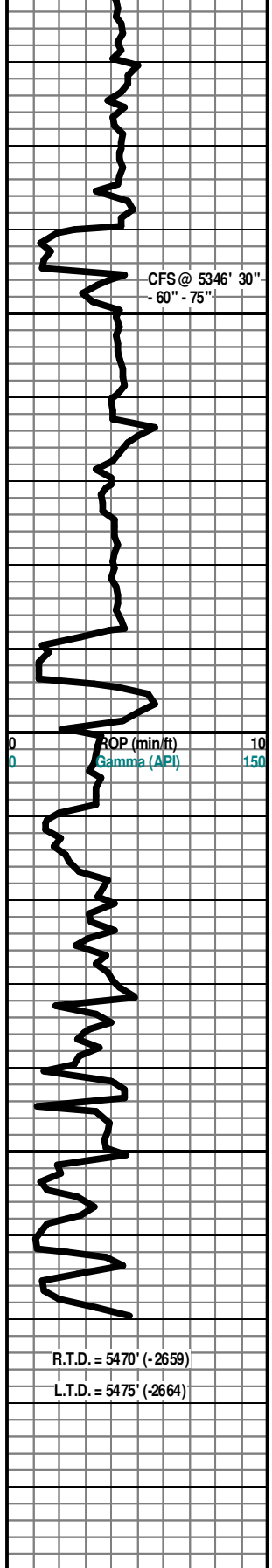
Mudco Ck @
5270' @ 2:05 PM
3/31/14
Vis= 52;
WT= 9.1#;
PV= 15;
YP= 17;
WL= 8.0;
Cake= 1;
Chl= 2,000;
Cal= 20;
Sol= 5.6%
LCM= 3#;
DMC=\$2,179.05;
CMC=\$22,259.30

~DST # 6~
Interval: 5198'-5270'.
Times: 5"-90"-30"-90";
Blow: IF=Weak Surface".
ISIP = No Blow Back. FF=
No Blow & Flushed Tool No
Help.. FSIP = No Blow
Back.

Recovery: 18' M.
Pressures:
IH = 2497#;
FH = 2497#;
IF = 8-8#;
FF = 8-12#;
ISIP = 154#;
FSIP = 80#;
Temp.= 121 degrees F.

CHANGEOUT EXTRACTOR
FILTER @ 5240' (5233' LAG
DEPTH).
PIPE SRAP @ 5270' =
<1.09> SHORT TO BOARD.
NO COR. MADE

Mudco Ck @
5270' @ 10:10 AM
4/01/14
Vis= 46;
WT= 9.1#;
PV= 13;
YP= 14;
WL= 8.0;
Cake= 1;
Chl= 3,600;
Cal= 20;
Sol= 5.5%
LCM= 4#;
DMC=\$ 620.15;
CMC=\$22,879.45



Char-Aqua-Maroon-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Gry MicroxIn-Fxl n Poor-Fair Igran (w/Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Dns Micrite Poor Ixn Por Cht Wht-Gry Op Shp Chalk Sh Char-Gry-Aqua-Maroon-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5346' Ls Wht- Gry MicroxIn Micritic Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor No Stn NS

60" CFS @ 5346' Ls Wht- Gry MicroxIn Micritic Grad Tr Poor OOL Por (w/Small OOids in pl) (3 Pcs "Dead" Drk Blk Stn) Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor ? Sli Stn ? SG

75" CFS @ 5346' Ls Wht- Gry MicroxIn Micritic Grad Tr Poor OOL Por (w/Small OOids in pl) (3 Pcs "Dead" Drk Blk Stn) Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor ? Sli Stn ? SG

Ls/Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Ls/Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Ls/Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo/Ls Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo/Ls Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

MISSISSIPPIAN "SALEM" 5404' (-2593)

Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

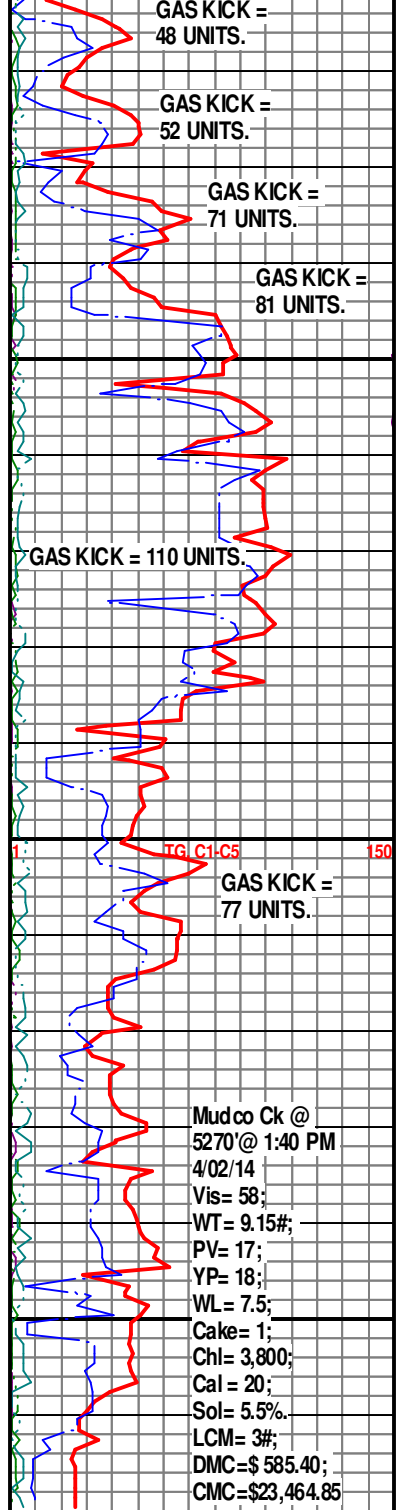
Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo Ls Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo/ Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

30" CFS @ 5470' Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

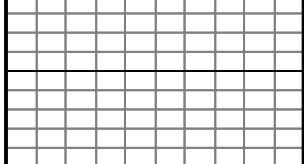
60" CFS @ 5470' Dolo Crm-Tan MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS



R.T.D. = 5470' (-2659)
 L.T.D. = 5475' (-2664)

Electric Logs Run : By Pioneer (LogTech) Logging:
 Dual Induction; Compensated Density-Neutron; Sonic;
 Microresistivity & Cased Hole Gamma Ray-Nutron Logs.

Geologist left Location @ : P.M. on 4-02-2014



5550

